Phase I Development of a Guided Self Help (GSH) Programme for the Treatment of Mild to Moderate Post Traumatic Stress Disorder (PTSD)

Catrin Lewis

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ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

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Summary

Trauma focused psychological therapies are the treatments of choice for Post Traumatic Stress Disorder (PTSD). Unfortunately, there exists a shortage of suitably qualified therapists able to deliver these interventions, precluding timely access to treatment. Guided Self Help (GSH) is an alternative method of delivering psychological therapy for PTSD, which has not been adequately explored to date.

A GSH programme has been systematically developed following Medical Research Council (MRC) guidance for the development of a complex intervention. Relevant literature was reviewed, and data was collected from key stakeholders in a series of focus groups and interviews. Qualitative data was analysed using a process of Inductive Thematic Analysis, and used to inform the development of a prototype GSH programme for PTSD. The prototype was piloted twice, and refined on the basis of qualitative feedback and the quantitative outcome of each study, with further stakeholder consultation at each stage.

The *Tackling Traumatic Stress* programme was available online and in hardcopy. It consisted of 11 modules, some being mandatory and others optional, allowing tailoring of the intervention to meet an individual's needs. Mandatory modules included psychoeducation, grounding techniques, relaxation, cognitive restructuring, in vivo and imaginal exposure, and relapse prevention. Optional modules provided advice on behavioural activation, sleep hygiene, anger management and substance use. The intervention showed promise in terms of reducing traumatic stress symptoms, supporting the feasibility of a phase II Randomised Controlled Trial (RCT).

Abbreviations

AMED - Allied and Complementary Medicine
AUDIT - Alcohol Use Disorders Identification Test
APA - American Psychiatric Association
APMS - Adult Psychiatric Morbidity Survey
ASD - Acute Stress Disorder
ASSIA - Applied Social Sciences Index and Abstracts
BAI - Beck Anxiety Inventory
BDI - Beck Depression Inventory
BED - Binge Eating Disorder
BEP - Brief Ecclectic Psychotherapy
BN - Bulimia Nervosa
CAPS - Clinician Administered Post Traumatic Stress Disorder Scale
CBA -Cost Benefit Analysis
CBT - Cognitive Behaviour Therapy
CEA - Cost Effectiveness Analysis
CER - Conditioned Emotional Response
CINAHL - Cumulative Index to Nursing and Allied Health Literature
CMA - Cost Minimisation Analysis
COI - Cost of Illness
CR - Conditioned Response
CPT - Cognitive Processing Therapy
CS - Conditioned Stimulus
CT - Cognitive Therapy
CUA - Cost Utility Analysis
DSM - Diagnostic and Statistical Manual
EBMR - Evidence Based Medicine Reviews
ERP - Exposure and Response Prevention
GAD - Generalised Anxiety Disorder
GPCMW - Graduate Primary Care Mental Health Workers
GP - General Practitioner
GSH - Guided Self Help
HC - Human Capital
IBSS - International Bibliography of the Social Sciences
IOM - Institute of Medicine
MAOI - Monoamine Oxidase Inhibitor
MRC - Medical Research Council
NCS - National Comorbidity Survey
NHS - National Health Service
NICE - National Institute for Health and Clinical Excellence
NISHS - Northern Ireland Study of Health and Stress
OCD - Obsessive Compulsive Disorder
PE - Prolonged Exposure
PMR - Progressive Muscle Relaxation
PSH - Pure Self Help
PSS-SR - Post Traumatic Stress Scale – Self Report
PTSD - Post Traumatic Stress Disorder

QALY - Quality Adjusted Life Year
RA - Repeated Assessments
RCT - Randomised Controlled Trial
SAM - Situationally Accessible Memory
SDS - Sheehan Disability Scale
SH - Self Help
SSQ - Social Support Questionnaire
SSRI - Selective Serotonin Reuptake Inhibitors
SUDS - Subjective Units of Distress Scale
TAU - Treatment as Usual
TFCBT - Trauma Focused Cognitive Behavioural Therapy
UCS - Unconditioned Stimulus
UK - United Kingdom
USA - United States of America
US - United States
VA - Veterans Administration
VAM - Verbally Accessible Memory
WHO - World Health Organisation
WL - wait list

Chapter 1: Introduction to Post Traumatic Stress Disorder

1.1 Definition: Post Traumatic Stress Disorder (PTSD)

Post traumatic stress disorder (PTSD) is a debilitating condition, which can occur following a traumatic event. It is characterised by persistent intrusive recollections of a trauma, avoidance of trauma-related stimuli, numbing of emotional experience, and hyperarousal (1, 2). Unlike most psychiatric disorders, the diagnostic criteria for PTSD specifies an etiology, namely the traumatic event (1, 2).

1.2 A brief history

PTSD was formally acknowledged as a psychiatric disorder by the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) (3) published in 1980. Its inclusion followed gradual recognition by the previous two editions, which first listed a disorder with characteristic symptoms under the heading of 'gross stress reactions', and then as an example of a 'situational disorder' (4, 5). Its eventual inclusion in DSM-III was as an anxiety disorder (3). Its recognition was significantly influenced by the experiences of US soldiers and veterans of the Vietnam War (6). Early advocates of the diagnosis were part of the antiwar movement, who fought a profoundly political campaign for its recognition.

Although its DSM inclusion legitimated PTSD as a psychiatric diagnosis, it merely represented a re-labelling of a disorder previously known by other names (7). An early example of PTSD like symptoms came from Homer's epic poem "Iliad". Set in the Trojan War, it told of the battles between King Agamemnon and the warrior Achilles. The poem, composed around 730BC, narrates the harrowing experiences of ancient warriors, with focus on human reaction to the trauma of war. Homer analytically described Achilles' reaction to the brutal death of his friend Patroklos, including an outpouring of survivor guilt *"I would die here and now, in that I could not save my comrade. He has fallen far from home, and in his hour of need, my hand was not there to help him".* Exposed to combat, the warriors were described as experiencing intense emotions, with responses including extreme confusion, unpredictable behaviour, and insecurity.

A later example came from the 17th century writing of Englishman Samuel Pepys, who documented traumatic stress symptoms after the Great Fire of London (8). Pepys reported feeling *"much terrified in the nights nowadays, with dreams of fire and falling down of houses."* He described anger and restlessness in the months following the trauma, with the news of a chimney fire some distance away said to have caused him *"much fear and trouble".*

During the 1800's a syndrome know as "railway spine" or "railway hysteria", which resembled what we call PTSD today, was exhibited by individuals involved in the catastrophic railway accidents common at the time. The disorder was described by John Eric Erichsen's classic book *On Railway Spine and Other Injuries of the Nervous System* (9). Charles Dickens described the development of traumatic stress

symptoms following a train crash in Kent in 1865 (10). Dickens wrote, *"two or three hours work amongst the dead and dying surrounded by terrific sights. I am not quite right within... but believe it to be an effect of the railway shaking"*. He subsequently developed a phobia of travelling by rail. His daughter recalled *"my father's nerves never really were the same again...we have often seen him, when travelling home from London, suddenly fall into a paroxysm of fear, tremble all over, clutch the arms of the railway carriage, large beads of perspiration standing on his face, and suffer agonies of terror."*

Traumatic stress symptoms have been recognised in combat veterans of many military conflicts. Soldiers who developed symptoms including exaggerated startle responses, hyper-vigilance, and heart arrhythmias after the Civil War were said to have experienced a condition known as *soldier's heart* (11). Although these symptoms resembled heart disease, physical examination failed to reveal any physiological abnormalities. Henry Hartshorne (12) attributed the condition to *"long-continued overexertion, with deficiency of rest and often nourishment"*.

During World War I, many soldiers were sent home with a condition characterised by anxiety, hysteria, paralysis, sleep disturbance and muscle contractions, known as *shell shock* (13). These symptoms were initially attributed to the unseen physical impact of artillery shells. Military physicians however, noted similar symptoms in soldiers who had not experienced the explosions. In a classic article published by *The Lancet* in February 1918 (14), renowned British wartime psychiatrist W. H. Rivers (1864-1922) outlined his views on the suppression and dissociation of traumatic combat experiences, and his clinical observations that avoidance of

traumatic memories (the recommended treatment at the time), interfered with recovery. This historical article represented a significant development in the scientific and clinical views on trauma response and effective treatment.

World War II saw the terms *gross stress reaction* and *battle fatigue* (15) describe PTSD-like symptoms including the 'thousand yard stare', hyperalertness, tremor, headaches, irritability, sleep disturbances and memory loss. By World War II, psychiatrists were often attached to military units, and severely traumatised soldiers were pulled from the front lines for treatment. The aim was to return these soldiers to active duty within a few days. Those who suffered shell shock were assigned one of two labels: shell shock W (wounded) was considered to be the result of enemy rounds and the soldier received a wound stripe; otherwise, the soldier was labeled shell shock S (sickness), and did not receive a wound stripe or a war pension.

In an important move towards the recognition of PTSD-like symptoms affecting individuals other than victims of disaster or war, an influential paper published by Burgess and Holmstrom in 1974 (16) described a disorder known as *rape trauma syndrome.* The authors followed 146 female victims admitted to the emergency ward of a city hospital. They documented a disorder characterised in the acute phase, by physical soreness from the attack, tension headaches, sleep disturbance, genitourinary disturbances, fear, anger, and guilt. The chronic phase was associated with nightmares, avoidance, anxiety, and sexual dysfunction.

In the 1980's, the disorder became accepted as a psychiatric diagnosis that could affect survivors of various traumas. Slight revisions were made to the DSM-III (3)

criteria in DSM-III-R (3) and DSM-IV (1). Most notably, the definition of a traumatic event was altered allowing the inclusion of more common traumatic events, such as road traffic accidents and traumatic child birth.

1.3 Diagnostic criteria

The criteria of the Diagnostic and Statistical Manual of Mental Disorders (DSM), developed by the American Psychiatric Association (APA), are those most widely used to classify psychiatric disorders for research purposes (17). The International Classification of Diseases (ICD) has meanwhile been used since 1994 (18) by the World Health Organization (WHO). It has been argued that it represents an international standard diagnostic classification system for many clinical purposes (17). Although the current DSM-IV (1) and ICD-10 (2) criteria for diagnosis of PTSD are similar, they differ on certain points, as illustrated by tables 1.1 and 1.2 (19).

1.3.1 Characteristics of the traumatic event

PTSD is defined by the development of characteristic symptoms following exposure to a traumatic event. Exposure can include direct personal experience, witnessing a trauma happen to another, or learning about something happening to a loved one (1, 2).

As presented in table 1.1, the DSM-IV (1) criteria specify that the trauma involved actual or threatened death or serious injury; threat to physical integrity; or witnessing death, injury, or a threat to the physical integrity of another. The DSM-IV also

specifies that a person's response involved feelings of intense fear, helplessness, or horror. The ICD-10 does not include specific response criteria (2).

Characteristics of traumatic event according to DSM-IV	Characteristics of traumatic event according to ICD-10
A1. The person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others A2. The person's response involved intense fear, helplessness, or horror	A1. A stressful event or situation (of either brief or long duration) of an exceptionally threatening or catastrophic nature. A2. Likely to cause pervasive distress in almost anyone.

Table 1.1: DSM-IV and ICD-10 definitions of a traumatic event

PTSD can result following any traumatic event with the characteristics described above, including combat exposure, rape, natural or man-made disasters, mugging, child abuse, road traffic accidents, and physical attack. A precipitating traumatic event is necessary, but not sufficient for a diagnosis of PTSD to be made.

Symptoms of PTSD fall into three descriptive clusters, namely re-experiencing symptoms, avoidance / emotional numbing, and hyperarousal. Symptoms from each cluster are required to make a diagnosis of PTSD according to both the DSM-IV and ICD-10 (1, 2). Table 1.2 summarises the diagnostic criteria.

1.3.2 Re-experiencing symptoms

Re-experiencing symptoms include persistent and intrusive recollections of the trauma when awake, and the experience of distressing nightmares when asleep. Sufferers often experience intense psychological distress when exposed to internal or external reminders of the traumatic event. Exposure to cues can trigger a

physiological response characterised by increased heart rate, sweating and tremor. Flashbacks may also occur, which consist of images, sensations, or feelings experienced at the time of the trauma. Flashbacks are often triggered by everyday experiences directly or symbolically reminiscent of the trauma. By definition, a certain degree of *dissociation* is required for the experience to be classified as a flashback. The level of dissociation associated with a flashback ranges from temporarily losing touch with the present moment, creating an experience similar to a daydream, to losing all awareness of reality, being taken back to the time of the trauma.

1.3.3 Avoidance symptoms and numbing of general responsiveness

Avoidance can manifest itself as behavioural or cognitive avoidance. Behavioural avoidance includes efforts to avoid people, places and situations associated with the trauma. Cognitive avoidance includes attempts to avoid thoughts of the trauma, or an inability to recall important aspects of the event itself. The numbing of general responsiveness is characterised by diminished interest or participation in normal activities, feelings of detachment or estrangement from others, a restricted affective range, or a sense of a foreshortened future.

1.3.4 Hyperarousal symptoms

Manifestations of hyperarousal include sleep disturbance and difficulty concentrating. Feelings of irritability and angry outbursts are also common. The individual may experience hyper-vigilance, or an exaggerated startle response. Post-trauma, the mind and body remains instinctively alert or watchful for real or imagined danger.

Relaxation is difficult, with the individual experiencing a sensation of being constantly "on guard."

1.3.5 Duration of symptoms

Diagnosis of PTSD, according to DSM-IV (1), requires the presence of symptoms for at least one month. Where the duration of symptoms is greater than one month and less than three months, a diagnosis of acute PTSD can be made. Beyond three months a diagnosis of chronic PTSD can be given. When symptoms do not appear until six months post-trauma, the disorder is said to have delayed onset. The ICD-10 stipulates that symptoms must have arisen within 6 months of the trauma for a diagnosis to be made (2). Unlike the DSM-IV, it poses no requirement related to the minimum duration of symptoms.

1.3.6 Functioning

According to DSM-IV (1), symptoms must impair social, occupational, or other important areas of functioning for a diagnosis to be made. The ICD-10 poses no such requirement (2).

1.3.8 The future of DSM and ICD

1.3.8.2 DSM

The APA are due to publish DSM-V in May 2013. Proposed changes are currently undergoing field trials, with amendments affecting many of the existing criteria. Criterion A1, which defines the traumatic event, has been tightened to exclude *learning* of a traumatic event, except in the case of violent or accidental death, or

DSM-IV	ICD-10
B. Diagnosis requires one (or more) re-experiencing symptom:	**B. Diagnosis requires persistent recall of the stressor in one of the following ways:**
1. Recurrent and intrusive distressing recollections of the event	1. Intrusive flashbacks
2. Recurrent distressing dreams of the event	2. Vivid memories or recurring dreams,
3. Acting/feeling as if the trauma was recurring	3. Experiencing distress when reminded of the stressor
4. Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event	**C. Diagnosis requires one symptom of actual or preferred avoidance.**
5. Physiological reactivity on exposure to internal/ external cues that resemble an aspect of the traumatic event	**Diagnosis requires either:**
C. Diagnosis requires three (or more) of the following of avoidance/ numbing of general responsiveness:	**D1. Inability to recall**
1. Efforts to avoid thoughts, feelings, or conversations associated with the trauma	OR
2. Efforts to avoid activities, places, or people that arouse recollections of the trauma	**D2. Or two or more of:**
3. Inability to recall an important aspect of the trauma	2. Sleep problems
4. Markedly diminished interest or participation in significant activities	3. Irritability
5. Feeling of detachment or estrangement from others	4. Concentration problems
6. Restricted range of affect	5. Hyper-vigilance
7. Sense of a foreshortened future	6. Exaggerated startle response
D. Diagnosis requires two (or more) symptoms of hyperarousal:	
1. Difficulties falling or staying asleep	
2. Irritability or outburst of anger	
3. Difficulty concentrating	
4. Hypervigilance	
5. Exaggerated startle response	

Table 1.2: DSM-IV and ICD-10 criteria for diagnosis of PTSD

near death of a loved one. PTSD will no longer be considered a diagnosis after exposure through electronic media, television, films, or pictures, unless the exposure is work related. Criteron A2, specifying an emotional reaction to the traumatic event has been removed.

Criterion B (re-experiencing symptoms) has remained largely unchanged, whilst criterion C (avoidance and numbing), has been split into "C" and "D". The new C criterion focuses solely on cognitive and behavioural avoidance. Criterion D focuses on negative alterations in cognition and mood associated with the traumatic event. It presents two new symptoms, exaggerated *negative expectations about one's self, others, or the world*, and *exaggerated self blame*. The other symptoms focus on the inability to recall the traumatic event, and symptoms of emotional numbing. Criterion E (formerly "D") focuses on hyperarousal, with the addition of *irritable/aggressive* and *reckless/self-destructive* behaviours.

Criteria stipulating the duration of symptoms and impact on functioning are proposed to remain unchanged. The division between acute and chronic PTSD has been removed due to lack of evidence supporting the distinction. There is a further proposal for the addition of a criterion stipulating that disturbance is not the direct effect of any substance, or of any general medical condition (e.g. a traumatic brain injury).

1.3.8.2 ICD

Work has begun on ICD-11. An Alpha Draft of the new criteria is expected to be published between the 10th and 17th of May 2011.

1.4 Epidemiology of trauma and PTSD

1.4.1 Prevalence

Numerous large-scale studies have aimed to determine the prevalence of PTSD, with most existing data originating from the US. PTSD prevalence rates are expressed in four ways: (1) *one year* prevalence refers to the percentage of individuals in the population meeting criteria for PTSD in the past 12 months; (2) *lifetime* prevalence refers to the percentage of individuals who meet criteria for PTSD at some point in their lives; (3) *conditional* prevalence refers to the percentage of individuals exposed to a traumatic event who go on to develop PTSD; and *point* prevalence refers to the number of individuals in the overall population suffering PTSD at any given time.

The 1995 National Comorbidity Survey (NCS) is the most comprehensive study of PTSD prevalence to date (20). It comprised interviews with a representative national sample of over 8,000 Americans aged 15-54 years. Approximately 60% of men and 50% of women reported exposure to at least one traumatic event (20). Lifetime prevalence of PTSD was estimated to be 7.8%, with women twice as likely as men to develop the disorder at some point in their lives (20). Approximately half of those diagnosed with PTSD recovered within two years (20). Around a third however, continued to meet criteria for diagnosis six years later (20).

The later Detroit Area Survey assessed the lifetime history of traumatic events and PTSD in over 2000 individuals aged 18-45. Participants were interviewed via telephone to assess the likelihood of certain trauma types predicting PTSD. The overall risk of developing the disorder following any type of trauma was

approximately 9%, with women at greater risk (13%), than men (6%). This was consistent with the male to female risk ratio reported by the NCS.

Looking more specifically at the limited data from UK studies reveals prevalence estimates that are relatively consistent with the American studies. The Northern Ireland Study of Health and Stress (NISHS) (21) surveyed 3100 individuals after the "troubles" in Northern Ireland. The study looked at the percentage of the population exposed to conflict and other traumas, focussing on subsequent psychological adversities. The 12 month and lifetime prevalence of PTSD were reported as 4.7% and 8.5% respectively.

The 2007 Adult Psychiatric Morbidity Survey (APMS) collected data on mental health among adults aged 16 and over living in private households in England. One third reported having experienced a traumatic event since the age of 16, with men (35.2%), more likely than women (31.5%) to have experienced at least one trauma. A point prevalence of 3% was reported. Despite men being more likely than women to have experienced a trauma, there was no significant difference by sex in point prevalence rates, reported as 2.6% for men and 3.3% for women. The conditional probability of PTSD was higher for women (10.4%) than for men (7.5%), which is again, consistent with previous findings.

Estimates of the prevalence of trauma and PTSD clearly vary depending on the measurement tools and diagnostic criteria used. They also vary in terms of source, leading to differences associated with age range, socio-demographic characteristics, and culture. It is therefore difficult to draw comparisons between studies, or to draw

any overall conclusions. Most of the data is reported from USA sources, and may be of limited value to other countries. For example, certain conditions have a much higher prevalence worldwide, especially in developing countries, than in industrialised nations like the USA. Nevertheless, epidemiological data serves a purpose in identifying those most susceptible to disease, drawing inferences on causes and preventive measures, and informing health care policy.

1.4.2 Risk and protective factors

Only a small proportion of those exposed to a trauma develop PTSD. Extensive research has attempted to determine risk and protective factors to explain this finding. Two major meta-analyses of these predictors, conducted by Brewin et al. and Ozer et al. (22, 23) have found several factors that tend to put individuals at increased risk (table 1.3). The reviews examined three categories of predictors: (1) pre-trauma factors (such as family psychiatric history, intelligence, childhood trauma, and other previous trauma); (2) peri-traumatic factors (such as trauma severity and psychological processes during and immediately after the trauma); and (3) post-trauma factors (such as social support and life stress after the traumatic event). Both meta-analyses reported significant predictors in all four categories. The strength of prediction however, varied.

The meta-analysis by Brewin and colleagues (22) conducted in 2000, included 77 studies of risk and protective factors, combining sample sizes ranging from 1,149 to over 11,000. They found that factors operating during or after the trauma, such as trauma severity, lack of social support, and additional life stress, had stronger effects than pre-trauma factors.

The review by Ozer and colleagues (23) reported consistent results. Sixty-eight studies of seven predictors were considered by the review, namely: prior trauma, prior psychological adjustment, family history of psychopathology, perceived threat to life during the trauma, post-trauma social support, peri-traumatic emotional responses, and peri-traumatic dissociation. All yielded significant effect sizes, with pre-trauma characteristics the smallest; and peri-traumatic dissociation (an altered sense of reality experienced during the trauma), and perceived post-trauma social support the largest.

Pre-trauma factors
• Female gender • Age • Lower socio-economic status • Lower level of education • Lower intelligence • Ethnic minority • Pre-trauma psychopathology • Prior trauma • Other adverse childhood events • Childhood abuse • Family history of psychopathology
Peri-traumatic factors
• Trauma severity • Peri-traumatic emotional response • Peri-traumatic dissociation • Prior trauma • Prior psychological adjustment • Perceived threat to life
Post-traumatic factors
• Perceived lack of social support • Life stress

Table 1.3: Predictive factors based on meta analyses by Ozer et al. (23) and Brewin et al. (22)

These meta-analyses have succeeded in identifying simple, linear relationships between risk factors and the development of PTSD. They have revealed less about the complex associations between these factors. For example, a given predictor may

strengthen the effects of another (*moderation*), or act as a mechanism by which another has influence (*mediation*). Factors assumed to be independent, may tap in to *overlapping* constructs, or may simply represent a *proxy* risk factor, whereby its only connection with the outcome lies in the causal risk factor being correlated with both (24). It is also noteworthy that the vast majority of studies considered by these meta-analyses used retrospective designs. There is a danger, that the presence of PTSD biased self reports of pre-morbid personality, trauma-severity, emotional responses and perceived support. Moreover, retrospective data is influenced by typical PTSD symptoms, such as avoidance and impaired recall of events.

1.4.2 Comorbidity

There is substantial comorbidity between PTSD and other psychiatric disorders. Data from the NCS (20) indicated that at least one additional disorder was present in 88.3% percent of men, and 79% of women with a history of PTSD. 59% of men and 44% of women who had PTSD met the criteria for three or more psychiatric diagnoses. More than half of men with PTSD had a comorbid alcohol problem, and a significant portion of men and women with PTSD suffered a comorbid illicit-substance use problem. UK data from the NISHS found that individuals who met the criteria for PTSD were twice as likely as those who did not to have at least one other co-morbid mood, anxiety, or substance use disorder (21).

An epidemiological study of 2985 participants in North Carolina (25), found that women who had PTSD were 4.1 times as likely to develop depression, and 4.5 times as likely to develop mania, as women who did not have PTSD. The risk of phobias, generalized anxiety disorder, and panic disorder was markedly higher for those with

PTSD. Men with PTSD were 6.9 times as likely to develop depression, and 10.4 times as likely to develop mania as men without PTSD.

Comorbid disorders can develop before, during, or after the onset of PTSD. It is possible that common factors, such as genetic, biological, or environmental factors, contribute to the high rate of comorbidity (26). In other cases, the disorders may arise as the by-product of PTSD symptoms (27). It has also been suggested that high rates of comorbidity may be attributable in part, to the overlap of diagnostic criteria (28). Further research is required to inform a better understanding.

1.5 Etiological models of PTSD

An accurate conceptualisation of PTSD must account for the myriad of symptoms that comprise the disorder, with particular importance placed on explanation of the paradoxical co-occurence of avoidance and re-experiencing symptoms. It must also explain why PTSD *does not* develop in so many individuals who experience trauma, and why the experience is *variable* for those who do. Many overlapping etiological models of PTSD have been described to account for the development and maintenance of the disorder. These stem from social, biological, and psychological traditions. To be useful, these models must account for existing research findings, be testable, and have implications for treatment. Psychological theories will be the focus of this chapter, which have informed the development of a range of influential therapies.

1.5.1 Psychological theories

Psychological theories of PTSD have aimed to provide evidence-based explanations for the development and maintenance of the disorder (29). Numerous theories have been advanced from different theoretical perspectives to account for research findings and explain characteristic symptoms (30-36). Early attempts at psychological explanation drew on the notions of classical conditioning, psychodynamic, and early cognitive theory (30-33), which have contributed to the evolution of more recent accounts. These struggled however to explain the small proportion of trauma exposed individuals who develop PTSD. Contemporary theories take account of individual appraisals of the event, as well as vulnerability and protective factors for developing the disorder (34-36). These more sophisticated explanations are better supported by recent empirical evidence (29).

1.5.1.2 Psychodynamic theory

Psychodynamic theory was the dominant psychiatric school of thought during the first part of the 20th century. The approach suggested that thoughts and feelings are powerfully affected by unconscious motives. It emphasised the interplay between unconscious and conscious motivation, and the difficulties these inner struggles create (37).

Horowitz (30) advanced a psychodynamic account of PTSD with prominent cognitive and information processing components. *Stress response theory* focused on the struggle to integrate new and old sources of information. It draws on the concept of schema, often credited to the work of British psychologist, Sir Frederic Bartlett

(1886–1969) (38). Put simply, *schema theory* proposed that knowledge is organised into mental structures which hold themed knowledge, assumptions and social information. These *schemata* provide a framework for understanding and remembering information based on life experiences and pre-conceived ideas. Jean Piaget advanced *schema theory* to account for the process of handling new information (39). He proposed that information consistent with existing schemata can be readily incorporated through a process known as *assimilation*. If, however, it contradicts existing information, the schema must be altered through a process of *accommodation*. Since traumatic events require substantial schematic changes, it is common for the individual to experience difficulty integrating thoughts, memories and images with current schemata. The individual may experience a state of 'information overload'. Representations of the traumatic event are typically repeated in memory, overwhelming the individual's coping mechanisms.

The theory posits the operation of defence mechanisms such as denial, somatisation, and dissociation, which aim to numb the impact, allowing more gradual assimilation of traumatic information. Despite this inhibitory control, a need to process new information known as a *drive for completion or mastery* (30), results in trauma images automatically and uncontrollably breaking through into consciousness in the form of intrusive thoughts and flashbacks. Typically the individual alternates between states of numbness/avoidance and intrusion. This oscillation allows the unassimilated information to be processed, gradually adjusting cognitive schema to be consistent with new information. Failure to fully process the information, leads to the development and maintenance of PTSD.

Though Horowitz's theory gives a good account of the way in which normal trauma reactions become pathological, it cannot account for a number of epidemiological findings. Firstly, it fails to provide an explanation for the finding that only a proportion of trauma exposed individuals develop PTSD. Specifically, it does not consider the role of individual evaluations and attributions and their role in predicting who develops a pathological response to trauma. Later theories take account of individual perceptions of the traumatic event.

1.5.1.3 Classical conditioning

Classical conditioning is a form of associative learning first described by Russian physiologist Ivan Pavlov (40). It involves the transfer of an established physiological response to a previously neutral stimulus. It occurs as the result of repeated pairings of the neutral stimulus (termed the Conditioned Stimulus (CS)) with a significant stimulus to which the response is already paired (the Unconditioned Stimulus (UCS)). After a number of pairings, the CS produces the response when presented alone. Pavlov termed this the Conditioned Response (CR). Where the CS and UCS are particularly intense, an association may form after a single pairing; this is called *single trial learning*.

An early theory of PTSD draws on Mowrer's two factor model (33), which implicates classical and operant conditioning in the development and maintenance of fear. Keane and colleagues (32) attributed PTSD to the classical conditioning of extreme emotional responses to stimuli reminiscent of the trauma. The process is illustrated in table 1.4. Sights, sounds, smells, and cognitions come to elicit responses characteristic of PTSD. For an individual involved in a road traffic accident, sensory

stimuli present at the time of the trauma may become strongly associated with emotions experienced, through a process of classical conditioning. Sights (such as a red car, or a certain roundabout), sounds (for example, squealing tires) and smells (such as burning rubber), though not dangerous, come to elicit reactions similar to those experienced at the time of the trauma. When the individual later encounters these triggers, they may experience panic, anxiety and intrusive thoughts.

Step one: Classical Conditioning	Step two: Operant Conditioning
• Unconditioned stimulus (threat to life) results in unconditioned response (fear). The intensity of UCS-UCR pairing is strong enough for single trial learning to occur. o *Example: road traffic accident results in person fearing for their life.*	• Through operant conditioning, the person learns increasingly sophisticated avoidance responses. This avoidance results is positively reinforced by reduced arousal. o *Example: learns to avoid cars, intersections and other triggers*
• Previously neutral stimuli associated with the US become conditioned. They come to elicit a conditioned emotional response (CER). o *Example: red cars, the intersection where the crash occurred, squealing tires and burning rubber evoke fear.*	• The individual does not learn that the CS is not necessarily associated with UCS o *Example: the individual fails to learn that cars are not always dangerous*
• Other, previously neutral stimuli come become associated with a CER through second order conditioning and stimulus generalisation. o *Example: all cars and all intersections elicit fear.*	

Table 1.4: Mowrer's two factor model

Principles of *operant conditioning* are used to help explain attempts at avoidance. (40). Operant conditioning is a method of learning, which occurs through positive and negative reinforcement, whereby an association is formed between a behaviour and its consequence. Avoidance is conceptualised as a learned behaviour positively reinforced by a reduction in arousal. For the road traffic accident victim, the presence of triggers in the environment (cars, squealing tires, burning rubber) is unpleasant. He or she will be motivated to avoid these triggers. This will be positively reinforced by decreased anxiety. In essence, the theory proposes that classical conditioning creates the association and avoidance prevents the individual learning that the situations are no longer dangerous.

Keane et al. (32) also implicated principles of *second order conditioning* to explain the vast array of stimuli capable of a response. Here, stimuli originally conditioned to the trauma become paired with other similar or associated stimuli which eventually produce the same physiological responses. *Stimulus generalisation* is also said to operate, this being a tendency for the individual to respond to a stimulus or group of stimuli, similar, but not identical to the original CS. It is difficult to distinguish between the results of second order conditioning and stimulus generalisation. Through these processes, the range of stimuli reminiscent of the trauma multiplies. For example, the road traffic accident survivor might become avoidant of all roundabouts and all cars making it difficult to avoid stimuli that elicit traumatic memories. This provides an explanation for the gradual exacerbation of PTSD symptoms.

Ordinarily repeated exposure to the CS without the UCS would be sufficient to eliminate associations. This does not occur in PTSD. Keane et al (32) account for

this paradox with the assertion that complete exposure to all components of the memory whilst in a physiological and cognitive state consistent with that which accompanied the trauma is necessary in order for extinction to occur. Re-experiencing is associated with anxiety, negative affect, and arousal. This prevents complete exposure to all the conditioned stimuli, and symptoms are thereby maintained.

This account succeeds in providing a convincing explanation for the wide range of stimuli capable of producing a physiological response. It fails however to account for the experience of characteristic emotions other than fear. These theories also struggle to distinguish PTSD from other anxiety disorders, especially in terms of epidemiology. Finally, as is true of other early accounts, classical conditioning theories neglect the role of individual perceptions, evaluations and attributions during and after the trauma.

1.5.1.4 Theory of shattered assumptions

Janoff-Bulman's (31) theory of shattered assumptions draws on social and cognitive psychological research, which suggests that we are generally positive about the future. It puts forward that individuals possess three basic assumptions; that we have a sense of personal invulnerability, that we believe the world is comprehensible, and that we have a generally positive view of ourselves. These assumptions result in a belief that the world is meaningful and predictable, allowing the individual to live without constant fear over safety. Generally, these assumptions are resistant to change. Janoff-Bulman describes how attentional biases, self-fulfilling prophecies,

and primacy effects act to shape disconfirming information in ways consistent with internal assumptions about how the world operates.

A traumatic event is said to shatter these assumptions. The individual can no longer depend on previous beliefs. It becomes difficult to perceive meaning, confer a sense of safety, or promote feelings of self worth. Post-trauma, intense fears that the incident might happen again arise. This leaves residual feelings of fear and helplessness. The individual sees him or herself as weak and vulnerable. Self-blame is also common as a means of restoring control over a situation otherwise perceived as uncontrollable.

Janoff-Bulman (31) ties the shattering of assumptions to PTSD symptoms in several ways. Firstly, a continuously hyper-aroused state is compatible with the theory, which predicts a prolonged sense of threat created by assumptions of vulnerability and an unpredictable world. The theory also predicts that the individual struggles to come to terms with cognitive aspects of the traumatic event. More specifically, the individual is motivated to avoid new information that challenges previous assumptions, while the brain simultaneously attempts to reconcile the trauma memory. This causes a state of oscillation between intrusions and avoidance, similar to that described by Horowitz (30). This is consistent with the disorder's clinical presentation.

The theory however fails to account for the development of PTSD in individuals with pre-existing negative beliefs about the world. Furthermore, it predicts that those with the most positive assumptions would be most affected by the trauma. This however

contradicts research evidence, which suggests that previous trauma acts as a risk rather than a protective factor for the disorder (22, 23).

1.5.1.5 Emotional processing theory

Emotional processing theory stems from Lang's bioinformational theory of emotion (41). The theory conceptualises fear memories as cognitive structures composed of closely inter-linked stimulus, response and meaning elements, designed to promote avoidance, or escape from danger. When a stimulus element is activated, a rapid spread of this activation throughout the fear network to associated meaning and response elements follows. The stimulus "gun" would, for example, activate the meaning nodes "danger" and "I am going to die", response nodes representing physiological responses such as increased heart rate, sweating and tremor, and behavioural responses such as fleeing the scene or hiding.

Foa and Kozak (42) advanced Lang's theory to account for the development and maintenance of anxiety disorders. They proposed that pathological fear structures underlie these conditions. These pathological structures are characterised by: 1) excessive response elements (such as physiological arousal and avoidance); 2) resistance to modification; and 3) associations among different elements that do not accurately represent reality

They proposed that effective treatment required modification of the fear structure through activation and integration of disproving information, allowing a new memory

to be formed. In contrast, exposure to information consistent with the memory would be expected to strengthen fear.

Foa and Rothbaum (36) applied the theory to PTSD. They proposed that the significance and impact of a traumatic event shatters previously held beliefs. It results in a representation in memory with much stronger associations than everyday memories. Trauma related stimuli are able to easily activate response elements, initiating physiological responses such as increased heart rate, sweating and tremor, and the meaning elements, promoting assumptions such as "I am going to die". Foa and Rothbaum proposed that the PTSD fear structure includes two basic dysfunctional cognitions, which underlie the disorder: 1) that the world is a dangerous place; and 2) that they are incompetent.

In a majority of cases, pathological elements are naturally corrected through disconfirming activities. Individuals who avoid trauma reminders however, are those who go on to experience PTSD.

Foa and colleagues made a valuable contribution towards the understanding of cognitive processes underlying PTSD. They also made progress in terms of highlighting the role of individual evaluations and attributions of a traumatic event. Brewin, Dalgleish and Joseph (34), however, argued that a network such as the one described by Foa and Rothbaum (36), with only a single level of representation, struggled to account for phenomena such as numbing and memory loss, suggestive of information stored at a higher level of representation.

1.5.1.6 Dual representation theory

Brewin et al (34) (43) proposed that a single emotional memory appeared inadequate to account for the range of symptoms characteristic of PTSD. They suggested that the disorder resulted from the dissociation of trauma memories from the ordinary memory system. Dual representation theory proposed that trauma memories are represented both as normal everyday memories in Verbally Accessible Memory (VAM) and as image based memories in Situationally Accessible Memory (SAM). The VAM system contains fully contextualised autobiographical memories integrated with other experiences and personal context, whilst the SAM system contains information which was not processed in sufficient depth to enter into VAM. VAM memories take account of evaluations formulated during and after the trauma including "primary emotions" which arose during, and "secondary emotions" generated by cognitive appraisal of the event. These memories can be readily retrieved and described as required. They contain information that received sufficient processing to be transferred to long-term memory. High rates of arousal, and a tendency to selectively attend to the most salient source of threat limits the amount of trauma-related information entering VAM.

Dual Representation Theory takes account of PTSD symptoms with the proposal that parallel memory systems take precedence at different times. The SAM system is implicated in the experience of intrusive thoughts and flashbacks. It contains information obtained from extensive low level perceptual processing of detailed aspects of the traumatic event that were too briefly experienced to receive much conscious attention. This information does not become recorded in the VAM system. The SAM system stores information about the individual's response to the trauma,

including bodily sensations such as increased heart rate, temperature, and pain. This results in flashbacks, which are more detailed and emotion-laden than ordinary memories. Recall of SAM memories can be difficult to control since conscious recall is difficult and individuals cannot always regulate their exposure to stimuli associated with the trauma. SAM memories are accompanied only by "primary emotions" that were experienced during the trauma. During some traumatic events, there may be time for more complex evaluations to take place. This might include emotions such as anger and horror.

Emotional processing of information results in three possible outcomes, completion/integration, chronic emotional processing and premature inhibition of processing. Completion/integration is contingent on an individual creating new SAMs which block access to original memories. These new SAMs pair trauma information with states of reduced arousal and negative affect through habituation. Recovery also requires changes to VAMs. Brewin and colleagues stressed that "secondary emotions" arising from retrospective conscious appraisal of the event may interfere with the emotional processing of a traumatic event. These appraisals may in turn prevent the habituation of fear when SAMs are activated. The authors suggest secondary emotions should be addressed with cognitive techniques. Resolution occurs when memories of the traumatic event have been fully "worked through," and are integrated with the individual's other memories and sense of self.

The presence of unremitting PTSD is termed *chronic emotional processing*. This may be the result of aversive secondary emotions, competing demands, or a lack of social support to assist processing of SAMs or VAMs. An individual caught at this stage will

continue to have attentional and memory biases toward trauma-related information, and develop more generalized secondary reactions.

The final possible outcome of processing, *premature inhibition of processing*, results from successful avoidance strategies which prevent activation of unpleasant SAMs and VAMs. This may be achieved, for example, through the development of avoidance schema which monitor and direct attention away from trauma related stimuli. In this state there is no further active processing of the trauma memory. There would be no more intrusive thoughts or deliberate avoidance, but SAMs would remain accessible under certain circumstances. The individual would continue to exhibit attentional biases, impaired memory for the traumatic event, and avoidance of trauma reminders.

Studies designed to test the basic proposition that two types of trauma memory co-exist (44) have supported the claim that intrusive images originate for a separate memory system of a predominantly visuo-spatial nature. The theory however fails to account for features such as emotional numbing or the observation that a wide range of stimuli become able to elicit a traumatic stress response.

1.5.1.7 Ehlers and Clark's cognitive model

Ehlers and Clark (35) proposed that individual differences in the appraisal of a traumatic event determine development of chronic PTSD. It was predicted that trauma-exposed individuals who appraise events as time limited incidents, which ceased to threaten personal safety, are those who recover quickly. Individuals who appraise the event in an excessively negative way are thought more likely to

experience persistent PTSD. The theory can be viewed as an extension of earlier information processing accounts.

The model hypothesises that trauma memories are different from ordinary autobiographical memories. Everyday autobiographical memories are organised and elaborated in a way that facilitates later retrieval and inhibits cue driven re-experiencing of the event. Later recall of these memories evokes specific information about the event as well as contextual information, said to be characterised by "autonoetic awareness", a sense or awareness of self in the past (45). Ehlers and Clark proposed that trauma memories fail to become integrated with contextual information from the event itself, or with previous and subsequent experience. As a result, intentional recall is disjointed and later information that corrects ideas formed at the time of the trauma is difficult to access. In addition, poor organisation and retrieval results in insufficient inhibition of cue-driven retrieval. *Perceptual priming* (a reduced threshold for perception) for stimuli that occurred at the time of the traumatic event further enhances the probability of cue driven retrieval. By classical conditioning, these stimuli are often associated with strong affective responses resulting in cue driven retrieval leading to distressing re-experiencing of the event. Re-experiencing lacks autonoetic awareness and is thus relived as if in the present. This may include *affect without recollection*, the experience of an emotional response, without being aware of the cue.

Negative appraisals and emotions prompt a series of dysfunctional responses, which have a short term aim of reducing distress, but a long term consequence of preventing cognitive change by causing a direct increase in symptoms (e.g. though

suppression, which leads to paradoxical increases in intrusion); by preventing changes in problematic appraisals; and by preventing elaboration of the trauma memory and it's link to other experiences (e.g. incorporating the fact that they didn't die into the memory).

The theory succeeds in holding a core role for cognitions and the personal meaning of trauma, differentiating it from earlier accounts. It can also be praised for the provision of a clear framework for changing the meaning of dysfunctional beliefs about the trauma, implicating a role for exposure to aspects of the event alongside cognitive techniques. Studies have provided support for many features of the model, including the role of negative appraisals of the trauma (46) and enhanced perceptual priming for neutral stimuli in a traumatic context (47).

1.5.2 Biological theories

Many physiological and biochemical abnormalities are thought to be associated with PTSD. These form the basis of biological models of the disorder. Altered functioning of the hypothalamic-pituitary-adrenal (HPA) axis is one finding that has been implicated (48). This provides a biological explanation for the formation of maladaptive fear responses described by many psychological theories. Areas of the brain including the medial prefrontal cortex, the amygdale, and the hippocampus have also been implicated (49). The medial prefrontal cortex is involved in the process fear extinction (50), which provides a possible explanation for the inappropriate fear responses exhibited by individuals with PTSD. The amygdala is involved in the evaluation of threat-related stimuli, and is thought to be hyper-

responsive in PTSD (51). A third region of interest is the hippocampus, which is implicated in explicit memory processes, and appears to interact with the amygdala during the encoding of emotional memories (52).

1.6 Psychological treatment

Various psychological therapies have been developed and applied to the treatment of PTSD. These include various formulations of Cognitive Behavioural Therapy (CBT) (53-55), Eye Movement Desensitisation and Reprocessing (EMDR) (56) psychodynamic psychotherapy (57), supportive counselling (58), and Brief Eclectic Psychotherapy (BEP) (59).

1.6.2 Cognitive Behavioural Therapy (CBT)

Cognitive behavioural therapy (CBT) is a combination of cognitive therapy aimed at the modification and elimination of unwanted thoughts (60) and behavioural therapy, which uses basic learning techniques to modify undesirable behaviour patterns (61). CBT has been applied to numerous disorders including depression, generalized anxiety disorder and panic disorder (62).

Numerous CBT protocols for PTSD are described in the literature. The first distinction can be drawn between trauma focused CBT (TFCBT), and non trauma focused CBT. The former focuses on the traumatic event, the latter tend to focus on stress management. We will first discuss TFCBT.

1.6.3 Trauma focused CBT (TFCBT)

TFCBT protocols (53, 54, 63), draw on four core components emphasised in varying degrees: 1) psychoeducation; 2) anxiety management; 3) exposure; and 4) cognitive restructuring. Earlier therapies tended to be more behaviourally based, focussing heavily on exposure work. Cognitive components have become more prominent over time, in line with the popularity of more sophisticated information processing accounts of the disorder. TFCBT is a short-term intervention lasting 8–12 sessions, scheduled once or twice weekly (64).

1.6.3.1 Psychoeducation

Psychoeducation usually provides the starting point for TFCBT. Information on traumatic stress symptoms and the cognitive behavioural formulation of PTSD are presented alongside treatment rationales. Components including anxiety management, exposure, and cognitive restructuring are then gradually introduced to the sessions (64).

1.6.3.3 Anxiety management

Anxiety management techniques are often included in TFCBT protocols to strengthen the individual's ability to cope with the recollection of traumatic memories. Interventions focussing on anxiety management can also be presented as stand-alone treatments, which will be discussed later. Techniques incorporated as part of TFCBT often include Progressive Muscle Relaxation (PMR) and Breathing Retraining. PMR is a simple two-step technique to relax the body (65). Groups of muscles are systematically tensed, held, and then relaxed, with focus on the

sensation of releasing tension. The second stage focuses on consciously relaxing the muscle groups. Breathing Retraining (66) teaches the individual to breathe in a way that prevents over-breathing and promotes a sense of calm. The aim of both techniques is to equip the individual with coping skills to deal with the distressing therapeutic process. Relaxation also has many more generalised benefits in terms of reducing arousal, aiding sleep, and positively impacting the individual's health and well-being.

1.6.3.4 Exposure

Exposure plays an important role in many TFCBT protocols (67). It may be carried out in vivo (real life), or imaginally. It is common for both to be used in the treatment of PTSD, to target internally and externally feared stimuli (68).

The trauma memory itself is often the primary feared stimulus. Exposure to the memory is carried out imaginally. The rationale behind the use of imaginal exposure varies according to the specific TFCBT protocol. Imaginal exposure is based on principles of habituation (the reduction of anxiety after prolonged exposure) and/or information processing (allowing re-evaluation of old information and incorporation of new information into the trauma memory) (68). For example, the Prolonged Exposure (PE) TFCBT protocol developed by Foa and colleagues (54) holds an important role for imaginal exposure based on the notion that successful treatment requires (1) that the fear structure is activated; and (2) that incompatible information is presented allowing modification of the fear structure. The goal is to help the individual emotionally process the trauma by vividly imagining the event. This includes recall of thoughts, feelings, and sensations, which occurred at the time of the trauma. The

rationale stipulates that fear is connected to memories, as opposed to current threat. These memories tend to be stored as perceptual and affective states, with little or no verbal representation. Re-experiencing fragments of the trauma does not lead to resolution, since the incomplete reliving of perceptual or affective elements of the trauma prevents the construction of an integrated memory. Treatment therefore involves translating the nonverbal memory into a verbal narrative of the trauma memory. The treatment works based on the principles of habituation. This leads to a realisation that anxiety diminishes without avoidance, and an acceptance that thinking about the trauma is not dangerous. This is achieved by creating a detailed present tense narrative of the trauma, which is audio recorded or transcribed (54) . The individual is asked to listen to, or read the account repeatedly. Exposure typically occurs for at least 50 minutes, and is usually supplemented by daily homework exercises, which requires the individual to read their scripts or listen to their audio recording. The Ehlers and Clark Cognitive Therapy TFCBT protocol (53) advocates a role for identifying distressing 'hot spots' in the trauma narrative, allowing a more detailed exploration and elaboration of these aspects of the event. Variants of imaginal exposure involve triggering the memory by going to the site of the trauma (53)writing a past tense narrative of the traumatic event (55), and the use of virtual reality (69).

In vivo exposure encourages the individual to confront feared situations in real life (70). The first step is usually to create a *fear hierarchy*, by first rating feared situations in terms of how much anxiety they provoke. These are ordered from the one that provokes the least anxiety to the one that provokes the most, as illustrated by the example in table 1.5.

Situation	Fear ratings
1. Returning to the scene of the attack	10
2. Returning to the neighbourhood of the attack	9
3. Reading newspaper cuttings about the attack	8
4. Holding a knife	7
5. Looking at a knife	6
6. Looking at a picture of a knife	5
7. Watching a violent film	4
8. Watching a news report about a physical attack	3
9. Reading a newspaper article about a physical attack	2
10. Reading a newspaper	1

Table 1.5: Example of a fear hierarchy produced after a physical attack

The individual confronts each situation, starting with the least fearful, progressing to the most fearful. Foa and colleagues' PE protocol stipulates that the aim of in vivo exposure is to extinguish the emotional response to traumatic stimuli and learn that feared situations are safe, eventually reducing or eliminating avoidance of feared situations. As the individual is exposed, he or she reports anxiety levels using a Subjective Units of Distress Scale (SUDS).

1.6.3.5 Cognitive Restructuring

Cognitive restructuring seeks to identify and modify dysfunctional thoughts by testing and challenging self-held beliefs, based on the assumption that these usually unquestioned thoughts are distorted or unhelpful. Cognitive restructuring was originally developed by Beck (71) for treatment of depression. Beck's theory holds that it is the interpretation of the event, rather than the event itself, which determines mood. He proposed a list of dysfunctional thought patterns that maintain psychological distress. This included over-generalisation (taking isolated cases and using them to make wide generalizations), minimisation (disregarding positive

aspects of a situation), and emotional reasoning (making assumptions based on feelings rather than objective reality).

Cognitive restructuring for the treatment of PTSD tackles problematic beliefs about the trauma through exposure to aspects of the event alongside cognitive techniques that explicitly promote a search for new meaning (53). Cognitive restructuring aims to help individuals process and appraise the traumatic event in a more integrated and less distressing way (55).

1.6.3.6 Evidence for TFCBT

Systematic reviews of psychological therapies (64, 72-75) have revealed evidence that TFCBT shows clinically significant benefits over waiting-list control groups on all measures of PTSD symptoms. In addition, there is evidence that TFCBT reduces associated symptoms of depression and anxiety (74).

There is also evidence that TFCBT is more effective than other psychological treatments including psychodynamic therapy, hypnotherapy, supportive counselling and stress management (64, 74) . Systematic reviews have indicated that trauma focused methods generally produce better results than other psychological treatments (64, 74).

Since the publication of the above meta-analyses, several good quality RCTs have augmented our knowledge. These show continued support for the efficacy of TFCBT compared with waiting list or minimal attention control conditions (76, 77) , and other psychological therapies (78).

1.6.4 Eye Movement Desensitisation and Reprocessing (EMDR)

Developed by Shapiro in 1989 (79), EMDR is an integrative trauma focused therapy encompassing elements from various effective psychotherapies in a structured protocol. Shapiro is said to have discovered EMDR accidentally. Her account implicates personal experience of rapid eye movements easing distress (80). On the basis of this experience, Shapiro elaborated EMDR for the treatment of Vietnam veterans and abuse sufferers. Participants reported their traumatic memories to be less disturbing post-treatment (79).

Treatment requires the individual to focus on traumatic memories, associated cognitions, and bodily sensations, whilst receiving simultaneous external bilateral stimulation, most commonly in the form of eye movement. It is an eight-phase information processing therapy. The first phase is a history taking and assessment session, followed by the second phase, which ensures the client has adequate coping skills to handle emotional distress, with focus on providing these if absent.

Phases three through to six, require identification of the most problematic or distressing visual image related to the trauma memory, a negative belief about the self (e.g. "I am worthless"), and related bodily sensations. The individual also identifies a preferred positive belief (e.g. "I am worthwhile"). The validity of the positive belief is rated, as is the intensity of the negative emotions. The individual is asked to focus on the image, the negative belief, and bodily sensations while receiving simultaneous bilateral stimulation. The clinician asks the individual to describe whatever thought, feeling, image, memory, or sensation came to mind once

the set is complete. The therapist facilitates the next focus of attention based on this report.

The process is repeated numerous times. When the individual reports no distress related to the target memory, he or she is asked to think of the preferred positive belief, whilst again thinking of the image, receiving further bilateral stimulation. The therapist makes enquiries regarding body sensations: negative sensations are processed using the same technique, positive sensations are enhanced. Phase seven requires the individual log any related material which arises between sessions. The next session begins with phase eight, which looks back on previous work and material that arose between sessions.

1.6.4.1 Evidence for EMDR

EMDR has performed well in numerous RCTs (56, 81, 82). A Cochrane review of the literature could find no difference between the efficacy of EMDR and TFCBT (72). However, the evidence base for EMDR was not as strong as that for TFCBT, in terms of the number of trials, or the strength of the existing evidence.

It is worth commenting that key procedures characteristic of EMDR bear similarity to those used in TFCBT. For example, focussing on an image of the trauma can be viewed as a form of imaginal exposure. The individual is also required to work on actively replacing negative thoughts with more positive alternatives, which may be viewed as a form of cognitive restructuring. Some suggest these components may constitute the active ingredients of EMDR, as opposed to the eye movements per se (83, 84). Though Shapiro maintains that bilateral stimulation is an important

component of EMDR, she acknowledges a dearth of good quality work supporting its continued inclusion commenting *"research investigating the eye movement component is inconclusive and compromised by poor methodology, including low power, and inappropriate subject and control selection"* (85).

A dismantling study by Cusack and Spates (86) found that the reprocessing element also failed to contribute to treatment outcome, suggesting that positive change is the result of desensitization, an element much akin to imaginal exposure, which is common to many other interventions. This lead McNally (87) to the conclusion that *"what is effective in EMDR is not new, and what is new is not effective."*

1.6.4 Stress management

The most widely used stress management protocol for PTSD is Stress Inoculation Training (SIT), which teaches skills for managing stress, such as relaxation, thought stopping and guided dialogue. It provides the opportunity to practice acquired skills gradually, across a variety of settings.

1.6.4.1 Evidence for stress management

A systematic review conducted in 2005 (64) identified seven RCTs of stress management therapy for PTSD. The meta-analysis revealed limited evidence favouring stress management therapy over waiting list in terms of reducing the likelihood of having a diagnosis of PTSD post-treatment. It was not however possible to determine if there was a clinically significant difference between stress

management therapy and waiting list in terms of reducing the severity of PTSD symptoms, or symptoms of anxiety and depression.

1.6.5 Psychodynamic psychotherapy

Psychodynamic psychotherapy focuses on integrating the traumatic event into the life experience of the individual. Often childhood issues are felt to be important. Psychodynamic psychotherapy places emphasis on the unconscious mind. It aims to resolve inner conflict arising from the traumatic event.

1.6.5.1 Evidence for Psychodynamic Psychotherapy

Psychodynamic therapies have not been widely tested in controlled studies (36). There has been only one RCT (88). This study compared psychodynamic therapy to hypnotherapy, and trauma desensitization. It showed some positive effects for some participants compared with a waiting list control group.

1.6.6 Supportive Counselling

Supportive counselling stems from the client-centred, non-directive methods developed by Carl Rogers (89). The aim is to allow the individual to talk through problems and resolve difficulties with minimum guidance and direction from the therapist. Rogers proposed an inherent ability to change and become more "self-actualized". To achieve this state, the therapist observes and listens as the individual explores and analyses the problem and devises a personally derived solution. The therapist is accepting and non-judgemental. This style encourages the individual to feel comfortable in the expression of feelings, facilitating positive change. Unlike trauma-focused therapies, supportive counselling does not encourage exploration of the trauma memory. It promotes problem solving and coping in the present context.

1.6.7.1 Evidence for supportive counselling

There have been few RCTs of supportive counselling for PTSD. Non trauma focused therapies including supportive counselling, stress management, hypnotherapy and psychodynamic psychotherapy have been grouped together in meta-analyses of psychological therapies. They have a small positive effect compared with a waiting list control groups. When compared with trauma focused therapies however, the latter are significantly more effective in terms of reducing traumatic stress symptoms (64, 72).

1.6.7 Brief Eclectic Psychotherapy

Brief Eclectic Psychotherapy (BEP) combines components of CBT (such as psychoeducation, guided imagery, cognitive restructuring and homework) with components from psychodynamic therapy, which focuses on integrating the traumatic experience into the life experience of the individual as a whole. BEP emphasises the importance of performing a farewell ritual at the end of therapy, such as burning a memento associated with the traumatic event.

1.6.8.1 Evidence for BEP

Two RCTs (59, 90) have revealed a statistically significant reduction in traumatic stress symptomology compared with waiting-list control groups. Meta-analyses of PTSD treatment have included BEP with TFCBT, due to the similarities of the two approaches.

1.7 Clinical guidelines

Clinical guidelines are systematically developed evidence based recommendations created to assist clinicians and patients to make informed decisions regarding the most appropriate management and treatment of specific medical conditions. Guidelines are produced at national or international levels by medical associations or governmental bodies.

The National Institute for Clinical Excellence (NICE) is an independent organisation responsible for providing national guidance on treatment provision and care of individuals using the National Heath Service (NHS) in England and Wales. The guidance is intended for use by health care professionals, patients and their carers. The aim of the guidance is threefold (64): 1) to improve standards of care; 2) to decrease variation in the provision and quality of care across the NHS; and 3) to ensure that the NHS is patient-centred

Published in 2005, the National Institute of Clinical Excellence (NICE) guidance for PTSD (64) made recommendations for the management of the disorder based on current evidence. It aimed to evaluate the role of specific psychological and pharmacological interventions. Evidence based recommendations were made on the basis of clinical literature reviews, which sought to systematically identify and synthesise relevant evidence. Where sufficient evidence was not available, the need for future research was pin-pointed.

The guidance recommended that all individuals presenting with chronic PTSD should be offered a course of trauma-focused psychological treatment (TFCBT or EMDR),

regardless of the time that has elapsed since the trauma. It indicated that non-trauma-focused interventions should not routinely be offered to people who present with chronic PTSD.

Pharmacotherapy was not recommended as a routine first-line treatment for the disorder. Use of medication including paroxetine, mirtazapine, amitriptyline or phenelzine was recommended for consideration only where individuals express a preference not to engage in psychological therapy. It was acknowledged that pharmacotherapy may have a role as an adjunct to psychological therapy, where there is significant comorbid depression or hyperarousal, with the potential to impact on the individual's ability to engage with treatment.

Internationally, guidelines issued for PTSD treatment have differed on certain points. Clinical practice guidelines issued in 2004 by both the APA and the US Veterans Administration (VA) differ from NICE most notably on the recommendation of pharmacotheapy as a front line treatment for the disorder. They recommended Selective Serotonin Reuptake Inhibitors (SSRIs) as the first choice among these pharmacologic therapies. Other antidepressants, including tricyclic antidepressants and Monoamine Oxidase Inhibitors (MAOIs), were also said to be beneficial.

Australian recommendations (91), which considered studies published after the NICE, APA and VA guidelines, continued to list SSRIs as the first choice in pharmacologic treatment, though they noted that the four SSRI studies conducted after the NICE guidelines had failed to provide evidence that these drugs helped symptoms of traumatic stress or depression in patients with PTSD.

An assessment by the Institute of Medicine (IOM) in 2007 (92) concluded that no drugs have adequate data showing efficacy, this included SSRIs. Evidence was said to be sufficient to conclude the efficacy of exposure therapies in the treatment of PTSD. The committee concluded that evidence for EMDR, cognitive restructuring, coping skills training and group psychotherapy was inadequate to determine efficacy.

Despite these differences, guidelines converge on the recommendation of trauma focused psychological therapies as effective treatments for the disorder. These are currently the treatments of choice for PTSD in the UK, with insufficient evidence to support the use of pharmacotherapy in isolation, or the provision of non-trauma focused psychological therapies.

1.8 Access to treatment

Despite a growing consensus that trauma focused psychological therapies represent the most effective way of treating PTSD, there remains a shortage of suitably qualified therapists able to deliver these interventions (93). Access to psychological treatment often entails a wait in excess of one year (94). At the Cardiff and Vale University Health Board Traumatic Stress Service, there is currently a waiting list in excess of three months to access trauma focused psychological therapy for seemingly straightforward cases of PTSD from a trainee therapist, and around one year for treatment of more complex cases by an experienced therapist.

There exists a growing need to look at alternative methods of delivering effective treatment. Guided Self Help (GSH) is an alternative to therapist administered psychological therapy, which offers the potential of effective treatment with less

reliance on therapist time. GSH for PTSD has not however been sufficiently explored to date. The NICE guidance identified the need for an RCT to be carried out using newly developed GSH materials based on trauma-focused psychological interventions.

1.9 Summary and conclusion

To summarise, PTSD is a debilitating condition characterised by symptoms of re-experiencing, avoidance/numbing and hyperarousal (1, 2). It has an estimated lifetime prevalence of 7.8% (20). Numerous psychological theories have been advanced with the aim of providing evidence based accounts of the disorder (30-36, 95). Chronic PTSD can however be effectively treated (72). Systematic reviews have indicated evidence for the efficacy of psychological treatment, particularly trauma focused interventions including TFCBT and EMDR. Unfortunately a shortage of suitably qualified therapists precludes timely access to these treatments, providing the rational for exploration of alternative delivery methods.

Chapter 2: Introduction to Guided Self Help (GSH)

2.1 Definition: Guided Self Help (GSH)

Guided Self Help (GSH) combines the use of Self Help (SH) materials in the form of books, leaflets, CD Roms, and websites, with guidance from a trained professional. To define GSH, it is therefore necessary to first describe the notion of SH more broadly.

In its widest sense, the term SH encompasses activities whereby an individual attempts to bring about change in a target problem alone or with the use of purposely designed materials (96). The approach relies on the individual drawing on their own abilities to help or support themselves without depending on the assistance of others (97). It is based on the assumption that life's obstacles can be overcome asserting that individuals have the power to take control and tackle their own difficulties, based on notions of choice, autonomy and freedom (98). Cuijpers (99) defined SH interventions for mental health problems as ones where *"the patient receives a standardised treatment method with which he can help himself without major help from the therapist. In the self-help approach it is necessary that treatment is described in sufficient detail, so that the patient can work independently.*

GSH interventions aim to maximise the efficacy of SH, with the addition of minimal guidance, which seeks to provide continued assessment, support, monitoring,

motivation and assessment. GSH interventions for mental health problems have shown promise as cost-effective, flexible and empowering alternatives to therapist administered interventions (100-102).

2.2 A brief history

Although the application of SH to the treatment of mental health problems is relatively recent, the concept is far from new. SH originated from books aimed at personal, emotional and occupational improvement, later becoming realised as a method for providing psychological help for diagnosable disorders. Many trace the origins of formal SH back to Scotsman Samuel Smiles'1859 book simply entitled *Self Help* (103). The book was published on the same day as Charles Darwin's *On the Origin of Species* (104), and is regarded a Victorian classic. Selling over 20,000 copies in its first year, it has been translated into many languages, and it is still in print today. With the opening guidance "heaven helps those who help themselves", the central tenet was that much could be achieved through hard work and endeavour. The book addressed success and self-actualisation.

The SH genre developed further in the United States. Seminal titles included Dale Carnegie's *How To Win Friends and Influence People* (105) and Norman Vincent Peale's *The Power of Positive Thinking* (106). These books sold millions of copies worldwide and established a market for SH literature. Tens of thousands of SH books are currently on sale in the UK (107).

The SH genre began as a means to bring about self improvement and maximise personal achievement. The approach has since evolved to treat physical and mental

health problems through a variety of more structured methods. SH now presents itself in a range of formats to serve an increasing number of aims and objectives.

2.3 Evolution

2.3.2 Bibliotherapy

Over the past two decades, SH books have moved beyond simple self improvement into the realms of treating diagnosable mental health problems. The use of literature for therapeutic gain has become known as *bibliotherapy*. At its most basic level, bibliotherapy refers to the use of books or leaflets targeting a specific problem, which aim to bring about change in a normative direction. In 1950, it was defined by Russell (108) as a process of dynamic interaction between the reader and the literature, used for assessment, adjustment, and personal growth (108).

A meta-analysis by den Boer et al in 2004 (109) endorsed the use of bibliotherapy in the treatment of emotional disorders with a mean effect size of 0.84 compared with control interventions, reporting no difference between bibliotherapy and brief psychological treatment. Caution must however be exercised in terms of interpreting these results, primarily on the basis that the review included only 14 studies. Further, the quality of the individual studies was poor; some had very small sample sizes (the smallest randomising 24 participant between three experimental groups); allocation concealment for the majority of studies was inadequate or unclear; and the majority did not blind the assessor or include intention-to-treat analyses. It is clear that further good quality RCTs are required to substantiate claims of efficacy.

2.3.3 Book prescription schemes

The use of SH books within the NHS has been formalised by means of book prescription schemes implemented throughout many regions of the UK. This addressed the need to treat mild to moderate mental health problems that fall short of the remit of secondary care mental health services (107). Specific book recommendations address target problems with prescribed literature available from local libraries. *Book Prescription Wales* was launched in 2005 based on the success of the original *Cardiff Book Prescription Scheme* (107). SH books from a list of thirty-five covering twenty of the most common psychological problems were made available for prescription by GPs, practice counsellors and other health care professionals.

In the scheme's first year more than 1,600 book prescriptions were issued in the Cardiff area, the majority concerned depression and anxiety. Eighty percent of the books presented a structured CBT approach and included step-by-step instructions for self-treatment. The scheme has been modified in some areas, to provide additional support via self-help clinics. This variant of the book prescription scheme was initiated in Devon, with specially trained Graduate Primary Care Mental Health Workers (GMHWs) providing minimal contact support (110).

Book prescription schemes have generated much enthusiasm, but little is known about the efficacy or effectiveness of the books prescribed. Books have been selected on the basis of expert recommendation; but few have been formally evaluated. There has been little emphasis on studying the success of these schemes in terms of symptom reduction. Implementation has preceded the existence of an

evidence base, which raises some serious concerns in terms of the rapid expansion of the scheme. High quality RCTs are required to evaluate the individual books prescribed, the efficacy of the scheme, and the cost-effectiveness of the formalised provision of bibliotherapy.

2.3.4 Structured Self Help programmes

The concept of SH has found applications for mental health beyond SH books. Structured SH interventions have been developed to address a range of health problems. There is agreement that by definition, these interventions use a clear treatment protocol that focuses on problems relevant to the individual using the programme (111), providing sufficient instruction to teach skills to cope with, or bring about change in, target problems through the use of materials used largely without professional input (112).

Structured SH programmes have been developed and implemented for a range of disorders with the explicit aim of reducing health care expenditure and providing timely access to psychological treatment. They do not usually alter the content of existing psychological treatments for a given disorder, deviating from traditional therapist administered psychological treatment only in terms of delivery.

It is important to draw a distinction between SH and psychoeducation (113). Although the two overlap in terms of content, psychoeducation aims only to increase patient knowledge, whilst SH aims to both impart knowledge and teach skills and techniques to overcome specific problems. Structured SH programmes for mental health

problems are generally based on SH adaptations of evidence based psychological therapies. It follows that almost all formally evaluated SH programmes for mental health problems are based on cognitive behavioural approaches with the remainder based on self monitoring and therapeutic writing (111).

Commonly used CBT based structured SH treatments tend to share many features (114). Most instigate treatment with psychoeducation about the target disorder and the rationale for CBT based treatment. Next, techniques for cognitive restructuring are usually taught with the aim of identifying and modifying unhelpful patterns of thinking. Behavioural interventions meanwhile focus on changing an individual's behaviour. Most CBT based SH programmes conclude with a section on relapse prevention focussing on staying well, recognising signs of relapse, and advice on what to do if problems recur. Individual SH programmes can vary widely in terms of the additional advice and guidance given. Text box 2.2 summarises common components.

1. **Psychoeducation**
2. **Cognitive components**
   - Identifying and challenging unhelpful thoughts
3. **Behavioural components**
   - Relaxation
   - Practising taught techniques
4. **Life skills**

- Assertiveness
- Problem solving
- Lifestyle e.g. diet, sleep and exercise

5. **Goal setting and self monitoring**
6. **Relapse prevention**

Text box 2.1: Common components of CBT based SH programmes

For anxiety disorders, behavioural components usually include *exposure therapy*. As described in Chapter 1, this involves gradual, repeated exposure to feared or avoided situations, people, places or objects, with the aim of bringing about habituation.

Although SH interventions have traditionally relied on written materials (115), technological advances have enabled programmes to be presented more interactively using a range of media formats including CDs, DVDs, CDRoms and websites (111). Multimedia presentation of SH resources aims to maximise engagement. Gould and Clum conducted a meta-analysis of SH interventions for anxiety disorders concluding that presentation of written material combined with audio or video gave superior outcome compared with either in isolation (116). SH interventions of this nature seek to provide an active role for the participant in the SH process through activities to help reflect on what's been read, such as completion of relevant exercises or filling in a daily diary.

2.3.5 Structured GSH programmes

To further improve the efficacy and acceptability of structured SH interventions, presentation has become increasingly complex, and often includes guidance by a

trained professional (117). GSH interventions have been developed for a range of mental health problems, including anxiety disorders, eating disorders, and depression (118-120).

The amount of therapist contact varies enormously from intervention to intervention, with no consensus as to the optimal level. Newman (121) proposed four categorical descriptors to group interventions according to the level of guidance provided. Definitions of *self-administered treatment*, *Pure Self Help (PSH)*, *Guided Self Help (GSH)*, and *therapist administered treatment* are presented in text box 2.2.

1. Self-administered treatments - include therapist contact for assessment at most. This category includes use of SH books purchased independently or supplied by a book prescription scheme.

2. Pure Self Help (PSH) - contact is confined to initial teaching of the SH materials and in some cases very brief check-ins.

3. Guided Self Help (GSH) - includes active involvement of a therapist to a lesser degree than traditional therapy.

4. Therapist administered treatments - where a typical number of treatment sessions are provided with SH materials used to augment treatment.

Text box 2.2: Newman's (121) categorical descriptors classifying psychological interventions according to therapist input

In practice however, it is difficult to draw clear-cut distinctions in terms of the level of guidance provided. For example, there may be little difference in terms of the input associated with the "brief check-ins" acceptable as part of an intervention deemed PSH, and the minimal contact of an intervention described as GSH. The amount of guidance provided as part of a GSH programme may itself vary, from very minimal guidance by email, to regular face to face meetings. Furthermore, there may be considerable differences between the use of SH books purchased independently,

and those prescribed and instructed for use by a health professional, both of which are considered *self administered treatments*.

Although self administered interventions offer the greatest level of access to treatment, GSH is thought to provide a preferential balance between efficiency and efficacy. Randomised Controlled Trials (RCTs) have found that GSH results in a greater level of symptom reduction compared with the same materials presented alone (122) (123) (124). These differences do not however routinely reach the level of statistical significance (123), and have not been consistently replicated. Indeed, a study of GSH versus PSH for Binge Eating Disorder found a trend towards better results for the pure self-help group than the guided group. This was however a very small study of 31 participants, with only 18 completing treatment.

2.4 Potential advantages

SH offers a potentially low-cost alternative to therapist administered treatment. These interventions place less demand on therapist time, a costly and limited resource. Cost-effectiveness is discussed in more detail in Chapter 3. Advocates have proposed numerous additional advantages. These advantages, which are summarised in table 2.1 below, are worth highlighting and considering before taking into account potential disadvantages and difficulties that might emerge from SH delivery of psychological treatment.

Advantages	Disadvantages
Cost-effectiveness	Over-simplification
Empowerment	Difficulties using materials
Flexibility	Lack of evidence supporting acceptability to
Sustained improvement	diverse groups
Ease of access	Insufficient evaluation
Acceptability	

Table 2.1: Advantages and disadvantages of the SH approach

2.4.1 Empowerment

SH enables the individual to take control of their illness and claim responsibility for their own recovery. It creates a therapeutic relationship based on collaboration consistent with current policy focusing on increasing the involvement of service users in all aspects of service delivery (125). SH fits well with the core concepts of recovery models for mental health. These implicate the importance of empowerment, self determination, self-control, confidence and the development of personal coping strategies in effective recovery (126). It represents a move away from a paternalistic role of the therapist, introducing an approach where service user and professional collaborate to solve problems, drawing on the patient's own expertise and experience.

Although the approach allows the individual to attribute improvement to their own personal efforts, it is worth noting that the opposite is also true. There is a tendency for lack of progress to be blamed on personal failings, as opposed to the

ineffectiveness of SH materials (101). This contrasts with therapist administered treatments, where a tendency exists for failings to be blamed, at least in part, on the clinician.

2.4.2 Flexibility

GSH interventions allow the individual to work in their own time, at their own pace, enabling treatment to fit in around other commitments (127). This may be especially advantageous to individuals with milder disorders, who remain in work, and lead otherwise busy lives. It negates or reduces the need to arrange childcare to attend therapy sessions, reducing inconvenience and personal costs associated with receiving psychological treatment. This flexibility may also be appealing to individuals who experience difficulties concentrating or focusing on tasks.

SH enables access to treatment from home, which has several potential benefits (128). Firstly, it allows individuals living in geographically remote areas to access treatment they might not otherwise have been able to receive. In other cases travel costs to the treatment site will be reduced. Home treatment is also useful to those who suffer mobility problems. or difficulties leaving the house for psychological reasons (129). Furthermore, individuals often feel more comfortable and able to address their innermost feelings at home, on their own, than in the presence of a therapist. This however, may also be cited as a disadvantage, since home-treatment supports an avoidance of leaving the house.

2.4.3 Sustained improvement

Improvement due to GSH may be sustained and continued to a greater extent than therapist administered treatment. Bailer (130) found that individuals with Bulimia Nervosa continued to improve to a greater extent than group CBT controls when assessed one year post treatment. Through the course of a SH programme the individual develops a set of self-taught, tried and tested techniques. Furthermore, improvement is attributed to personal efforts. This enhances perceptions of self control (131). In addition, the individual can refer back to the SH material at no extra cost when faced with challenges or signs of relapse.

2.4.4 Ease of access

SH enables access to psychological treatment without visiting a health care professional. Since stigma and a lack of understanding continue to create a culture of secrecy and denial surrounding mental health, this is a distinct advantage of the SH approach (132). SH materials for many disorders can be accessed directly via the internet avoiding the stigma incurred in seeing a therapist (133). Where individuals access SH from a healthcare provider, their contact with the treatment site is likely to be much less frequent. As a result, the approach enables anonymous or discreet access to therapy for those who might not otherwise seek help (113).

2.4.5 Acceptability

There is much public enthusiasm for psychological treatments (134), with these often favoured by individuals seeking treatment for mental health problems. SH offers a

way to fulfill demand for these therapies through an approach which has been found to be acceptable to service users (135)

2.5 Potential disadvantages

The implementation of SH interventions in mental health care is in its early stages. This novel method of delivering therapy in place of established treatments is understandably controversial. Many of the concerns have been raised, and ongoing work seeks to better understand the role that SH potentially has to play in mental health care. Nonetheless, it is worth acknowledging criticisms made of the approach, which are summarised in table 2.1 above.

2.5.1 Over-simplification

Critics of the approach have suggested that SH programmes over-simplify problems and offer easy short term solutions to difficult and complex issues. Others have commented that SH materials create unrealistic expectations and the potential for individuals to feel as though they have failed when desired results are not attained. Some also express concern over the potential of SH materials to cause harm through improper use or misunderstanding. This concern has not been adequately studied. Others suggest the danger of SH interventions being relied upon at times of crisis, in place of the individual seeking more appropriate support (136). These issues might be avoided through careful and thoughtful planning of SH materials coupled with responsible and comprehensive instructions or guidance for use.

2.5.2 Difficulties using materials

Working through a SH programme may be challenging to those lacking motivation or the ability to concentrate. An inability to engage with the material may lead to perceived failure with impact on self-esteem. The addition of guidance from a trained professional may alleviate this shortcoming to some extent. Materials written to motivate and reassure may also serve the same purpose where guidance is absent or limited.

2.5.3 Lack of evidence supporting acceptability to diverse groups

When it comes to acceptability, we know little about the views of minority and culturally diverse groups (137). There is particular concern for those whose first language is not the native language of the country. It is important that issues of acceptability are properly examined with the inclusion of culturally diverse groups. Ideally, culturally specific materials should be developed and evaluated in a range of languages. It might be the case that cultural differences exist in terms of optimal design, wording, and presentation of SH materials.

Reliance on the written word can also serve to exclude individuals who find difficulty reading. Readability statistics are rarely reported for SH materials (113). Presenting materials exclusively on the internet may also raise questions of accessibility and potential exclusion, especially of older generations.

2.5.4 Insufficient evaluation

Historically, there has been concern over the proliferation of untested SH books and materials (138). In 1991 an American survey reviewed SH materials used by clinical psychologists revealing that less than 10% had been evaluated by a clinical study (139). Though this issue remains noteworthy, the past decade has seen a vast increase in attempts to systematically evaluate SH materials.

To exacerbate the problem, SH resources are widely available and often accessible to the public without expert recommendation (111). To some extent book prescription schemes can ameliorate the problem of individuals turning to inappropriate resources, but even these lack empirical evidence, with books selected on the basis of expert recommendation. According to NICE guidelines on evidence based practice, expert recommendation is considered a low ranking level of evidence (see text box 2.2) (140). Good quality RCT evidence is required to support the recommendation of SH treatment.

Levels of evidence

Ia: Evidence from meta-analysis of randomised controlled trials
Ib: Evidence from at least one randomised controlled trial
IIa: Evidence from at least one controlled study without randomisation
III: Evidence from non-experimental descriptive studies, such as comparative studies, correlation studies and case control studies
IV: Evidence from expert committees' reports or opinions and/or clinical experience of respected authorities

Strength of recommendation

A: Directly based on category I evidence
B: Directly based on category II evidence or extrapolated recommendation from category I evidence
C: Directly based on category III evidence or extrapolated recommendation from category I or II evidence
D: Directly based on category IV evidence or extrapolated recommendation from category I, II or III evidence

Text box 2.3: Levels of evidence and strength of recommendation, according to the NICE guidelines

2.6 Efficacy

2.6.1 Depression

Several systematic reviews have attempted to synthesise the results of RCTs of SH interventions for symptoms of depression. Kaltenthaler et al (141) found some evidence to support the effectiveness of computerised CBT for the treatment of mild to moderate depression, though studies were associated with considerable drop-out rates. This review however identified only four studies of three computer software packages concluding that more research was needed to determine whether computerised CBT was a viable treatment option for depression.

A later systematic review of the literature found that interventions including bibliotherapy, CBT-based websites, and CBT-based computer programs were effective in treating patients with minimal guidance in a primary care setting (142). However, only nine studies met criteria for the review, and only six used validated scales to diagnose depression before recruitment into the study.

A systematic review of internet interventions in primary care (143) reported effect sizes for treatment of depression and anxiety. For Cohen's *d* an effect size of 0.2 to 0.3 is considered a "small" effect, around 0.5 a "medium" effect and 0.8 to infinity, a "large" effect (144). Those interventions targeting symptoms of depression had only a small mean effect size (0.32) and significant heterogeneity. Interventions for anxiety meanwhile had a large mean effect size (0.96) and very low heterogeneity. Interventions with therapist support had a large mean effect size (1.00), while interventions without therapist support had a small mean effect size (0.26).

2.6.2 Eating disorders

A Cochrane review published in 2006 (145) evaluated PSH and GSH interventions for eating disorders. These interventions were compared with therapist administered psychological therapy, pharmacological treatment and wait list (WL) conditions. Fifteen trials were identified, focused on SH programmes for Bulimia Nervosa (BN), Binge Eating Disorder (BED) or Eating Disorder Not Otherwise Specified. There was evidence that PSH and GSH reduced target symptoms in comparison with WL or control treatment and produced comparable outcomes to standard psychological therapies. The authors recommended that PSH/GSH had some utility as a first stage treatment in a stepped care approach to treating the disorders.

2.6.3 Anxiety disorders

To date four published meta-analyses have examined the efficacy of SH interventions for conditions including anxiety disorders. None however, focused on the treatment of individuals with a clinical diagnosis.

In 1993 Gould and Clum (116) conducted a meta-analysis of 40 studies of SH interventions tackling a diverse range of problems including phobia, fear, smoking, diet, headache and insomnia. SH materials were presented as written materials, audio or video tapes, but the review excluded computerised interventions. Average effect sizes of 0.76 at post-treatment and 0.53 at follow up were found regardless of the target problem.

Marrs (146) reviewed studies of bibliotherapy for a range of problems similar to those reviewed by Gould and Clum. An average effect size of 0.57 was found for the 70 studies analysed. Bibliotherapy appeared more effective for certain problems including anxiety and assertion training than others including weight loss and impulse control.

More recently, Hirari and Clum (147) examined the efficacy of SH interventions for individuals with clinical and sub-clinical anxiety problems. Average effect sizes were 0.62 at post treatment and 0.51 at follow up. Interventions were based on written materials, audio and video tapes, computerised delivery and websites.

The majority of the studies considered by these meta-analyses were aimed at individuals with sub-clinical problems. Less attention has been paid to evaluation of

the effectiveness of SH programmes for individuals diagnosed with an anxiety disorder. den Boer et al (109) reviewed the literature on bibliotherapy and SH group approaches for individuals with clinically significant anxiety and/or depression. An effect size of 0.84 at post treatment and 0.76 at follow up were reported regardless of disorder (anxiety or depression) or treatment approach (bibliotherapy or participation in a SH group). Furthermore, SH interventions using media other than written materials were not considered.

This suggests the need for a systematic review aimed at determining whether the reported efficacy of self-help interventions for anxiety problems holds true for the treatment of individuals with a clinical diagnosis of an anxiety disorder. The next section presents the methodology and results of a review conducted to examine the efficacy, cost-effectiveness, and acceptability of SH interventions, which has not been addressed by previous meta-analyses in this area.

2.7 Systematic review of SH interventions for anxiety disorders

2.7.1 Method

The review followed methods recommended by the Cochrane Collaboration (148). The methodology will be described in terms of the search procedure, the inclusion and exclusion criteria, outcome measures, and assessment of the methodological quality of studies.

2.7.1.1 Search procedure

Bibliographic databases were searched using a set of search terms related to the anxiety disorders, combined with terms related to SH. The search terms are presented in table 2.2.

Anxiety disorder related search terms
anxiety, generalised anxiety disorder, panic disorder, panic, phobic disorder, specific phobia, phobia, social phobia, agoraphobia, obsessive compulsive disorder, obsessive behaviour, post traumatic stress disorder, acute stress disorder, traumatic stress
SH related search terms
self help, self change, self directed, self care, self management, self administration, guided self help, guided self change, minimal contact, minimal therapist contact, reduced contact, self exposure, internet, bibliotherapy, computerised

Table 2.2 Search terms used in a systematic review of SH interventions for anxiety disorders

Databases were searched until the 30th August 2009 incorporating results from numerous online databases. The search was repeated in October 2010, limited to papers published since the 30th August 2009.

Databases searched
1. Allied and Complementary Medicine (AMED) 2. Applied Social Sciences Index and Abstracts (ASSIA) 3. Cumulative Index to Nursing and Allied Health Literature (CINAHL) 4. Evidence Based Medicine Reviews (EBMR) 5. EMBASE 6. International Bibliography of the Social Sciences (IBSS) 7. Ovid MEDLINE 8. PsycInfo

Table 2.3 Databases searched in a systematic review of SH interventions for anxiety disorders

The reference lists of all selected studies were scrutinised for additional RCTs.

2.7.1.2 Inclusion / exclusion criteria

RCTs of SH interventions aimed at adults formally diagnosed with an anxiety disorder were included. Since there is currently no consensus as to a definition of SH differentiating it from other forms of minimal contact psychological therapy, SH interventions were regarded as those that predominantly relied on the individual bringing about self change through the use of health technologies (including written materials, books, CDRoms, DVDs, computerised software packages and websites). Interventions of interest comprised PSH (with no therapist input) and GSH interventions (involving minimal contact with a therapist or trained professional through face to face appointments, phone or email). Studies were only included where a standardised measure of symptomology related to the target disorder, or anxiety, was used to measure outcome.

RCTs of SH groups, SH materials accompanying regular face to face psychological therapy of standard duration, virtual reality exposure unaccompanied by any other SH material or one-off presentations of videos or audio tapes aimed at exposure or relaxation unaccompanied by additional SH were not included. These interventions do not meet the definitions of SH presented earlier in the chapter.

2.7.1.2 Outcome measures

The primary outcome measure for the review was change in disorder specific anxiety symptoms. The secondary outcome was the rate of dropout. Data was entered into the Cochrane Collaboration's Review Manager 5 software for systematic reviews. Continuous data (change in anxiety symptoms) were analysed using standardised mean differences where outcome measures used different scales and weighted

mean differences where the same scale was used. Relative risk was calculated for categorical outcome measures. 95% confidence intervals were calculated for all outcomes.

The I_2 statistic was used to assess the degree of true statistical heterogeneity (i.e. heterogeneity which was not due to chance). Presence or absence of true heterogeneity (i.e. between studies variability) dictated the appropriate statistical model for the analysis. When results only differed by the sampling error a fixed-effects model was applied. Where studies were truly heterogeneous a random-effects model was used to account for both within and between studies variability. The I_2 index is the percentage of the total variability in a set of effect sizes due to true heterogeneity. Here, an I_2 of less than 30% was taken to indicate mild heterogeneity and a fixed-effects model was used. I_2 values of 30% or over dictated use of a random-effects model.

Studies were grouped by target disorder. For inclusion within a specific group more than 70% of included participants were required to meet DSM-IV or equivalent criteria for the disorder. Since levels of guidance varied enormously between interventions, no distinction was drawn between PSH interventions which offered only initial instruction and those that were guided. In some cases PSH interventions demanded only marginally less clinician time than the least intensive GSH interventions, with these having provided far less guidance than the most intensive. It was felt that a distinction between PSH and GSH would therefore be arbitrary within this selection of studies.

SH was compared with wait-list (WL) or therapist administered CBT (CBT). Where two or more SH conditions were compared to the control, the one with the least guidance was included in the meta-analysis since it better represented SH and provided the most conservative measure of efficacy.

2.7.1.3 Assessment of methodological quality

All studies meeting the criteria for inclusion were quality assessed using the following criteria set out by the Cochrane collaboration:.

1. Sequence allocation for randomisation
2. Allocation concealment
3. Blinding of personnel and assessors
4. Incomplete outcome data
5. Selective outcome reporting and any other notable threats to validity

These criteria form the basis of a widely used tool, developed between 2005 and 2007 by a working group of methodologists, editors, and review authors (148). It provides an assessment of the validity of studies included in a review in terms of the risk that they will overestimate or underestimate the true intervention effect.

Two researchers independently assessed each study. Any conflicts were discussed with a third researcher with the aim of reaching a consensus.

2.7.2 Results

The search yielded 10311 references. Removal of duplicates gave a total of 8139 for consideration. Abstracts were reviewed and full text copies obtained for 199 potentially relevant studies. Figure 2.1 illustrates the search procedure.

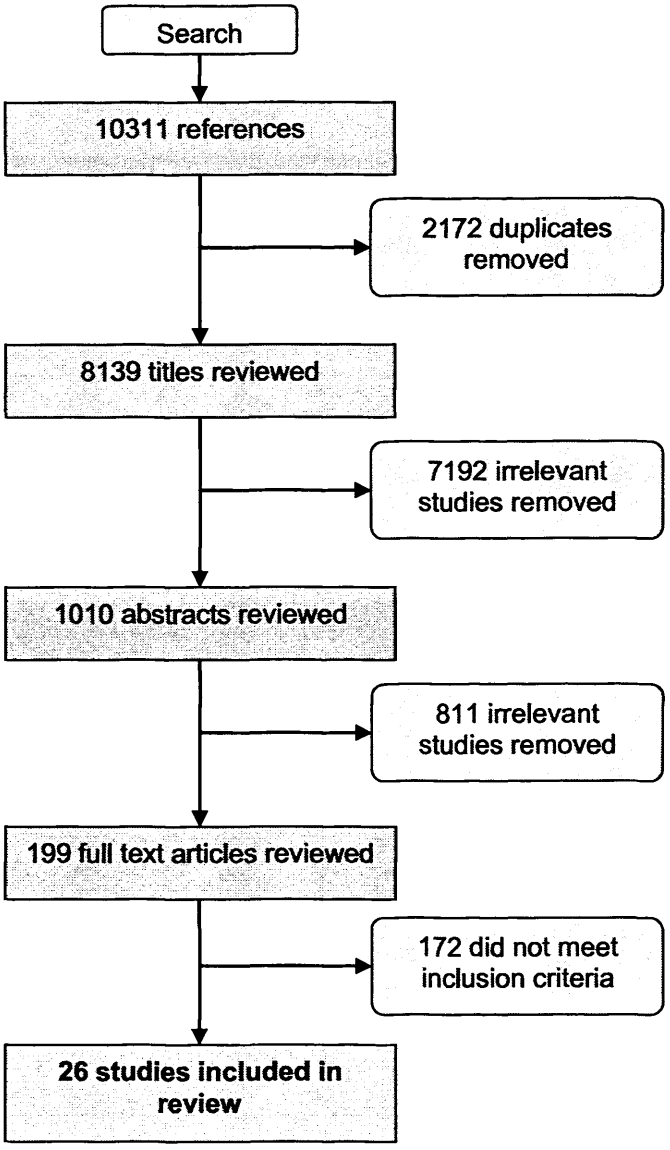


Figure 2.1: Systematic review search procedure

The search was repeated in October 2010, limited to studies published since August 2009. Removal of duplicates resulted in 313 papers for consideration. Six studies met criteria for inclusion. This gave a total of thirty-two studies (table 2.4). Three studies evaluated interventions for Generalised Anxiety Disorder (GAD), two for Obsessive Compulsive Disorder (OCD), fifteen for Panic Disorder, one for PTSD, eight for Social Phobia, and three varied anxiety disorders. One paper reported long term follow-up data for a study included in the review.

AUTHOR	YEAR	N	SH MATERIALS	AVERAGE AMOUNT OF GUIDANCE (hours)	GUIDANCE METHOD	DURATION (weeks)	CONTROL GROUP(S)	CLINICIAN HRS – CONTOL
Generalised Anxiety Disorder								
Bowman	1997	38	Written materials	0.33	Phone	4	WL	0
Robinson	2009	150	Website	1.25	Phone and email and online discussion forum	10	WL	0
Titov	2009	48	Website	2.16	Email and online discussion forum	10	WL	0
Obsessive Compulsive Disorder								
Greist	2002	210	Voice response phoneline	None	None	11	Face to face CBT or Relaxation	11
Tolin	2007	41	Written materials	Initial instructions only	Face to face	6	Face to face CBT or SH + group therapy	20 or 10
Panic Disorder								
Bergstrom	2010	113	Website	Email	0.59	10	Group CBT	20
Botella	1999	23	Written materials	4.16	Face to Face	10	CBT	8.33
Carlbring	2001	41	Website	1.5	Email	12	WL	0
Carlbring	2005	49	Website	2.5	Email	10	Face to face CBT	10
Carlbring	2006	60	Website	3.9	Phone	10	WL	0
Ghosh	1987	40	Written materials or Website	PSH - no guidance GSH - 1.2	Face to Face	10	Face to face CBT	3.1
Gould	1993	33	Written materials	3	Phone	4	WL or CBT	10.5
Gould	1995	30	Written materials, video and audiotape	3	Phone	4	WL 15	0
Kiropoulos	2008	86	Website	Not known	Email	12	Face to face CBT	12
Klein	2001	23	Website	None	NA	3	Self monitoring	0
Klein	2006	37	Website or written materials	Written 4.1 Website 5.5	Phone (written) Email (website)	6	Info only 18	1.07
Lidren	1994	36	Written materials	None	NA	8	WL or GT	12
Marchand	2007	77	Written materials	7	Face to Face	15	Face to face CBT	14
Nordin	2010	39	Written materials	None	NA	10	WL	0
Power	2000	102	Written materials	PSH – none GSH – 2	Face to Face	12	Face to face CBT	6
Post Traumatic Stress Disorder								
Ehlers	2003	85	Written materials	0.66	Face to face	12	Face to face CBT or repeated	11.9

							assessments	
Social Phobia								
Abramowitz	2009	21	Written materials	3.25	Face to face and phone	9	WL	0
Andersson	2006	64	Website	2	Email	9	WL	0
Berger	2009	52	Website	Not known	NA	10	WL	0
Furmark	2009	253	Written materials or website	PSH - no guidance GSH - 2.25	Email	9	WL	0
Rapee	2007	224	Written materials	None	Written	12	WL or SH + group therapy	10
Titov	2008a	105	Website	2	Email	6	WL	0
Titov	2008b	88	Website	2	Email	6	WL	0
Titov	2008c	98	Website	None	NA	6	WL	0
Varied anxiety disorders								
Sorby	1991	49	Written materials	None	NA	6	Face to face CBT or treatment as usual	0
Van Boeijen	2005	154	Written materials	1.7	Face to Face	12	Face to face CBT or treatment as usual	9
Titov	2010	86	Website	0.8	Email or phone	8	WL	0

CBT – Cognitive Behavioural Therapy; GT – Group Therapy; hrs – hours; RA – Repeated Assessments; Self Mon. – Self Monitoring; TAU – Treatment as Usual

Table 2.4: Included studies

2.7.2.1 Generalised Anxiety Disorder (GAD)

Three studies of SH interventions for GAD were identified. The first examined the efficacy of GSH intervention compared with a delayed treatment control group. The RCT, carried out by Bowman and colleagues (149) examined the efficacy of a bibliotherapy based approach entitled *Self Examination Therapy* (SET) guided by weekly 5 minute telephone conversations. Thirty-eight adults diagnosed with GAD took part in the study. The treatment group were given a 45 page booklet which focused on helping the individual invest more time in meaningful activity, to think less

negatively about insignificant matters, and to accept the things they could not change. Clinician and self reported ratings of anxiety indicated a statistically significant reduction in comparison with the delayed treatment group maintained at 3 month follow up. Participants in the delayed treatment group also showed a significant reduction in symptoms after they'd been through the SET programme.

Titov and colleagues (150) conducted an RCT of an online 6-lesson intervention for GAD called *Worry* with email guidance from a clinical psychologist, and access to a moderated online discussion forum.

A later RCT of the same programme conducted by Robinson (151) and colleagues compared the intervention guided by a clinician, or a technician, to a wait list control group. Both clinician and technician guided treatment resulted in clinically significant improvements compared with the control group.

A meta-analysis of the studies showed statistically significant differences in terms of anxiety in favour of the SH condition (figure 2.2).

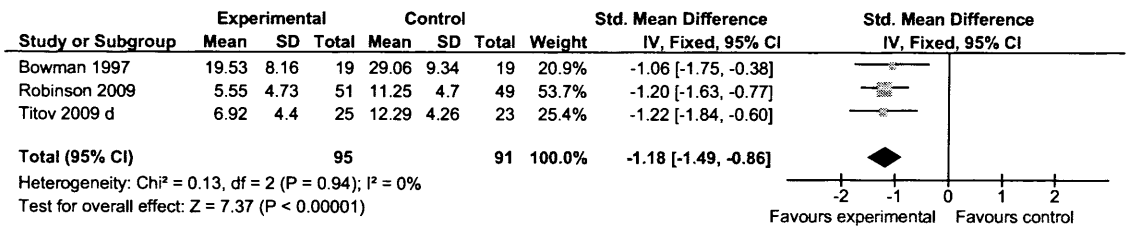


Figure 2.2: Forest plot comparing SH treatment with WL control for individuals diagnosed with GAD

There were no statistically significant differences observed between groups in terms of drop-out rates (figure 2.3). There was however a trend towards greater drop-outs from the SH condition.

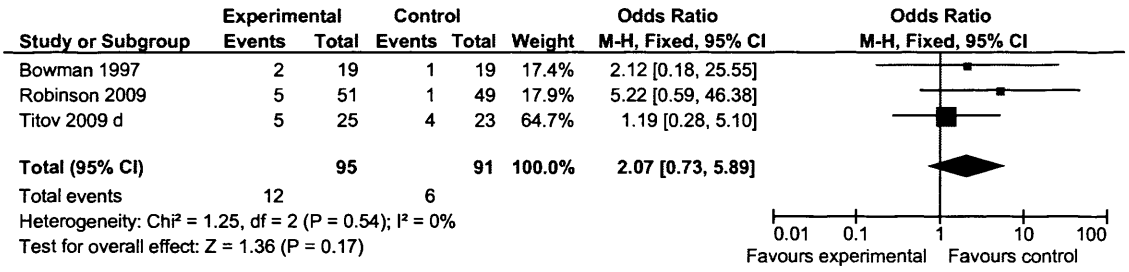


Figure 2.3: Forest plot comparing dropouts in the SH treatment with dropouts from the WL control condition

2.7.2.2 OCD

CBT incorporating Exposure and Response Prevention (ERP) is considered the "gold standard" therapy for treating OCD. Two RCTs of SH interventions for OCD were identified, both compared SH versions of the ERP treatment protocol to the same treatment delivered face-to-face.

Tolin et al (152) randomised 41 individuals meeting DSM-IV criteria for OCD to receive therapist administered CBT including ERP or the book *Stop Obsessing* (153) based on the same principles. Individuals were given a very brief overview of the treatment and no guidance sessions were arranged. Patients in both treatment conditions showed statistically and clinically significant symptom reduction although therapist administered therapy gave superior results in terms of reducing OCD symptoms.

Greist et al (154) conducted a larger scale study also comparing SH with ERP. Two-hundred and eighteen individuals were randomised to receive a 10 week programme of behaviour therapy delivered over the phone, the same treatment from a clinician or a course of systematic relaxation guided by an audiotape and manual. The SH programme (*BT Steps*) was accessed by participants from home via the telephone with use of voice response technology. The programme was self paced and included psychoeducation and instructions for daily self-exposure to triggers of rituals and obsessions. Those receiving clinician delivered behaviour therapy attended 11 weekly 1-hour sessions, whilst participants receiving relaxation therapy were asked to perform progressive muscular relaxation exercises for at least an hour daily. Both computer and clinician guided behavioural therapy were significantly more effective than relaxation therapy whilst clinician delivered therapy was more effective than computer delivered.

Taken together these studies show promise for SH in the treatment of OCD. Meta analysis revealed no statistically significant differences between SH and therapist administered ERP (figure 2.4). There was however a trend favouring the efficacy of therapist administered treatment.

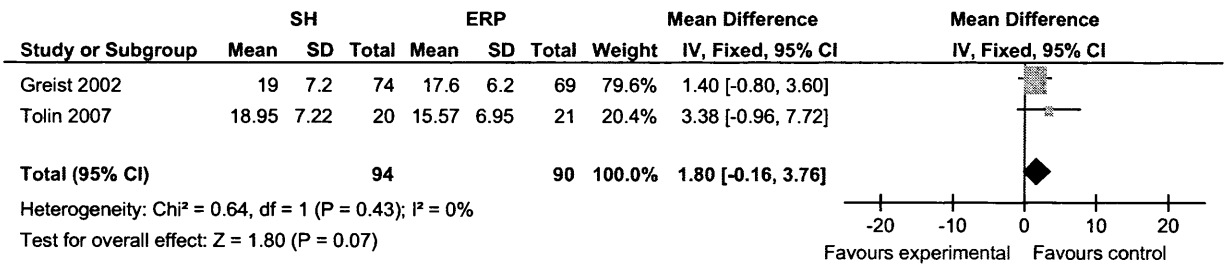


Figure 2.4: Forest plot comparing SH treatment with therapist administered ERP for individuals diagnosed with OCD.

There were no statistically significant differences between groups in terms of drop out rates (figure 2.5).

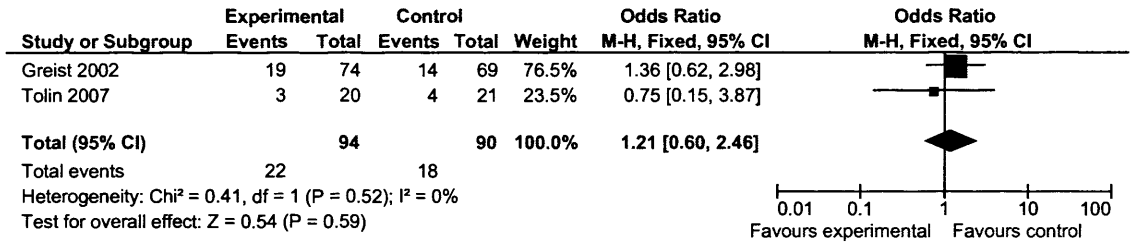


Figure 2.5: Forest plot comparing dropouts from SH treatment with dropouts from therapist administered ERP for individuals diagnosed with OCD.

2.7.2.3 Panic disorder with/without agoraphobia

SH for panic disorder and/or agoraphobia has received significant attention in the literature. Thirteen RCTs were identified. Most of the SH interventions included some form of guidance ranging from 1.5 hours to 10 hours. PSH interventions were also included which comprised only brief introductory instruction with no follow-up guidance. SH interventions were compared with therapist administered CBT or WL/ information only control.

SH compared with CBT

In an early study by Ghosh and Marks (1987) (155) 46 agoraphobic individuals were randomly allocated to receive a SH book, a computer programme or face to face sessions with a psychiatrist requiring 0, 1.2 and 3.1 hours of clinician time respectively. Twenty-one participants also suffered from panic. All participants were presented with psychoeducation and a rationale for in vivo exposure. They were asked to practise self exposure as homework, and to plan and monitor their progress

using a daily diary. Despite differences in delivery methods and level of clinician input, all three groups made substantial improvement up to six months follow-up with no statistically significant differences between groups. The SH book group was included in the meta-analysis since this required least therapist guidance.

Botella (156) and colleagues compared use of a SH manual and audiotape adapted from a standard CBT protocol guided by four hours of therapist contact to therapist administered CBT demanding eight hours. Both forms of CBT included psychoeducation, cognitive restructuring, breathing retraining and relapse prevention. Post-treatment, there were no statistically significant differences between the GSH and face to face CBT groups on any of the outcomes measured.

Carlbring et al (2005) (157) adapted a face to face CBT protocol into a website including psychoeducation, cognitive restructuring, breathing retraining, interoceptive and in vivo exposure and relapse prevention. Participants completed structured writing tasks. This included summarising the most important parts of the preceding module in their own words and describing their experience of completing tasks. Guidance was by email with the average amount of therapist time reported as 2.5 hours compared with 10 one hour long sessions of therapist administered CBT. Both treatments were reported to be equally effective although the number of participants failing to finish modules in the SH intervention was high.

Gould et al (1993) (116) also compared SH to therapist administered CBT. Thirty-three individuals with a diagnosis of PD were randomly assigned to receive PSH based on the book "Coping with Panic", face to face Guided Imaginal Coping (a

treatment drawing on CBT principles) or to be placed on a WL. Individuals in the PSH arm of the study were contacted only to assess their use of the SH materials and not to answer any questions or provide any guidance. Results indicated no statistically significant differences between GSH and face to face guided imaginal coping. Both treatment conditions performed significantly better than the WL condition

Marchand et al 2007 (158) evaluated a brief CBT based treatment supported by SH materials. Participants were randomly assigned to one of two GSH conditions, with or without partner involvement with seven hours of guidance or to receive 14 hours of standard CBT. Both SH conditions were as effective as standard CBT with statistically and clinically significant improvement on all outcome measures in each group. These improvements were maintained at six month follow-up. The SH condition without partner input was included in the meta-analysis since this was the delivery method most similar to the other interventions included in the meta-analysis.

Meta-analysis showed statistically significant differences between groups in favour of the SH condition (figure 2.6). All but one study included two or more hours of therapist guidance.

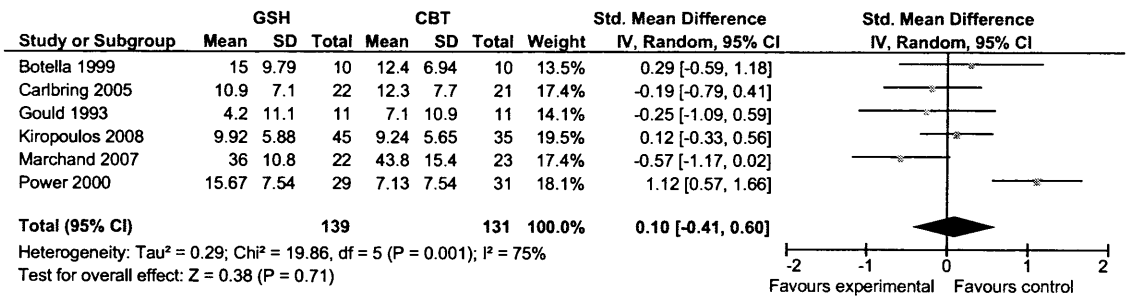


Figure 2.6: Forest plot comparing SH treatment with therapist administered treatment for individuals diagnosed with panic disorder with/without agoraphobia

There were no statistically significant differences observed between groups when it came to drop out rates (figure 2.7).

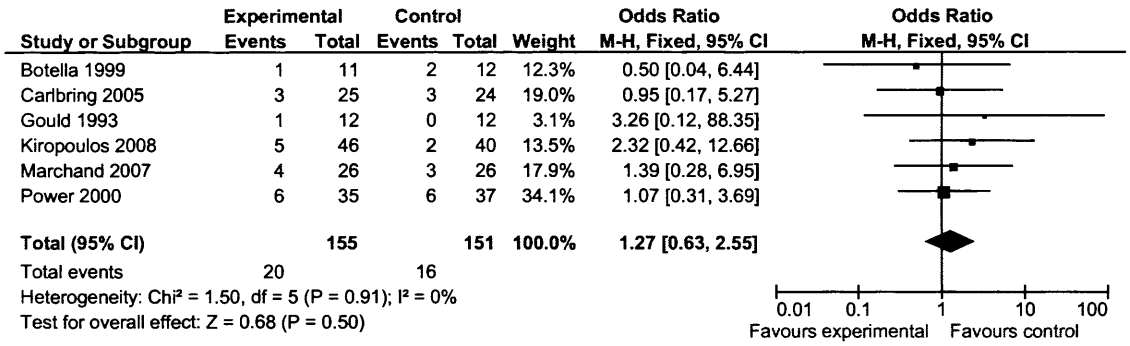


Figure 2.7: Forest plot comparing dropouts from the SH treatment with therapist administered treatment for individuals diagnosed with panic disorder with/without agoraphobia

SH compared with group therapy

One study compared internet with group administered CBT. Bergstrom and colleagues (159) randomised 113 individuals diagnosed with panic disorder to a 10 module online CBT programme, or to participate in weekly two-hour group therapy sessions based on the same principles. Participants in both groups showed statistically significant improvement in terms of panic disorder symptoms. The group therapy condition utilised considerably more therapist time than GSH. This was the only included study to conduct concurrent economic evaluation. GSH was shown to be more cost effective than group therapy post treatment and at 6 month follow-up.

SH versus WL/information only control

The study by Gould and Clum (160) discussed above also compared the SH group to a WL control group. Results indicated that participants in the SH group had made greater improvement than the WL group and that this difference was statistically significant.

Later, Gould and Clum (161) presented participants with a videotape and instructions providing psychoeducation and information on diaphragmatic breathing and an audiotape containing a progressive muscle relaxation exercise. Outcome measures supported the effectiveness of SH compared with WL.

Klein et al (162) randomised individuals to receive internet based GSH with email contact, manual based GSH with telephone contact or an information only control group also with telephone contact. Both CBT based GSH treatments were more effective than information only control with the internet based treatment being the most effective of the three treatment approaches.

Klein et al (102) had previously compared an internet based PSH programme with a self monitoring control group finding that the treatment group was associated with significant reductions in most variables. There was not however sufficient data presented to include this study in any meta-analyses.

Lidren et al (1994) (163) found that SH and group therapy were more effective than the WL condition at reducing both the frequency and severity of panic attacks and associated cognitions. Here the SH condition consisted of a book entitled *Coping with Panic*, completing a weekly practice record and telephone prompts from

researchers. The most recent study comparing SH for panic disorder with a WL control group, was conducted by Nordin and colleagues (164). This study took a PSH approach, providing 20 participants with a Swedish SH book by post, and giving a clear deadline for completion. In comparison with the WL group, participants improved on all outcome measures post-treatment and at three-month follow-up.

Taken together, these studies suggest that both PSH and GSH are comparable to face-to-face CBT in the treatment of PD. A meta-analysis of the studies showed statistically significant differences in favour of the SH condition (figure 2.8). There were no statistically significant differences observed between groups when it came to drop out rates.

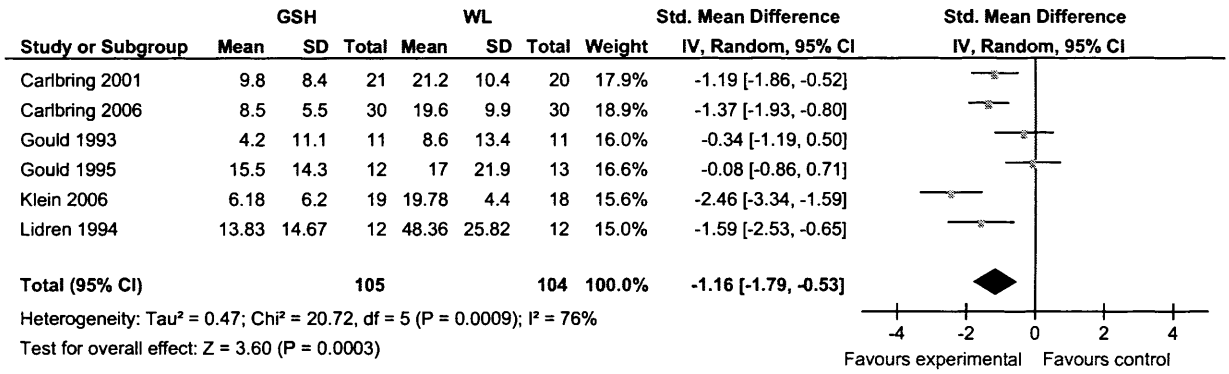


Figure 2.8: Forest plot comparing SH treatment with WL for individuals diagnosed with panic disorder and/or agoraphobia

The three studies that included two or more hours of therapist guidance were included in a sensitivity analysis (figure 2.9). This resulted in a slight decrease in the magnitude of the intervention effect. This is the opposite effect to that observed for SH interventions for social phobia.

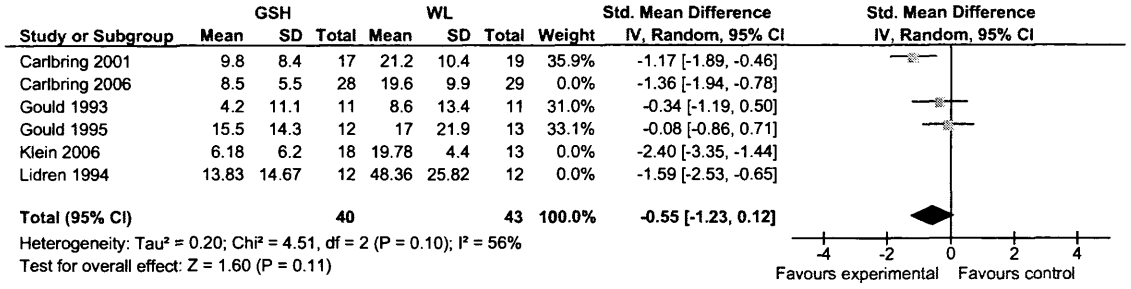


Figure 2.9 - Forest plot comparing SH treatment with two or more hours of therapist guidance with WL for individuals diagnosed with panic disorder and/or agoraphobia

There were no statistically significant differences observed between groups in terms of drop out rates (figure 2.10).

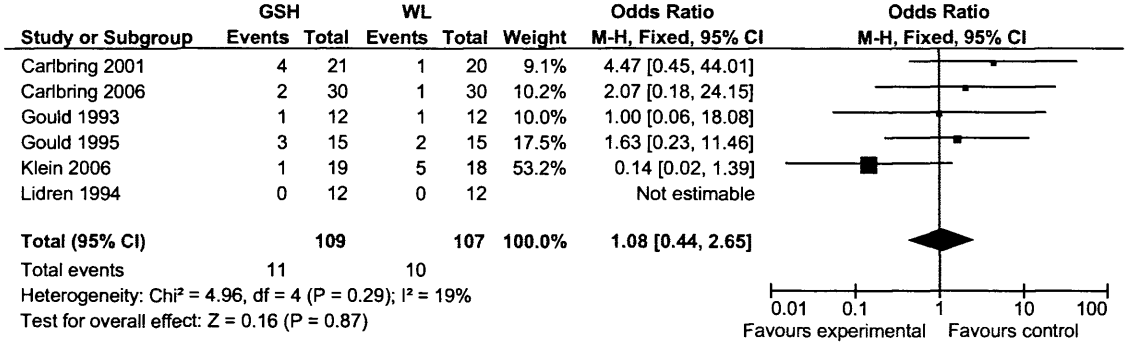


Figure 2.10 - Forest plot comparing dropouts from the SH treatment with WL for individuals diagnosed with panic disorder with/without agoraphobia

2.7.2.4 Post Traumatic Stress Disorder

To date, there has been only one RCT of a SH intervention for a clinical population formally diagnosed with acute PTSD. Ehlers and colleagues (165) assigned 85 road traffic accident survivors with PTSD whose symptoms had not improved over a 3 week phase of self monitoring to receive cognitive therapy (CT), a SH booklet or repeated assessments. The 64 page booklet entitled *Understanding Your Reactions to Trauma* (166) consisted of two sections. The first provided psychoeducation including a description of common traumatic symptoms and the differing reactions of trauma survivors. The second section, based on cognitive behavioural principles,

discussed the steps necessary for the sufferer to rebuild his or her life, to find professional help and the associated effects on family and friends. An additional four-page leaflet was inserted that focused on common avoidance and safety-seeking behaviours after RTAs. The intervention took a PSH approach.

There was no indication that PSH was superior to repeated assessments. Indeed, on measures of high end state functioning and request for treatment, outcome was superior for the repeated assessments group. This fails to support the efficacy of PSH in the treatment of PTSD. There have been no RCTs of GSH programmes for PTSD.

2.7.2.5 Social Phobia

Eleven RCTs meeting inclusion criteria, evaluated the use of SH for Social Phobia. Andersson and colleagues (167) assigned 64 individuals with Social Phobia to a nine week internet delivered CBT treatment package or WL control group. The nine module internet programme was accompanied by two three-hour real life group exposure sessions and minimal email contact from a therapist. Treated patients achieved statistically significant improvement on measures of social anxiety, fear, avoidance, depression and general anxiety and overall quality of life was improved.

Berger et al (168) assigned 52 Swiss individuals to an internet based CBT programme with minimal therapist email contact or a WL control group. Statistically significant differences were found post-treatment on all primary outcome measures.

In a later study, Rapee and colleagues randomised 224 individuals with a primary diagnosis of social phobia to receive standard group therapy (the "gold standard" treatment for the disorder), PSH, SH augmented by 10 hours of group therapy, or to remain on the WL. Both the PSH and SH plus group therapy conditions made use of the book *Overcoming Shyness and Social Phobia: A Step by Step Guide* (169), which presented the same contents as group therapy. Those in the group therapy augmented SH condition participated in fortnightly group treatment sessions which required exactly half the therapist time demanded by the standard group therapy condition. A larger percentage of the SH condition had a diagnosis of social phobia at post-treatment than in the WL condition though this percentage had decreased by 3 month follow up. The addition of group therapy sessions gave better results. Group therapy augmented SH was more effective than WL on all outcome measures with no statistically significant differences compared to standard group therapy. The SH without group therapy condition was included in the meta-analysis since this represents SH more accurately than an intervention including 10 hours of group therapy.

More recently, Titov and colleagues (170) randomised 105 individuals with social phobia to receive a six lesson online CBT treatment package (the Shyness programme) with email guidance and access to an online discussion group or WL. The shyness programme resulted in statistically significant reduced symptoms on measures of social phobia. These results were replicated in a subsequent study of the programme by the same authors (171). A later RCT to evaluate whether the participants were able to use the shyness programme without guidance resulted in

superior results for the therapist assisted group, though a sub-group of participants benefited considerably from un-guided use of the programme (122).

Abramowitz et al (172) conducted an RCT of a SH book with minimal therapist guidance, compared with a wait-list control group. Statistically and clinically significant gains were made by the GSH group on terms of the primary measure of social anxiety.

A meta-analysis of the studies showed statistically significant differences in terms of the primary outcome measure of social phobia symptomology in favour of the SH condition (figure 2.11). There were no statistically significant differences observed between groups when it came to drop out rates. Though limited to only two studies, the meta analysis shows potential for SH in the treatment of social phobia.

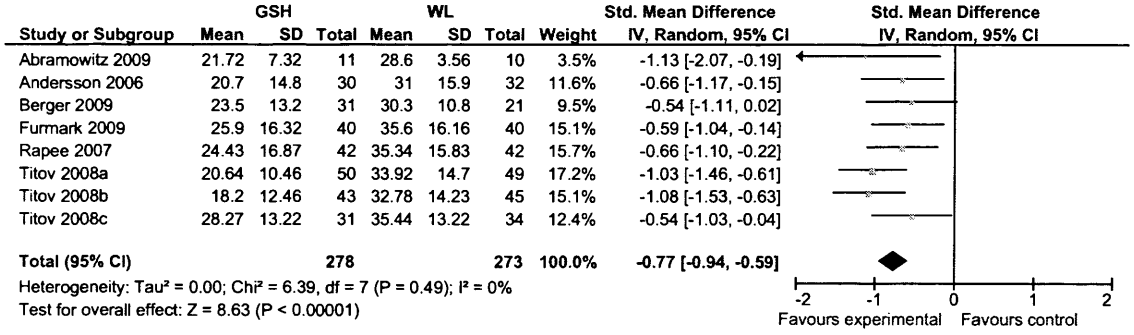


Figure 2.11: Forest plot comparing SH treatment with WL control for individuals diagnosed with social phobia

In order to determine the impact of guidance on outcome, the four studies that included two or more hours of therapist guidance were included in a sensitivity analysis (figure 2.12). This resulted in a increase in the magnitude of the intervention effect.

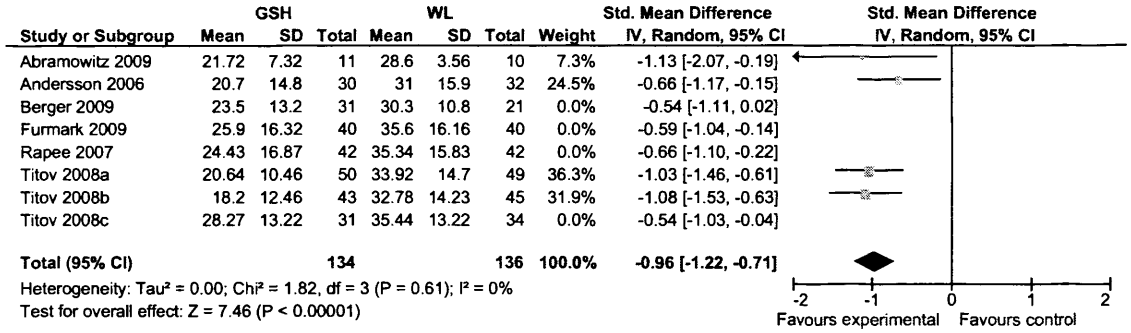


Figure 2.12: Forest plot comparing SH treatment with 2 or more hours of guidance with WL control for individuals diagnosed with social phobia

In terms of drop-out rates, there was a statistically significant difference in favour of the WL condition (figure 2.13).

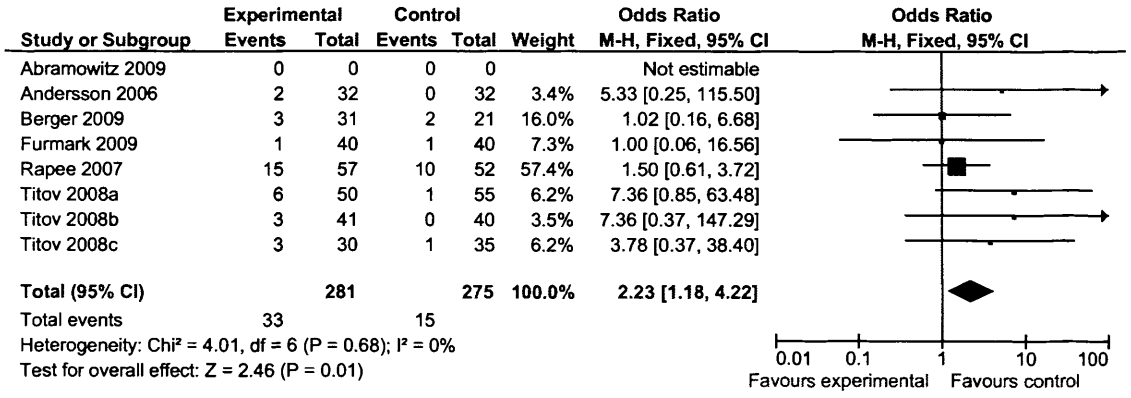


Figure 2.13: Forest plot comparing dropouts in the SH treatment with dropouts from the WL control condition

2.7.2.6 Varied anxiety disorders

Three RCTs were identified which included primary care patients diagnosed with an assortment of anxiety disorders. These predominantly comprised GAD and panic disorder.

Sorby et al (1991) randomised 49 primary care patients with a diagnosis of GAD or panic disorder to receive a SH booklet or a treatment as usual control group. Individuals also had diagnoses including social phobia and specific phobia. Treatment with a SH booklet gave rise to statistically and clinically significant

improvement. Indeed, within two weeks of receiving the booklet there was a statistically significant difference between the anxiety measures of the two groups.

The second study compared the efficacy of bibliotherapy based SH guided by five twenty minute sessions with their GP with CBT in secondary care or a simplified version of CBT delivered by a GP. One-hundred and fifty-four Dutch primary care patients diagnosed with GAD, PD or both were included in the study. The GSH intervention comprised psychoeducation, cognitive techniques, relaxation and in-vivo exposure. Participants were instructed to put skills learnt from the manual into practice for 3 hours each week. All three treatments gave statistically significant improvement in anxiety and associated symptoms, which was maintained at follow-up. There were no statistically significant differences between the three groups.

Titov and colleagues (173) conducted an RCT of 86 individuals meeting diagnostic criteria for GAD, panic disorder or social phobia. Participants were randomised to follow *The Anxiety Programme,* a six module online CBT package with email contact from a clinical psychologist, or to a wait-list control group. Compared with the control group, the control group reported significantly reduced symptoms of GSD, social phobia and panic disorder. There were no differences however in terms of a measure of "worry".

These studies show preliminary promise for SH in the treatment of anxiety problems in primary care. Indeed, the study by Van Boeijen et al found no statistically significant differences between the efficacy of GSH and CBT delivered in secondary care, the current gold standard in treating anxiety disorders.

Since these studies included individuals diagnosed with a variety of disorders, it is difficult to draw any meaningful conclusions regarding the effectiveness of SH for any of these disorders specifically.

2.7.2.7 Adverse events

None of the included studies reported adverse events as an outcome measure.

2.7.2.8 Methodological quality of studies

Eighteen of the 32 studies described the process of random allocation in sufficient detail to judge there to have been a low risk of creating bias (122, 128, 150-152, 157, 159, 162, 164, 165, 167, 170-177). Only 16 included adequate reporting of allocation concealment (122, 150, 151, 157, 159, 162, 164, 165, 167, 170-177). Seventeen studies provided sufficient information to deduce that outcome assessors had been adequately blinded (128, 149-152, 154, 155, 157-159, 163-165, 172, 173, 177, 178). Incomplete data was deemed to be appropriately addressed by 24 studies (122, 124, 128, 150-152, 157-159, 162-165, 167, 168, 170-178). All studies, however, appeared to be free of selective reporting. Many of the studies recruited individuals from newspaper advertisements, introducing a possible sampling bias (122, 128, 150, 151, 157, 158, 160, 163, 164, 167, 168, 170-174, 177, 178). No study reported on side-effects of SH treatment.

2.7.3 Discussion

2.7.3.1 Main findings

Use of SH interventions as part of a stepped care treatment model for anxiety disorders depends heavily on its cost-effectiveness. This review aimed to draw together the available evidence. The ongoing development and implementation of SH programmes as an effective treatment option for individuals diagnosed with an anxiety disorder was supported. This result is consistent with previous meta-analyses which addressed sub threshold anxiety problems (116, 118, 146, 147).

SH for panic disorder with or without agoraphobia has attracted more attention in the literature than SH for any other anxiety disorder. RCTs compared the efficacy of various SH treatment interventions with therapist administered treatments, WL or information only control groups. Meta analyses revealed statistically significant differences between SH and WL conditions in favour of the SH group. Furthermore, no statistically significant differences were observed between the SH treatments and therapist administered CBT. There were no statistically significant differences in terms of drop-out rates. This provides support for the inclusion of SH in a stepped care treatment model for the disorder. A sensitivity analysis including the studies with two or more hours of therapist guidance resulted in a slight decrease in the magnitude of the intervention effect, contradicting the findings of many studies of SH for other disorders, which have found GSH to be superior to PSH. The only RCT comparing PSH and GSH for panic disorder, found no statistically significant differences between the groups, with no statistically significant differences between either group and a group receiving therapist administered CBT. This does not support the addition of guidance to the provision of SH for panic disorder.

Though there were fewer available RCTs of SH interventions for social phobia meta-analysis indicated results consistent with panic disorder. There was a statistically significant difference between SH and WL conditions in favour of SH. A sensitivity analysis including the studies of social phobia with two or more hours of therapist guidance, resulted in a slight increase in the magnitude of the intervention effect. For OCD, there was no statistically significant difference between SH and therapist administered ERP, though there was a trend towards the superiority of the latter. There was a statistically significant difference favouring SH compared with WL for GAD. There were no statistically significant differences between groups in terms of drop-out rates. There was only one RCT of SH for PTSD.

None of the studies included economic evaluation or measures of acceptability. No conclusions can be drawn regarding the cost-effectiveness of these interventions, or their acceptability to those using and delivering the interventions. Well designed RCTs incorporating concurrent economic evaluation are required to address this shortcoming.

2.7.3.2 Findings for PTSD

The only RCT to evaluate a SH intervention for individuals formally diagnosed with PTSD failed to support the use of PSH for treatment of the disorder. This said, the SH programme was not optimal in terms of the materials used or the way in which it was delivered, since the aim of the study was to evaluate the efficacy of cognitive therapy, as opposed to trialling an optimal SH intervention for PTSD.

Although the booklet was said to be based on cognitive behavioural principles, it focused on providing psychoeducation and advice rather than aiming to engage the individual in the completion of relevant tasks or teaching specific techniques. The materials were presented only in a written format, which may have further compromised its efficacy given that studies have found benefit in offering SH materials in a range of media formats (116). In addition, use of the SH materials was in no way guided. Once given the materials, participants received no further contact with a professional. Since GSH interventions tend to be more effective than PSH (179), results may have been improved with the addition of some form of guidance.

There have been no randomised controlled trials of GSH for a clinical population of PTSD sufferers.

2.7.3.3 Heterogeneity

There are several forms of heterogeneity that can affect the results of a systematic review. Clinical heterogeneity results from participants with different characteristics, differences between the interventions being compared, or the measurement of different outcomes. Methodological heterogeneity arises through the use of different study designs. Statistical heterogeneity is a consequence of these two (180).

There was a great deal of clinical heterogeneity in terms of the SH programmes being evaluated. Creating separate categories for each disorder partially addressed this issue, but not there remained considerable diversity within each anxiety disorder. Interventions varied in terms of content, delivery and guidance. Though all were

based on cognitive behavioural techniques, the exact nature of what was taught varied from programme to programme. Delivery methods also ranged enormously from simple booklets to hi-tech multimedia websites. The extent to which use of the SH material was guided by a trained professional also varied, with some programmes being completely self explanatory and others providing substantial therapist input.

2.7.3.4 Limitations

The review followed guidelines set out by the Cochrane Collaboration to systematically identify and evaluate SH interventions for anxiety disorders. It is not however free of methodological limitations.

Since only published studies were included in the review, it is important to acknowledge the issue of publication bias. It is possible that a review of published papers could identify a spurious beneficial effect of treatment or miss an important adverse effect since studies reporting positive findings are more likely to be accepted for publication by medical journals (181). In addition, this review relied only on English language studies, which limits the generalisability of the findings.

Sample sizes were small. It can therefore be argued that the lack of statistically significant differences between SH and therapist administered treatments represented a lack of statistical power rather than true equivalence of the approaches. Larger scale studies evaluating the efficacy of SH interventions would be desirable. Moreover, all but one of the anxiety disorder categories, were represented by only one or two studies.

The quality of component studies is of crucial importance when interpreting the results of any meta-analysis. There are several criticisms that can be made of the RCTs included in this review. Randomisation is the most fundamental aspect of conducting an RCT. Only half of the studies described the process of random allocation in sufficient detail to judge there to have been a low risk of bias. Random assignment is important in terms of creating groups that are roughly equivalent; this enables any effect observed between groups to be linked to treatment effect, rather than to a characteristic of the individuals in the group.

Even fewer studies included adequate reporting of allocation concealment. Without adequate concealment, even the most unpredictable method of allocation can be undermined, which may lead to the exclusion of participants based on prognosis, or assignment to the group believed to be most appropriate or beneficial to the individual's presentation. In addition, only eleven studies provided sufficient information to deduce that outcome assessors had been adequately blinded.

Participants were often recruited by advertisements in newspapers or magazines. This limits the generalisability of the results. It is also worth noting that many of the included studies demonstrated a lack of independent evaluation. Several of the programmes were evaluated by the developers themselves. Independent evaluation would be the most desirable means of conducting future RCTs of similar interventions.

2.7.3.5 Implications

There is evidence that SH interventions are effective in the treatment of anxiety disorders, with results supporting the ongoing development of SH programmes. It is, however, necessary to conduct further high quality RCTs, particularly of programmes addressing PTSD, OCD, GAD, social phobia and specific phobias which have received less attention in the literature than PD.

Little is known about factors that determine effectiveness of a programme. Factors associated with programme content, delivery or study populations have not been adequately explored. It is difficult to ascertain what effect if any these variables had on the outcome of a programme. Further research is required to determine the active ingredients of successful interventions. In addition, Newman (2000) highlights the observation that SH interventions will not be appropriate for everyone suggesting that greater emphasis should be placed on the determination and utilisation of individual predictors of treatment response (182). Information is lacking as to the characteristics of individuals who may benefit. For example, factors such as intelligence, motivation and conscientiousness may impact the outcome of a SH intervention.

Many of the studies failed to evaluate the extent to which individuals used the SH materials. This is of importance when considering whether results can be improved through increased compliance, or whether the content itself requires alteration to improve outcome. It is however no surprise that outcome is associated with greater use of the SH materials (167). Increased levels of guidance have also been positively linked to outcome, though there is no agreement as to an optimal level. RCTs of GSH interventions including concurrent economic evaluation would also assist in determining the level of guidance at which cost effectiveness is maximised.

Studies that evaluated the relative efficacy of PSH compared with GSH found the addition of guidance gave superior results, though these differences did not always reach a level of statistical significance. PSH interventions also performed well on the whole. PSH offers the cheapest, most easily accessible form of SH treatment, which makes the approach very appealing. It cannot be assumed, however, that the outcome would be equivalent if an individual were to purchase a SH book or access materials online. Inclusion in a study potentially motivates use of materials through creation of deadlines and the knowledge that compliance and/or symptom severity will be assessed. This results in a tendency for participants to exhibit demand characteristics.

Evaluation of SH interventions in the context of a stepped care model would also be valuable. Though the evidence so far is promising, future RCTs will serve to inform the role SH truly has to play

2.8 Systematic review of SH interventions for PTSD

Since only one RCT of a SH intervention for PTSD was identified, a wider search was performed to find all data containing papers.

2.8.1 Method

Online bibliographic databases were searched using a set of search terms related to PTSD and a set related to SH.

PTSD search terms

post traumatic stress disorder, PTSD, acute stress disorder, ASD, traumatic stress, trauma
SH search terms
self help, self change, self directed, self care, self management, self administration, guided self help, guided self change, minimal contact, minimal therapist contact, reduced contact, self exposure, internet, bibliotherapy, computerised

Table 2.5: Search Terms (PTSD)

All databases listed in table 2.3 above were searched until the 30th August 2009. The search was repeated in October 2010, limited to studies published since August 2009.

2.8.2 Results

AUTHOR	YEAR	N	SH MATERIALS	GUIDANCE	GUIDANCE METHOD	CONTROL	CLINICIAN HRS – CONTOL	PROGRAMME DURATION
RCTs of SH interventions for individuals diagnosed with PTSD								
Ehlers	2003	85	Written SH materials	0.66 initial instruction only	Face to face	CBT or RA	11.9hrs	12wk
Open trials of SH interventions for individuals diagnosed with PTSD								
Klein	2010	22	Website	3.25	Email	None	Not applicable	10 wk
Studies of SH interventions for traumatic stress symptoms (no formal diagnosis)								
Hirai	2005	27	Website	Not known	Email	WL	NA	8wk
Knaevelsrud	2007 2009	96	Website	Not known	Website	WL	NA	5wk
Lange	2000	20	Website	Not known	Website	None	NA	5wk
Lange	2001	25	Website	Not known	Website	WL	NA	5wk
Lange	2003	101	Website	Not known	Website	WL	NA	5wk
Litz	2007	45	Website (CBT based)	Not known	Face to face and email	Internet based supportive counselling	Not known	8wk

Studies of preventative SH interventions for traumatised inividuals								
Bugg	2009	67	Written SH materials	Not known	NA	Information only	NA	NA
Robertson	2002	222	Written SH materials	None	NA	None	NA	NA
Scholes	2007	347	Written SH materials	None	NA	WL	NA	NA
Turpin	2005	142	Written SH materials	None	NA	WL	NA	NA

CBT – Cognitive Behavioural Therapy; GT – Group Therapy; hrs – hours; NA – Not Applicable; RA – Repeated Assessments; Self Mon. – Self Monitoring; TAU – Treatment as Usual

Table 2.6 Studies of SH for PTSD

2.8.2.1 RCTs of SH interventions for individuals diagnosed with PTSD

As indicated above, there has been only one RCT of a SH intervention for a population formally diagnosed with PTSD (165). There have been no RCTs of GSH interventions for individuals formally diagnosed with PTSD. Equally there have been no economic evaluations of SH programmes for the disorder.

2.8.2.2 Open trials of SH interventions for individuals diagnosed with PTSD

Only one open trial of a SH intervention for individuals diagnosed with PTSD was identified. Klein and colleagues (183) conducted a trial of the Australian web-based intervention *PTSD Online*. This was *a* 10-week interactive CBT programme that included psychoeducational information about anxiety, stress, and trauma, anxiety management content including instructions and video/audio on controlled breathing and progressive muscle relaxation, cognitive components including instructions and exercises on how to challenge and change cognitive processes which contribute to PTSD, exposure content including instructions on conducting imaginal and in vivo exposure, and a relapse prevention module. Participants were asked to read one module per week, perform the required homework and communicate with their therapist by email. Overall, treatment satisfaction was 60%. At post-treatment, 69.2%

of the sample showed clinically significant improvement and 77% of the sample at three month follow-up assessment. Without a control-group however, it is impossible to know whether improvements were directly attributable to the intervention.

2.8.2.3 Studies of SH interventions for traumatic stress symptoms (no formal diagnosis)

Looking beyond studies stipulating clinical populations of participants, Litz and colleagues (184) evaluated a SH programme for combat related traumatic stress symptoms. This pilot study of a CBT based internet SH programme showed promise. Forty-five service men and women who had been at the Pentagon at the time of the September 11th attack, or had been deployed to Iraq or Afghanistan were randomly assigned to receive self management TFCBT or online supportive counselling. The programme allowed unrestricted access to information on PTSD, stress, trauma, sleep hygiene, anger management and comorbid problems including depression and survivor guilt. The programme included in vivo exposure to avoided situations and imaginal exposure to the traumatic event through a series of writing tasks. Both groups showed an improvement in their symptoms of PTSD and depression. The SH TFCBT group showed the sharpest decline in symptom severity. This study demonstrates the potential for treating PTSD after combat exposure through online SH.

Hirai et al (185) evaluated an online programme aimed at reducing sub-threshold PTSD symptomology. Twenty-seven individuals experiencing traumatic event related fear were randomised to receive an eight week internet programme based on CBT principles or join a WL control group. The intervention taught relaxation techniques including breathing retaining, muscle relaxation and guided imagery. It also included cognitive restructuring and written imaginal exposure. It progressed from the least anxiety provoking material (psychoeducation) to the most anxiety provoking

(exposure). Email contact was used to prompt individuals to complete tasks, and the participants could only contact the researchers to ask for technical assistance. Individuals who received the intervention showed decreased avoidance behaviour, frequency of intrusions, state anxiety, depressive symptoms and improved coping. These differences were statistically significant when compared to the WL group. Hyperarousal and intensity of intrusive thoughts were not affected. Although a clinical population was not used, the study provided some preliminary evidence for the efficacy of SH for individuals with mild PTSD symptoms.

Lange et al (186-188) developed an internet based treatment for traumatic stress symptoms known as *Interapy*. This treatment consists of two weekly 45 minute writing tasks completed over five weeks. All interaction between participant and therapist took place through the *Interapy* website. Treatment proceeded in three phases with a therapist providing feedback and further instruction part way through each phase. The first phase was entitled "self confirmation", which presented psychoeducation about the mechanisms of exposure and encouraged participants to focus on their most painful memories and to write about these. Narratives of the event were written in the first person and the present tense with detailed descriptions of all sensory details. The therapist addressed whether descriptions were sufficiently detailed and encouraged the participant to elaborate on any avoided features. The second phase involved cognitive restructuring, introduced by psychoeducation regarding its principles. This stage aimed to create a new perspective on the traumatic event by writing a supportive letter to an imaginary friend who had been through the same event. The participant was instructed to use the letter to correct feelings of guilt and shame associated with the trauma and correct any unhelpful

assumptions made. The third and final module centred around 'social sharing' and a farewell ritual. A final letter summarised what had happened to them and reflected on the therapeutic process describing how they would cope in the present and in the future.

Interapy is a GSH programme aimed at the reduction of traumatic stress symptoms in individuals who have suffered a traumatic event. It has shown promise in treating individuals with sub-threshold PTSD symptoms, but has not been evaluated for individuals diagnosed with the disorder. *Interapy* was first evaluated in an uncontrolled pilot study (187). Twenty students who exhibited some symptoms of PTSD after a traumatic event were included in the study which gave promising results. A later controlled trial of 25 students (188) also showed promise with those in the *Interapy* condition improving significantly more than those on the WL on measures of trauma related symptoms. In a subsequent RCT of 101 students (186) those in the treatment group improved more than participants in a WL control condition on trauma related symptoms and general psychopathology. These differences were statistically significant.

Knaevelsrud and Maercker (189) evaluated *Interapy* in a German speaking population. Ninety-six individuals were included in the study. Participants had experienced an event that met the A1 criterion specified in the DSM-IV, though were not required to meet the other diagnostic criteria for the disorder. Results were promising with a statistically significant reduction in PTSD symptom severity in the treatment group post-treatment and at 3 month follow up. The study also reported high rates of therapeutic alliance and low drop out rates indicating that face to face

contact with a therapist was not necessarily required to establish therapeutic rapport (189). Improvements were found to be sustained at 18-month follow-up (190).

2.8.2.4 Studies of preventative SH interventions for traumatised individuals

Several studies have examined the dissemination of SH materials to trauma survivors with the aim of *preventing* PTSD. Turpin and colleagues (191) recruited 142 patients who had experienced trauma from an Accident and Emergency (A&E) department. These individuals were randomised with approximately half given an eight-page preventative SH booklet describing common physiological, psychological and behavioural reactions and advice regarding non-avoidance and emotional support. The remainder received no SH information. Symptoms of PTSD, depression and anxiety all decreased over time, but there were no statistically significant between group differences in outcome. The control group were less depressed than the SH group post-treatment despite two thirds of participants rating the leaflet as being useful. This may however illustrate a tendency to rate the receipt of any form of intervention, as more useful than receiving nothing. It does not necessairily equate to any meaningful benefit of the intervention.

Scholes 2004 et al (192) also provided SH information to A&E patients (n=111) and compared these with a group of patients who did not receive information. There were no differences across groups at three or six month follow-up on measures of PTSD, anxiety, depression or quality of life.

Robertson et al (193) reported high levels of satisfaction for a brief SH booklet in 222 trauma survivors but did not investigate the efficacy of these materials.

Bugg et al (194) recruited 67 traumatised individuals from an Accident and Emergency Department and randomised them to receive information about traumatic stress in addition writing about emotional aspects of the trauma or to receive the information alone. There were no statistically significant differences between the two groups, though subjective ratings of usefulness were high once more.

These studies do not support the routine provision of SH information after traumatic injury. The authors do however point out that early interventions should be targeted only at those who would not recover naturally without intervention, to make the most efficient use of resources.

2.9 Summary and conclusion

In summary, SH materials have been in existence for well over a century with SH books now encompassing a diverse range of topics. The potential of SH approaches for treating mental health problems within the NHS has been more recently realised and implemented through book prescription schemes and the development of structured SH programmes. The approach has received growing recognition in a climate of limited resources and pressure on psychological services. It shows promise for treating a range of mental health problems cost effectively.

A systematic review of the literature revealed its potential for effectively treating individuals diagnosed with an anxiety disorder. This supports ongoing development of SH programmes with potential for inclusion in future stepped care treatment models. The role of SH in the treatment of PTSD has not however received significant attention. The only RCT of individuals diagnosed with PTSD failed to

support its efficacy, however the programme evaluated was far from optimal in terms of SH materials, or the way in which it was delivered. There have been no RCTs of GSH interventions for individuals diagnosed with PTSD. Exploratory trials have shown promise in the treatment of individuals with sub-threshold traumatic stress symptoms. Given its efficacy for other anxiety disorders, there is a need to further explore the potential of GSH in the treatment of PTSD.

Chapter 3: Introduction to health economics

3.1 Definition: Health economics

Health economics provides an intellectual framework for the distribution of resources among competing alternatives within the healthcare system (195). The aim is to guide governments, policy makers and health care professionals to make the right decisions in order to maximise societal benefit (196).

Health economics as a discipline stems from the concept of scarcity. The resource demands of the health care system are insatiable. Budgets will always be finite, and in an age where new and expensive interventions compete for favour, resources will never be sufficient (195).

When budgets are limited, resources invested in one area will be at the expense of a lost opportunity to use the resources for another purpose. Resources are therefore valued in terms of *opportunity cost.* This is defined as the cost of alternative gains relinquished. In health economics, the opportunity cost is considered equivalent to the health benefits that could have been achieved through implementation of the next best intervention (197).

The social and financial costs of mental health problems are huge. Recent estimates put the full cost at around £77 billion in the UK alone, mostly due to lost productivity

(198). In theory, GSH interventions offer a cost effective alternative to therapist administered treatment, requiring less therapist time, reducing pressure on psychological services and enabling timely intervention. It is important to consider the cost-effectiveness of a programme during development and evaluation, to ensure economic objectives are met.

3.2 Economic evaluation

Economic evaluation of SH interventions aims to determine whether interventions truly offer a cost effective solution to shortages in suitably qualified psychological therapists. It is devoted to identifying, measuring, valuing and comparing all of the costs and consequences of an intervention (196). The aim is to assess whether the benefits of an intervention outweigh the benefits of alternative uses of the same resources. Economic evaluation has become a basic tool in the decision making process of healthcare resource allocation. It is not intended to replace decision making, but to highlight the costs and benefits of the available choices and help set priorities. Economic evaluation is used to facilitate the process of making the best use of finite resources in order to maximise social benefit.

All methods of economic evaluation set out to measure the level of benefit (in terms of positive health related consequences) relative to the resources required to gain this outcome. The identification and measurement of inputs is similar across each method of economic evaluation. Health economists distinguish between these methods in terms of how consequences are measured, as summarised in figure 3.1.

1. **Cost of Illness (COI) Studies** – COI studies attempt to measure all of the costs associated with a particular illness or health problem in monetary terms. They are not considered to be a true form of economic evaluation since they do not compare the costs and outcomes of competing interventions. Nonetheless, COI studies have a role in guiding the allocation of scarce resources.

2. **Cost Minimisation Analysis (CMA)** – CMA can be conducted where the overall effectiveness of competing alternatives are known to be equivalent. In this case the analysis need only focus on the inputs to an intervention, disregarding the outcome.

3. **Cost Benefit Analysis (CBA)** – CBA measures the costs and outcomes of interventions in monetary terms. This allows comparison of opportunities across different sectors.

4. **Cost Effectiveness Analysis (CEA)** – CEA measures all outcomes in consistent 'natural units', such as life years gained or symptom free days. It is the technique most widely used to compare interventions which have the same health outcome.

5. **Cost Utility Analysis (CUA)** – CUA measures outcomes in terms of both the quantity and quality of benefits. It is a variant of CEA where consequences are measured as 'utilities' (such as QALYs) rather than natural units. It provides a broader measure of the benefits of an intervention. It is recommended that CEA be supplemented with CUA wherever the relevant values can be obtained.

Text-box 3.1: Types of economic evaluation

Conducting an economic evaluation requires we address two methodological questions: 1)How will *costs* be identified, measured and valued?; and 2)How will *outcomes* be identified, measured and valued?

Addressing the first question of *costing* in an economic evaluation is essentially the same for each method of economic evaluation. In contrast, outcome measurement varies, and it is this variation in how outcomes are valued that differentiates the various methods of economic evaluation. The process of costing an intervention will therefore be discussed in general terms applicable to all methods. Consideration of outcomes and more specific requirements will be outlined separately for each approach.

3.3 Costing in economic evaluation

The first step in costing an intervention is to decide what perspective the evaluation is going to take. It is usual for economic evaluation to take a *societal perspective*. This involves considering and financially quantifying all costs, no matter who pays for them. It is, however, difficult to include a full spectrum of relevant costs since some may be hard to identify and others difficult to measure. Qualitative research is often undertaken to identify a comprehensive list of costs incurred. Three categories of costs are usually defined: 1) *direct costs;* 2) *indirect costs;* and 3) *intangible costs* (199).

3.3.1 Direct costs

The *direct costs* of an intervention include the consumption of all resources directly attributable to treatment including equipment, drugs, staffing and all other costs involved in the provision of inpatient and outpatient care. Direct non-medical costs such as transport to and from the health care setting and waiting time are also included where possible.

Ideally direct resource usage would be quantified in terms of *opportunity costs*. These opportunity costs describe the value of the alternative use of finite resources. It is acceptable to adopt a more pragmatic approach to costing and to assume that the price paid reflects the opportunity cost. Market prices are therefore used wherever possible. Staff time is valued using wage rates plus additional costs such as holiday pay and pension contributions and consumables are costed according to

their market value. Costs are then calculated multiplying these *unit costs* by the number of units used.

For overheads shared by other interventions (such as heating, cleaning and administration) the problem is to determine what portion of the total cost should be included in the evaluation. When comparing interventions where these overheads are likely to be equivalent, these costs may be omitted. Often these costs are divided to give a cost per day which is then divided by the number of bed-days a patient occupies.

Incorporating the cost of assets such as buildings should also be considered. Despite only arising once, their opportunity costs are spread over time since assets can be sold or used for a different purpose at any point. It follows that the *equivalent annual cost* should be considered. This can be calculated by dividing the initial outlay (plus a value representing the opportunity cost tied up) by the years of use anticipated for an asset. Where an existing building or piece of equipment is used, its cost will only be considered where the intervention prevents its use in other potentially beneficial ways. In this case, its market or rental value would be taken into account.

Costing resources which do not have market values can be more difficult. Volunteer time is an example of a resource which does not have a market value. It can be costed in one of two ways. Firstly, the time can be regarded as lost leisure time and quantified in terms of the overtime equivalent of the volunteer's wage. This has the obvious disadvantage of giving a costly value where the individual happens to be a high earner. The alternative is to quantify volunteer time at the wage rate of someone

doing a similar job. Where goods or services are donated it is usual to value these at their market value.

Often the initial costs invested in the implementation of an intervention will provide benefits some time later (for example preventative programmes such as screening). In this case, the costs are *discounted* to comply with the notion that current costs and benefits are worth more than future costs and benefits. Discounting is a technique which allows the calculation of *present values* of inputs which will pay off in the future. There are five reasons for the preference of immediate gains, and therefore the necessity of incorporating a process of discounting into economic evaluation:

1. There is an opportunity cost to any money spent in the present i.e. these resources cannot be put to any other use thereafter.

2. Inflation dictates that any given sum of money will have less purchasing power in the future than in the present.

3. Money received in the present (rather than at a future date) can be invested (e.g. in a savings account), earning a positive rate of return.

4. There will always be a degree of uncertainty surrounding the promise of future benefits.

5. Society has a *time preference* for receiving benefits sooner rather than later and for delaying costs.

The final result is of an economic evaluation that will be sensitive to the choice of discount rate. Since a small change in the discount rate has the potential to cause a large change in outcome, it is crucial that appropriate values are used. The most frequently specified rates for health related economic evaluations are 3% to 5% (200).

3.3.2 Indirect costs

Costs indirectly related to treatment are known as *indirect costs*. These costs include loss of productivity due to illness and untimely death. Loss of productivity is usually quantified by the *human capital (HC) approach* which calculates a value for lost productivity based on the equation:

$$\text{Loss of productivity} = \text{incapacity for work} \times \frac{\text{wage costs}}{\text{dependent employees} \times 365 \text{ days}}$$

It is worth noting that short-term absence from work may have little impact on productivity if the individual's work load can be covered by colleagues. Equally, in the case of death or long-term inability to work, it is appropriate to consider employment rates and whether the vacancy would be filled in a short space of time. In this case, only the period until the position is filled (the so called *friction period*) is counted as loss of production.

3.3.3 Intangible costs

Intangible costs include anxiety, pain and suffering. These are very difficult to translate into monetary terms. In practice they are rarely included as costs in economic evaluation.

3.4 Costs associated with PTSD

To gain an understanding of the costs associated with PTSD, it is necessary to consider: 1) societal costs; 2) costs incurred by the health care provider; and 3) costs to the individual. This enables a full assessment of the economic impact of the disorder.

3.4.1 Societal costs of PTSD

In 2000 Kessler (201) published a review, which concluded that little was known about the societal costs associated with PTSD. Analysis of work loss data gathered as part of the National Comorbidity Survey (NCS) estimated that PTSD gave rise to an annual productivity loss in excess of $3 billion in the US (202), representing a huge burden to society. Societal costs associated with PTSD in the United Kingdom are unknown.

3.4.2 Health care provider costs

To my knowledge, there has been only one population based study of general medical costs associated with PTSD. Conducted in 2003, the economic evaluation found that women with PTSD had higher health care costs than those without, even after controlling for depression, chronic medical illness, and demographic differences

(203). Higher costs were associated with mental healthcare, outpatient care, specialty care, primary care, and pharmacological treatment.

Economic analyses of specific PTSD treatments have also been few. McCrone and colleagues (204) carried out an economic evaluation of individual versus group psychotherapy for sexually abused girls. Participants were randomly assigned to one of the two treatment groups, and components of both interventions were identified and costed. The total mean cost of individual therapy was found to be £1246 greater than for group therapy, with group therapy found to be more cost-effective than individual therapy.

Fontana and colleagues (205) compared the outcomes and costs of 785 Vietnam veterans receiving long-stay specialised inpatient care at a PTSD unit; short-stay specialised evaluation and brief- treatment at a PTSD; or non-specialised care at a general psychiatric unit. The veterans were followed up at four- month intervals for a year after discharge. Long-stay PTSD units proved to be 82.4% and 53.5% more expensive over one year than the short-stay PTSD units and general psychiatric units, respectively. In addition, those who had received treatment at a long-stay unit failed to demonstrate sustained improvement one year after discharge. This led the authors to suggest a systematic restructuring of VA inpatient PTSD treatment with the aim of delivering effective services to larger numbers of veterans.

Further work is required to inform a better understanding of the costs incurred by health care providers.

3.4.3 Individual costs of PTSD

The financial and intangible costs associated with PTSD are substantial. The level of impairment associated with the disorder has the potential to affect the individuals' ability to work and accomplish other daily tasks. In the long term, the ability to hold down a job, or progress within a role may be affected (201). The disorder also has the potential to prevent the individual meeting his or her full potential in terms of education, marriage and child bearing (201).

3.5 Cost effectiveness of SH for mental health problems

SH interventions represent a potentially cost effective method of treating mental health problems. Savings can again be considered from the perspective of: 1) society; 2) the health care provider; and 3) the individual receiving treatment.

3.5.1 Cost effectiveness from a societal perspective

Any intervention with the potential to treat mental health problems without delay, has the potential to lessen the economic impact of psychiatric disorders in terms of lost productivity. The sooner the individual starts treatment, the quicker they are likely to return to work.

3.5.2 Cost effectiveness from a health care provider's perspective

A major issue in treating PTSD is the demand placed on the resources involved in delivering psychological interventions, most notably therapist time. GSH offers an alternative method of delivering treatment, which places less demand on this costly resource.

3.5.3 Cost effectiveness from an individual's perspective

GSH interventions may also offer cost-effectiveness to the patient. Firstly, the ability to access specialist treatment and information at home reduces the cost of having to travel to and from a health care service. Secondly, GSH is more flexible than visiting a treatment setting more frequently, diminishing the need to take time off work or cover the expense of child-care. It is also likely that GSH interventions would be available sooner than therapist administered treatments, which has the potential to decrease the duration of an individual's absence from work due to ill health.

3.6 Economic evaluation of SH interventions

McCrone and colleagues (206) conducted an economic evaluation of a computerised SH programme "Beating the Blues". A CUA was conducted. Two-hundred and seventy-four primary care patients with depression or anxiety were randomised to receive usual care or a computerised SH package based on cognitive behavioural principles. A PSH approach was taken with GPs and practice nurses informed of patient progress through automatically generated printouts after each session. The SH intervention was both more effective and more expensive than treatment as usual although only effectiveness difference was statistically significant. There was a 99% chance of the SH therapy being cost effective if QALYs were valued at £15,000, well

below the National Institute of Clinical Excellence (NICE) threshold which is between £30000 and £50000 per QALY.

Economic evaluation of SH interventions has not however received sufficient attention. There have has been no economic evaluations of SH interventions for PTSD. Since cost is a major driving force behind the development and implementation of web based interventions, rigorous economic evaluations are needed to address this shortcoming. The initial investment required to create, implement and evaluate a SH treatment programme is significant and should not be underestimated. Though SH has shown the potential to provide a useful treatment solution, available evidence on the cost effectiveness of these interventions is limited. Economic evaluations comparing the cost effectiveness of different methods of delivering SH would also serve a useful purpose in evaluating the necessity of developing complex delivery methods compared with cheaper alternatives such as books or leaflets. Only when issues of cost effectiveness have been thoroughly examined can we be certain that SH approaches make good use of limited resources.

3.7 Summary and conclusion

An increased appreciation and understanding of economic concerns has doubtless played a role in the recent interest in the development of more cost-effective ways of providing mental healthcare. The advent of SH interventions for mental health problems including PTSD has presented a novel approach to providing information, treatment and prevention of mental illness at a limited cost.

Resources devoted to mental healthcare and the treatment of PTSD will always be finite, and health economics will continue to hold an important role in informing decision making at all levels. An understanding of the principles underlying health economics is essential for those implementing and delivering mental health care to ensure maximum societal benefit is gained from available resources.

Chapter 4: Aims

The primary aims of the study were to determine:

1. The critical components that should be included in a GSH programme to treat mild to moderate chronic PTSD.

2. Whether GSH for PTSD shows promise in terms of reducing traumatic stress symptoms in individuals with mild to moderate chronic PTSD.

3. Whether such a method of delivery is acceptable to service users and those delivering the intervention.

4. Whether a Phase II RCT is feasible.

Chapter 5: Method: Overview of the development of a complex intervention

5.1 Definition: Complex interventions

The Medical Research Council (MRC) define complex interventions as composed of a number of interacting components including behaviours, parameters of behaviours and methods of delivering these behaviours (207, 208).

5.2 MRC guidance for the development of a complex intervention

The MRC provide guidance for the development of a complex intervention (207, 208), which acts as the theoretical guide for this research. The guidance was first published in 2000 as a stepwise process, which was later re-issued. The phases which defined the MRC framework were initially given as follows (figure 5.1):

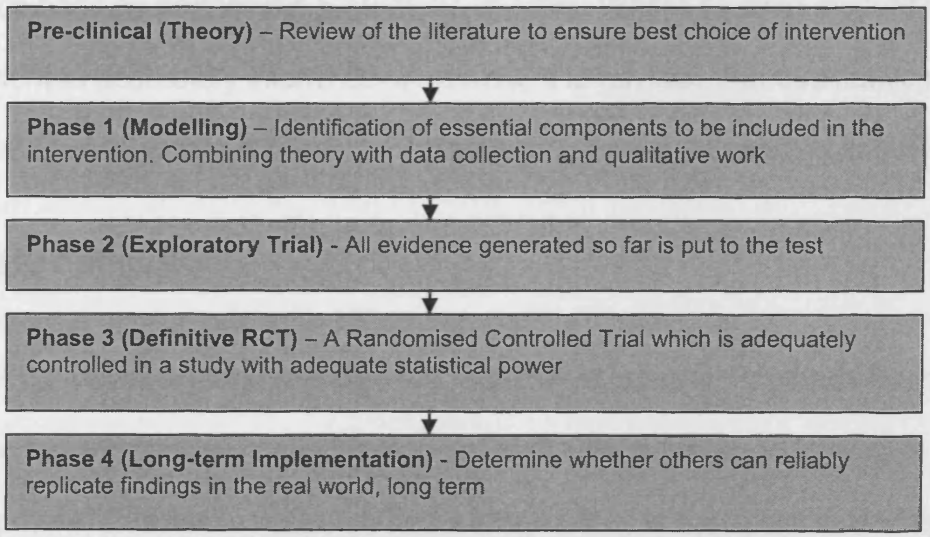


Figure 5.1: MRC framework for the development of a complex intervention

The framework was updated in 2008 to address limitations and to reflect developments in methodological techniques. Amendments included greater attention to early phase piloting and development (209) and presentation of a less linear, more recursive model (figure 5.2) (210).

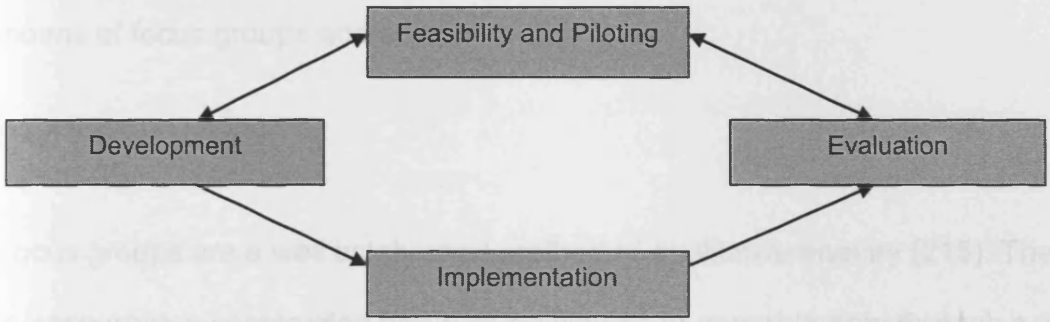


Figure 5.2: Revised MRC framework for the development of a complex intervention

5.3 Identifying the evidence base

The first step in the development of a complex intervention, is to identify the existing evidence base by performing systematic reviews. Where existing evidence is insufficient to accurately inform development, it is advised that qualitative research be carried out to gather stakeholder opinion to supplement existing knowledge (210).

5.4 Data collection

The MRC Guidance recommended that qualitative research methods be incorporated into the research design in the absence of sufficient evidence to inform its development. Qualitative research has a long history in the social sciences but its use in health research is comparatively recent (211). Despite a tradition of quantitative approaches, there has been growing recognition of the usefulness of

qualitative approaches (212) evidenced by a recent rise in the number of qualitative studies published in medical and health related journals (213). Qualitative health research has largely overcome misunderstandings and criticism by those who believed it to be an 'easy' option (214), and the stigma of small sample sizes which do not seek to be representative (212). It is now widely recognised as an illuminating technique producing rich, detailed information. Qualitative data is usually collected by means of focus groups and/or interviews.

5.4.1 Focus groups

Focus groups are a well established method of qualitative enquiry (215). Their aim is to encourage a constructed group of individuals to generate data through a process of progressive sharing and refining of thoughts, feelings, and opinions on a topic. Although some trace the beginning of the focus group back to the publication of *The Focused Interview* by Robert K Merton in 1941 (216), the technique has been used regularly since the late 1960s (217). Focus groups represent a useful tool for exploring people's knowledge and experience, and for discovering not only what people think, but also how and why they think that way (218).

The focus group method is distinguished from that of a group interview by its explicit use of interaction between group members (219). Participants are able to build on each other's suggestions and generate ideas they might not have in a one to one interview (220). Focus groups also allow people to use day to day communication techniques such as jokes and stories which may tell us more about a person's attitudes than a reasoned response would (221). The method also ensures that priority is given to respondents' own hierarchy of importance (221).

There are three different types of focus group. Full groups (eight to ten people in a discussion lasting approximately 90 to 120 minutes), mini groups (essentially the same as a full group containing four to six) and telephone groups (involving a telephone conference call lasting 30-120 mins) (222) . They are widely used for their economic and time saving advantages over one-to-one interviews (220).

Most qualitative researchers would agree that the moderator is the most important ingredient of the focus group process (223). It is also important to consider the importance of a well prepared *moderator guide* (217). Also known as a *discussion outline* or *discussion guide*, it is used to direct the moderator to important topics, shaping the focus group discussion. A moderator guide is just that, a guide. The moderator will often deviate from the guide as new information emerges. The role of the moderator is to encourage discussion (215) with minimal input (222), ensuring everyone has the chance to participate (224).

As with all methods of data collection, there are disadvantages and limitations of the focus group approach. Although focus groups can reveal the range of views present in a group, they are less able to indicate their strength (225). Focus groups are also very limited in their ability to generalise findings to a whole population because of the small number of individuals participating and likelihood that they will not be a representative sample (224). There is also a danger that an *opinion leader* may emerge and dominate a focus group. Nevertheless, focus groups represent a valued method of generating ideas, opinions and cautions in the development of complex interventions.

5.4.1 Interviews

The majority of published studies that used focus groups, combined them with other methods such as individual interviews (226). Interviews are the most commonly used qualitative research technique in health care settings. There are three types of interview: 1) structured; 2) semi structured; and 3) depth/unstructured interviews (227). Semi-structured interviews enable individuals to define their own agendas and discuss factors they feel to be important; to produce data with high credibility and face validity; and to allow the interviewer to probe for more details and ensure that participants were interpreting questions in the way they were intended (228).

Qualitative interviews should be informal, the aim being that the interviewee perceives the interview as a discussion (229). Care should be taken to be sensitive to the language and concepts used, checking that interviewees meanings are understood rather than relying on their own assumptions (227).

5.5 Data analysis

After careful consideration of the options it was decided that conducting an *inductive thematic analysis* of the data was the most appropriate approach to address the research questions, aims and objectives involved in the development of a complex intervention. Inductive thematic analysis is a process of identifying, analysing, reporting and interpreting patterns or themes. It is a form of pattern recognition within the data set where emerging themes become the categories for analysis (230). It is a widely used technique and said to be the most commonly used in health research (211).

During the course of deciding upon the best qualitative methodology to adopt, several options were considered. It was first decided that an inductive (or 'bottom up') approach was necessary. An inductive analysis requires the researcher to work from what emerges from the data to formulate hypotheses. This was thought to be appropriate since a more open-ended and exploratory analysis would allow examination of all suggestions, comments and cautions participants had to share. Since there are no pre-conceived ideas about how the programme should be presented, we were very interested in any novel suggestions and wanted to take the all of the data into account.

Taking a *grounded theory* approach was considered. Grounded theory (231) emphasises the generation of theory from data in an inductive process of qualitative analysis, developing hypotheses from the 'ground' or research field upwards. The method was first developed by Barney Glaser and Anslem Strauss in 1967 from their research on dying hospital patients. Its developers have since disagreed about how exactly a grounded theory analysis should be conducted, resulting in a split between Glaserian and Straussian paradigms. This occurred most obviously when Strauss published *Qualitative Analysis for Social Scientists* in 1987 giving rise to an academic debate which Glaser himself termed a 'rhetorical wrestle'.

There are essentially four key stages of analysis involved in completing a grounded theory analysis. The first involves 'coding' the data, a process of dividing the text into manageable segments held together under one descriptive heading. Secondly the codes are collected together into groupings known as 'concepts'. The third step sees

concepts collected together to form categories. The fourth and final step sees the generation of theory.

Grounded theory was developed at a time when other qualitative methods were receiving criticism as being unscientific, highly subjective and wide open to the 'anything goes' criticisms of qualitative research. The method was seen as more rigorous and systematic than its predecessors and soon came to hold status as the most commonly used method of qualitative data analysis. Indeed, qualitative analysis within the field of health research is often (and controversially) equated to grounded theory. As a result, many researchers misuse the term grounded theory, claiming this is what they have done without any signs of the elements that make up the approach (211). It is easy to see how the confusion arises. Many parallels can be drawn between the processes of grounded theory and thematic analysis and the two approaches apply many similar procedures. Both require the researcher to build on themes grounded in the data, and employ a process of constant comparative analysis. This said, the two can be distinguished. These differences will be reviewed with reference to the reasons why a thematic analysis was deemed more appropriate than grounded theory.

Grounded theory is tied to a symbolic interactionist theoretical perspective (232). Symbolic interactionist researchers investigate how people create meaning during social interaction and how they present and construct the self. A true grounded theory analysis must therefore subscribe to this perspective and scrutinize the data at this level. As suggested by Schwandt (233) symbolic interactionists hold that the researcher needs to illuminate the process by which meaning is developed and the

nature of meanings. To address the necessary questions, it was decided that analysis at the 'manifest' or 'semantic' level, looking at the explicit or surface meaning rather than the 'latent' or 'interpretive' level (which delves beneath the surface of participants' responses) was the most appropriate. It was decided that looking at the data at this level would be most useful to inform the development of a prototype, with the aim being to describe the data set and views held by all participants as a whole rather than to create a more detailed account of one particular theme or group of themes. Thematic analysis is not tied to any epistemology or specific theoretical position making it the more flexible of the two approaches.

Grounded theory dictates that analysis is directed towards the generation of theory (231). Thus, any analysis whose outcome is a summary of themes rather than theory per se is conducting something more analogous to a thematic analysis than a grounded theory analysis. Additionally, a central feature of grounded theory is that analysis feeds into subsequent sampling with further data collection aimed at testing emerging theories in a process known as theoretical sampling (232). Thematic analysis does not subscribe to a specific sampling method, again making the approach more flexible.

5.5.1 Inductive thematic analysis

Some argue that inductive thematic analysis should not be seen as a method in its own right, but as a technique that can be used across approaches (234). More recently however, it has been argued that the approach could and should be seen as a distinct methodology, arguing that it is widely used but poorly 'branded' (235). That

is, many researchers use the approach as a method in its own right but call it something else or fail to label what they have done. A carefully done Inductive thematic analysis can provide a rich description of the entire data set, giving the reader an accurate account of the themes present.

Data analysis itself is the most complex and mysterious aspect of qualitative research, and one that receives little attention in the literature (236). This is especially the case for thematic analysis, with little written about the processes. The full procedure of conducting a thematic analysis is said to comprise three broad stages (237): 1) the breakdown of text; 2) the exploration of text; and 3) the integration of an interpretation.

It was decided that Braun and Clarke's (235) framework for carrying out a Thematic Analysis would be followed. This breaks the broad stages down into six steps in data analysis. Although presented as a linear procedure, the analysis was in fact an iterative and reflexive process.

1. **Familiarisation**
2. **Generation codes**
3. **Searching for themes**
4. **Reviewing themes**
5. **Defining and naming themes**
6. **Producing a report**

Text box 5.1: Six stages of inductive thematic analysis

5.5.1.1 Stage one: Familiarisation

Transcription is suggested as an important first step in the familiarisation process (238), for this reason it is recommended it be carried out by the researcher as opposed to being outsourced to a transcription agency. It is suggested that transcripts then be read and re-read for the purpose of immersion in the data and creation of an overall understanding of what participants had to say (239).

5.5.1.2 Stage two: Generating codes

Code generation is a process of dividing, marking and organizing the data into meaningful groupings. Since an *inductive* thematic analysis has been selected, coding is a 'bottom up' process of generating the codes on the basis of the data rather than using a pre-determined coding scheme. Boyatzis (234) describes this form of data driven coding as recognising (or 'seeing') an important 'moment' and encoding it (or 'seeing it as something') prior to a process of interpretation. Open coding is used with the aim of "*breaking down, examining, comparing, conceptualizing, and categorizing data*" (240), a process said to be guided by intuition and experience about what is important and what is unimportant in the data (241).

5.5.1.3 Stage three: Searching for themes

Themes are broader groupings of text segments than codes. The aim is to create themes that are specific enough to be non-repetitive and broad enough to remain descriptive of all data contained within it.

A thematic map can be used to aid this part of the process as described by Attride-Stirling (237). This is used simply as a method of organising the analysis and structuring the later discussion of themes. Thematic maps are created from the most basic theme inwards towards the so called *global theme* which sits at the centre. Basic themes were classified according to their content to create an *organising theme* and reinterpreted in light of their basic themes to create the overarching global theme, as illustrated by figure 4.3.

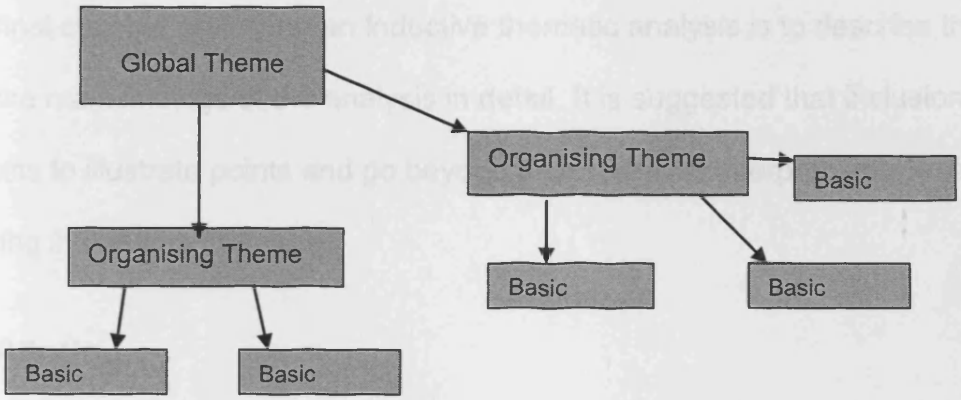


Figure 5.3: Outline of a thematic map

5.5.1.4 Stage four: Reviewing themes

At this stage themes are reviewed to ensure coherency. It is recommended that the text segments within each theme are re-read to ensure all themes are a true representation of the data and that the data itself supports the theme. At this point similar themes can be merged and themes which lack support from the data abandoned. The process is continued until no further substantial changes can be made to the thematic map.

5.5.1.5 Stage five: Defining and naming theme

Each theme should be defined and named. Any difficulties completing this task suggest the necessity of further refinement of the theme at stage four. Mere frequency should not necessarily indicate the importance of any given theme (as is the case in content analysis) (242)

5.5.1.6 Stage six: Producing a report

The final step in conducting an Inductive thematic analysis is to describe the data set and the main findings of the analysis in detail. It is suggested that inclusion of data extracts to illustrate points and go beyond description to interpret what was said by drawing in relevant literature.

5.6 Piloting

The MRC emphasise the importance of piloting the intervention (207, 208). Pilot studies are important in terms of gathering feedback from participants for refinement of the intervention, testing acceptability, and estimating the likely rates of recruitment and retention of subjects, to inform calculation of appropriate sample sizes for future work. The MRC recommend a mixture of qualitative and quantitative methods to understand the strengths and weaknesses of the intervention (210).

5.7 Summary and conclusion

The MRC guidance for the development of a complex intervention was used as a theoretical guide for the current research. This chapter summarised the importance of (a) identifying the existing evidence base; (b) collecting and analysing qualitative

data to model a prototype intervention; and (c) piloting. These key procedures will be discussed in more detail in the next chapter, with reference to specific methods.

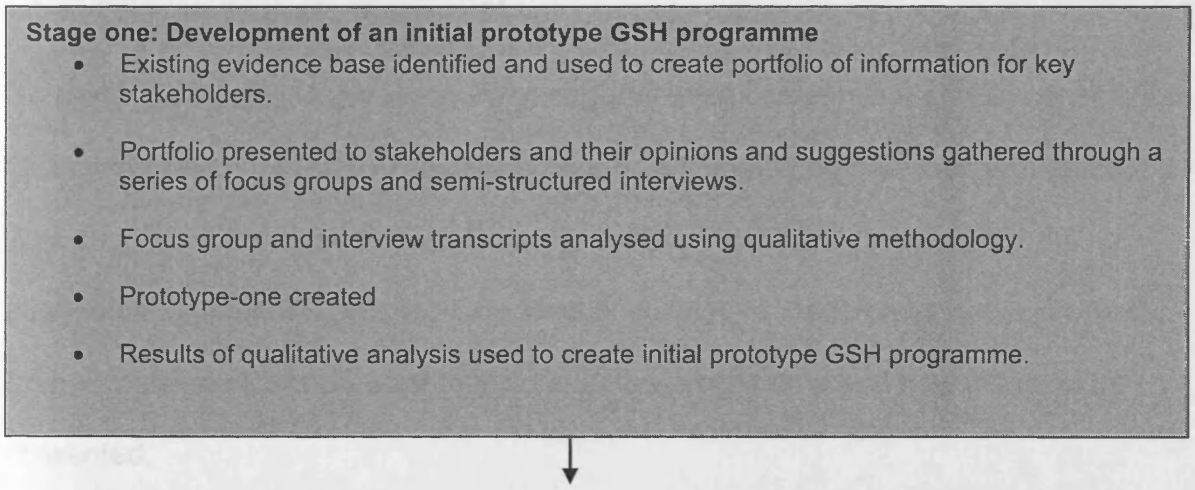
Chapter 6: Method

6.1 Ethical approval

The South East Wales Research Ethics committee granted ethical approval for the study.

6.2 Procedure

A Guided Self Help (GSH) programme for PTSD was developed in accordance with MRC guidance for the development of a complex intervention described in Chapter 5. The methodology followed three distinct stages which are summarised in figure 6.1 below. Stage one involved the development of an initial prototype through qualitative work; stage two saw the initial prototype piloted and refined on the basis of feedback; stage three involved a second pilot study and further refinement.



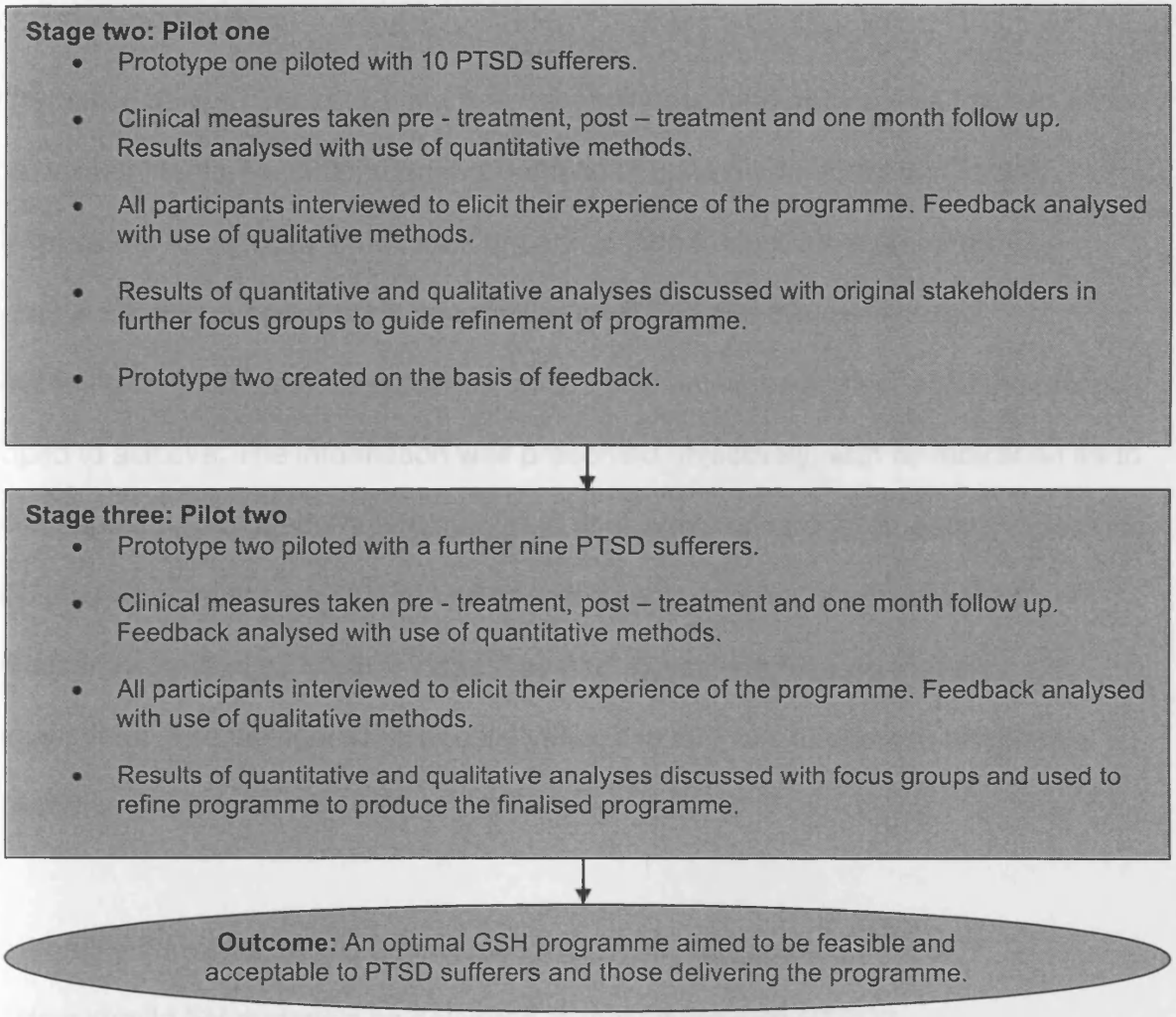


Figure 6.1: Overview of the methodology

No evidence existed in the literature to suggest what components should constitute a GSH programme for PTSD specifically, nor how it should be delivered and guided. This suggested the need for new primary research to inform development. As suggested by the MRC, this took the form of qualitative research to canvass opinion from key stakeholders on what to include in the programme and how it should be presented.

6.3.2 Data collection

Information derived from the systematic reviews described above, was used to inform the development of a comprehensive portfolio of up to date information for key stakeholders to consider in advance of participation in qualitative research. The portfolio contained background information on PTSD and trauma focused psychological therapies, the evidence on SH, and an explanation of what the project hoped to achieve. The information was presented objectively, with no indication as to what should be included. An extensive list of possible components, delivery methods and guidance options was presented to participants, who were encouraged to consider these alongside other ideas they had. It was emphasised that all suggestions were welcome and equally valid. The aim was to address three main questions:

1. What components should be included in a GSH programme for PTSD?
2. How should SH materials be delivered to individuals with PTSD?
3. How should the programme be guided?

Data was collected from professional experts in the fields of traumatic stress and SH, and individuals previously treated for PTSD, through a combination of focus groups and semi-structured interviews.

6.3.2.1 Focus groups

Professional experts in the fields of SH and/or PTSD were systematically identified using a *snowball sampling technique* (243). This involved initial identification of a small number of participants, who were used to refer the researcher to further

respondents. It enabled the identification of a group of professionals with the required knowledge and experience to help shape and inform the development of a GSH programme. Initial recommendation of suitable professionals came from the project steering group.

Two focus groups and a telephone conference were conducted with mental health professionals. The focus groups consisted of three and four respondents respectively, defining them as *mini groups*. The first group was made up of two male clinical psychologists and a female psychiatrist. The psychiatrist had also suffered from the disorder. Both psychologists had experience of treating individuals with PTSD. One also had extensive knowledge of SH interventions for various disorders, having founded the now national SH book prescriptions scheme. The second group consisted of two female and one male psychological therapist, all with extensive experience of delivering trauma focused psychological treatment, and a female who ran an organisation providing counselling for the police and ambulance service.

The telephone conference comprised three females. Two were researchers with knowledge of PTSD and GSH. One had extensive experience of developing GSH programmes for psychiatric disorders; the other had experience of developing a Dutch PSH programme for the prevention of PTSD. The third respondent was a representative from a charitable organisation for disaster survivors. She had also suffered from PTSD after the Lockerbie bombing. These individuals were unable to participate in face-to-face focus groups for geographical reasons, being based in Manchester, the Netherlands, and Scotland, respectively.

All focus groups were moderated by the author. Preparation for the role was conducted through consultation with an expert in the field of qualitative methodology at Cardiff University's School of Social Science, and by reading recent literature on focus group moderation. A carefully considered moderator guide presented in text box 6.2 below, was created in conjunction with the project steering group. The aim was to guide focus group discussion. It included a summary of the research objectives and topic headings. Each topic heading contained questions and prompts. The moderator reviewed the guide several times before the first focus group. It acted as a script and reference whenever needed.

Introduction
1) Welcome and thank you to everyone for coming
2) Introduction to Catrin
3) Introductions to focus group members
4) Review of the research project and its objectives
5) Goals of the Focus Group

This Focus Group has the task of discussing what to include in a Guided Self Help programme for mild to moderate post traumatic stress disorder and how it should be presented to individuals with PTSD.

Transcripts of Focus Group discussions and interviews with individuals previously treated for PTSD will be analysed using qualitative techniques to create a prototype

Guided Self Help Programme which will be brief, feasible, accessible and acceptable to PTSD sufferers for the piloting phase.

During this meeting we will:-
1) Discuss what components should make up a GSH Programme for Mild to Moderate PTSD.
2) Consider how Self Help materials should be presented
3) What form of guidance should be used.

1. Components

1) What are the essential components of a Guided Self Help Programme for mild to moderate PTSD? *These can be any of the components from the list provided or any others which you can think of.*
Why are these essential components?
Are these appropriate components for use in a Guided Self Help format (i.e. without the presence of a therapist)?

1. Education
- Psychoeducation
- Relapse prevention

2. Stress Management Techniques
- Breathing retraining
- Progressive muscle relaxation
- Guided imagery
- Grounding
- Positive self talk
- Mindfulness
- Thought stopping

3. Lifestyle Advice
- Sleep hygiene
- Exercise
- Anger management
- Assertiveness training
- Positive distracting activities
- Social support
- Advice on use of drugs and alcohol
- Problem solving

4. Exposure Techniques
- Imaginal Exposure
- Graded Real Life Exposure
- Returning to the scene

5. Writing Exercises
- Narrative of the trauma
- Therapeutic letter

7. Cognitive Techniques
- Cognitive restructuring
- Motivational interviewing
- Acceptance and commitment therapy (ACT)
- Farewell ritual

2) Are there any other components which you think it would be useful to include? Why is this?
Are these appropriate components for use in a Guided Self Help format (i.e. without the presence of a therapist)?
Why are these less important than the components we discussed as being essential?

3) Should the intervention be "one size fits all" in terms of components or tailored to the individual with the guiding therapist selecting relevant components from a pool of possible alternatives?
Why do you think this?
Should there be core components which everyone follows and other optional components?

4) Are there any components which you think should definitely NOT be included in a Guided Self Help Programme for Mild to Moderate Post Traumatic Stress Disorder?
Why is this?

2. Delivery

1) Do you have any ideas regarding the best method of delivering the self help aspects of the programme? We have considered the using the following materials:

- Books and leaflets
- DVD
- CD
- CDROM
- Website

What would you suggest?

2) Are there specific components which should be delivered in certain ways?
What are these?
Why is this?

3. Guidance

1) How do you think guidance by the therapist would be best provided:

Face-to-face (at the Traumatic Stress Service)?
By post?
Over the phone?
By text message?
By email?
Through a chat room/skype?
Or by using a combination of these methods?
Why do you think this method(s) would be the best?

2) Should guidance be scheduled (e.g. once weekly meetings/phone calls) or requested by the patient as and when required?
Why do you think this method(s) would be the best?

3) How much guidance should be given? If there are face to face meetings or phone calls, how long should these last?
Should there be a minimum, a maximum or a guideline amount of guidance that will be given?

Focus group close - Wrap up and thanks for participation

Text box 6.2: Moderator guide

The role of the moderator was to ask questions, elicit responses, and encourage discussion within the group. Participants sat in a circle and were asked to introduce themselves. The moderator began the session by giving a clear explanation of the purpose of the group and all subsequent input was phrased in ways the members were familiar with. The moderator made minimum intervention, allowing the group to set their own priorities, but acted to keep the sessions focused, and ensured everyone had the chance to speak. Giving personal opinion was avoided, to prevent influencing the group. The moderator also refrained from taking sides during any debate.

Focus groups were 1hr 32mins and 1.22mins in duration. The duration of the telephone conference was 52 mins. They followed the format set out by the topic guide. Components thought suitable for inclusion, delivery methods, and guidance options were discussed in turn. For each topic, focus group members were initially encouraged to talk freely, introducing any suggestions they felt appropriate. Once discussion on the given topic had ceased, specific suggestions (outlined in the topic guide) were presented to the group for consideration. Honest opinions and justification of responses were encouraged throughout.

6.3.2.2 Semi-structured interviews

Previously treated individuals were interviewed on a one to one basis to allow their opinions to be expressed more openly and honestly, and to avoid power differentials. Therapists at the Cardiff and Vale University Health Board's Traumatic Stress Service were asked to recommend suitable respondents for interview. A process of purposive sampling was used. This was a process whereby the researcher subjectively selected participants in an attempt to obtain a sample that appeared representative of the population, ensuring a range from one extreme to the other was included. Previously treated individuals from a variety of backgrounds and ages were included. They had experienced a range of traumatic events (text box 6.2).

House fire (2)	Witnessed brother's murder
Road traffic accident	Physical assault
Accident at work	Surgical complication

Text box 6.2: Traumatic events experienced by modelling stage participants

Four females and three males participated. All received trauma focused psychological therapy, with varying degrees of success and satisfaction. A semi-structured interview schedule was prepared and reviewed by the project steering group. This is presented in text box 6.3 below. It was based on the focus group topic guide, with the addition of questions related to the treatment they had received for PTSD. There was also an emphasis on probing the elements of their treatment they felt appropriate and inappropriate for inclusion of in a GSH programme on the basis of their experiences. It included a number of open ended questions and related prompts, to gain relevant information and maintain the flow of conversation. Participants were asked broad questions. They could talk freely about introduced topics, or introduce new ones if they wished. Care was taken to create an informal atmosphere, to be sensitive to the interviewee's language and concepts, and to check participant meanings.

Semi-structured interview schedule

I want to start by thanking you for agreeing to take part in this research and for coming here today. As we mentioned in the information sheet I will be tape-recording the interview. This is just to make sure that I don't miss anything you say. I would also like to assure you that anything you say will be confidential; no one will know who said it. Are we ready to get started?

As you know, we are trying to develop a guided self help programme for post traumatic stress disorder. We are in the process of deciding what to include in the programme and how it should be presented to individuals with post traumatic stress disorder. A key part of this process is to talk to people who have received treatment for post traumatic stress disorder to see what they think will work from their experiences.I am really interested in talking to you about your experience of trauma

focused psychological therapy and discussing Guided Self Help for PTSD with you.

We will first discuss the therapy you received here at the clinic and any tasks you completed in your own time as homework. I would then like to discuss the guided self help programme we are trying to develop and any ideas you may have. Your honest opinions and advice are very important to us.

1. Treatment

- To start, could you tell me about your experience of receiving treatment for post traumatic stress disorder?
- I'd like to know what you found helpful, what you didn't find helpful, and why this was.

Why were these things helpful/unhelpful?
Could you name one thing which stands out as having been being particularly helpful?
Why?
Could you name one thing which stands out as having been particularly unhelpful?
Why?

- Were there any parts of your treatment that would have been too difficult to go through without the presence of a therapist?

(This might include initially writing a narrative of the trauma, exposure the trauma narrative, learning relaxation exercises, identifying and correcting negative thinking and so on....)
Why do you think this would have been difficult? Could this be done differently so that it would be easier alone?

- Could you tell me about any involvement friends or family had in your treatment?

(This might have included attending therapy session with you, meeting the therapist, receiving information from the service about symptoms/treatment, discussing treatment with yourself, helping with homework tasks).
Was it important that friends and family received information about your symptoms and your treatment?
Did a family member or friend ever meet or speak to the person providing your therapy?
Was this useful/ would this have been useful?

- Looking back, could you tell me about anything that would have been helpful for you to have while you were waiting for treatment?

(This might include information about the symptoms of post traumatic stress disorder for you to read, information to give to friends or relatives, relaxation CDs or some simple self help exercises).
How would this have helped you?

2. Homework

I'd now like to talk to you about homework....

- Could you tell me a bit about any tasks you were given to do as homework? Could you tell me whether or not these were helpful?

In what way were these helpful/unhelpful?
Could you name one thing which stands out as having been being particularly helpful?
Why?
Could you name one thing which stands out as having been particularly unhelpful?
Why?
Can you think of any other tasks or activities which you could have done at home?

- Could you tell me about any problems you had completing your homework?

Why was this?
Could anything have been done to avoid these problems?

- Did you have any problems understanding instructions given to you by the

therapist?
Why was this?
How could these instructions have been improved?

3. Your Opinions on Guided Self Help for PTSD
If it's okay with you, I'd now like to talk to you about the guided self help programme we are trying to create. As we explained in the information sheet, guided self help involves regular brief supportive meetings with a therapist who provides self help materials for the person to work through in their own time at home.

- Having read the information about this project, do you have any opinions about providing psychological treatment for post traumatic stress disorder through GSH?
Why do you think this?
Would you like me to explain a little more about the project and what we are trying to do? [if interviewee appears unfamiliar with what we are trying to achieve].

- What parts of your treatment (if any) do you think could be successfully provided in a guided self help programme?
What makes you think this?
Would this have been acceptable to you as an alternative to face to face therapy?

- Do you think guidance by the therapist would be best provided:
- Face-to-face (at the Traumatic Stress Service)?
- Over the phone?
- By email?
- By post?
- By text message?
- Through a chat room/skype?
Or by using a combination of these methods?
Why do you think this method(s) would be the best?

- Do you have any ideas regarding the best method of delivering the self help aspects of the programme? We have considered the using the following materials:
- Books and leaflets
- DVD
- CD
- CDROM
- Website
What would you suggest?
Why do you suggest this?
Do you have any other suggestions?

4. Interview Close
- Is there anything we haven't covered which you would like to add?
- Would you like to make any other comments?

I would like to thank you very much for your time and for your very important contribution to this project. It has been very interesting to talk to you.

Text box 6.3: Semi-structured interview schedule

Participants were first asked openly about their experience of receiving treatment for PTSD, with emphasis on what they found helpful, and unhelpful. They were asked to reflect on their treatment, and consider any aspects that might have been too difficult to complete with limited therapist input. In instances where potentially troublesome

tasks were identified, respondents were asked if anything could have been done to make unsupervised completion easier. Participants were also asked whether anything would have been helpful whilst they were on the waiting list for treatment.

The interviewer also enquired more specifically about homework tasks, again concentrating on those which were most and least helpful, and any problems that arose. The extent of family involvement in treatment was also discussed. Respondents were asked about their opinions regarding GSH for PTSD, and their thoughts on aspects of their treatment they envisaged being able to do with limited therapist guidance. They were prompted to comment on the acceptability of GSH as an alternative to therapist administered therapy. They were finally asked how they thought the programme should be delivered and guided, and provided with the same list of options as focus group members (presented in text box 6.2, above).

Three professional experts were also interviewed on a one to one basis due to their involvement with the project steering group. This aimed to avoid the introduction of any preconceived ideas to the groups. The topic guide for these interviews (appendix B) closely resembled the topic guide for the focus groups.

6.3.2.2 Recording

All interviews and focus groups were recorded with a digital recorder for later transcription.

6.3.3 Data analysis

Qualitative data was analysed through a process of inductive thematic analysis detailed in Chapter 5. This involved the six iterative stages described below:

6.3.3.1 Stage one: Familiarisation

Once collected, interview and focus group data were transcribed verbatim. Transcripts were then read and re-read for immersion in the data, and to start constructing an understanding of what participants had to say. All transcripts were imported into QSR NVivo 7 (244), software for Computer Aided Qualitative Data Analysis (CAQDA).

6.3.3.2 Stage two: Generating codes

Each item within the data set was scrutinized line by line and coded using a process of 'open coding', this being representative of an inductive approach. This resulted in a comprehensive list of themes for further consideration.

6.3.3.3 Stage three: Searching for themes

The list of codes generated by analysis up to this point were reviewed and abstracted into themes, these being broader, more inclusive groupings of text segments. A thematic map was used to aid this part of the process.

6.3.3.4 Stage four: Reviewing themes

At this stage the themes were reviewed. Text segments within each theme were re-read to ensure all themes reflected the data and that the data supported the themes. Similar themes were merged, and any with insufficient supporting data abandoned. Each thematic map was considered in turn. The process came to an end when reviewing no longer added anything substantial to the thematic map as it stood.

6.3.3.5 Stage five: Defining and naming theme

A name and description illustrating the importance or relevance of the data held within each theme was created. Where the theme could not be concisely or adequately described, further refinement (as in stage four) was carried out. Each theme captured something important about the data set.

6.3.3.6 Stage six: Producing a report

A report was produced to describe the data set and the main findings of the analysis in detail. The report included data extracts to illustrate important points. A report of the qualitative data from the initial modelling phase is presented in Results Chapter 7.

6.3.4 Outline of the initial prototype

An outline of an initial prototype was created from the qualitative report of focus group and interview data. This detailed components, how it would be delivered, and how it should be guided.

The outline was circulated to all those who participated in the initial focus groups and interviews, inviting comments, suggestions and criticism. Feedback was subsequently discussed with the project steering group and used to refine the outline.

6.3.5 Creating prototype-one

The refined outline was used to guide the creation of the initial prototype GSH programme. Guidance, suggestions and cautions derived from the qualitative analysis of focus groups and interviews shaped the way in which the programme

outline was brought to life. Further details of the of the first prototype can be found in Results Chapter 7.

6.3 Pilot-one

6.3.1 Participants

Prototype one was piloted with 10 participants recruited from the waiting list for individuals with simpler forms of PTSD (with a score less than 80 on the Clinician Administered PTSD Scale (CAPS)) at the Cardiff and Vale University Health Board Traumatic Stress Service. Wide eligibility criteria were used to ensure good external validity. The inclusion criteria for this stage of the study were as follows:

1. Aged 18 or over
2. Gave informed consent
3. Met DSMIV criteria for chronic PTSD of mild to moderate severity (score less than 80 on the CAPS)

Exclusion criteria were also specified:

1. Previous TFPT for PTSD
2. Psychosis
3. DSMIV severe major depressive episode
4. Substance dependence

5. Inability to read and write fluently in English (due to likely inability to fully engage with the GSH programme)
6. Change in psychotropic medication within one month due to possible impact on symptoms
7. Suicidal intent.

Given the high rate of co-morbidity of PTSD and other conditions such as depression and substance misuse, individuals with comorbidity were included so long as PTSD was felt to be the primary diagnosis.

6.3.1.2 Demographics

Participants were aged 22 - 52 with an average age of 34.9 (SD = 11.91). Five were male and five female. Each had a diagnosis of PTSD after a range of traumatic events, listed in text box 6.4. 2/10 (20%) were educated to degree level (or equivalent). The mean number of traumatic events was 1.9 (SD = 0.7).

Physical assault (3)	Road traffic accident (2)
Rape	Combat exposure
Traumatic childbirth	
Discovering deceased husband's body hanging following suicide	
Witnessing husband's arrest whilst detained by armed police	

Text box 6.4: Traumatic events experienced by participants

6.3.1.1 Patient flow

One participant dropped out after initial pre-treatment assessment, before receiving any SH materials. Work commitments and lack of time to dedicate to the programme were the reasons given for leaving the study. A further participant dropped out during the programme, having received only one guidance session. Time constraints were again given as the reason for not completing the programme.

6.3.1.3 Baseline assessment

At baseline all participants took part in a 60 - 90 minute assessment conducted by the author . The session introduced participants to the study and detailed the requirements of participation. Written informed consent was taken (see appendix A).

6.3.1.3 Programme guides

Participants were guided though the programme by one of three therapists; a Consultant Psychiatrist; a Consultant Clinical Psychologist; or a Cognitive Behavioural Therapist. All were highly experienced in treating individuals with PTSD.

6.3.2 Quantitative outcome measures

The following measures were used to assess symptoms at baseline, post-treatment and one-month follow-up (see appendix C):

1. Clinician Administered PTSD Scale (CAPS) – The CAPS (245) is considered to be the 'gold standard' for PTSD assessment. It has been shown to be valid and reliable

(246, 247). It is a 30-item structured interview that corresponds to the DSM-IV criteria for PTSD. Symptoms are rated according to frequency and duration over the previous week or month.

2. PTSD Symptom Scale – Self Report (PSS-SR) – The PSS-SR (248), is a valid and reliable (247, 248) 17-item self report questionnaire assessing the presence and severity of traumatic stress symptoms. It also corresponds to the DSM-IV criteria for PTSD.

3. Beck Depression Inventory (BDI) – The BDI (249) is a 21 item valid and reliable (250, 251), self report inventory. It is one of the most widely used instruments for measuring the severity of depression. Severity of symptoms (e.g. pessimism, sadness, worthlessness) is rated on a 4 point scale ranging from 0 (not at all) to 3 (severely).

4. Beck Anxiety Inventory (BAI) – The BAI (252) is a 21 item inventory indicating the presence or absence of common symptoms of anxiety over the previous week. Each symptom (e.g. feeling terrified, nauseated, worried) is rated according to the same set of four possible answer choices: "not at all", "mildly", "moderately" and "severely". It has been shown to be valid and reliable (253).

5. Alcohol Use Disorders Identification Test (AUDIT) – AUDIT (254) was developed by the World Health Organisation (WHO) as a simple screening tool to pick up the early signs of harmful drinking and identify possible dependence. It consists of 8 questions to ascertain drinking habits. It is valid and reliable (254, 255).

6. Social Support Questionnaire (SSQ) - The SSQ (256) is a 27 item self-administered scale. Respondents are asked to list the individuals available to them for support in specific circumstances, and how satisfied they feel with the support available. Each situation allows the participant to list up to nine individuals. A six point scale from "very satisfied" to "very dissatisfied" is used to rate the individual's satisfaction with available support. It has been found to be valid and reliable (257).

7. Shehan Disability Scale (SDS) – The SDS (258) is used to assess functional impairment in three domains: work/school; social life; and family life. It has been found to be valid and reliable (258).

6.3.3 Quantitative data

Statistical analysis of results from such a small sample of participants would be inappropriate on the basis of insufficient power. Line diagrams will be created to plot each participant's outcome on the measures described above.

6.3.4 Qualitative data collection

All 8 participants who completed the programme took part in a semi-structured interview conducted by the author post-treatment, to ascertain their views on the GSH programme, and their opinions on how it could be improved for future users. A topic guide was developed in conjunction with the project steering group, which is presented in text box 6.5.

Interview topic guide - first post-piloting refinement stage

I want to start by thanking you for agreeing to take part in this research and for coming here today. If it's okay with you, I will be tape-recording the interview. This is just to make sure that I don't miss anything you say. I would also like to assure you that anything you say will be confidential; no one will know who said it. Are we ready to get started?
As you know, we are trying to develop a guided self help programme for PTSD. You have been through the 8 week programme and we are very interested in hearing about how you found it and how

you think we can improve the programme for other users.
Your honest opinions and advice are very important to us.

1. Overall impressions

1. To start, could you tell me how you found the programme?
I'd especially like to know what you found helpful, what you didn't find so helpful.
Why were these things helpful / unhelpful?
Could you name one thing which stands out as having been being particularly helpful? Why?
Could you name one thing which stands out as having been particularly unhelpful? Why?

2. Modules

1. What is post traumatic stress disorder?
2. Grounding yourself
3. Learning to relax
4. Getting a better night's sleep (optional)
5. Controlling your anger (optional)
6. Cutting down on your drinking (optional)
7. Getting more exercise (optional)
8. Becoming more active
9. Changing the way you think
10. Overcoming avoidance – facing your fears
11. Coming to terms with what happened (optional)
12. Staying well

For each, asked - *What do you think of this module?*
Can you suggest any improvements?

Delivery

2. How did you find the self help materials we gave you?
What was the best thing about them and what was the worst?
How can they be improved?

3. Did you use the website?
If not, why not?
What did you like about the website?
What didn't you like?
How can it be improved?

4. Did you use the hardcopy?
If not, why not?
What did you like about the hardcopy?
What didn't you like?
How can it be improved?

Guidance

5. How did you find the guidance you received from your therapist?
What was done well?
How could your guidance have been improved?

6. How did you find your initial guidance session?
What was good about it? What was bad about it?
What could be improved?

7. Did you feel that you received enough guidance?
How much more would you have liked?
Could you have managed with less guidance?

Did you contact your therapist outside your scheduled sessions? Could you tell me what this was concerning?

8. How did you receive your guidance? (over the phone or face to face?)
Was this acceptable to you?
Did you appreciate having the choice?

Understanding

9. Could you tell me about any problems you had completing any parts of the programme?
Why was this?
Could anything have been done to avoid these problems?

10. Did you have any problems understanding instructions given in the programme or by the therapist?
Why was this?
How could these instructions have been improved?

Family involvement

11. Could you tell me about any involvement friends or family had in your treatment?
(This might have included attending the initial guidance session with you, meeting the therapist at any other point, reading the information sheet for family and friends, discussing the programme with yourself, helping with tasks issued by the programme or providing other support).
Was it useful that friends and family and friends were involved?
Could we have done more to involve or inform your family or friends?

Conclusion

12. Overall, would you say that this type of treatment was acceptable to you?
Would you recommend it to other people with PTSD?
If not, why not?

13. What are your suggestions for helping us improve the programme?

Interview Close

14. Is there anything we haven't covered which you would like to add?

15. Would you like to make any other comments?

I would like to thank you very much for your time and for your very important contribution to this project. It has been very interesting to talk to you. If you have any further questions, comments or suggestions, please feel free to get in touch with me.

Text box 6.5: Semi-structured interview topic guide for therapists post-treatment

Interviewees were first prompted to describe how they found the programme in general terms, with emphasis on the aspects they had found to be most and least helpful. They were asked to justify their responses. With regards to programme components, participants were prompted to comment on each module in turn,

providing specific suggestions for improvement. They were asked their opinion on the SH materials and whether they had used the website or hardcopy. Experience of receiving guidance from a therapist was probed, with reference to the frequency, duration, function and method of interaction. Participants were asked to comment on any difficulties they experienced understanding or completing the programme. They were also asked to describe any involvement family or friends had in their treatment and how this could have been improved. The interview was concluded by asking the participant to state their top tips for programme refinement.

All three therapists who guided participants through the programme were interviewed to examine their perceptions of delivering GSH for PTSD. A further topic guide was developed, presented in text box 6.6. They were asked to describe their experience of guiding the programme and any difficulties encountered. They too were asked to comment on each module in turn and provide any suggestions for improvement. In addition they commented on the therapist manual, and how this might be refined.

Interview topic guide – pilot-one – therapists

I want to start by thanking you for all your help with this research and for taking part in this interview. If it's okay with you, I will be tape-recording the interview. This is just to make sure that I don't miss anything you say. Are we ready to get started?

Impressions of guiding the programme

1. To start, could you tell me about your experience of guiding the programme?
What were the biggest challenges you faced in delivering therapy in this way?
Was there anything you particularly liked about delivering therapy in this way?
Can you think of anything we can do to make the process of guiding an individual through the programme easier?

2. How did you as a therapist provide guidance (face to face, by phone, by email or through a combination of these methods)?
How and why were these methods of providing guidance chosen?
In your opinion, which is the best method (or combination of methods) for providing guidance?
Did you encounter difficulties with any method of guidance?

3. Did you feel you were able to provide a sufficient amount of guidance?

How much more would you have liked to be able to give?
Could you have managed with providing less guidance?
Did your participant(s) contact you outside scheduled guidance sessions?

4. How did you find the materials for recording sessions contained within the CRF?
Was there anything you found particularly difficult in using these materials?
Was there anything you particularly liked about these materials?
Can you think of any ways which we can change these materials to make it easier for the therapist?

Overall impressions
Having guided participant(s) through the programme we expect that you have gained insight into the strengths and weaknesses of the programme itself. This may be through participant feedback / problems using the materials or your own observations.

4. Could you tell me how your current opinions of the programme?
I'd especially like to know what aspects of the programme you think are helpful to those using it?
Which aspects of the programme do you think are less helpful to those using it?

5. I would appreciate your comments on each of the following modules:
1. What is post traumatic stress disorder?
2. Grounding Yourself
3. Learning to relax
4. Getting a better night's sleep (optional)
5. Controlling your anger (optional)
6. Cutting down on your drinking (optional)
7. Getting more exercise (optional)
8. Becoming more active
9. Changing the way you think
10. Overcoming avoidance – facing your fears
11. Coming to terms with what happened (optional)
12. Staying well

For each: *What do you think of this module? Can you suggest any improvements?*

Conclusion
9. Overall, would you say that this method of delivering treatment was acceptable to you as a therapist?
If not, why not?

10. What are your suggestions for helping us improve the programme?
For the guiding therapist? For the person using the programme?

Interview Close

11. Is there anything we haven't covered which you would like to add?

12. Would you like to make any other comments?

I would like to thank you very much for your time and for your very important contribution to this project. It has been very interesting to talk to you. If you have any further questions, comments or suggestions, please feel free to get in touch with me.

Text box 6.6: Semi-structured interview topic guide for therapists post-treatment

6.3.5 Analysis of qualitative data

All post-treatment interviews were transcribed verbatim and analysed using a process of inductive thematic analysis (detailed earlier in the chapter). Results of the analysis were summarised and presented to stakeholders who took part in the development stage of the project. The summary document also included suggestions for programme refinement to address feedback. The stakeholders participated in further focus groups to discuss the qualitative and quantitative results of the pre-piloting stage and consider how the programme would be refined.

6.3.6 Refinement of original prototype

Focus group outcomes were discussed with the project steering group. The group consolidated these outcomes and generated a detailed list of programme refinements. These were implemented, creating a refined prototype.

6.4 Pilot-two

6.4.1 Participants

The refined prototype was piloted on a further nine participants recruited from the waiting list of the Cardiff and Vale University Health Board Traumatic Stress Service. These individuals went through the refined programme. Inclusion criteria were identical to those set out for pilot-one. Exclusion criteria also remained the same, with the addition of two additional criteria added on the basis of feedback from pilot-one. These were as follows:

1. Ongoing real-life threat with potential to impair engagement.
2. Ongoing legal proceedings with potential to impair engagement.

Participant ages ranged from 21 - 57 with an average age of 35.88 (SD = 12.51). Five were male and four female. 2/9 (22%) were educated to degree level (or equivalent). The mean number of traumatic events was 1.3 (SD = 0.5). Each met DSM-IV criteria for PTSD of mild to moderate severity. Participants had experienced a range of traumatic events summarised in text box 6.7

Traumatic childbirth (1)	Sexual assault
Physical attack (2)	Road traffic accident (5)

Text box 6.7: Traumatic events experienced by Pilot-two participants

Pilot-two assessments followed the same procedure as pilot-one, with the addition of the Client Socio Demographic and Service Receipt Inventory European Version (CSSRI-EU) questionnaire (259), to provide economic data. The questionnaire derives information related to five categories: 1) socio-demographic information; 2) usual living situation; 3) employment and income; 4) service receipt and medication profile. Since the CSSRI-EU is an inventory of variables required for economic analysis, rather than a multi-item rating scale, there has been little focus on assessing validity or reliability.

6.4.4 Pilot-two data analysis

Data was analysed using the same methods as pilot-one. The result was a qualitative report, and a set of quantitative results.

6.4.5 Final refinement

The qualitative and quantitative results of pilot-two were discussed with further focus groups of stakeholders and used to make a final set of refinements to the programme. A list of refinements, a summary of the final prototype, and the web-address of the refined online version were circulated to the stakeholders involved in the modelling phase and the participants of pilot-one and two, inviting feedback. This produced the final product; a guided self help programme for mild to moderate PTSD, created according to stakeholder opinion and the current evidence base, refined on the basis of the qualitative and quantitative results of two pilot studies.

6.5 Summary and conclusion

The methodology for the study followed MRC guidance for the development of a complex intervention. This involved establishing the existing evidence base, and conducting qualitative work to inform the development of the first prototype. The prototype was piloted twice, with the qualitative and quantitative outcome of each study used to inform programme refinement, with further stakeholder consultation at each stage. The aim was to produce an optimal GSH programme for the treatment of mild to moderate PTSD, and determine the feasibility of a Phase II RCT of the intervention.

Chapter 7: Results: Modelling

7.1 Overview

This chapter presents the qualitative results of focus groups and semi structured interviews conducted with key stake-holders during the modelling phase of the project. These results informed the development of the first prototype GSH programme, presented later in the chapter.

7.2 Qualitative results

Numerous themes, ideas, and cautions emerged from the data, falling into three broad categories: 1) programme delivery; 2) programme components; and 3) guidance. These categories provide a framework for summarising the qualitative results.

7.2.1 Programme delivery

7.2.1.1 Delivery method

Respondents advocated a variety of delivery methods. Written materials, websites, CDs, CDRoms and DVDs were all suggested as preferred formats, with no consensus emerging. Most commented that a combination of different media would be ideal. It was suggested that individuals should have access to materials that suited their preferences.

"Different people like so many different things don't they? It seems young men like CBT websites to use, don't they? Personally I like books, I can't do things on screen, so I think all of them. You have to have it as all of them; written, CDRom and a website."

Professional expert

It was emphasised that individuals learn in different ways. On this basis multimedia presentation was supported to ensure provision of the optimal method for all participants. It was also supported in terms of its potential for enabling *multimodal learning*. Multimodal learning theory predicts that optimal learning occurs when both visual and verbal materials are presented simultaneously (260).

"You're kind of listening, kind of following instructions, then reading, not just listening, reading through, taking it in you know, so you using 2 senses, listening, looking."

Former PTSD sufferer

Interactive materials were advocated, to engage the programme user, aid learning, and reinforce important points. Both professionals and former PTSD sufferers supported a "fun" approach to the delivery of information and skills teaching, suggesting the inclusion of exercises and multiple choice questions to supplement information.

"I think making them interactive is important, so I would...I'd deal with them in a way that you're getting feedback from people so I would be giving people multiple choice questions and things like that just so I could check out their learning on different modules and in as fun a way as possible."

Professional expert

Many professionals favoured use of a website, which would incorporate written materials, video and audio clips. Others expressed a preference for a CDRom, for the

same reasons. Former PTSD sufferers, although not discounting these options, expressed a primary desire for simple written materials that were easy to access. They appreciated written materials provided during treatment. Many commented that written information should accompany any other medium. Former PTSD sufferers also proposed that elements of the programme would be best presented in a portable format, enabling it to be used at home or on the move.

> *"a book you can take around with you, a computer you can't"*
>
> *Former PTSD sufferer*

A divide was encountered between professionals, who favoured high tech options, and former PTSD sufferers, who expressed a preference for simple materials. Former PTSD sufferers however, were also supportive of multi-media presentation and enthusiastic about the idea of video clips. Their main concerns surrounded the challenges SH materials might pose to individuals with PTSD, primarily in terms of concentration.

7.2.1.2 Modules

Professionals advocated a programme that flowed in a simple, coherent way.

> *"they like having almost like this straight line because things are confusing enough for them and things need to be tied together so for example if you're doing something with psychoeducation and then the next bit is assertion and the next bit is CBT... how do they tie together? I mean I think they can do but that needs to be very clearly thought through."*
>
> *Professional expert*

They favoured a modular approach. This was thought to be the most logical way to presenting the programme.

> *"I certainly think that having modules is a good idea. So, you know, a module might be a chapter of a book."*
>
> *Professional expert*

The topic guide did not include questions related specifically to programme structure or the possibility of a modular approach. This arose only in focus groups with professionals. It did not emerge as a topic during interviews with former PTSD sufferers, so no comment can be made in terms of their opinions.

No consensus was reached in terms of whether modules would be presented at the start of treatment, or provided one at a time by the guiding therapist. Both were suggested as possibilities. Some thought providing them all initially may be too overwhelming.

> *"I'm not sure if you would consider delivering all of it at one time. I'm not sure if other people would have a view on that? I'm just imagining something clunking through my post box and I'm thinking 'oh my god I don't know where to start, I can't handle this."*
>
> *Professional expert*

Professionals cautioned that providing modules one at a time would add to the therapist's workload. They also pointed out that it would preclude the participant's ability to choose how and when to use each module.

7.2.1.3 Tailoring

The most recurrent theme overall, was that of *tailoring*. Respondents felt strongly that a GSH programme for PTSD should be tailored to the individual rather than taking a 'one size fits all' approach. This emerged from conversations with professionals and former PTSD sufferers alike. Professionals made this point explicitly and repeatedly.

> *"I think if you had a menu of these interventions then the clinician could choose. If someone's got a particular grief or angry component to their illness then they could introduce the angry letter or the farewell ritual. So a bit kind of pick and mix menu.... We should definitely try to individualise the patient treatment like in real life. We don't have a one size fits all trauma focused intervention, we tailor it the person, individualise it"*
>
> *Professional expert*

Where reasons were given for the necessity of tailoring the programme, it was emphasised that individuals with PTSD present differently, with varying symptoms and concerns. These require different input and intervention. To address presenting complaints would ensure the program targeted the most problematic aspects of the individual's presentation for maximum benefit. Exclusion of other aspects of the programme would prevent content being diluted by irrelevant material.

> *"I think it depends on the individual that you're actually seeing, I think that any programme should take into account that different people present in different ways and are likely to respond to different approaches and I think that's even more important in self help really than in standard therapy."*
>
> *Professional expert*

Individuals would enter the programme at different stages. Professionals cautioned that this should not be ignored, suggesting that tailoring would also be useful in this respect.

> *"I think that's a very important point [that modules should be tailored to the individual] because people may be coming into this process at very different stages following their experience so consequently you could be talking about the first year or a number of years later or having already perhaps had some form of treatment, sorry that's a long way of saying yes... I think yes we should try and address this. Not everyone of course should be in the same place at the same time coming into this guided self help programme."*
>
> *Professional expert*

It was proposed that tailoring the programme would be a task for the first guidance session. Clinician and patient would work together to determine the modules that were most relevant to the individual's presentation.

> *"Well I would have thought the first issue might be to go through a list of components and have a sort of yes, no, maybe...emphasise, you know.... so that everyone gets a different profile."*
>
> *Professional expert*

Formers PTSD sufferers advocated a personalised approach. They encouraged a programme that was tailored to their needs.

> *"I think you've got to make it feel like it's individual but otherwise you could say look nobody come in, we'll send you all a load of packs, and I'm sure that's not what you want to do at all but I think that some people might think well I've got the internet at home, why did I need to bother going all the way down to the Heath."*
>
> *Former PTSD sufferer*

No comments were made against the notion of tailoring.

7.2.1.4 Programme duration

In terms of programme duration, suggestions were made ranging from 6 to 12 weeks, but no consensus was reached. It was thought that participants would work through the programme at different rates.

> *"I mean I suppose some people are going to go through things quite quickly and other people are going to take longer but I'd like to see people doing a minimum of one month on the actual programme, for some people they might do it quicker than that, but nevertheless I think that it's worthwhile saying that we're definitely going to meet in a month even if somebody after 2 weeks says I'm perfect there's nothing going on."*
>
> *Professional expert*

Some professionals suggested that programme duration should be transparent from the outset. The programme user should know how long the programme was expected to take, and how much time they should spend on each module.

> *"I think most people using programmes like beating the blues like to know, this is a 10 week programme but you can use it whatever way you want."*
>
> *Professional expert*

One professional pointed out, that for purposes of trialling the programme, there would need to be a time limit for completion. Feedback related to the acceptability of the allocated time span would serve to inform programme duration in the second pilot study.

"I suppose because you're trialling it there would have to be a limit on it, and because some of the feedback might be about whether people think that's enough, and that's the difficulty in our current NHS, that we are quite protocol driven at the moment and in some ways that's really important because then people are doing similar things but there are downsides to it, so I do think there has to be a limit on it so you could make this fairly lengthy so that people had enough time to dip in and out but I would set a parameter either side of it."

Professional expert

Programme duration was not specifically identified as a discussion point by the topic guide, and did not emerge in conversation with former PTSD sufferers.

7.2.1.5 Appearance

Professionals suggested that materials should be visually attractive. They encouraged a colourful, user friendly layout.

"I think the written stuff should be attractive, I think A4 Times Roman font is a bit dull, so I think a manual with colour, pictures which aren't belittling what you're trying to say...attractive literature which is engaging and draws you in is much better than a very formal document so I think you need to think about that"

Professional expert

Several professionals suggested a uniform look for the programme, to create an identifiable package.

"a style which is consistent [is important] throughout the different chapters so everyone recognises that even if they're doing a different module its part of the same package and that can just be in colour or whatever..."

Professional expert

Inclusion of images was suggested by two professionals, though caution was expressed; if included, it should be done sensitively.

> *"...but I think illustrations are good...I think you have to be quite careful when you select them. I don't think it's something you can rush into and just sort of get a series of pictures but I certainly think to have illustrations catches your eye and your mind and again you're stimulating different parts of the brain so if you can go for more than just a verbal impact then I think you get the message across better."*
>
> *Professional expert*

Though asked about the appearance of materials, former PTSD made no specific suggestions other than the recommendation of a user friendly, simple layout.

7.2.1.6 Wording

The wording of any written materials should be well thought out and carefully considered. Use of easy to understand, jargon free language was suggested.

> *"The other essential thing for me is that it's in ordinary language, jargon free and that people can print it off and access it later, come back to it."*
>
> *Professional expert*

Former PTSD sufferers commented on difficulties concentrating on books about PTSD. This suggested the need for materials written simply and succinctly, with a limit to the overall volume of information presented. Simplicity and clarity were proposed as key to the success the programme.

7.3 Programme components

7.3.1 Psychoeducation

Although not always using the terms 'psychoeducation' or 'education', all former PTSD sufferers experienced a desire to learn as much as possible about the disorder. They

expressed an appreciation of any psychoeducation they received during treatment, often commenting that they would have liked more. Psychoeducation served to inform and reassure.

> *"I had a booklet. It was an opening, kind of like a starter. It was good but it didn't have enough information why am I suffering from this, it was good but I would have liked it if it was more… it gives you a little story about it, it makes you feel relaxed about it…"*
>
> *Former PTSD sufferer*

Former PTSD sufferers experienced a strong desire to understand their symptoms. They invested in books and CDs, and sourced information on the internet. Some expressed difficulties finding reputable psychoeducation. A list of recommended websites and/ or books would have been helpful.

> *"[To] recommend a website, books, things like that would have been a great help"*
>
> *Former PTSD sufferer*

Psychoeducation was cited as one of *the* most helpful aspects of therapy. This notion was supported by all professional stakeholders, who explicitly stated the need for inclusion.

> *"Well, I think education and information is probably a key essential component because I guess the more that we can kind of help people understand what's going in as straight forward a way as possible… that's an essential component"*
>
> *Professional expert*

It was recommended as a mandatory module, available to all. It was suggested as a

> *"I think different people will have different needs and some components will be more important to some people than others. But I think the psychoeducation stuff should be available for everyone."*
>
> *Professional expert*

necessary starting point for the programme, enabling individuals to learn about their symptoms before embarking on treatment.

Where reasons were given for the inclusion of psychoeducation, the importance of gaining an understanding of the disorder was simply emphasised. Both professionals and former PTSD sufferers made the point that psychoeducation should aim to normalise the person's experiences. This was particularly evident in what former PTSD sufferers viewed as having been helpful in their own experience of trauma focused psychological therapy. They consistently and repeatedly conveyed the relief of having learned that they were not alone in their experiences. It instilled hope, and reassured individuals that their symptoms were recognised, and could be treated.

> *"Well, I think the most helpful part of treatment was the therapist sort of saying to me well you know everything you're feeling is normal, lots of people feel like you, you know this is a normal way for you to feel after having a trauma and it made how you felt, not justified but yeah ...everything I feel is normal but there is something I can do about it."*
>
> *Former PTSD sufferer*

They commented that it had been useful to see in writing that the trauma they had been through could result in PTSD, reporting a previous misconception that only combat or large scale disaster could give rise to the disorder.

> *"Before I had it PTSD was something I knew vaguely about from the news and things like that. Something I imagined from war or disaster. I never pictured it just with a car accident. That's what surprised me more than anything."*
>
> *Former PTSD sufferer*

Several respondents drew attention to the diversity of incidents that can give rise to PTSD, and the necessity of including relevant examples where possible. For instance, victims of rape might not identify their experiences with those of a combat veteran, and vice versa.

> *"That's why I like the Mind Over Mood format because in that particular self help manual they use three patient stories which are very different and they carry that on throughout the book, so generally there's something that most patients can fit into their experience whether it's patient a, b or c there's something they can relate to. I like that approach."*
>
> *Former PTSD sufferer*

When it came to methods of presenting psychoeducation, a straightforward, easy to understand format was considered best.

> *"...psychoeducation should be the first bit that really needs to be in there and the other essential thing for me is that it's put in ordinary language., jargon free and that people can print it off and can access it later, can come back to it."*
>
> *Professional expert*

A common suggestion by professionals was the inclusion of fictitious patient stories to illustrate common symptoms and the experience of suffering PTSD. This suggestion came from their view that patients had enjoyed this method as part of other SH packages.

> *"I do think though in self help material people like to read things that they can relate to, which has a little bit of their experience in it, and if you give people material they come back and say.. I really liked reading about this person or that person sounded like they had a lot in common with me, it almost improves the motivation to read the book."*
>
> *Professional expert*

Former PTSD sufferers made no specific suggestions in terms of the presentation of psychoeducation. They simply emphasised that the provision of plentiful information would be useful. Several professionals suggested that presentation of psychoeducation as a video clip would prove engaging to users.

> *"...you could have a video of say an eminent clinician who works in the clinic who sits in front of the camera and does a standard psychoeducation spiel about what is PTSD."*
>
> *Professional expert*

No one suggested that psychoeducation should be omitted from the programme. This said, a few individuals sounded a note of caution regarding the possibility of creating an expectation of symptoms.

> *"I was just thinking about the psychoeducation. I seem to remember that there is some evidence isn't there from some RTA stuff a long time ago in Oxford that actually sometimes giving people information about symptoms actually can make people worse not better. So I guess the contents of the psychoeducation would need to emphasise I think quite strongly, which I'm sure you would that everyone is different and lots of people will not get all the symptoms....we don't want to set the expectation, people are sort of going to be waiting for all the symptoms to kick in some sort of certain order because that's not what happens really is it, and if they haven't experienced any horrible anxiety symptoms well great, doesn't mean they're going to get them a bit later."*
>
> *Professional expert*

Psychoeducation clearly emerged as an uncontested, fundamental component of the proposed programme. Caution was advised in terms of content and presentation. Provision of simple, succinct, engaging information was recommended.

7.3.2 Lifestyle Advice

Serving as an adjunct to education on PTSD itself, it was recommended that advice on lifestyle be provided. No single form of lifestyle advice was however strongly or universally advocated.

7.3.2.1 Advice on sleep hygiene

Several professionals suggested the inclusion of advice on sleep hygiene to address what they deemed to be a key problem associated with PTSD.

> *"One [essential component] would be sleep hygiene because that's the main thing that people present to us with, because their sleep's all over the shop, they're waking up at three o'clock in the morning, they don't know what's going on. Or you know, they'll ask questions like "Should I sleep in the day, catnap?" Having clear guidance in that I think is important."*
>
> *Professional expert*

Some professionals commented that advice on sleep hygiene should be provided only where necessary, as an optional module. This links in with the notion of *tailoring*, suggested elsewhere.

> *"Like sleep hygiene for example, to pick up on another...I mean some people, you say how are you sleeping since the accident and they say, oh, no problem, that's one thing I will say, I don't have any problem sleeping. So you wouldn't want to impose on them three sessions on how to get a good nights sleep, that would just be.....whereas somebody says, "that's it", we all know how important sleep hygiene is indeed, for some people if you move that bit of straw off the camel's back the whole thing is going to be able to stand rigid, so for some people it's a very important thing to address and for other people, just not on the map, just not on the radar."*
>
> *Professional expert*

Former PTSD sufferers found advice on sleep useful, though none listed it as one of

the *most* helpful aspects of their treatment. Some found benefit from medication to help with sleep. Others commented that they had not been provided with, or attempted to practice sleep hygiene advice.

7.3.2.2 Advice on alcohol and drug use

Professionals recommended the provision of information on alcohol, commenting that substance misuse was commonly comorbid with PTSD. No one had any specific advice on how it could be implemented.

> *"I would say that virtually every person that I've seen has had some issue with drug and alcohol. I tend to hammer that one home quite a lot really. I don't know whether it's just my particular catchment area but you know, it's rare for me to find somebody who isn't misusing those to some extent."*
>
> *Professional expert*

Only one former PTSD sufferer reported an issue with alcohol. He claimed to have benefited from advice and encouragement to cut down his intake, emphasising his appreciation of a gradual, step-by-step approach.

> *"The only lifestyle advice I had was I tended to drink a lot, and again, you're hiding your problems. That drink certainly did help! It doesn't do you good in the long run. It was just how can we stop, how can we help reduce the drinking gradually, just having the occasional glass rather than putting a complete stop to it would have been difficult."*
>
> *Professional expert*

Professional stakeholders emphasised that advice should be tailored to the individual, and given only where relevant.

"Again I think with the lifestyle advice, it is a case of tailoring. But I think it's a real shame if you miss an opportunity for someone for instance who's using drugs and alcohol because the rest of your therapy is going to be so much less effective. So, I think it's very important for people to have that information if they choose then you know to use it. I think to miss out things like sleep hygiene and drug and alcohol and social support I think I would that was...that was a gap in the package really."

Professional expert

However, the danger of missing an opportunity to provide useful advice was also highlighted.

7.3.2.3 Advice on exercise

Exercise is often recommended for individuals suffering mental health problems. Both professionals and former PTSD sufferers thought this would be a useful addition to the programme. Those who attempted exercise during their treatment commented on its benefits. It was cited as being therapeutic in terms of leaving the house, engaging them in a meaningful activity, and reducing feelings of stress and anxiety.

"I was always very active in my life anyway... it's only since I've had problems with my physical health that I've lost ability to exercise. But I did find going out for a walk with my wife was a great help. Just walking is exercise I know but it takes your mind off things."

Former PTSD sufferer

No one contested this suggestion, though it was not emphasised as an important component.

7.3.2.4 Advice on anger management

Several former PTSD sufferers suffered anger issues. Advice on anger management had been helpful. Professionals also advocated the inclusion of anger management as an option. Again, this was not emphasised as an important component.

> *"I did used to get very angry. I know once I had a verbal exchange in the village, it's not something I ever used to do; I was very laid back in my life. I read through quite a bit [of anger management advice] and it seemed to disappear. Whether that was from reading up I don't know, but it did."*
>
> *Former PTSD sufferer*

7.3.2.5 Assertiveness training

One former PTSD sufferer found assertiveness training useful.

> *"Assertiveness is really, really important. I had a leaflet."*
>
> *Former PTSD sufferer*

The only other mention of assertiveness came from a professional stating that it was not relevant to PTSD, and might dilute the content of the programme.

7.3.2.6 Problem Solving

One former PTSD sufferer benefited from problem solving exercises.

> *"There were for example problem solving that was like a homework I had to do and read it through and see how I could break the problem. That was really, really helpful."*
>
> *Former PTSD sufferer*

These were not suggested or discussed by any other respondent.

7.3.3 Relaxation and Stress Management

There was strong support for the inclusion of stress management and relaxation techniques. These were frequently cited by former PTSD sufferers as one of the most helpful aspects of their treatment.

> *"...it's phenomenal, really, really helped. I don't know if I was hypnotised but I was certainly in a very, very deep state of relaxation, I felt really floppy. That's what I'd do if I felt things were getting a little bit on top of me."*
>
> *Former PTSD sufferer*

Most professionals suggested relaxation or stress management techniques as essential components. These were said to be easy to deliver in a GSH format. No single method was recommended over any other. Providing a choice of methods was strongly advocated. A consensus emerged that programme users should be granted access to techniques suited to their personal preferences and presentation.

> *"I then think that some sort of basic stress management type techniques are important for example some from of relaxation or breathing retraining would be helpful. So probably in a self help programme you'd have access to a couple of different strategies or you know types of education that people can have to build up their stress management skills."*
>
> *Professional expert*

One professional was quick to point out the lack of evidence supporting the impact of relaxation on traumatic stress symptoms. This comment was related to the use of stress management techniques as a stand-alone treatment. She later commented that the techniques are welcomed by patients, serving a purpose in helping the individual cope with their treatment. Use in isolation, was not however advised.

"I've been involved in two trials, three now with relaxation and one it had no effect at all but in another trial they did in Canada it actually did show some sort of effect... We set it up as a control treatment, we didn't tell people which treatment wouldn't work but we said there wasn't evidence of one of the treatments but in saying all that people actually really liked it and what it did do although it didn't have an impact on symptoms though it does on some of the sort of physiological ones, that people did like it, and people were using it in terms of their family of bringing their anger and irritability down, so I think it's difficult, I think the Jury's still out on it."

Professional expert

Whilst relaxation was often cited by former PTSD sufferers as a *helpful* aspect of their treatment, it may not equate to efficacy in terms of reducing traumatic stress symptoms. It is likely that these techniques were recalled in a positive light since they are one of the more *pleasant* aspects of trauma focused CBT. Components such as imaginal exposure, whose efficacy in terms of symptom reduction is better supported by empirical evidence, is likely to have made a greater contribution to the reduction of traumatic stress symptoms, but were not recalled as favourably, due to the distress caused. Relaxation may have given immediate short term relief from anxiety which was perceived as aiding recovery from PTSD. The techniques were nonetheless highly valued and used as a coping tool.

" I was working on a checkout you know, it was really, really stressful you know like sometimes I used to get really, really stressed, I was breathing really quickly and shallowly, I was shaking, all the symptoms you know of the stress I had it and it was preventing me doing a lot of stuff. It made me feel paralysed. So as soon as I start to control the stress, the shaking and the sweating, feeling out of breath, that sort of stuff... I feel much, much better with my friends, getting my life back you know, step by step. It made me feel very powerful."

Former PTSD sufferer

Professionals commented that relaxation techniques such as progressive muscle

relaxation, guided imagery, breathing retraining and mindfulness would be easy to teach. These techniques lend themselves well to presentation on an audio CD or video clip. It was suggested that they could be used without any guidance, since existing CDs and exercises are given to patients to practise alone as a part of therapist administered TFCBT. Former PTSD sufferers also commented that relaxation was an aspect of their treatment that required little therapist input.

Two former PTSD sufferers failed to find benefit from structured relaxation exercises, but advocated the benefits of taking time out to relax. They had discovered their own methods of relaxation.

> *"For me, I relax by taking a nice long bath. I might even read a book when I'm in the bath. I do take more me-time now than I would have done before and I think it's important to have time to relax in some way or shape. I mean the relaxation exercises didn't work but doing something myself to relax did work."*
>
> *Former PTSD sufferer*

One professional also picked up on this point. She advised against limiting advice on relaxation to structured techniques. Individuals are able to relax and unwind in different ways. It is important to try different methods to discover an effective approach.

> *" [I would include] something about taking time out for yourselves and relaxation might be reading, it doesn't have to be listening to one of those awful tapes you know, or umm I think it's just the whole point of doing something that's relaxing or stress reducing in any form so I think it just needs to be termed as stress reducing or taking time out."*
>
> *Professional expert*

Although relaxation is a valued addition to treatment, the method of relaxation was suggested to be less important.

7.3.4 Grounding techniques

Professionals advocated the inclusion of grounding techniques. These were said to be easy to include in a GSH programme. Former PTSD sufferers did not report having been taught grounding techniques as part of their treatment. These are commonly used, and it is possible that respondents did not recognise them by this name.

7.3.5 Imaginal exposure

Imaginal exposure received less universal support. Former PTSD sufferers described it as a beneficial but distressing process.

> *"I mean it can be quite painful at first when you listen to it, you know it's a bit shocking, and after a while because you listen to it more and more it becomes something that you're not so fearful of and the more you listen to it"*
>
> *Former PTSD sufferer*

One former PTSD sufferer suggested that some of the work could be done at home. He was able to tolerate imaginal exposure homework, and felt that it would be acceptable for those using a GSH programme to do the same.

> *"But I think once you've got that sort of ground work and you understand what it is you're hoping to achieve, a lot of it you can do at home and sort of I think I did, I did homework where I listened to the tape and we talked about it"*
>
> *Former PTSD sufferer*

Many professionals claimed imaginal exposure to be an essential component. They warned that treatment without imaginal exposure would treat the symptoms, neglecting the cause. Here professionals drew on their experiences of treating patients successfully using imaginal exposure techniques, and their knowledge of the evidence

base for treating PTSD. One professional reflected on the treatment of a patient without any imaginal exposure work. The outcome had not been satisfactory in terms of reducing traumatic stress symptoms.

> *"Someone has come to me recently who has been having just in-vivo exposure with an OT his functioning has improved and subjectively he's improved considerably and I did the CAPS on him and there were lots of symptoms there, and lots of feelings...so he'd well over estimated how much he'd improved ...so that's made me thin that if we can think of a way of making imaginal exposure happen which may require more guidance than other bits then ideally really if that should be put in..."*
>
> *Professional expert*

Some professionals suggested the inclusion of imaginal exposure as an option, rather than a mandatory component. An approach whereby therapist and programme user decided whether it was appropriate was advocated.

> *"I think exposure shouldn't definitely be in there for everybody, I think you have to make a judgement on that as you go on so I wouldn't like to see that as an absolute mandatory for everybody that goes through the programme because I think that for some people you just don't feel that's right for them at that time."*
>
> *Professional expert*

Others thought it should be mandatory, whilst some were of the opinion that it was inappropriate for inclusion in a GSH programme. Imaginal exposure was said to require closer guidance and support from the therapist.

> *"If the person needed the therapist as it were when the recording is made then that might be a good use of one of the notional three sessions that I've just invented. That might be a very good use of one of the middle session for example. The other thing is whether the therapist is there to pick up as it were the pieces if this were to be traumatising in itself."*
>
> *Professional expert*

Former PTSD sufferers frequently commented on the value of telling their story. Several commented that being deprived of this opportunity would have been detrimental to their recovery.

> *"I just wanted to let it out really. I wanted somebody to listen to me, I wanted somebody who was different, who didn't know anything about what happened. I wanted somebody, if that person was specialised in some way so he or she could help me out and tell you it's true all that I'm going through it makes me feel very comfortable."*
>
> *Former PTSD sufferer*

Former PTSD sufferers doubted their ability to have coped with imaginal exposure alone. The therapist was a valued part of the process, providing reassurance and encouragement to tackle avoidance of the trauma memory.

7.3.6 In vivo exposure

Consensus emerged that in-vivo exposure should be included in the programme. Professionals suggested this form of exposure to be easier to incorporate than imaginal exposure.

> *"I think in-vivo exposure is probably easier to prescribe, incorporating a close person to be able to push that along a bit, it's easier. Imaginal exposure can become tricky."*
>
> *Professional expert*

Former PTSD sufferers commented that in vivo exposure had been a useful part of their treatment. It helped acknowledge that they were avoiding certain activities, and encouraged a gradual return to the life they had led before the trauma.

"[Graded exposure] made the biggest difference to getting back to normal if you like. Because although the [imaginal] exposure techniques it worked, it did the trick, I was left with a lot of residual problems that I was avoiding and it was affecting...I mean I was going to work, don't get me wrong but I was going to work, I was coming home then I wasn't going anywhere else."

Former PTSD sufferer

One former PTSD sufferer went on to suggest that this could be done with limited guidance from a therapist, even over the phone.

"....we could have had telephone contact then [during graded exposure], I trusted him, I had met him, I knew what it was we were both hoping to achieve so yeah, I think that would have been ok..."

Former PTSD sufferer

No one advised against including in vivo exposure.

7.3.7 Behavioural Activation

Former PTSD sufferers commented on becoming less active after their trauma. They reported marked changes in their social lives, and a loss of interest in hobbies and activities. They described a tendency to stay at home, isolated from others. They claimed to have benefited from encouragement and support to become more active. Once more, a gradual approach was advocated.

"[We] wouldn't have people back. We didn't want anyone back. Gradually we would just invite someone over for a drink. That was something good we did that for homework."

Former PTSD sufferer

Professionals suggested the inclusion of techniques aimed at behavioural activation,

indicating it was often helpful to patients they had treated.

> *"...another key thing I think is that at a very early stage is to look at an individuals lifestyle at the moment, what they're actually doing and for a lot of people who I see then I think some sort of behavioural activation at an early stage would be very important, so you know for example, getting people just getting out and about again, maybe doing some exercise which can clearly have a positive impact on the mind but trying to help them develop a better structure to their lives if they've let the structure go"*
>
> *Professional expert*

No one suggested the exclusion of behavioural activation, nor did they suggest any disadvantages of its inclusion.

7.3.8 Cognitive Techniques

Several professionals advocated the inclusion of simple cognitive techniques. Those suggested for inclusion comprised *pie charts of responsibility*, identifying *unhelpful thinking*, and raising awareness of *cognitive distortions common in PTSD*, including guilt and shame.

> *"...and then I think that one would be thinking about fairly standard cognitive techniques, I think they would have to be simple to be delivered in this sort of a manner but simple cognitive techniques such as pie charts, trying to look at over-generalisation, magnification, catastrophisation, those sorts of issues I think would be important with fairly simple straightforward cognitive techniques."*
>
> *Professional expert*

Some professionals cautioned that cognitive techniques were too complicated. They could not envisage cognitive restructuring as part of a GSH programme.

> *"I think a self help intervention is going to work best if it's fairly kind of simple and so I think cognitive interventions have the potential to be quite complicated, so I'm unsure about whether we should include."*
>
> *Professional expert*

Other professionals commented that simplified techniques would be suitable for inclusion. These had been included in other SH programmes.

> *"That's the challenge I think, because it's very ummm... difficult to break cognitive therapy down into a manualised technique. However, there are short versions of cognitive challenge techniques like the court-case technique from stress control manual and there's the credit card challenge prompts from overcoming depression which are freely available and very helpful."*
>
> *Professional expert*

Former PTSD sufferers did not mention the term 'cognitive', but spoke of their therapist changing the way they thought about the trauma.

> *"....she explained that your brain compartmentalises it and it doesn't attach nice things to it and so what we're going to do is we're going to change the way you remember it and change the way you perceive it. So I don't think you could do that on your own by the nature of what it is that's wrong with you, you know, that's what everyone does, you either avoid it or you drink too much or you, you know do all the things you're not supposed to do rather than face up to it."*
>
> *Former PTSD sufferer*

They found the process helpful, but could not envisage doing it alone. As with other components of psychological therapy, cognitive techniques are interwoven with other aspects of treatment. They are used without the therapist drawing attention to the technique. As one former PTSD sufferer pointed out, therapy had not involved distinct techniques delivered in isolation. Former PTSD sufferers were therefore less able to pinpoint distinct, named components of their treatment for recommendation. Cognitive techniques in particular are likely to have been disguised, and were not therefore identifiable.

"So..... our approach was to focus on the trauma and what happened then and why I'm feeling what I'm feeling and just attach good things to the trauma. We probably used a lot of these things (motioned to information sheet) in doing that but it wasn't like right today we're going to do this and next week we're going to do this. It wasn't like that but we may have used a little bit of all of these probably."

Former PTSD sufferer

Carefully considered cognitive components were generally advocated, providing presentation was simple enough for use with limited therapist guidance.

7.3.9 Links to Other Sources of Support or Information

Several former PTSD sufferers found sources of support outside their treatment at the Traumatic Stress Service useful. These included the charity Mind, self help groups, and alternative therapies such as Reiki. It was noted that individuals had struggled to learn of these additional services. They recommended programme users be advised of these organisations.

7.3.10 Family involvement or Information for Family Members

Both professionals and former PTSD sufferers advocated a role for friends and family.

"...I don't know how easy it is to incorporate interventions that involve other members of the family, but that's potentially important as well because a lot of people would see you know...the impact on the family is often quite difficult. They become irritable and angry and other people don't know what's going on."

Professional expert

Former PTSD sufferers commented that information aimed specifically at their loved ones had been a useful resource before and during their treatment. Those whose families had met with the therapist, or been in some way involved in treatment found this to be useful.

"I mean he only come once or twice, if that. But he understood then if I had homework to do, what we were trying to achieve, so he could praise me if I done well. Do you know what I'm saying? He'd say oh you done well; we'll go for a cappuccino and buy something."

Former PTSD sufferer

Individuals, whose families had not received much information, commented that this would have been a welcome addition to treatment. It was suggested that information would help family and friends understand what their loved ones were going through, and gain knowledge about PTSD and its symptoms. The aim would be to promote support and understanding.

Family support would be all the more important in GSH, due to the reduced level of support provided by the therapist. This may explain the frequency at which the suggestion was made. As a note of caution, one former PTSD sufferer commented on a lack of family support.

"...I have my brother, we suffered the same trauma but he deals with it a different way, he is ok you know he goes out, he does his job and sometimes I think, oh, he's a lot more active, so I had a problem with my brother he knew I go to see Neil and he used to call me hey, you are sick, you are sick you are, you are taking tablets, you're going crazy now, you're mad, this and that so used to more sort of dilute, make me feel more lower, lower, lower, lower, lower...

Former PTSD sufferer

If including family support, it would seem necessary to recognise that the ideal supportive social network might not always exist.

7.3.11 Farewell Ritual

Some professionals suggested the inclusion of a *farewell ritual* (a component of Brief Eclectic Psychotherapy). One commented that it lends itself well to GSH. No one suggested it as an essential component.

> *"I don't think it [farewell ritual] should be an essential component. I guess it might follow from some exposure based work perhaps a narrative account. I guess that might be useful for some people, but I don't see it as essential in self help."*
>
> *Professional expert*

Another expert cautioned that participants might be reluctant to part with mementos. She added that participants should not fear being judged or allowed to feel they have failed on this basis. Former PTSD sufferers did not mention having done a farewell ritual as part of their treatment.

7.3.12 Relapse Prevention

One of the focus groups proposed including a section on relapse prevention. Although it was not brought up elsewhere, it represents good practice. It would also act as a useful resource to refer back to.

> *"I did think that perhaps there should be a section on relapse prevention and how to keep yourself well, because hopefully the point of this is that the person would recover and you know, they need to stay well."*
>
> *Professional expert*

It was proposed to comprise education and advice on how to stay well. It was also suggested that information on post traumatic growth be included here.

> *"I often find about guided self help, is that they do tend to focus by the nature of what you're doing on the negative impact of the illness. And I just wonder if it would be quite nice, you know, at the end to have a little section on positive post traumatic growth and resilience... and, you know, perhaps not as an intervention but just as an information giving exercise and to inspire hope and optimism"*

Former PTSD sufferers did not mention having received any advice on relapse prevention.

7.4 Guidance

No evidence existed in the literature to suggest the best way of guiding a SH programme for PTSD. Professionals suggested that patient preference should be the guiding factor in absence of substantiation of the most effective method from previous work.

Stakeholders were asked whether the programme should be offered with face to face, telephone, email contact, or with use of any other technologies. It emerged that the first guidance session should be conducted face to face. All respondents commented that there was benefit to an initial meeting of this sort.

> *"I believe in the face to face without a doubt as a number one but I think once they've built up a relationship face to face like.... I know you now so even if I spoke to you I've got a picture of what you look like and so forth... so if workload demanded you couldn't see that person every week then I'm not saying then once you've met face to date that a chat at a specified time for 10 minutes every week would ..I think that could work, but not unless that fist one was face to face, because I think people sometimes with their trauma or their troubles are so deep umm, cos you've got to."*
>
> *Professional expert*

Reasons given for the necessity of an initial face-to-face meeting included the desire to visualise the therapist in later contact, creating a therapeutic bond, allowing the individual to attend an NHS institution to create an impression of credibility, and the patient's desire to tell their story face to face. All former PTSD sufferers emphasised

the importance of face to face contact, but the majority conceded that after an initial face to face meeting, further guidance by phone or email would be acceptable. It was emphasised that face to face contact would be more important at some stages of the process than others, namely initially, and during imaginal exposure. Other aspects of treatment could be guided more remotely.

> *"Yeah, I certainly think not so much with X and initially and the cassette and all that I don't think... I couldn't have done that over the phone, I'd have just blubbed down the phone, I'd have had the box of tissues and been crying and whatever, but with Neil most definitely, we could have had telephone contact, I trusted him, I had met him, I knew what it was we were both hoping to achieve so yeah, I think that would have been... I don't think I'd have liked to email him and him email me back. I don't think that would be something I would have liked. I mean I don't think it's unreasonable to say I'll see you in 3 months' time just to wrap it up but in the meantime I'll ring you or whatever, negotiate, maybe once a fortnight."*
>
> *Former PTSD sufferer*

After an initial face to face meeting, guidance by phone, email and additional face to face contact were all suggested as possible options. There was no consensus as to the best method. It emerged that choice should be offered, enabling participants to receive their preferred method of guidance. This was evident from former PTSD sufferers indicating different preferences and professionals suggesting explicitly that providing a choice would be the best option. This fits with the themes of choice and tailoring, which emerged elsewhere.

> *"I think that choice should be offered because some people really don't like telephones and would prefer email, other people the other way round."*
>
> *Professional expert*

Professionals were keen on the idea of email contact, whilst acknowledging that patient choice should be the deciding factor . Former PTSD sufferers tended to favour

further face to face or phone contact over email. One former PTSD sufferer stated that any form of guidance would be acceptable, as long as an initial face to face meeting was offered. Use of web-cams, text messages and Skype were suggested by some professionals. Support was limited, and these were not supported by any of the former PTSD sufferers.

No consensus was reached in terms of the optimal amount of guidance. Few respondents felt able to commit to a suggestion of guidance frequency or duration. Professionals commented that guidance should be minimal, with several cautioning the risk of providing too much guidance, creating a programme that could no longer be considered GSH.

> *"I think there probably should be a maximum [amount of guidance] because then if it's more than that then it does becomes something different, it's not really self help any longer."*
>
> *Professional expert*

The majority of respondents advocated scheduled guidance with set times and dates for communication. Former PTSD sufferers liked the structure of scheduled appointments, which helped them feel supported.

> *"I know it sounds silly but having another appointment to focus on was probably one of the greatest strengths. I don't think it mattered if it was a week away or a month away or anything like that, just knowing you were going back was a help in itself. You're not isolated. I know you say about the self help programme, some regular advice from a therapist or something like that, I think some kind of programme where there was a fixed date to see the therapist would benefit."*
>
> *Former PTSD sufferer*

They also saw it as motivation to complete homework tasks by set deadlines. These

tasks, which were often viewed as unpleasant, would have been avoided without a date for completion.

> *"I think it would have been very easy for me to have said, right I've taken all this stuff home, right that's it now, leave it now. You need somebody almost to be checking up on you, do you know what I mean? To make sure you're doing it. Because it was painful to do it and I'm sure if I hadn't had to see [therapist] I would quite possibly have been I'll do it tomorrow, I'll do it tomorrow and it just sort of drags out. Whereas if you know you have to meet somebody you've got to be able to try and write the problems, you've got to listen to the tape...whereas if you didn't meet the counsellor you could easily sit back and do nothing. For me anyway (laughs), I'm talking about myself."*
>
> *Former PTSD sufferer*

Professionals also commented that scheduled guidance fitted best with the therapist's workload, enabling treatment to be scheduled alongside other commitments.

> *"I think it should be the first one where it's scheduled so that therapist and patient book it into their diary, so Monday next week we're going to talk on the telephone, skype or email. Because I think for the therapist they need to put that into the therapists work."*
>
> *Professional expert*

Two professionals were less enthused by scheduled appointments, commenting that it would take from the flexibility of the programme, something they saw as a benefit of GSH.

> *"I think that if people know that if they want it they can have access to the person who's delivering the guidance through whatever means or whatever, if they're aware that they can access assistance, you know the idea that having a problem and it's Monday and I'm not scheduled to have some guidance until Friday umm, that might be a bit tricky, so you need to consider how that could be done, it can't be open access because that wouldn't be feasible, but you need to consider how people are told the way in which the guidance is available, I think that's going to be a very important part of delivering some guidance."*
>
> *Professional expert*

Provision of a 'safety-net' was well supported. The ability to contact the traumatic stress service should any problems arise was advocated.

> *"...if you think I'm going to phone the therapist now and he's not there it would be very frustrating for the person. Is it possible that you could have some kind of reception for emails and highlight what's urgent and what's not so urgent, do you know what I mean, perhaps you could raise funding or something form somewhere for someone to work and open the email and identify who needs to be seen urgently?"*
>
> *Professional expert*

It was emphasised that such a facility should be offered in a manner which avoids the frustration of unanswered calls and emails.

7.5 Prototype one

Key themes, suggestions and cautions, which emerged from the qualitative data described above were discussed with the project steering group and used to produce an outline of an initial prototype. This was sent to all the original stakeholders for comment, but remained unchanged in line with stakeholder approval. The outline was then used as a framework and template to produce the first prototype GSH programme, which is summarised below under the headings of *delivery, programme components* and *guidance*.

7.5.1 Delivery

Prototype one of the GSH programme, which was named the *Tackling Traumatic Stress,* was designed to be delivered over eight-weeks. Since choice emerged as a strong theme during stakeholder focus groups and interviews, the programme was

available online and in hardcopy.

Prototype one comprised twelve modules listed in text box 7.1. Seven modules were mandatory; the remaining five were optional. This allowed tailoring of the intervention to meet individual needs. Mandatory modules were *What is PTSD?* (psychoeducation); *Grounding Yourself* (grounding techniques); *Learning to Relax* (relaxation techniques); *Becoming More Active* (behavioural activation); *Changing the Way You Think* (cognitive restructuring); *Overcoming Avoidance* (in vivo exposure); and *Staying Well* (relapse prevention). Optional modules included *Getting a Better Night's Sleep* (sleep hygiene); *Controlling Your Anger* (anger management); *Cutting Down on Your Drinking* (advice on reducing alcohol consumption); *Getting More Exercise* (advice on getting more exercise); *Coming to Terms With What Happened* (imaginal exposure). They were completed when appropriate to the individual using the programme.

The *tackling traumatic stress* programme

1. What is post traumatic stress disorder? (psychoeducation) - *mandatory*
2. Grounding yourself (grounding techniques) - *mandatory*
3. Learning to relax (relaxation techniques) - *mandatory*
    4. Getting a better night's sleep (optional) (sleep hygiene advice) - *optional*
    5. Controlling your anger (optional) (anger management) - *optional*
    6. Cutting down on your drinking (optional) (alcohol advice) - *optional*
    7. Getting more exercise (optional) (advice on physical exercise) - *optional*
8. Becoming more active (behavioural activation) - *mandatory*
9. Changing the way you think (cognitive restructuring) - *mandatory*
10. Overcoming avoidance – facing your fears (in vivo exposure) - *mandatory*
    11. Coming to terms with what happened (optional) (imaginal exposure) - *optional*
12. Staying well (relapse prevention) - *mandatory*

Text box 7.1 Modules included in prototype-one

In line with themes from the stakeholder focus groups/ interviews, the need to present information succinctly, in an engaging format, was a major consideration. Exercises to consolidate learning, and facilitate the practise of new skills were presented. The programme was designed for use with limited therapist guidance. Each module consisted of three sections:

1. **Information** – This section aimed to teach the individual about their symptoms. It gave simple advice and summarised important points with 10 easy tips. Information for all modules was sourced by identifying relevant research and existing materials, and developing versions consistent with the *tackling*

traumatic stress structure.

2. **Quick Quiz** – The 'Quick Quiz' posed 5 multiple choice questions with an explanation that it was not important whether the individual got these questions right or wrong; they were present to consolidate learning.

3. **Exercise -** At the end of each module, there was a simple exercise to be completed and discussed with the programme guide to facilitate practise of the new information presented.

Two fictitious patient stories were followed through the programme to illustrate the information and provide a testimony to the role of each module. These were the stories of Michael, a middle aged father involved in a road traffic accident, and Chloe a young shop assistant, who was physically assaulted on her way home from work. Michael and Chloe's stories are presented in text box 7.2. All materials aimed to be self explanatory.

7.5.1.1 Hardcopy

The hardcopy presented programme content on A4 pages presented in a blue ring binder, accompanied by a four page information leaflet for family and friends, and daily diary sheets. Space was provided to answer the quick quiz questions and complete written exercises. The hardcopy was given to the patient during the first guidance session.

Michael's Story

Three years ago, Michael was involved in a car accident. He was driving home with his son from a Christmas party when a drunk driver sped around a corner, lost control of his vehicle and crashed into the passenger side of his car. His son was injured but luckily recovered in hospital in the weeks that followed. Michael had only minor injuries.

In the days following the accident Michael could not believe or accept what had happened. He started having vivid distressing nightmares which would wake him up screaming in the middle of the night. At work he found it difficult to concentrate or focus on what he was doing. He felt anxious, tense and easily startled. He worried constantly for the safety of his family and felt very angry that the drunk driver had put his son's life in danger. He couldn't keep thoughts of the accident from his mind and was troubled day and night by the sounds of screeching tyres and his son screaming. Michael, a once sociable man, no longer enjoyed spending time with friends or doing the activities he used to. He felt he had no real future.

Chloe's Story

Chloe was only 25 when she was mugged on her way home from a shift at a local supermarket. It was daylight and she was walking along a route she had walked hundreds of times before. The mugger held a knife to her throat and demanded her bag and the mobile phone she held in her hand. Chloe handed over her belongings and the mugger ran away.

For the rest of the day Chloe felt shaken by the ordeal but tried to convince herself that it could have been worse; that she'd had a lucky escape. In the weeks that followed Chloe couldn't stop thinking about what happened. She made excuses not to go to work to avoid walking through the area she was mugged. Gradually she became hesitant of leaving the house at all. She found it difficult to sleep and felt dazed and on edge all day. Chloe felt angry at the mugger for what he had put her through and guilty for the worry her family expressed.

Text box 7.2 Fictitious patient stories presented in the module *what is PTSD?*

7.5.1.2 Website

The *Tackling Traumatic Stress* website was created and hosted using the free of charge services offered by the company Yolasite. Content from the hardcopy was entered into a template. Stock-images were sourced and embedded, to add colour and interest to the website. An IT expert was consulted to maximise the website's functionality.

The online and hardcopy versions of the programme were identical in terms of content, with the addition of video-clips on the website. Actors were hired to play the parts of Michael and Chloe. Scripts were prepared, and the actors were filmed presenting their

stories, describing their symptoms, and providing testimonials of the positive impact of their treatment. Scripts were also written for Professor Jonathan Bisson, who presented the information section of each module.

A blue colour scheme was chosen, and pages were consistent in terms of appearance and layout, to create a unified feel. The home-page (figure 7.1) featured the *Tackling Traumatic Stress* logo and an introduction to the programme. Modules were accessed by selecting the appropriate heading from the menu on the left hand side of the screen.

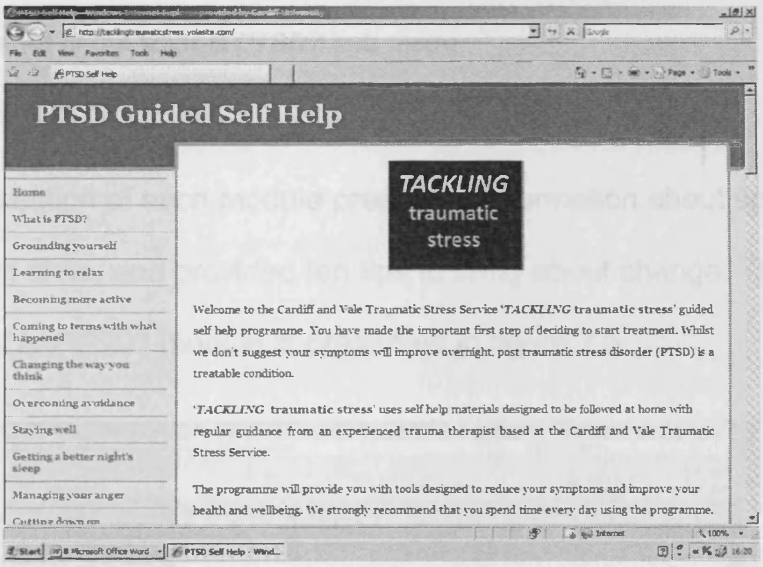


Figure 7.1 Screenshot of the *Tackling Traumatic Stress* website homepage

Selecting an item from the menu opened a sub-menu, which provided access to the information, quick quiz and exercise sections.

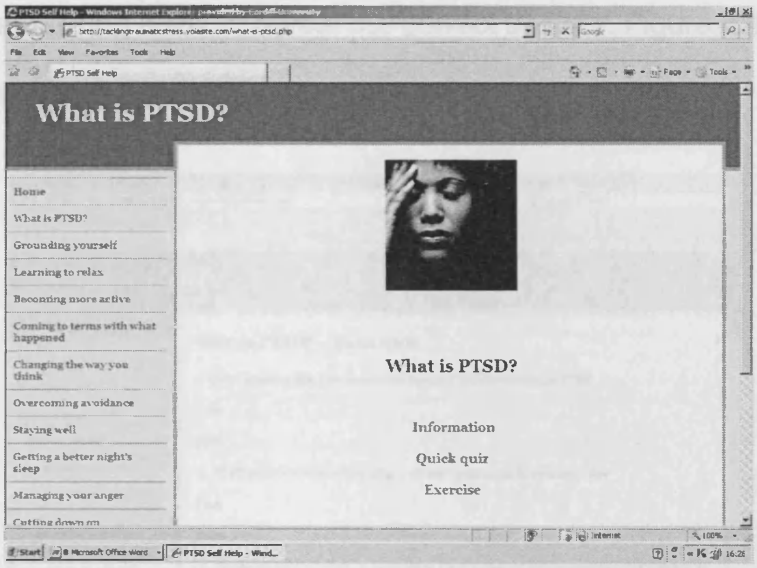


Figure 7.2 Screen-shot of the *what is PTSD?* sub-menu

The information section of each module presented information about specific symptoms, taught skills, and provided ten tips to bring about change. The information page of the *What is PTSD*? module is presented in figure 7.3.

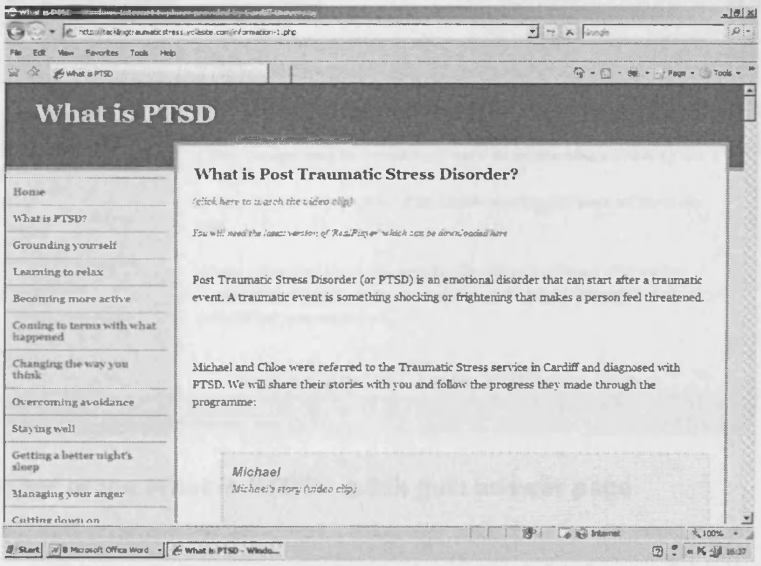


Figure 7.3 Screen-shot of the *What is PTSD?* information page

Quick quizzes were also presented online. Participants answered the five multiple

choice questions, clicking a link to reveal the correct answer. Figure 7.4 and 7.5 present the quick quiz pages of the *What is PTSD?* module.

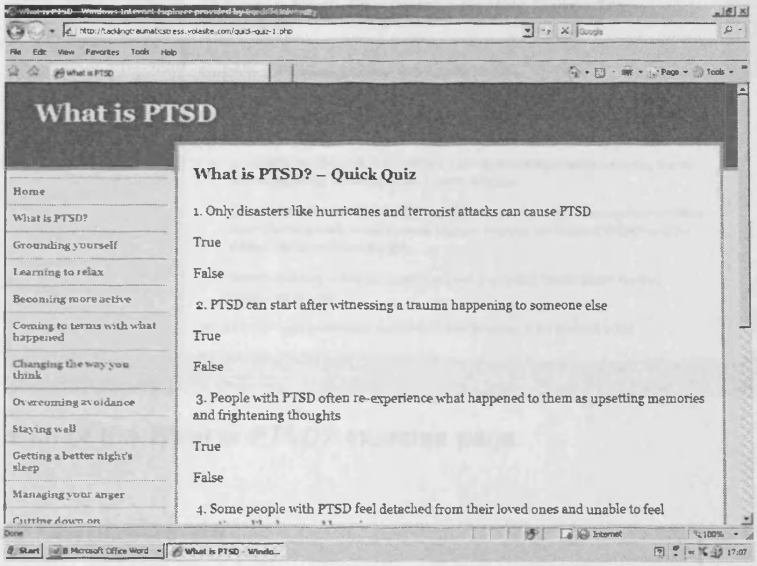


Figure 7.4 Screen-shot of the *what is PTSD?* quick quiz page

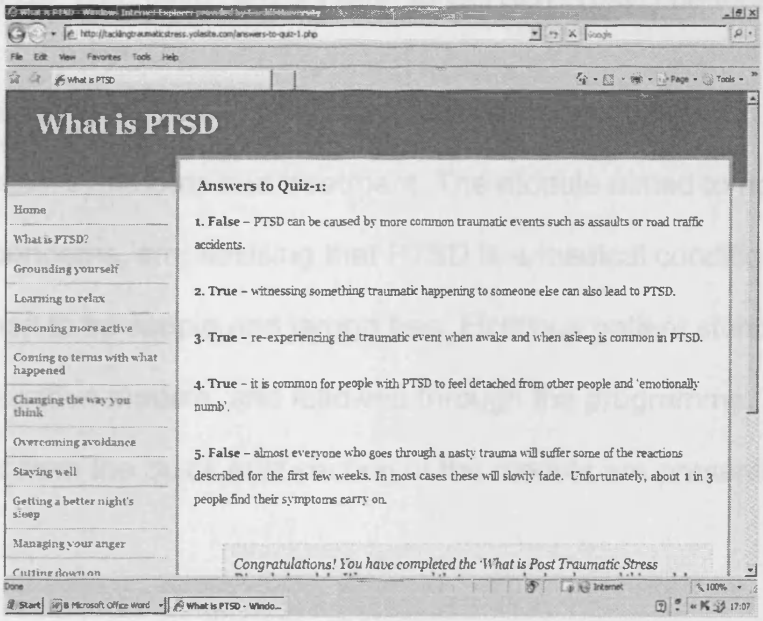


Figure 7.5 Screen-shot of the *What is PTSD?* quick quiz answer page

The web-based programme also presented the exercise section of each module. Unfortunately there were no facilities for completing tasks online. Participants were asked to complete exercises on paper, or with use of word-processing software.

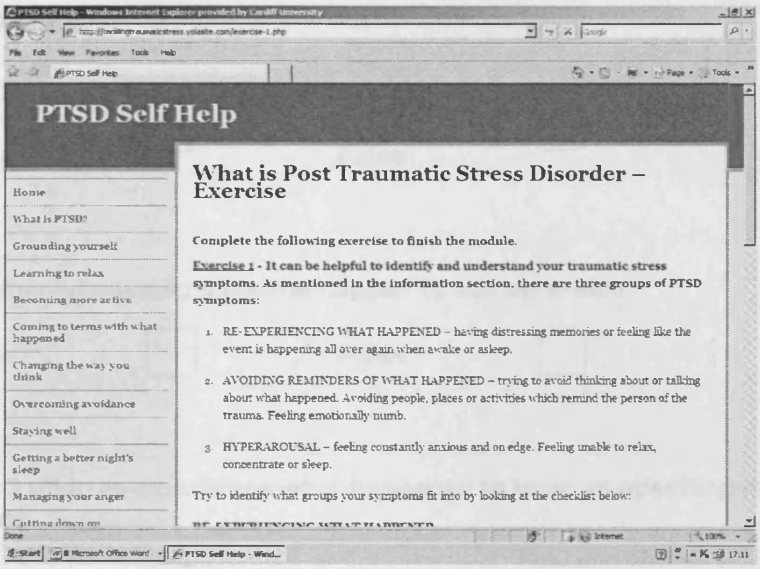


Figure 7.6 Screen-shot of the *What is PTSD?* exercise page

7.5.2 Programme components

7.5.2.1 What is Post Traumatic Stress Disorder (PTSD)? (psychoeducation)

The first module, *What is PTSD?*, presented basic psychoeducation. It described the disorder, its causes, symptoms and treatment. The module aimed to normalise symptoms and concerns, emphasising that PTSD is a medical condition that requires treatment. It aimed to be simple and jargon free. Fictitious patient stories were initiated in the psychoeducation module, and followed through the programme. The multiple choice questions from the *quick quiz* section of the module are presented in text box 7.3 below.

What is PTSD? – *Quick Quiz*

1. Only disasters like hurricanes and terrorist attacks can cause PTSD

True ☐ **False** ☐

2. PTSD can start after witnessing a trauma happen to someone else

True ☐ **False** ☐

3. People with PTSD often re-experience what happened to them as upsetting memories and frightening thoughts

True ☐ **False** ☐

4. Some people with PTSD feel detached from their loved ones and unable to feel emotions like love and happiness

True ☐ **False** ☐

5. Everyone who goes through a traumatic event develops PTSD

True ☐ **False** ☐

Text box 7.3: Quick quiz from the module *what is PTSD?*

The exercise section required programme users identify their symptoms, by completing a tick list.

7.5.2.2 Grounding yourself (grounding techniques)

A module presenting grounding techniques was included to help individuals cope with periods of anxiety, panic, and/or flashbacks. These techniques aimed to stop the individual losing touch with the present moment by concentrating thoughts on the surroundings. They were also intended for use managing anxiety and distress caused

by later modules.

Since *choice* emerged strongly as being important, a list of possible techniques was presented (text box 7.4). These techniques drew on the senses, including those which relied on sight, touch, sound, smell and taste. Participants were invited to try as many as they wished, and advised to continue using those they found helpful. The exercise section required individuals practice several of the techniques when calm, to enable implementation when anxious. Participants were encouraged to write about their use of the techniques in their diaries.

Grounding yourself

Sight: *List everything you can see around you. Count all the pieces of furniture in the room. Notice what colour the carpet and curtains are, and so on. You can also try focusing on anything in the room that brings comfort or makes you feel safe.*

Sound: *Listen to loud music or sing/speak aloud. As with sight you can also list of all the noises around you. Some people find clapping their hands or stomping their feet on the ground helpful.*

Touch: *Keep a rubber-band on your wrist and pluck it to feel the stinging sensation as it touches your skin. Some people find rubbing ice on themselves also grounds them.*

Smell: *Sniff something strong smelling e.g. perfume, peppermint.*

Taste: *Eat or bite into something with a strong taste e.g. a lemon or something salty.*

The mind: *Telling yourself repeatedly that you are in the here and now and that you're safe can help. Calling a friend or family member and asking them to talk to you about things you have done together recently may also be effective. Some people find that mentally distracting themselves by listing as many cities, football teams etc. as they can works for them.*

Text box 7.4: grounding techniques, from the module *grounding yourself*

7.5.2.3 Learning to relax (relaxation techniques)

Module 3, *learning to relax,* offered a choice of two structured relaxation exercises; Progressive Muscular Relaxation (PMR) and Breathing Retraining. Participants were invited to try both techniques, and decide which they found useful. PMR was available as a downloadable audio clip on the website and on a CD in the hardcopy. Breathing

retraining was available as a video clip on the website and described in writing in the hardcopy. The text version of the breathing retraining exercise is presented in text box 7.5 below.

Breathing retraining

1. Sit in an upright position looking straight ahead. Drop your shoulders to release the tension.
2. Take a slow deep breath through your nose, breathing in for about 4 seconds
3. Hold this breath for 2 seconds.
4. Breathe out slowly through your mouth for about 4 seconds. As you breathe out, try and relax the muscles in your face and shoulders to release any built up tension.
5. Wait a few seconds before taking another deep breath through the nose.

Text box 7.5: Instructions for breathing retraining, from the module *learning to relax*

The module acknowledged that structured relaxation exercises would not suit everyone. It suggested taking time out to engage in any healthy relaxing activity. The exercise section required the individual relax every day, and to report on this in their diary. The grounding and relaxation modules aimed to teach techniques which could be drawn upon throughout the programme.

7.5.2.4 Changing the way you think (cognitive restructuring)

Changing the way you think aimed to teach simple techniques for cognitive restructuring. It presented some common forms of unhelpful thinking with examples. It also focused on cognitive distortions common in PTSD, including guilt, self blame, and seeing the world as a dangerous place. The exercise section required the individual identify unhelpful thoughts. Those who experienced feelings of guilt associated with their trauma were also asked to write about their guilt, to analyse the alternatives , and to provide a detailed answer to the question *"if a friend described this situation to you, what would you say? Would you blame them?"*

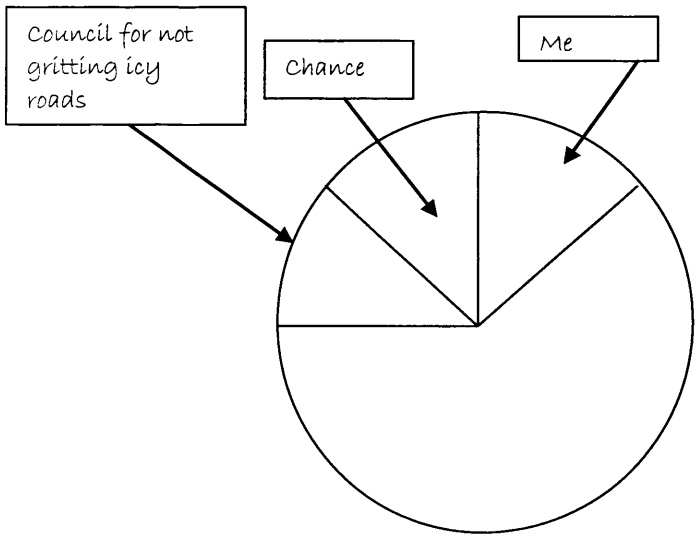
They were asked to fill out a *pie chart of responsibility*. The aim was to help the

individual realise that they were less accountable than they believed. This followed an example of Michael's pie chart of responsibility presented below (text box 7.6).

Pie chart of responsibility

Create a 'responsibility pie chart' of EVERYTHING responsible for what happened. Look at:
1. How much were other people or organisations responsible for what happened?
2. To what extent was it a chance event?
3. How much were factors such as the weather or the situation to blame?
4. How much were you to blame?

Here's Michael's 'responsibility pie chart'. Creating the pie chart made him realise that he wasn't as responsible for what happened as he'd assumed.



Text box 7.6: Responsibility pie chart exercise, from the module *changing the way you think*

7.5.2.5 Becoming more active (behavioural activation)

The module *becoming more active* was based on principles of behavioural activation, which aimed to increase activity levels and help the programme user reclaim their lives. The individual was encouraged to create a list of activities they previously found rewarding, or novel activities they would like to try. Each week participants followed Chloe's example (text box 7.7), set goals, and tracked their progress.

Example Chloe: week 1

1. Go to swimming pool (once) at a quiet time of day. Swim for at least 20 minutes.
2. Invite best friend round for a coffee.
3. Go to the cinema and see a film with my sister.
4. Organise college notes.

Text box 7.7: Chloe's list of tasks, from the module *becoming more active*

Weekly sheets were provided to list and cross off goals, with a section for reporting on any difficulties encountered. This is presented in text box 7.8.

Week 1 - Activities

1.

2.

3.

4.

Describe any problems you had completing this week's tasks.

Text box 7.8: Weekly activity sheets, from the module *becoming more active*

7.5.2.6 Overcoming avoidance (in-vivo exposure)

The module *Overcoming Avoidance* aimed to guide individuals through a process of in vivo exposure. It invited individuals to gradually confront their fears following a model of graded exposure. Individuals were required to create a list of situations, places and objects they had been avoiding since the trauma. They were asked to rate and order the items on the list in terms of how much fear they associated with each. These items were ordered from the one that caused the most anxiety, down to the one that caused least, to create a hierarchy of feared situations. Participants were encouraged to move through the hierarchy, tackling the situation that provoked the least anxiety, only moving to the next one they had habituated to it. This process was continued through to the most fearful item. An example of Chloe's hierarchy was provided to aid the process (text box 7.9).

Chloe's fear ladder

1. Reading a newspaper
2. Watching the news
3. Looking at a picture of a knife
4. Watching a violent film
5. Looking at a knife
6. Holding a knife
7. Reading a newspaper article about a mugging
8. Reading newspaper cuttings from local paper about my own attack
9. Walking around the neighbourhood the attack happened
10. Going back to the exact spot where the attack happened

Text box 7.9: Chloe's fear hierarchy, from the module *overcoming avoidance*

7.5.2.7 Controlling your anger (anger management)

A module teaching exercises and techniques to control or reduce the triggers and effects of anger was presented as an optional module. The exercise section required participants to learn techniques for managing anger, and to record progress in the

diary. When the individual felt angry about an event from their past, they were invited to write (but not send) an *angry letter* to the person(s) they felt anger towards. This is presented in text box 7.10.

Angry letter exercise

If you feel anger about something that happened in your past, we recommend you try writing an ANGRY LETTER.

- Take a piece of paper and think about the event or events that anger you. Is there a particular person, group of people or organisation you hold to blame? Imagine you were to write to this person, group of people or organisation, telling them exactly how they have made you feel. This letter will not be sent. The aim is for you to express your feelings and reduce your anger.

- Write your angry letter now. You may wish to go back and re-read and add to it over the coming days. When you have finished writing the letter, keep it with your activities diary to discuss with your therapist during your next session.

Text box 7.10: Angry letter exercise, from the module *controlling your anger*

7.5.2.8 Getting a better night's sleep (sleep hygiene)

The module *Getting a Better Night's Sleep* acknowledged that sleeping difficulties were often associated with PTSD. It presented some basic sleep hygiene advice listed in text box 7.11. Suggestions included getting up and going to bed at the same time, avoiding caffeine during the evening and taking time out to relax before bed. The exercise required the individual implement various techniques and report on successes and setbacks in their diaries.

Ten tips to help you get a better night's sleep

1. Get up and go to bed at the same time every day – even at weekends! If you feel you haven't slept well, resist the urge to lie in. It is important to keep a routine.

2. Don't take naps during the day – or you won't feel tired at night.

3. Practice relaxation techniques before bed (see 'Learning to Relax module for more details). This can help you feel less anxious and make you more ready for sleep. Some people find that lavender oil helps relax them and send them to sleep.

4. Exercise regularly - in the earlier half of the day. This can help deepen sleep. Exercise within 2 hours of bed time can have the opposite effect of keeping you awake.

5. Have a light snack before bed - an empty stomach can keep you awake. A light snack like some warm milk, cereal or a banana may help you sleep. Avoid fatty, sugary or spicy foods.

6. Avoid drinking too much alcohol before bedtime – although alcohol before bed can help you drop off to sleep, it can also wake you as it starts to wear off. Limit yourself to drinking only one or two alcoholic drinks.

7. Avoid caffeine and nicotine before bedtime – caffeine and nicotine are stimulants which can stay in your system for many hours. They interfere with falling asleep and prevent deep sleep. Avoiding nicotine and all sources of caffeine such as tea, coffee, chocolate and cola will help.

8. Create a calm bedroom environment – avoid watching television or working in your bedroom. Reserve the bedroom for sleep. Ensure that the room is the right temperature, that your bed is comfortable and that it is as free from noise and light as possible.

9. Write down any worries you have before going to bed – this can sometimes help stop you lying in bed feeling anxious.

10. If you can't sleep, get up - don't lie there getting frustrated. This will make falling asleep even harder. Do something relaxing until you feel tired enough to go back to bed.

Text box 7.11: Sleep hygiene tips

7.5.2.9 Cutting down on your drinking (alcohol advice)

The module *cutting down on your drinking*, presented psychoeducation on the impact of alcohol on PTSD. It invited participants to complete the AUDIT questionnaire developed by the World Health Organisation (WHO) for identifying problematic drinking habits. Where scores indicated a possible problem, individuals were encouraged to cut down on their drinking gradually by following some simple advice (text box 7.12) and monitoring progress.

Ten tips to help you cut down on your drinking

Cutting down on how much you drink can have lots of positive effects. We recommend that you follow these tips to take control of how much you're drinking.

1. Monitor your drinking – keep a record of how many drinks you have each day. Add it to the bottom of your Activities Diary. It will help you to monitor how much you're drinking each week and whether or not you are drinking an unsafe amount.

2. Give your body a rest - have at least three alcohol free days a week to give your body a break. If you find this hard, you may be developing an alcohol problem.

3. Tell others you are cutting down - and ask them to support this choice.

4. Break the habit - recognise when you drink. Sometimes you might just be thirsty rather than really wanting an alcoholic drink. Drink a soft drink first, and see if you still want an alcoholic one after. If you drink to unwind, think about doing something else instead (see the 'relaxation' section for some alternatives). Get out of the habit of drinking when you've had a bad day. Do not drink when you're angry or upset.

5. Don't drink to help you sleep - it will only wake you up as it starts to wear off.

6. Buy smaller glasses to use at home or buy a drinks measure – it can be surprising how small a unit is. Consider buying small bottles of beer instead of cans or buying miniature bottles of wine rather than opening a whole bottle.

7. Notice any changes in the effects of your drinking – such as arguments about alcohol with family, more hangovers or time off work. These could be signs of a problem.

8. Slow down your drinking - sip slowly. Alternate alcoholic drinks with non-alcoholic drinks such as water or fruit juice.

9. Don't drink on an empty stomach — have something to eat to limit how quickly alcohol gets into your bloodstream.

10. Don't give in - cutting down or giving up drinking isn't always easy. Get support from people who care about you and keep trying.

Text box 7.12: Tips for cutting down on alcohol consumption, from the module *cutting down on your drinking*

7.5.2.10 Getting more exercise (advice on getting more physical exercise)

The optional module *Getting More Exercise* described the benefits of physical exercise (text box 7.13), and recommended simple ways to become more physically active.

Exercise and PTSD

- Exercise releases chemicals in our brains which make us feel good.
- Exercise distracts us from feeling worried and relaxes tense muscles. This helps us feel less wound up.
- Exercise can help you get a better night's sleep (but it is best not to exercise within 2 hours of bedtime). It can also reduce angry feelings and increase self-esteem.
- Exercise keeps us fit and healthy. This helps us cope with whatever life throws at us. Fit people can also handle the long-term physical effects of stress without suffering ill health.
- Exercise is a productive use of time. It can help you feel active and in control. It is satisfying and creates a sense of achievement.

Text box 7.13: Benefits of physical exercise, from the module *getting more exercise*

7.5.2.11 Coming to terms with what happened (imaginal exposure)

A module guiding the participant through imaginal exposure was included as an optional module, on the basis of a divide between stakeholders who supported its inclusion, and those who believed it would cause too much distress. It was decided that participant and therapist would work together to decide whether or not imaginal exposure would be undertaken. The module explained the rational behind conducting imaginal exposure.

Chloe's trauma narrative

I'm leaving work, feeling happy that I have a day off tomorrow. It's still light even though it's about 7pm. I'm walking my usual route, I've walked it hundreds of times before. It's a warm evening. There's a smell of barbeques in the air. I'm walking past the park and I cross the road to a housing estate. My mobile phone rings and I'm fumbling around in my bag trying to find it. I'm still walking. I answer the phone. It's my Mum, I tell her that I'll be home in ten minutes. I'm still holding my mobile phone in my hand as I walk around the corner. I can't see anyone In the street up ahead of me. Suddenly a man jumps out from behind a parked van. I jump. He's not very big, slim build, scruffy looking. He yells "give me your bag." Stunned I stand staring at him. I don't know how long for, it feels like a long time. Suddenly I notice he's holding a knife. The knife is moving towards my throat. I want to scream. I can't. I'm frozen. I feel the knife against my neck. It's cold. He isn't holding it very firmly against my neck but I'm very aware it's there. I'm scared. I'm feeling terrified. I'm going to die. I'm handing him my bag. I'm pushing it against him. He smells of alcohol. I feel sick. He grabs the bag from my hand. "And the phone." He's gesturing towards my hand. I feel confused. I don't want to give it to him, I want to dial 999, but he still has the knife at my throat. I give him my phone. His hands brush against mine. They're hard and rough. He pulls the knife away from my throat. I still think I'm going to die. He turns from me quickly. He's running down the street. I watch him disappear round the corner. I'm wondering if he'll come back. I don't know what to do. I look around. There's still no one in the street. I start to run. I'm running towards my house. I'm breaking down into tears as I get through the door. I tell my mum what happened, she's calling the police.

Text box 7.14: Chloe's trauma narrative, from the module *coming to terms with what happened*

7.5.2.12 Staying well (relapse prevention)

The final module, *staying well*, presented advice on relapse prevention. It consisted of psychoeducational material on how to keep well, and information on what to do in the case of relapse (text box 7.15). This module acted as a primary resource to refer back to in the case of future problems.

10 tips for staying well

1. Practice your new skills – the end of the programme should not mean you stop using the skills you learned. You should now have a good idea what works for you. Keep using the techniques you found useful.

2. Look out for relapse triggers – certain events can act as triggers for traumatic stress symptoms. These triggers will be different for everyone. Become aware of your own triggers and be ready to cope with them.

3. Look out for relapse warning signs – a relapse will not usually happen without warning. Warning signs such as changes in how you feel or act may let you know that you are in danger of a relapse. These warning signs are different for everyone. Knowing your own warning signs will help you predict and cope with a relapse.

- Changes in your mood - feeling more anxious, stressed or depressed.
- Changes in your behaviour – such as avoiding people or places, drinking more or becoming withdrawn from activities.
- Changes in your thoughts – such as thinking more negatively, or having angry thoughts.
- Changes in your sleeping pattern – such as difficulties falling or staying asleep.
- Lack of concentration.

4. Let loved ones know your triggers and warning signs – so that they can also be watchful.

5. Monitor how you're feeling – some find it useful to continue keeping a diary. Others find that rating their anxiety levels daily helps them predict when their symptoms might return.

6. Manage everyday stress - if you're feeling stressed by daily life, there are steps you can take to feel better:

- Know your limits and say no to any extra demands made of you.
- Take one step at a time. If you feel like you have too much to do, make a list and work on it one task at a time.
- Try to work out what makes you feel stressed and change these things.
- Talk to someone when you feel stressed. Let others know that things are getting too much.

7. Live a healthy lifestyle – eat a healthy diet, sleep well and exercise regularly. If you have cut down on alcohol or other drugs as part of the programme, stick to this. Keeping a healthy lifestyle will keep you feeling well and able to cope with any obstacles.

8. Continue taking any medication – as you are instructed to.

9. Connect with others - spending positive time with loved ones can help your mood, confidence and self esteem.

10. Know what to do in the case of relapse – so you can act to control your symptoms. Refer back to the self help materials. You have managed to improve your symptoms once. You can do so again by following the same techniques.

Text box 7.15: Top 10 tips for staying well

7.5.2.13 Activities diary

The activities diary invited the participant to report on how they were feeling on a daily basis. They were encouraged to record their use of the SH materials, and use of new skills or techniques. They were asked to rate how they were feeling on a scale of 1-10. There were sections to be completed in the morning, afternoon, evening and night. The diary is presented in text box 7.16.

Morning	Afternoon	Evening	Night
What have you been doing? . Not very busy, felt I could cope. Lunch with a colleague	What have you been doing? Work. Trouble focussing. Intrusive thoughts.	What have you been doing? Dave suggested we go to cinema. Wasn't very keen but glad I went.	What have you been doing? Trouble getting to sleep. Woke after a nightmare. Sat downstairs from 5am.
Have you used any of the self help materials? No.	Have you used any of the self help materials? Looked back at notes on grounding techniques.	Have you used any of the self help materials? Finished 'what is PTSD' 30 mins relaxation.	Have you used any of the self help materials?
Did you have any problems or difficulties? No problems. Felt good.	Did you have any problems or difficulties? Intrusive thoughts.	Did you have any problems or difficulties? No problems - was surprised by how much I enjoyed going out with Dave. Felt less anxious than I expected.	Did you have any problems or difficulties? Couldn't sleep.
What did you do to deal with these problems or difficulties?	What did you do to deal with these problems or difficulties? Used grounding techniques. Helpful.	What did you do to deal with these problems or difficulties?	What did you do to deal with these problems or difficulties? Followed guidance on sleep & got up and did something relaxing (listened to my favourite classical music CD & had some decaffeinated herbal tea). Felt better than lying in bed getting cross.
How are you feeling? (1-10) 7	**How are you feeling? (1-10)** 4	**How are you feeling? (1-10)** 8	**How are you feeling? (1-10)** 3

Text box 7.16: Activities diary

7.5.2.14 Information for family and friends / family involvement

A document providing information for family and friends was provided at the start of the programme. The aim was to educate loved ones about the disorder, and to promote understanding and support. The document included ten tips for supporting a loved one through the programme, which are presented in text box 7.17. Family involvement emerged as important during stakeholder interviews/ focus groups. As a result, participants were invited to bring a family member or friend to their initial guidance meeting.

10 tips to help your loved one

1. Listen carefully and try to understand how your loved one feels.

2. Be patient and supportive. It takes time to recover from PTSD.

3. Encourage, but don't pressure regular use of the self help materials. Offer praise when exercises are completed.

4. Try to find out what kind of a useful role you can play as your loved one goes through the programme.

5. It is important to remember that your loved one's behaviour may not indicate their true feelings. Again, be patient, it will get better.

6. Discourage excessive consumption of alcohol or drugs. This is not a helpful way to cope.

7. Offer help with practical tasks and responsibilities, but try and maintain as much of the individual's normal routine as possible.

8. Make sure your loved one is looking after his or herself. Eating well, resting and keeping healthy.

9. Ensure you are also looking after yourself too. Remember not to neglect your own well-being.

10. Don't be afraid to seek your own support from friends and other family members.

Text box 7.17: Ten tips for loved ones, from the information leaflet fro friends and family

7.5.3 Guidance arrangements

It was agreed that the first guidance session would be provided face-to-face by an experienced trauma therapist. The first guidance session was 1 hour in duration with the aim of establishing a therapeutic relationship between patient and therapist, to discuss symptoms and current concerns, to provide an introduction to the programme and SH materials, and to discuss which optional modules to follow.

It was recommended that further guidance sessions were scheduled fortnightly. Sessions were available face-to-face or over the phone, with patient preference dictating the chosen method. Sessions of approximately 30 minute duration were initially recommended. Since no consensus emerged regarding the frequency or duration guidance, therapists were able to take a flexible approach, providing necessary guidance, whilst trying to keep contact to a minimum. Therapists were required to record the frequency and duration of sessions so that this, together with participant feedback, could inform the guidance arrangements of pilot-two. A phone number (a clinic secretary) and email address were provided to allow contact with the therapist between scheduled guidance sessions should the participant desire.

7.5.3.1 Role of the guiding therapist

The role of the therapist is outlined in text box 7.18. Therapists were required to tailor the intervention to individual needs, assist in pacing progress through the programme, and provide support, encouragement and motivation.

Role of the therapist

The therapist's role is to:

1) Help the individual identify specific issues and difficulties
2) Guide the individual to relevant modules
3) Assist the individual in pacing their progress through the programme
4) Provide support, encouragement and motivation
5) To record the duration and nature of all contact with the individual using the programme in the CRF

Test box 7.18: Outline of the therapist's role

Therapists were also asked to record exactly how long they spent guiding each participant. A brief guide was provided for the therapist. This is presented in text box 7.19 below.

Guidance instructions

The programme will commence with a 1 HOUR long face to face introductory guidance session. The programme user will be encouraged to bring their partner, a close family member or friend along to the session to enlist their support.

This time will be used to:

1) Provide some basic information about PTSD
2) Introduce the *Tackling Traumatic Stress* programme
3) Discuss what difficulties the individual has been experiencing
4) Introduce the available modules and discuss those which are optional
5) Demonstrate the website
6) Present a hardcopy of the programme, diary and information leaflet for family and friends
7) Agree on a suggested target for the following 2 weeks
8) Agree how guidance will proceed

Three brief guidance sessions will be scheduled 2 weeks, 4 weeks, 6 weeks and 8 weeks after the initial session. The programme user will be able to select whether they would rather receive guidance face to face at the Traumatic Stress Service or over the phone.

These sessions will have a MAXIMUM duration of 30 minutes. Recording the exact duration of these sessions and the nature of what was discussed will be of importance to inform refinement of the programme.

Text box 7.19: Guidance presented to pilot-one therapists

Chapter 8: Results: Prototype one

8.1 Overview

This chapter presents the quantitative and qualitative results of the first pilot study. These results informed programme refinement and the development of prototype two, which is summarised later in the chapter.

8.2 Quantitative results

Table 8.1 presents the mean quantitative outcome measures of pilot-one. Of the ten participants recruited, two dropped out. Only six participants provided data at one-month follow up; two began therapist administered treatment immediately after GSH.

Measure	Pre-treatment Mean (SD) N=8	Post-treatment Mean (SD) N=8	one-month post-treatment Mean (SD) N = 6
CAPS	69.25 (13.28)	48.50 (16.75)	47.00 (21.54)
PSS-SR	34.00 (5.97)	24.68 (9.51)	26.00 (12.60)
BAI	32.75 (13.65)	24.37 (10.08)	29.83 (17.19)
BDI	25.75 (11.03)	21.125 (7.28)	26.17 (8.32)
AUDIT	5.12 (8.09)	2.75 (4.17)	3.17 (5.19)
SSQ support	2.25 (1.34)	2.70 (1.92)	2.99 (1.90)
SSQ satisfaction	4.87 (1.34)	4.64 (1.79)	5.16 (1.15)
SDS	20.18 (3.70)	14.43 (7.45)	14.83 (8.70)

Table 8.1 mean results of pilot-one

The mean amount of therapist guidance provided in pilot-one was 3.36 hours (SD = 0.66).

8.2.1 Clinician Administered PTSD scale (CAPS)

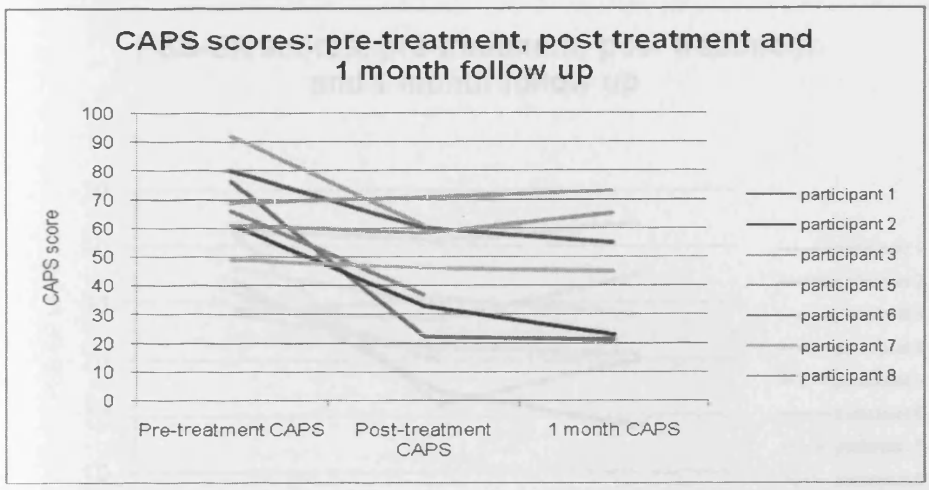


Figure 8.1 CAPS scores pre-treatment, post-treatment and at one-month follow-up

The mean CAPS score decreased considerably from pre-treatment (mean = 69.25; SD = 13.28) to post treatment (mean = 48.50; SD = 16.75), with a slight increase at one-month follow up (mean = 47.00; SD = 21.54). The ITT effect size was 1.06 (Cohen's-d).

All but one participant scored lower on the CAPS post-treatment compared with pre-treatment. A 15-point change in CAPS total severity score has been proposed as a marker for clinically significant change (261). By this definition, 63% (5/8) of the treatment completers and 50% (5/10) of the original participants, showed clinically significant improvement post-treatment. It is worth noting however, that this marker has not been empirically evaluated, acting only as a guide for researchers using the CAPS. Most participants maintained treatment gains. These results are illustrated by figure 8.1.

8.2.2 Post traumatic Stress Symptom Scale – self report (PSS-SR)

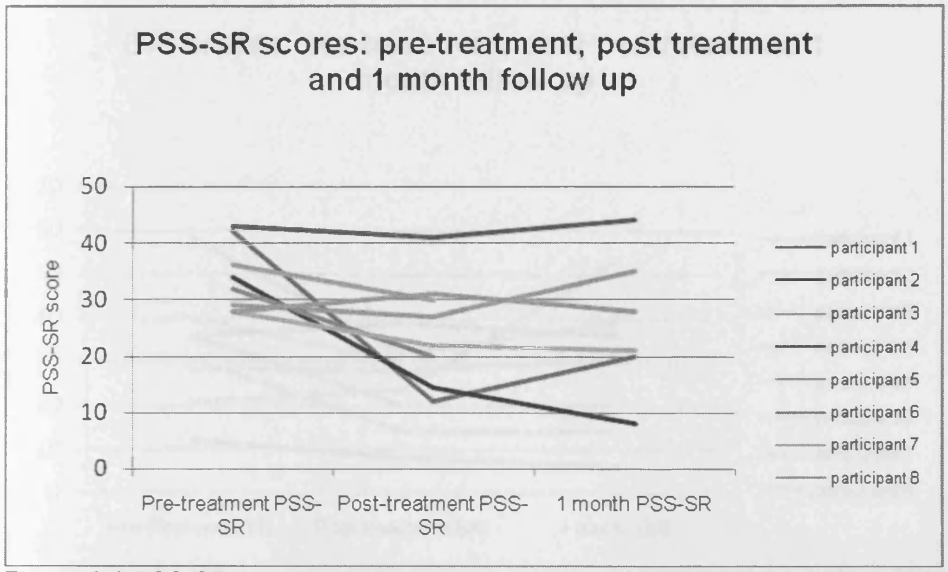


Figure 8.2 PSS-SR scores pre-treatment, post-treatment and at one-month follow-up

Self-reported scores of PTSD symptoms showed similar trends to clinician rated scores. Results are presented in figure 8.2. All but one participant had a lower score on the PSS-SR post-treatment compared with pre-treatment. This was the same participant who scored higher on the CAPS. He did not engage well with the GSH programme. When interviewed post treatment, he revealed little use of the SH materials, completing few exercises. He also reported continued threats from the perpetrators of his trauma, and a preoccupation with ongoing legal proceedings. These factors combined provide some degree of explanation for higher scores post-treatment. The mean of PSS-SR scores was 34.00 (SD = 5.97) pre-treatment, 24.68 post-treatment, and 26.00 (SD = 12.60) at one-month follow-up.

8.2.3 Beck Anxiety Inventory (BAI)

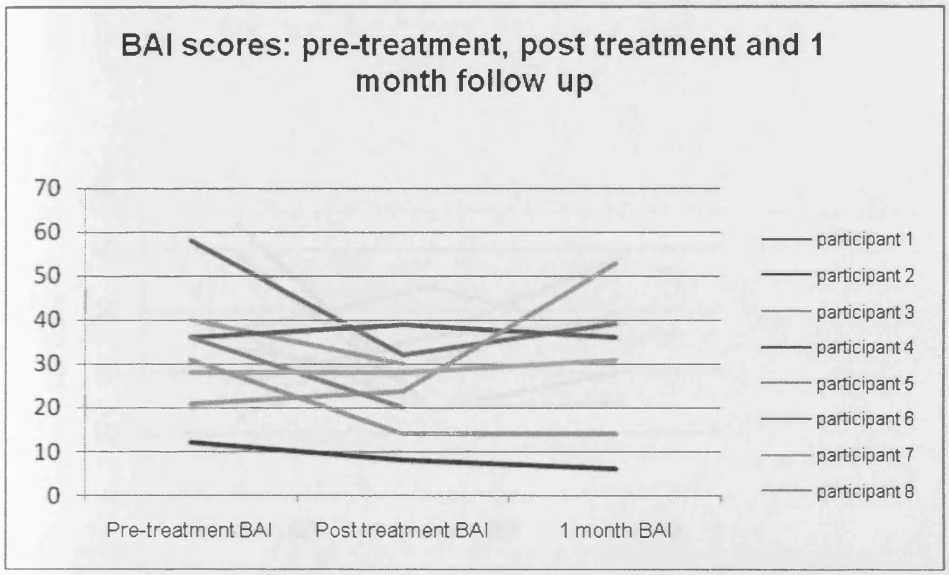


Figure 8.3 BAI scores pre-treatment, post-treatment and at one-month follow-up

There was a trend towards reduced BAI scores post treatment, with a decrease in the mean from 32.75 (SD = 13.65) to 24.37 (SD = 10.8). Figure 8.3 illustrates the results. A mean of 29.83 (SD = 17.19) at one-month follow-up, was greater than at post treatment, but lower than pre-treatment (mean = 3.17; SD = 5.19).

8.2.4 Beck Depression Inventory (BDI)

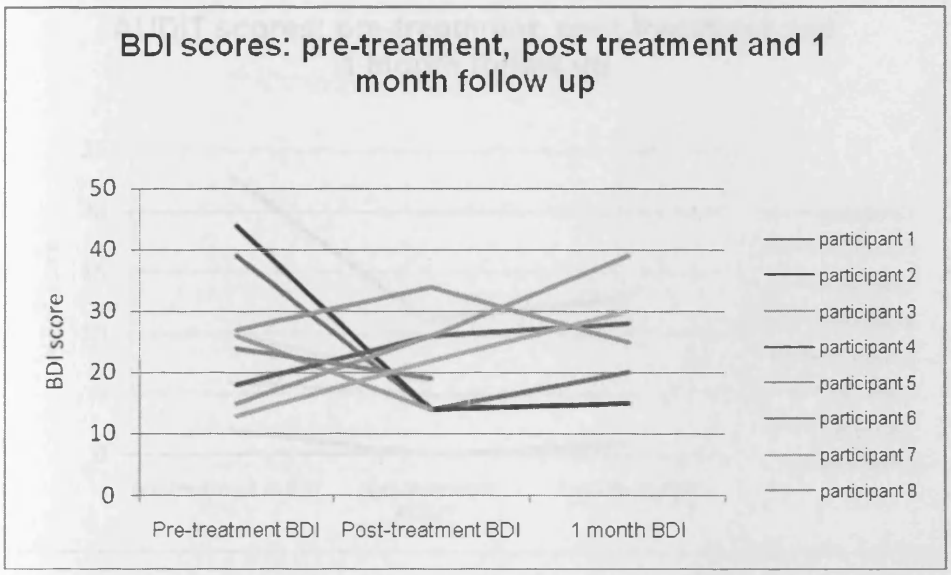


Figure 8.3 BDI scores pre-treatment, post-treatment and at one-month follow-up

Scores on the BDI were variable. Four participants became more depressed post-treatment, and four less. Those who became less depressed were those who did best in terms of reduction in PTSD symptoms. The mean pre-treatment score was 27.75 (SD = 11.03), compared with 21.12 (SD = 7.28) post treatment. The mean score at one-month follow up was 26.17 (SD = 8.32), which was greater than immediately post-treatment, and slightly higher than pre-treatment. Figure 8.3 illustrates the results.

8.2.5 AUDIT

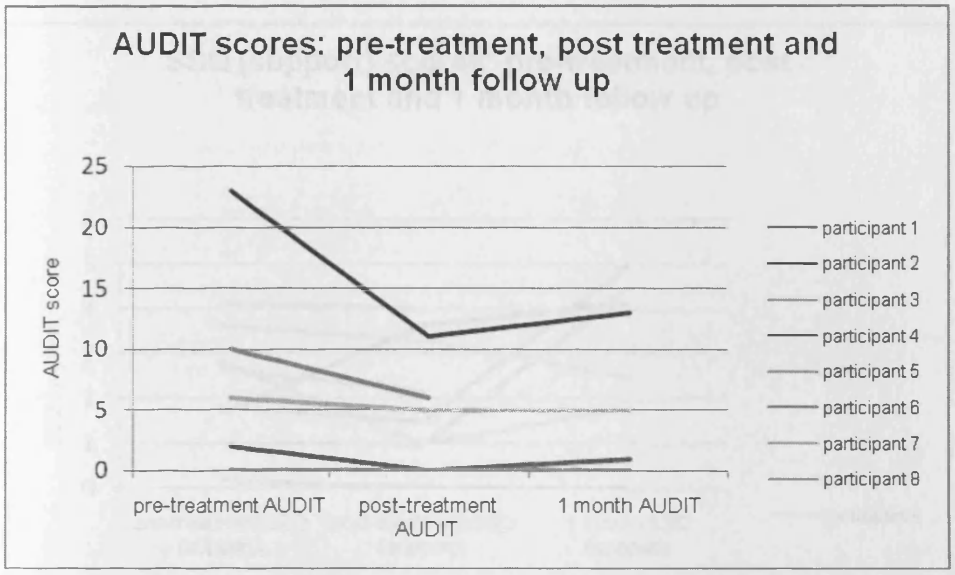


Figure 8.4 AUDIT scores pre-treatment, post-treatment and at one-month follow-up

Four participants (50%) scored 0 on the AUDIT questionnaire pre-treatment, post-treatment and at one-month follow-up. The remaining four scored lower post-treatment (mean = 2.75; SD = 4.17) than pre-treatment (mean = 5.12; SD = 8.09). Three of the four provided one-month follow-up data. Two individuals scored higher than at post treatment, the remaining participant maintained an identical score to post-treatment. Figure 8.4 illustrates the results.

8.2.6 Social Support Questionnaire (SSQ)

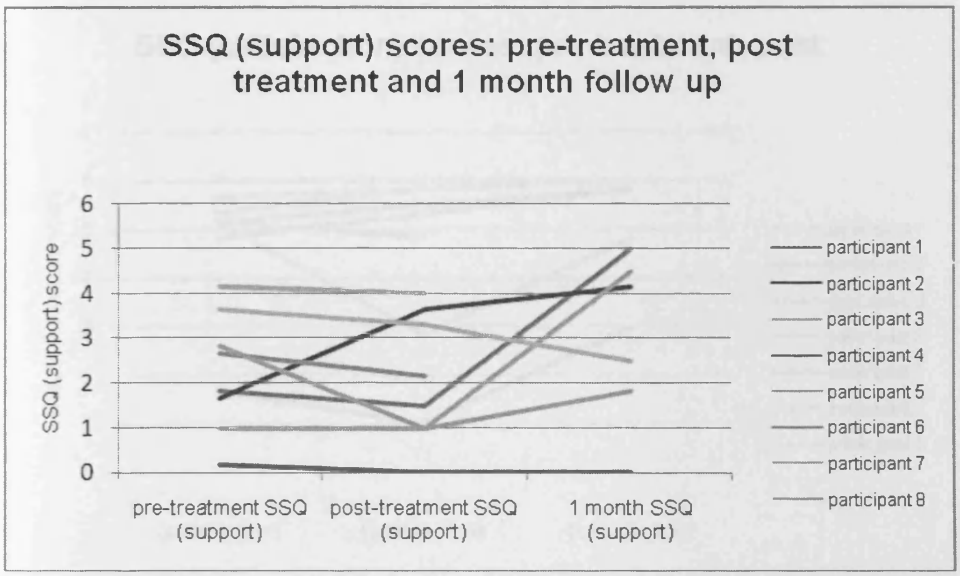


Figure 8.5 SSQ support scores pre-treatment, post-treatment and at one-month follow-up

There was a perception of slightly less social support post-treatment. All but one participant listed fewer supportive friends/relatives. The means fail to reflect this, since one participant listed a far greater number of supportive associates post-treatment. This participant had withdrawn himself from others after his trauma. Post-treatment he reported a more sociable lifestyle, and many more supportive friends and relatives. Though other participants reported less social support post-treatment, the difference was minimal. These individuals may have felt less need to rely on others. The mean pre-treatment was 2.25 (SD = 1.34), compared with 2.70 (SD = 1.90) post-treatment. Fifty percent of participants felt more supported at one month follow up than immediately post treatment (mean = 2.99, SD = 1.90). Results are illustrated by figure 8.5.

8.2.7 Social Support Questionnaire (SSQ) – satisfaction

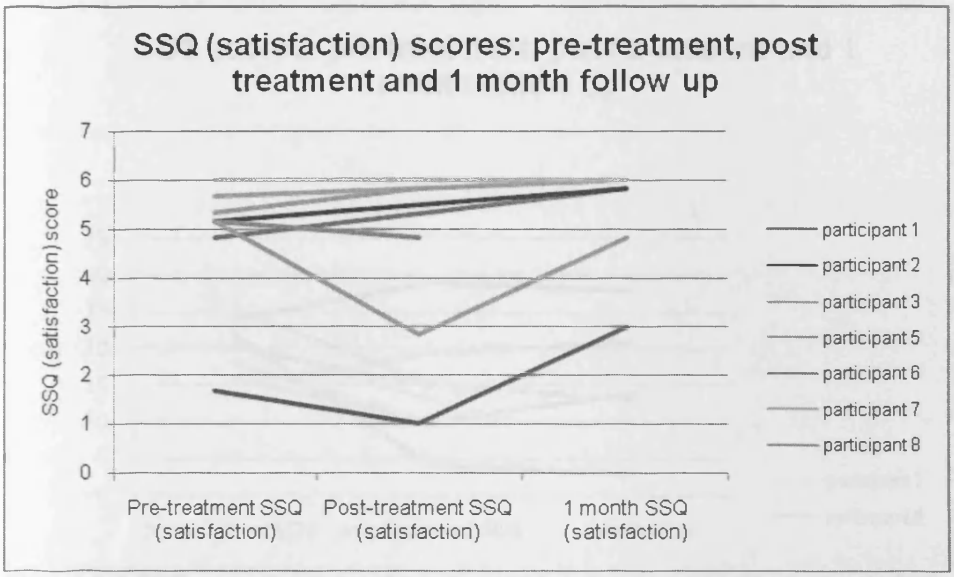


Figure 8.6 AUDIT scores pre-treatment, post-treatment and at one-month follow-up

All but two participants gave similar satisfaction ratings pre and post treatment, as illustrated by figure 8.6. The mean rating pre-treatment was 4.87 (SD = 1.34), compared with 4.64 (SD = 1.79) post-treatment. On average participants felt slightly less satisfied by the support they received. The mean satisfaction score was higher at one month follow up (mean = 5.16; SD = 1.15). This was greater than the mean score pre-treatment.

8.1.8 Sheehan Disability Scale (SDS)

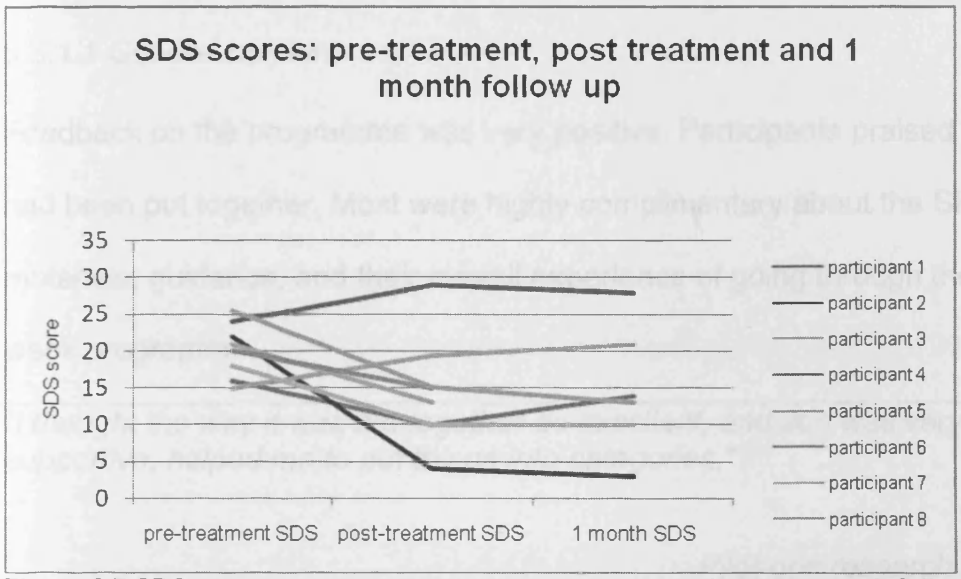


Figure 8.7 SDS scores pre-treatment, post-treatment and at one-month follow-up

Five of the 8 participants who provided data reported less disability post-treatment, as illustrated by figure 8.7. The mean pre-treatment was 20.18 (SD = 3.70), compared with 14.43 (SD = 7.24) post treatment. Ratings made at one-month follow-up remained relatively consistent with those made immediately post-treatment (mean = 14.83; SD = 8.70).

8.3 Qualitative results

8.3.1 Overview of qualitative results

The qualitative results of semi-structured interviews conducted with eight programme completers, and their three guiding therapists, were analysed and summarised, with results falling into five broad categories; 1) overall impressions; 2) feedback on specific modules; 3) feedback on additional components of the programme; 4) feedback on delivery; and 8) feedback on guidance.

8.3.1 Overall impressions

8.3.1.1 General opinions

Feedback on the programme was very positive. Participants praised the way it had been put together. Most were highly complimentary about the SH materials, guidance, and their overall experience of going through the eight-week programme.

> *"I thought the way it was put together as excellent, and Jon was very supportive, helped me to put things into categories."*
>
> *Pilot-one research participant*

Most participants found the programme beneficial. Some went further and expressed a retrospective preference for having received GSH in place of therapist administered treatment. Although this was very encouraging, it is worth noting that participants received only GSH treatment, providing no real basis for comparison. Nonetheless, much enthusiasm was expressed towards this novel approach to PTSD treatment. Participants appreciated the combination of written materials and guidance. The approach enabled individuals to work in their own time, to refer to the information provided as frequently as they wished, and discuss issues with their guiding therapist.

> *"I've met someone who just goes to counselling and they write bits and pieces down but they don't feel that just the counselling session is in depth enough, so this is a combination of the two. Whereas you're helping yourself, but also you're talking. So I think the two married together is needed."*
>
> *Pilot-one research participant*

Criticisms of the programme were few, and suggestions for refinement fairly minor. These were related to specific modules and components. These

recommendations will be discussed later in the chapter. There were no suggestions for more generalised refinement of the programme.

8.3.1.2 Perceptions of Efficacy

All but one participant perceived the intervention as effective. Respondents reflected on a reduction in symptoms over the course of the eight-week programme. Many had moved on with their lives considerably, attributing this success to the programme.

> *"Overall it helped me a lot, I don't have a lot to complain about really. If I was in the same situation 8 weeks on as I was in the beginning you would either think that didn't work or it didn't work for me, and there's something wrong with your system, but I think it has been really good. Really good."*
>
> *Pilot-one research participant*

Some commented that despite residual symptoms, they felt better able to cope.

> *"Not an end to my troubles, but certainly a coping tool because the waiting list was huge and I think without this I would have ended up off work again."*
>
> *Pilot-one research participant*

Participants frequently cited specific parts of the programme, which they perceived as being particularly effective. These varied from person to person, supporting the provision of a range of modules from which participants could choose. In some cases, some quite minor changes in lifestyle made a big difference.

> *"Just small things that I've taken from it have helped a lot."*
>
> *Pilot-one research participant*

Therapists agreed that the programme had been effective for many participants.

> *"Yeah, I found it good, I suppose I felt it was probably slightly less powerful than one to one therapy over a prolonged period but not over a similar time of...in fact it's more powerful than one to one over a short time... My suspicion is that about 3 of the 5 will go on to have further therapy but I also suspect that that further therapy will be shorter than if they hadn't had the GSH because they've already gone through a lot of the things that you would do in therapy anyway."*
>
> *Pilot-one therapist*

Some participants went on to receive further intervention. Where further treatment was required, guiding therapists judged that the participant would need fewer sessions. Participants also believed that they would require less intervention than they had initially.

8.3.1.3 Acceptability of the GSH approach

When asked whether GSH represented an acceptable method of treatment, all but one participant responded that it was. As noted earlier, some went further and expressed a preference for GSH over the more traditional therapy they were expecting on referral to the service.

> *"It's a brilliant initiative really. I mean, just to sit with a counsellor every week you can unburden yourself but I can see it being a lot longer... you're talking probably about the same things and not dealing with things, but this is helping you directly as well as unburdening yourself to a counsellor."*
>
> *Pilot-one research participant*

The programme had initially seemed challenging and difficult. Most participants however reflected on having coped with the demands.

> *"The only thing I could say [to improve the programme] was to explain to people at the very, very beginning that if you don't put the time and effort into this, it's not going to work. And when you start it's difficult to get into, but once you're into it becomes easy. It feels so much better at the end."*
>
> *Pilot-one research participant*

Therapists also commented that the programme represented an acceptable method of delivering treatment for PTSD.

> *"Yes [it was an acceptable way of delivering treatment], very much so. Very much so. I enjoyed it. I liked it as a method of delivering."*
>
> *Pilot-one therapist*

There were no specific concerns regarding the acceptability of the approach.

8.3.1.4 Comprehension

Materials and exercises were said to be straightforward and understandable, presenting no major challenge to most participants.

> *"It's pretty self explanatory really. It's pretty easy to get along with. It's not MENSA or anything. I can use it so I'm sure everyone could get on with it."*
>
> *Pilot-one research participant*

One participant commented on difficulties understanding the wording. This affected his ability to engage with the programme. He suggested simplifying the text. It is worth noting however, the difficulty in pleasing everyone. There is

a fine line between patronising those who are comfortable using a written programme, and alienating those who are not.

> *"Umm...some of the posh words... It's probably just me being daft. Some of the wording in there – I couldn't work out what it meant. Some of the words, and I was reading some of it and I was thinking what does that mean? It can be a little bit confusing, but I dunno."*
>
> *Pilot-one research participant*

Therapists also commented that participants found the materials understandable. No difficulties reading the information or completing tasks were reported.

> *"You know most people have been very positive about the way that it's written in an understandable manner and that it's not to long. One of the things that have impressed me really is that each of the modules isn't too long. I've been happy with that."*
>
> *Pilot-one research participant*

The simplicity of the programme was appreciated. It was suggested as a factor to be retained in future versions of the programme.

8.3.1.5 Empowerment

Participants and therapists commented that GSH represented an empowering method of providing treatment.

> *"I think having this to do it made you feel more in control. It made me feel like I was doing something, and I was. I did see improvements from it. It's umm, it's much more empowering than sitting there on a waiting list."*
>
> *Pilot-one research participant*

Needless to say, individuals favoured working in the direction of change to being placed on a waiting list. They felt very proud of their achievements. They were able to take control of the way they felt, and claim responsibility for progress.

8.3.2 Feedback on specific modules

8.3.2.1 What is PTSD?

All participants found the module *What is PTSD?* helpful. Those who had not previously read about PTSD reported a sense of relief at being able to identify with the symptoms and experiences listed, and put a name to how they were feeling.

> *"To start with I didn't realise that that's what I was suffering from, so it was a relief... to read it and understand that there was a name for what I was feeling."*
>
> *Pilot-one research participant*

Most individuals reported feeling reassured by the realisation that others had experienced what they were going through. They were relieved that they weren't "alone" in how they were feeling. Knowing that symptoms constituted a known disorder, which could be treated, provided comfort.

> *"It does help you. It makes it a little bit clearer in your head that you know other people obviously understand. Other people must have the same thing you got because they've written it down on a piece of paper, so somebody must have what I got."*
>
> *Pilot-one research participant*

Participants commented that the information was clear and understandable. Everyone agreed that the information was sufficient, answering all questions they had about the disorder.

> *"I think it pretty much outlined everything that I was going through, for somebody else I don't know...obviously any trauma, an attack or a crash or whatever, but for me it outlined everything that I wanted."*
>
> *Pilot-one research participant*

The only complaint was that the severity of symptoms was not acknowledged. One participant felt that the psychoeducation failed to the distress caused by the disorder.

> *"It's just when you read all the descriptions you don't... it doesn't really describe how bad it gets. They say things like avoidance or fears or, it sounds really light, but I mean it's more like a horror film."*
>
> *Pilot-one research participant*

Another participant commented that she already possessed the level of knowledge presented by the module. Therapists reiterated this point, but emphasised that psychoeducation was a vital component.

> *"People have spoken positively when I've asked them about that. I mean I think several people have already got that or at least partly got that level of knowledge but I think it's vital to have that as part of it and at the start."*
>
> *Pilot-one therapist*

Participants gave no feedback for improvement of the module. One of the therapists suggested that issues regarding ongoing threat and events associated with the index trauma such as court cases and anniversaries should be acknowledged. This was the only suggestion for refinement of the module.

8.3.2.2 Grounding yourself

The module *Grounding Yourself* was valued by many participants. The techniques were said to be a useful coping tool. Some incorporated grounding as a routine part of their daily lives.

> *"That's something I use daily now. I think it's something that I'll use for the rest of my life quite happily."*
>
> *Pilot-one research participant*

Participants related to different techniques, which supported the utility of offering choice. Others adapted the techniques, to create their own. This included listening to loud music and doing mental arithmetic.

> *"To be honest, I couldn't relate to the sight... umm, taking my mind off things by looking at furniture or anything like that – it had no relevance to me, but the loud music for me, was something which, I wouldn't say lightened the mood, but...you know took your mind off how you feel."*
>
> *Pilot-one research participant*

Though some participants found the concept difficult to grasp initially, the materials were said to be understandable on the whole.

> *"It was explained very well. It's difficult to get into but when you start doing it, it gets easier and easier and easier. But at the very beginning of the course it was difficult to get into it because it was alien if you like."*
>
> *Pilot-one research participant*

The only source of concern came from a participant who frequently self-harmed. He found that a grounding technique, which involved plucking a

rubber band against the wrist, instigated ideas of self-harm. This was a very undesirable side-effect.

> *"The rubber band thing, I found a bit unpleasant, but maybe because I was cutting my arm, so it was sort of preparing me for slashing myself."*
>
> *Pilot-one research participant*

Therapists commented that some participants found the module very useful, whilst others struggled with the concept.

> *"Yeah, that's been one of the ones that people have got most out of. I mean most people have spoken very positively about the grounding and relaxation and have definitely been using techniques regularly throughout the programme."*
>
> *Pilot-one research participant*

Aside from removal of the rubber band technique, no specific suggestions for refinement were made. Participants and therapists seemed satisfied with the content and delivery of the module.

8.3.2.3 Learning to Relax

Most participants found the module *Learning to Relax* valuable. Some commented on initial difficulties learning to use the techniques.

> *"[Learning to relax was] difficult to get into, but once you start doing it, it started to become easier and you started doing it without even thinking about it like the deep breathing and bringing yourself into check if you were hypervigilant – it becomes part of your make up."*
>
> *Pilot-one research participant*

Learning to relax combined with *grounding,* was described as a "life change", and something that became automatic over time. Both were used in various situations, to calm, distract and relax.

> *"It's actually a life change. It's something that to start with maybe just for the matter of just a week you had to keep thinking about, because you'd never done it before. But once you start thinking about it, I was doing it without even giving it a thought."*
>
> *Pilot-one research participant*

Most participants found learning controlled breathing very helpful, in many cases it was described as one of *the* most helpful elements of the programme. It was found to be useful not only for relaxation, but also as a discreet tool for coping with anxiety in stressful situations.

> *"If the music hadn't taken effect I would sort of sit down and use this relaxation technique, and it would sort of clarify my mind really and I was able to re-focus my mind. I did this a few times, when I was on the bus for example, when I was sensitive to my surroundings, without people knowing I would use it to calm me down, you know. A few times during the day I would use this. And it does seem to work."*
>
> *Pilot-one research participant*

Participants found it difficult to follow the written instructions for breathing re-training. Some found it helpful to be taught the technique during a guidance session. This was suggested as a routine addition to the programme.

> *"It's hard to read it and do it. You know. I'll be honest. It's hard when you're having a bit of a panic attack and you can't breathe to do it. But if you can control yourself, you know it's only in your mind."*
>
> *Pilot-one research participant*

Some found use of the progressive muscle relaxation CD useful. Others found less benefit. Two individuals reported problems due to use of the word "fist." For one, it brought back memories of being physically assaulted. For an army veteran, it made him feel aggressive.

> *"Well the audio relaxation MP3 thing, or as I like to call it the "fist thing" [was unhelpful], because it says "fist" in it and every time I hear it... I... I even edited it out of my version of it. But every time I try to listen to it I just think, ooh, fists and I had flashbacks and some bad dreams. But I think I see what she's getting at. So I'll try it on my own without listening to it."*
>
> *Pilot-one research participant*

One participant found a guided imagery CD he had been given previously more helpful. No one else indicated having used structured relaxation exercises previously. For most, relaxation techniques were novel.

> *"No. I had a tape through the car crash which was just like, picture a log cabin in the countryside and a bird and you're sitting on the veranda. That stuck in my head in a way. But it was more; it took you away from everything. Then when I had the other tape which was tense yourself up and let go...I found myself tenser with that than I was... It put me off the tape."*
>
> *Pilot-one research participant*

One participant suggested emphasising the fact that learning *grounding* and *relaxation* were preparation for later exposure and behavioural activation modules. In her opinion, this would have helped the programme flow more smoothly.

> *"I think you have to learn the grounding techniques and get used to using them before going out and doing activities. I think you could actually prepare people in advance a little bit by saying, these grounding techniques will help you when you move on to the activities."*
>
> *Pilot-one research participant*

Therapists reiterated the difficulties some individuals experienced with this module. They also commented that those who took to it found it very helpful. No comments were made for improvement, other than a therapist suggestion of combining the *Learning to Relax* and *Grounding Yourself* modules.

> *"[You could] see whether or not some of the anxiety management, grounding stuff, maybe consolidate that into an anxiety management module maybe."*
>
> *Pilot-one therapist*

This suggestion was supported by participant reports of using relaxation and grounding inter-changeably, and often concurrently, for a variety of purposes.

8.3.2.4 Getting a Better Night's Sleep

No one found any great benefit from the module *Getting a Better Night's Sleep*. Some however reported adopting one or more of the tips/techniques, and finding this helpful.

> *"A few times it helped. Obviously I'd wake up quite early. A few times I needed to relax and I got up and went to run a bath instead of lying there. Again little things, like instead of laying in bed and getting frustrated and upset, it would automatically get your mind off things."*
>
> *Pilot-one research participant*

Another participant commented that she had found benefit from realising the importance of sleep, and the identification of her own poor sleep hygiene.

> *"I found it helpful to begin with, because it made me aware of how important it is to get a good night's sleep…I wasn't feeling sleepy quite often because I was just too hyper, so I was sort of staying up until 2 or 3 o clock… umm so having done the module I started making an effort to go to bed before midnight and I started to feel benefit from that."*
>
> *Pilot-one research participant*

Participants commented that advice on dealing with nightmares would have been useful. They also suggested that the addition of tips for getting back to sleep during the night would have been appreciated.

> *"The main problem for me was the nightmares, and that was a case of grounding and relaxation to try to get to sleep and get back to sleep. If there is a way of dealing with nightmares, that would be great."*
>
> *Pilot-one research participant*

Therapists had no comments for refinement of the module.

8.2.2.5 Controlling Your Anger

Those with anger problems failed to derive much benefit from the module *Controlling Your Anger.* This stemmed from an inability to put techniques into action quickly enough to prevent an angry outburst.

> *"For me I can try and walk away from a situation, I've tried the deep breathing, the counting to 10, for me anger comes on too quickly for me to deal with it... I can't... you know I can't put anything into practice quick enough to do anything about it really."*
>
> *Pilot-one research participant*

One participant commented that her problem was with irritability rather than externalised displays of anger. She suggested the refined programme should acknowledge and address this.

> *"It didn't sort of seem to apply to the way I was feeling anger because it wasn't an external anger it was more of a sort of...it's just coming from being so anxious. It's not that I was angry at anything or anyone it just came from being so tense all the time. I would read it as being irritable and angry... and maybe if there are any techniques for dealing with irritability, it's something I don't know about – other than trying to calm down."*
>
> *Pilot-one research participant*

Another reported a desire to better understand the root of his anger problem, which he believed to precede his trauma. This was reiterated by other participants who expressed a desire to better understand their anger, rather than simply learning to suppress it.

> *"Maybe [it would have been useful] to find out the root of being angry, obviously for me it was being in an accident, but I was also angry in general before that...umm, so I don't know, maybe to find out the root I would have been the accident but it was also obviously something else as well... to make me maybe not as calm as I should be, like a normal person would be able to deal with things rationally and talk them through – yeah everyone raises their voice but I would go off the handle I suppose."*
>
> *Pilot-one research participant*

One participant reported short term benefit from writing an angry letter. Her anger however returned when she encountered reminders of her trauma. The module failed to provide longer-term relief.

> *"Yeah. I felt a lot better after writing them [angry letters]. But I see the person who attacked me again the next day and I'd be all wound up again."*
>
> *Pilot-one research participant*

Another participant claimed to have found the idea of writing an angry letter "distasteful." He felt he had nothing to say to the perpetrator of his attack.

> *"Umm, I just found that a bit distasteful and Jon tried to persuade me to do it... not force me, but I just felt uncomfortable doing it. I wouldn't have anything to say and if I did, I don't know. For someone who stabbed you to write, obviously it's not going to be sent ... I wouldn't have anything to say to the boy."*
>
> *Pilot-one research participant*

These conflicting opinions again support the notion of providing options and choices within the programme. It is apparent that different approaches are favoured and found to be effective by different people.

8.2.2.6 Cutting down on your drinking

Surprisingly few participants reported drinking any alcohol at all. Consequently, only one participant reported use of the module. Her therapist commented that the module reinforced what they had already discussed in guidance sessions.

> *"She was drinking to help herself get off to sleep. She had sort of addressed that issue quite early on anyway. I think that was useful because I think that basically reinforced what had already been suggested or been discussed really."*
>
> *Pilot-one research participant*

One participant divulged a tendency to drink too much caffeine, an issue that was not acknowledged by the programme.

> *"Maybe [I drink] too much caffeine...nope, maybe less... I'm drinking less caffeine than I used to... I could do with a double espresso now!"*
>
> *Pilot-one research participant*

A therapist commented that although uptake of this module had been low, the high levels of comorbidity of PTSD and substance misuse suggests the necessity of its continued inclusion.

"The people I've seen haven't had a comorbid substance disorder. But if you think of PTSD as a condition and the co morbidity with substance misuse, it makes sense to have it there."

Pilot-one therapist

Therapists also suggested that the issue of illegal drug misuse might be tackled by the programme.

8.2.2.8 Getting More Exercise

Only one participant made formal use of the module *Getting More Exercise* module. The majority of participants led fairly physically active lives, and did not require input. Others included exercise related goals as part of their behavioural activation in the module *Becoming More Active*.

"I mean I think it's good to be there, it's an optional thing. I mean I'm treating an athlete at the moment, so it's not really appropriate for him, but yeah I think it's good to be there. I mean I guess you could sort of think about whether it could be incorporated into becoming more active."

Pilot-one research participant

Therapists made no other comment on the module on the basis of its low take-up.

8.2.2.8 Becoming More Active

All participants reported benefit from efforts to become more active. Activities taken up were varied, encompassing attempts to reclaim social lives and old hobbies. Some participants tried novel activities.

"I took up kite flying, which is something I've never done before, but thought it'd be good. I got back into skittles that I've done before, riding, more riding. I put a few things into practice. I thought 'how can I become more active?' where as I thought I was active anyway, I thought if I was just sitting doing nothing, I'd take the dogs out or the kite out, something with positive effect really."

Pilot-one research participant

It was described by some as a pivotal point in the programme, and one which had an impact on how they lived their lives.

"That was another turning point. A friend invited me to the cinema. That was the first time I'd been to the cinema in many years. I went a bit panicky... but I went through with it and it was great."

Pilot-one research participant

Use of the materials presented in the exercise section to assist in becoming more active, was variable. One participant reported a preference for taking each day at a time, rather than exerting pressure by setting goals.

"Erm, I mean obviously [I used] the step one yeah, deciding what activities and what I'd like to try. The weekly goals, I was going from day to day really instead of planning ahead. That's how I get through it instead of putting too much pressure on myself to achieve these things, you know."

Pilot-one research participant

Others used the materials to set goals, and found this useful. Some however experienced feelings of failure and guilt, when they failed to attain their targets.

"I mean I looked at trying to include more activities but I found that I wasn't quite ready and in some ways it made me feel a bit more awful when it came to... when you move things over to the next week and when you start moving too much over you start feeling that you're failing."

Pilot-one research participant

Therapists also commented that participants possessed a tendency to generate too many goals, and that these were often unrealistic.

"It [Becoming More Active] had taken her quite long to do and we identified that what she had done was she'd identified too many goals. That's maybe why she ran over. Maybe that's my fault really. Maybe I initially might have guided her a little bit better."

Pilot-one therapist

The need for goals to be reviewed to ensure they represented realistic targets was emphasised.

8.2.2.9 Changing the Way you Think

Participants generally found the module *Changing the Way You Think* useful. Many indicated having identified with one or more example of unhelpful thinking.

"That mind-reading...I thought like my mum [becoming depressed] I was to blame for it. I was second guessing what my mum was feeling because she was ill and so on. So to sort of read about these things and also talking to Jon about it, you know rationalising it in your mind – I wasn't the one driving but I still felt guilty for how my mother was feeling which is hard to explain really."

Pilot-one research participant

These had obviously been taken on board, evidenced by references made throughout the interview.

> *"And the other thing I've been avoiding is relationships. I was always thinking that the scars would affect how the women would see me, but that's mind-reading again innit? (laughs). So you know, all these little things combined, helped."*
>
> *Pilot-one research participant*

Some found the *pie chart of responsibility* to be a useful tool for reducing feelings of guilt, with instant effect in some cases.

> *"The pie chart of responsibility helped to put things into perspective a lot. I was having a lot of guilty feelings and it kind of helped me to understand that the responsibility for what happened wasn't with me... It wasn't confusing, it wasn't difficult. No, it was quite simple. Writing it down and seeing the chart it seemed quite obvious where the responsibilities lay, and I probably had it in my head anyway but I wasn't quite bringing that together and understanding it, it really clarified things."*
>
> *Pilot-one research participant*

For others, the process failed to alter the way they felt. Despite the pie chart showing their share of the responsibility to be minimal, they were unable to take this information on board. Seeing it on paper did not alter their beliefs.

> *"Writing it down and looking at it, I know I didn't cause the accident. But I still feel guilty. And that's hard to explain. But I do feel because it happened to me I am to blame. I did the pie chart. The part that was me to blame was miniscule compared to the rest of the pie chart, but in the back of my mind, niggling feeling was that everything that went wrong, because it happened to me, I'm to blame, and that's how I felt, and I couldn't get away from that, until I started to move on... some people they might write it down – it might be like a switch, like it's not me, I've not done anything wrong, for me, it just didn't make me think any differently. I can rationalise it in my mind, I'm not daft, I*

can see that I wasn't the driver, but for everything else it did feel that because it happened to me, I caused everything else."

Pilot-one research participant

There were no difficulties understanding the instructions, or the process of completing the pie chart. One participant reported problems writing about her guilty feelings. It had acted as a form of exposure to trauma memories, which she felt unprepared for.

"There seem to be plenty of things I feel guilty about...whether or not I should, so I started writing and then it just flowed out. It got to the point that I was sobbing and shaking. I was in an absolute state and thinking- I'm sure this isn't how it was intended, I've got to stop. And then I might have stopped writing but I didn't stop thinking and it was only when my husband came back from work that things improved."

Pilot-one research participant

In this case, the importance of guidance was evident. The guide advised the participant to move on to different activities.

"But when X realised that that was the bit I was struggling with he was like right, let's leave that bit alone then and try something else instead."

Pilot-one research participant

Interestingly, this participant advised against a clause directing the individual to cease the distressing activity, indicating this would be taken up too readily. It was suggested that advice be provided to phone the therapist if overwhelmed.

"I think that [adding a clause to stop if in distress] would be a very hard thing to balance because if you do give people a get out clause, they might take it. I know on occasions I would have taken it... You don't have to...oh all right (laughs)... but maybe saying, if this causes problems to contact someone or discuss it further... maybe do that."

Pilot-one research participant

8.2.2.10 Overcoming Avoidance

All participants experienced avoidance. Avoided situations were varied, inevitably affecting the personal, social and occupational lives of participants.

"Overcoming avoidance was a good one, I was avoiding practically everything including leaving my house."

Pilot-one research participant

Participants appreciated the step by step approach to overcoming avoidance. This made the task seem more manageable, and less distressing.

"The other thing that stood out was the ladder of fear and that helped to break things down a lot and helped me see a way into dealing with things instead of formidable wall. It made it a lot easier."

Pilot-one research participant

One participant found the process of acknowledging his fears difficult, feeling worse initially. He acknowledged that it was none the less, an important part of his long term recovery.

"Although the writing down you fears thing had the opposite effect, it wound me up and made me feel worse about it, just having to think about it. It's swings and roundabouts really. But it's good to identify it."

Pilot-one research participant

Commenting that existing materials involved too much repetition, one participant devised her own system, which involved rating how she felt each time she confronted an avoided situation on a single sheet.

"I wrote out the things that bothered me on one page and started writing numbers down of how I felt each time. It seemed like otherwise there was quite a bit of repetition and when you've got a very busy, busy life..."

Pilot-one research participant

Some had chosen not used the structured materials to overcome avoidance. This was also an issue with modules such as *becoming more active*. When asked why they had not been used, no explanation could be given. On occasions participants commented that they had not been explicitly told to use the materials by their guiding therapist. Participants often acknowledged that in hindsight, the materials might have been useful.

"I just took the basic ideas. I didn't write into there honestly on that one. I should have really."

Pilot-one research participant

Therapists agreed that the module was useful. One commented however that some participants had not been ready to engage.

"I think again that was a good one and one that I tried to do with people. Again a lot of people haven't been ready to fully engage in that. Another person I'm seeing at the moment feels too unsafe and I think there's a genuine sort of threat to him, he's being threatened by the people who assaulted him, so encouraging him to go right back into the scene isn't really appropriate."

Pilot-one therapist

It can be argued the issue is more related to recruitment of suitable participants, than the efficacy of existing materials. This was a concern for therapists. Many participants had more complex difficulties than identified at the initial assessment, often stemming from multiple traumas. Two failed to fully engage with the programme due to ongoing real-life threat and legal proceedings. These individuals were not thought to be the most suitable candidates for GSH treatment.

"I suppose the other big thing is participant selection. I guess that's something it might be worth thinking a bit more about, to focus it on people with fairly straightforward PTSD to a single event where there aren't any ongoing unresolved issues would be my point. So, you know possibly the best way to do that would be to have a more discriminating screening method I suppose."

Pilot-one therapist

A tightened screening procedure was suggested, to ensure suitable participants.

"I'd probably just suggest posing ourselves that question before we let anyone in – have they got at least a 50-50 chance of not having symptoms at the end i.e. a 50-50 chance of not requiring treatment at the end."

Pilot-one therapist

GSH is not intended as a treatment suitable for all. As with all psychological treatments, it is more effective for some than others. Although it is useful to try and pin-point the people it is most suitable for, there is a danger of targeting such a small group of people that it is no longer a viable treatment. This said, it is important to try and aim the intervention at those it has the best chance of helping. Recruitment is an issue worthy of careful consideration.

8.2.2.11 Coming to Terms with What Happened

Those who completed the module *Coming to Terms With What Happened* described it as a "turning point." For these individuals, it was the module that made the biggest difference.

> *"After it was done I felt much, much better. Particularly writing down the event. I didn't like Jon making me do that at the time. But afterwards I could see why he made me do it and I think that was the turning point (pauses). That was the turning point."*
>
> *Pilot-one research participant*

Although universally described as a difficult process, those who attempted writing a narrative succeeded, and were glad of it. Participants described initial feelings of anxiety, panic and a desire to avoid the task.

> *"I was panicky writing it down because that was the first time I'd actually confronted it in my own mind, the full extent of it from start to finish. And writing it down, the writing got worse...writing along the lines, my hands were shaky, umm, it became more stressful to write it down. But I did get through it. In a couple of attempts."*
>
> *Pilot-one research participant*

All participants who attempted the module were able to cope with the level of distress. They habituated to it through repeated reading.

"It was distressing to start with, having to actually start to write it down. Upsetting when I did it. Relief when it was done, then reading it every day before I took the dogs out, so I would reads it at about 8.30 in the morning. It was distressing to read to start off with, about four weeks later it became quite boring."

Pilot-one research participant

Two participants suggested having someone around for support when writing the trauma narrative.

"I think to write down what has happened to you is quite traumatic. So maybe, and I know it's for individuals, but maybe some sort of asking for someone to be there for support, even if they're in a different room or what have you just so that if there comes a time where it's too much and you break down and you're in tears or you're shaking that someone is there for you. Maybe a mention of maybe you'd like someone there with you when you're doing this section."

Pilot-one research participant

The module was not tackled by everyone. In some cases the guiding therapist decided it would not be appropriate for the participant to attempt writing a narrative due to the severity of their symptoms. It was concluded that the process would cause too much distress. In most cases the participant commented post-treatment that they would not have considered undertaking the task. One participant, who did not get as far as doing the imaginal exposure, commented that he would have been able and willing to do so.

"Oh, I've done all that for the police complaints [writing about the trauma]. I had to write it all down. It took about three days to write down what happened, but that was two months after it happened. I'd be better doing that now."

Pilot-one research participant

Therapists commented that the module appeared to make a difference.

> *"This is where things really changed for her. She did one part and she was reading through that and that definitely made a big difference for her so far as the symptoms were concerned. And then the side events she wanted to write an additional part because of her trauma being... there were a couple of things that happened, there was a period where they thought they were actually being watched. I mean she did really well with that. And I noticed as well that she was a lot better."*
>
> *Pilot-one therapist*

One therapist stated that exposure (imaginal and in vivo) appeared to be a key ingredient. It was suggested that the whole programme might centre around the exposure work.

> *"I mean I think that if we focus the whole thing around the exposure work I think that's best then adding in the cognitive stiff as well. But I think the exposure is coming out to me and it does in my practice anyway as being the key thing."*
>
> *Pilot therapist*

8.2.2.12 Staying Well

No comments were made regarding possible improvements to the module *Staying Well*. Some commented that the module gave some good common sense advice.

> *"I'm monitoring how I feel because I know when I'm getting stressed... I know when I'm doing too much really and that's why things were going wrong in the first instance... I was trying to get back to normal when my brain wasn't in order I suppose. Erm, but no, if I'm doing too much I say listen, I can't do it. I've got my mind in order now."*
>
> *Pilot-one research participant*

Some failed to read the module. It came after the last guidance session, and they had not been explicitly told to use it. Since this module was completed after the final guidance session, therapists had no comments.

8.2.3 Feedback on additional programme components

8.2.3.1 Quick Quiz

Some participants found the *quick quizzes* helpful. Others found no particular benefit from completing multiple choice questions, often stating that they were too easy or mundane.

> *"They're ok. It's a little bit mundane. It's a good way of making you think extra about it because you're doing a questionnaire on it."*
>
> *Pilot-one research participant*

Some found the *quizzes* useful for ensuring the information had been understood. Getting the questions right confirmed that the information had been learned. *Quick quizzes* also emphasised the most important points, reinforcing module content.

> *"I found that in some ways the statements were true or false – it's almost hammering a point home and it seems that the most important point are being picked up."*
>
> *Pilot-one research participant*

Therapists made no comment on the multiple choice questions.

8.2.2.2 Ten tips

Everyone found the *ten tips* helpful, particularly as a resource to refer back to once the module was complete. They acted as a summary of module content and a useful, brief refresher of what they had learned.

"It was like a quicky list to look at. If I was having a bad day in work I would have it on my favourites, I'd click on the website and look at the tips. All those pages summarised – a reminder for when your minds gone a bit too busy to remember what I'd learned."

Pilot-one research participant

Therapists had no comment to make.

8.2.2.3 Activities Diary

Many participants valued their diary. It allowed them to reflect on how they were feeling and monitor progress. Positive attitudes towards the diary were not however universal, one individual commented that it highlighted a lack of progress.

"The diary thing for me got a bit too much of a pain half way through. The numbers (on the daily "how are you feeling?" self rating scale) kept being low on the bottom to start with. I've been doing one since the assault, a little what happened today bit of a diary. And it just got into cutting my arms today, cutting my arms today, cutting my arms today. So it was sort of in the good patches I caught myself noticing I haven't cut my arms in three days, I better do it again just in case. That's a bad thing, so I stopped then. It was kind of the same this time with everything getting bad and I just didn't want to write it down anymore."

Pilot-one research participant

Use of the diary was variable. Some participants used it every day, others neglected to use it at all. When asked why it had not been used, two individuals commented that they had not been explicitly told to do so. This highlights a point raised elsewhere: participants often required specific instruction to complete tasks. Left to their own devices, materials were often left unused. We might speculate that this was due to lack of motivation, avoidance, being unaware of certain parts of the programme, a reluctance to

attempt tasks unsupported, or a combination these factors. No one could provide a specific explanation as to why this was the case.

In terms of refining the diary, one participant suggested allowing more space to write, enabling more to be recorded on a daily basis.

> *"The diary pages may need a bit more space, it's very brief. Some people might like to put a bit more of what had happened."*
>
> *Pilot-one research participant*

One participant commented that regularly sharing the completed diary with his therapist was useful. Another would have appreciated bringing his diary to guidance sessions, but was never invited to do so.

8.2.2.4 Patient Stories

Participants found the patient stories useful. It was said to be a comfort that they were not alone in how they were feeling, that others had suffered the disorder.

> *"And seeing that I'm not alone, the Michael and Chloe stories, so it's not... not just me who's going through it."*
>
> *Pilot-one research participant*

Those who used the website also enjoyed watching the videos of Michael and Chloe.

> *"The videos on the website were helpful because you could see other people who were going through similar things. If you can't talk to other people you can at least see that you're not alone."*
>
> *Pilot-one research participant*

No comments were made regarding possible changes to the stories.

Respondents revealed no awareness of the stories being fictional.

8.2.2.5 Family and Friend Involvement

No one chose to bring a family member or friend to the initial guidance session, despite being invited to do so. When asked if family involvement would have been appreciated, most commented that they saw their treatment as a private matter. There was a widely held belief that the presence of a loved one would have affected their ability to talk to their therapist openly and honestly, which was felt to be important.

> *"It felt like quite a private thing...I think I would have held back on what I was saying."*
>
> *Pilot-one research participant*

One participant reflected that bringing her partner to a session might have been helpful in terms of fostering understanding.

> *"My partner went through the same but he wouldn't go to counselling, he wouldn't do anything about it. He's been quite impatient with me. So I think it might have helped if I'd brought him."*
>
> *Pilot-one research participant*

Some participants shared completed exercises and/or diaries with family and friends, which they found useful.

> *"They looked at my diary on a few occasions – my mother did. One friend of mine read my account of what had happened to me. A few people actually*

looked at it which I saw as a positive step, because they could see what I had gone through and I don't expect sympathy, that's not what I thought by showing them, it sort of helped me to show them how I feel because I'm not one for showing my emotions and maybe then they can understand that if I'm annoyed, if I'm angry whatever that this is because... they know what happened to me. All my friends and family know what happened to me. But they don't know what's going on in my head and how I perceived what happened to me, and then they can see and what I'm going through ...on a daily basis showing the diary."

Pilot-one research participant

The *Information for Families and Friends* was appreciated with no recommendations for improvement. One participant chose not to share this with his loved ones. He did not wish them to divulge how he was feeling.

"I struggle at the moment with myself trying to explain to them and that's like a big swimming pool in a way. It's like someone saying all of a sudden did you know X was really bad. If I gave that to someone suddenly they know everything, and I don't want them to know everything. If I can't talk to my mother about it, how can I give her a letter to say I'm in a bad way?"

Pilot-one research participant

8.2.3 Feedback on delivery

Many participants reported concurrent use of the hardcopy and website. They appreciated the choice. All participants however expressed a preference for use of the hard copy. Reasons for this preference were varied. One individual used the hard copy to retain use of the computer for leisure activities. Many enjoyed the portability of the hard copy and the ability to use it anywhere. Some commented that the website felt less personal. These opinions mirror those of expert patients interviewed during the modelling stage of the project.

"I used the hardcopy, never used the website at all. I kept that separate. Kept the computer for fun things. I classed this as sort of homework. The computer

was a pleasure thing. It was good to have the choice."

Pilot-one research participant

Participants acknowledged individual preferences. This sample preferred using the hard copy, but this might not be true of everyone.

"It would depend on the person, whether they're more used to books or screens."

Pilot-one research participant

Therapists were enthusiastic about the materials, also commenting that participants had made use of both the website and hardcopy.

"People were very positive about the written materials, I think it was very good having the manual and the internet site to direct people to and I think you are conscious that in the past I haven't always had those resources available to direct people to, so that was great. You're often sort of pointing people to other resources which aren't specific for their issues whereas these were very specific for their issues which I thought was great."

Pilot-one research participant

One participant criticised the look of the hard copy, suggesting the use of colour.

"Like I say, I'm not much of a reader, so for someone in my situation it could be a bit boring, all black and white. The actual contents and the chapters for helping you are like really good for the ones I've used. It's a low budget thing so what can you do, I don't know, but just having things in black and white in front of you is a bit too clinical for me... make it a bit more, I wouldn't say well, yeah fun I suppose. Yeah, it's an upsetting time, but for it just to be black and white it's not going to spur you on to do things. I don't know, I'd try and lighten

the literature I suppose, not the contents of it but just the way it visually comes across I suppose."

Pilot-one research participant

The look of the hardcopy was of no importance to any other participant. Some went further and commented that colours/ pictures would be distracting. They maintained that content was more important than appearance.

"I'm more of a content person. I was quite happy. For me all it needed to do was have the right words on the pages."

Pilot-one research participant

Once again, participants had no basis for comparison. Though satisfied with the materials provided, it is impossible to tell how they would have reacted given a more aesthetically pleasing programme. One therapist suggested that the materials could be professionalised, but acknowledged that participants had not raised this as an issue.

"Umm, and obviously as we've discussed before to have it a bit glossier, a little bit more professional would make a difference to people. But overall people have been positive about this and about the website as well. I've been very pleased by the way people have fed back on that."

Pilot-one therapist

Participants were also enthusiastic about the website, despite primarily using the hardcopy.

"The website looks fab, all really nicely laid out and designed."

Pilot-one research participant

There were occasional suggestions for improvement, which centred around creating a more interactive, personalised, experience.

> *"You could have some sort of form filling things for the end of section questions. A little JavaScript thing that'll tell you how many you got right and wrong."*
>
> *Pilot-one research participant*

Some participants experienced difficulties playing the video clips.

> "The videos on there I found didn't work on some machines, I've got no control in work over what's downloaded and the one that was there was just showing a blank square."
>
> *Pilot-one research participant*

8.2.4 Feedback on guidance

8.2.4.1 General opinions

Participants were full of praise for their guiding therapist, describing guidance as an "integral part" of the programme.

> *"If I just came and talked to a counsellor or if I just went home and did that for self help, I can't see that would help so much. It would help in some way, but it would be slow, you know. I think the combination of the two things together does speed up a lot of things, because you can talk things through and it's almost like clarification of what you've been doing and you know I've been going in the right way or I've not been going in the right way, I need to change something – so the combination of the two is definitely needed."*
>
> *Pilot-one research participant*

Motivation and the requirement of deadlines were the most commonly cited reason for the necessity of guidance.

"Meeting up once a fortnight was just enough to keep you going and think... oh I haven't filled in my diary for a few days, I really should fill it in. It made me work harder at it. I think if I was just trying to do it on my own, I would probably have just given up."

Pilot-one research participant

In terms of alterations to the way guidance sessions are used, therapists suggested reviewing completed exercises routinely.

"I think with all of them I wonder whether I should be getting... looking at people's exercises with them more, I've not been doing that specifically. It may be best in future to make it more of a requirement that people bring in the folder, and we go through the actual folder."

Pilot-one research participant

Participants agreed with this view, commenting that they would have liked to have shared completed exercises with their therapist.

"Whether that [bringing completed exercises to guidance sessions] would work I don't know. But I would feel better doing that. It so like going back to school, but sometimes that does help. If you have a section to do and then do that section. And I can bring it to you and I can say I stumbled on that. But like now, I come to you [at post treatment interview] and I say, I didn't do that bit sorry and so it's a waste of time."

Pilot-one research participant

All three therapists commented on a need to create a more structured therapist manual outlining what should be covered in each session.

"I suppose it was having an agenda, trying to stick to brief sessions with people and getting them to engage and do homework when there other things going on that I suppose they wanted to take the opportunity to talk about. It was quite hard with them trying to contain the sessions time-wise and stay with the programme with all those other things that were going on really."

Pilot-one research participant

This would standardise guidance and ensure therapist felt comfortable delivering this novel treatment.

8.2.4.2 Frequency

Most participants would have liked more guidance. They acknowledged however, that the amount they received was satisfactory. Others felt the level of guidance was sufficient.

> *"It was perfect. And the fact that he rang me in the middle of the week he didn't see me as well."*
>
> *Pilot-one research participant*

Therapists commented that they were able to build up a good rapport with participants despite having only brief contact.

> *"I mean I think I've developed a pretty strong rapport certainly with most people I've seen and that has been a very positive thing. And in some ways and I don't know if it's because it's a research thing, but in many ways even a stronger rapport."*
>
> *Pilot-one therapist*

One of the therapists commented that increasing the amount of guidance would create a danger of compromising the programmes status as GSH.

> *"So I think I'd rather keep it at the level that it is at the moment or else I think that it becomes therapy rather than GSH in a way and to have sort of a round about 3 hour ceiling input I think would be a reasonable thing to do."*
>
> *Pilot-one therapist*

Receiving phone calls or emails between guidance sessions was appreciated. One of the three therapists did this routinely.

"It just feels like they taken you as an individual you're not just like a case study. They're treating you like they're interested in your case. Like he'd phone me and ask me how my training was going, everyday life, it wouldn't be directly solely on what we were doing."

Pilot-one research participant

Few individuals took the opportunity of contacting their therapists between sessions, despite being invited to do so.

"I also offered people to contact me but no one has independently contacted me except for one person to say they couldn't make an appointment because they were ill. I think it just hasn't happened, which is interesting in a way."

Pilot-one research participant

One participant did not receive contact details for his therapist. He was unsure who to contact for extra support. He suggested this be made clearer.

"Contact info for Neil... I think ought to have been clearer. I wasn't sure if he was the therapist to contact."

Pilot-one research participant

8.2.4.3 Guidance method

All participants chose to receive their guidance face to face. The reasons for this preference were variable, including motivational reasons and a dislike of speaking on the phone. Participants had no interest in receiving guidance in any other way.

"I thought if I did it over the phone I probably wouldn't go through with it. And if I had to report to someone, I'd be more likely to do it - motivation."

Pilot-one research participant

Therapists also expressed a preference for providing guidance face to face. They were willing however to provide guidance over the phone. One therapist also commented that providing guidance at the Traumatic Stress Service acted as behavioural activation, creating the necessity to leave the house.

> *"My gut feeling... but this may be a therapist bias, is that it's helpful to see people fact to face and I also found it was quite helpful to get people out of their houses as well in that as is common with a lot of PTSD sufferers most people needed a degree of behavioural activation and that was quite a good way of doing that, and actually helped expose a few of the people to things that they had been avoiding before."*
>
> *Pilot-one research participant*

8.4 Prototype two

On the basis of qualitative and quantitative results of the first pilot study, a summary was produced and circulated to the stakeholders who took part in the modelling focus groups/interviews and pilot-one participants. Professional stakeholders were invited to take part in further focus groups to discuss programme refinement. Former PTSD sufferers and pilot-one participants were invited to comment by phone, post, or email. Feedback and the outcome of focus groups, was discussed with the project steering group, and necessary amendments finalised.

Refinements are summarised under the headings of 1) refinement of delivery; 2) refinement of programme structure and components; 3) refinement of guidance arrangements; and 4) refinement of participant recruitment.

8.3.1 Refinement of delivery

Availability of the programme in a choice of media was maintained. In terms of the appearance of SH materials, participants commented that programme content was more important than appearance. On this basis, and due to the absence of funding to produce more professional materials, the look of the programme remained unchanged.

8.3.2 Refinement of programme structure and components

Prototype-two consisted of mandatory and optional modules, allowing the programme to be tailored to meet individual needs (presented in table 8.1). The most pronounced change was rearrangement of the programme to provide a more central role for the exposure modules. The only module to be discarded was *getting more exercise*. Take up of the module was low, and participants commented that exercise was portrayed as an extra chore, rather than an enjoyable pastime.

Core Modules (to be completed by everyone)	Optional lifestyle modules (to be completed alongside the Core Modules when relevant)
1. What is post traumatic stress disorder?	9. Getting a better night's sleep
2. Grounding yourself	10. Managing your anger
3. Learning to relax	11. Cutting down on substances (alcohol / caffeine / illegal drugs)
4. Becoming more active	
5. Coming to terms with what happened	
6. Changing the way you think	
7. Overcoming avoidance – facing your fears	
8. Staying well	

Table 8.2 Prototype-two modules

8.3.2.1 What is Post Traumatic Stress Disorder?

Module one, *What is Post Traumatic Stress Disorder?,* remained largely unchanged in line with the approval of pilot-one participants. Minor amendments were made to the wording to simplify the module.

8.3.2.2 Grounding Yourself

The module *Grounding Yourself* also remained unchanged for the most part. A technique that involved plucking an elastic band against the wrist was removed.

8.3.2.3 Learning to Relax

In pilot-two, controlled breathing was taught by the therapist during the first guidance session. The exercise section was also altered, to make an explicit requirement for participants to try each relaxation technique, and write about their experiences.

8.3.2.4 Becoming More Active

The refined version of the module *Becoming More Active,* incorporated advice on getting more physical exercise. This was due to the removal of the stand-alone module on this topic. Use of materials to assist in becoming more active was variable in pilot-one. The importance of setting *realistic* goals was emphasised in prototype-two. Participants were encouraged to discuss goals with their guide, and to check proposed goals against criteria set out by the SMART acronym detailed in text box 8.2. Participants were encouraged to

bring completed exercise sheets to guidance sessions to encourage use of the structured materials for gradually becoming more active.

S = Specific – A goal should be clearly defined. How when and where will the goal be attained?

M = Measurable – A goal needs to be measurable. How will you know when a goal has been achieved?

A = Attainable – A goal should be something you know you can do. Do you have the ability and resources required to attain the goal?

R = Realistic – A goal needs to be realistic. Are you willing and able to work towards the goal? Be honest with yourself.

T = Timely – A goal must have a timeframe. We recommend one week.

Text box 8.3: Criteria for setting SMART goals

8.3.2.5 Coming to Terms with What Happened

Coming to Terms with What Happened was an *optional* module in prototype one. It became a mandatory module in prototype two. It also was brought forward in the programme, and its importance emphasised. All participants were encouraged to complete the module, although a degree of caution and judgement on the part of the guiding therapist was still recommended.

8.3.2.6 Changing The Way you Think

The module *Changing the Way you Think* remained largely unchanged. A thought diary was added, to record and challenge unhelpful thoughts.

8.3.2.7 Overcoming Avoidance

No major changes were made to the module *Overcoming Avoidance*. Prototype two aimed to encourage greater use of these materials, by asking individuals to bring completed exercises to guidance sessions.

8.3.2.8 Getting a Better Night's sleep

The use of relaxation exercises before bed were emphasised more prominently in prototype two, on the basis of comments related to the benefits of this practice. Instructions for carrying out relaxation in the event of waking after a nightmare were also provided.

8.3.2.9 Managing Your Anger

The module *Controlling Your Anger* in prototype two looked at the roots of anger, and asked individuals to keep an *anger diary* to gain an understanding of the problem. The module was renamed *Managing Your Anger.*

8.3.2.10 Cutting Down on Substances

Prototype two included advice on cutting down on illegal drugs and caffeine. A gradual approach was advocated, with advice for cutting down on these substances being similar to the advice provided for cutting down on alcohol. The new, more inclusive module, was entitled *cutting down on substances.*

8.3.2.11 Staying Well

No suggestions were made for improvement of the module *Staying Well*. The module remained unchanged.

8.3.2.12 Activities Diary

The diary was altered to provide a page a day instead of a page a week.

8.3.2.13 Information for Families and Friends

No changes seemed necessary to the Information *Provided for Family and Friends*.

8.4 Refinement of guidance arrangements

Arrangements for the frequency and quantity of guidance remained unchanged. Participants were offered guidance face to face or over the phone. They were informed that they could contact their therapist via email or by phoning the Traumatic Stress Service between sessions. Phoning the participant once a week between fortnightly scheduled sessions, was incorporated as a routine part of the programme. A more detailed therapist manual was produced. It is presented in text box 8.3.

Guidance session objectives

Session 1

- Provide some basic psychoeducation and answer any questions the individual has with respect to the disorder and how they are feeling
- Provide a rationale for psychological treatment
- Describe the GSH programme and present the hard copy and website. Explain use of activities diary and draw their attention to the information for family and friends.
- Discuss optional modules and decide which would be appropriate

- Explain that completed exercises will be reviewed at the next guidance session.
- Teach controlled breathing
- Set modules to be completed over the first two weeks. This will include:

    1. What is PTSD
    2. Grounding Yourself
    3. Learning to Relax
    4. 1 or more optional "lifestyle" module (Getting a Better Night's Sleep, Managing Your Anger, Cutting Down on Substances)

**** we recommend that you introduce as many modules as possible, as early as possible, without over-loading the individual ***

- Arrange a 30 min guidance appointment for 2 weeks time. This can be provided face to face or over the phone
- Diarise a phone call for 1 week's time (this will be a brief check in only, not a guidance session). If the individual is doing well weekly phone calls can be used to suggest progression to new modules.

Session 2

- Review diary and briefly acknowledge and consider all completed exercises/ homework
- Assess whether individual has mastered relaxation/ grounding techniques
- Set modules to be completed over the next two weeks. This will include:

    1. Any relevant optional "lifestyle" module that was not introduced in session 1.
    2. Becoming more active
    3. Coming to terms with what happened
    4. If the individual is getting on well, 1 or more of the modules Changing the Way You Think / Overcoming Avoidance

**** we recommend that you introduce as many modules as possible, as early as possible, without over-loading the individual ***

- Arrange a 30 min guidance appointment for 2 weeks time. This can be provided face to face or over the phone
- Diarise a phone call/email for 1 week's time (this will be a brief check in only, not a guidance session). If the individual is doing well weekly phone calls can be used to suggest progression to new modules.

Session 3

- Review diary and briefly acknowledge and consider all completed exercises/

homework

- Set modules to be completed over the first two weeks. This will include:
    1. Any relevant optional "lifestyle" module that was not introduced in sessions 1 or 2.
    2. Changing the Way You Think (if not already introduced)
    3. Overcoming Avoidance (if not already introduced)
- Arrange a 30 min guidance appointment for 2 weeks time. This can be provided face to face or over the phone
- Diarise a phone call/email for 1 week's time (this will be a brief check in only, not a guidance session)

Session 4

- Review diary and briefly acknowledge and consider all completed exercises/ homework
- Ask the individual to complete the module Staying Well to finish the programme

Text box 8.3: Therapist manual for pilot-two

8.5 Refinement of participant recruitment

Individuals with PTSD symptoms to more than one traumatic were excluded from the pilot-two. Individuals experiencing ongoing threat or legal issues that were impacting on the individual were also felt to inappropriate for this form of treatment.

Chapter 9: Results: Prototype two

9.1 Overview

This chapter presents the quantitative and qualitative results of the second pilot study. These results informed further programme refinement and the development of the final prototype.

9.2 Quantitative Results

Table 9.1 presents the mean score on each validated questionnaire administered pre treatment, post treatment, and at one month follow-up. Of the nine participants recruited, two dropped out. One was experiencing housing and financial issues, and felt unable to proceed; the other gave no reason for leaving the study, and became lost to follow-up. The table displays the mean outcome (with standard deviations) of the seven completers.

Measure	Pre-treatment Mean (SD) N=7	Post-treatment Mean (SD) N=7	One month post-treatment Mean (SD) N = 7
CAPS	65.14 (18.73)	29.28 (27.03)	31.38 (26.71)
PSS-SR	32.00 (12.39)	14.57 (15.02)	18.28 (18.00)
BAI	22.14 (15.91)	18.85 (18.61)	17.00 (17.33)
BDI	30.42 (16.79)	22.41 (16.87)	20.00 (17.04)
AUDIT	3.42 (3.95)	4.14 (5.30)	9.85 (13.87)
SSQ support	2.49 (1.66)	2.09 (1.39)	2.83 (2.69)
SSQ satisfaction	4.90 (0.95)	4.76 (1.93)	4.66 (3.44)
SDS	21.42 (8.77)	13.57 (14.40)	14.28 (12.93)

Table 9.1 mean results of pilot two

9.1.1 Clinician Administered PTSD scale (CAPS)

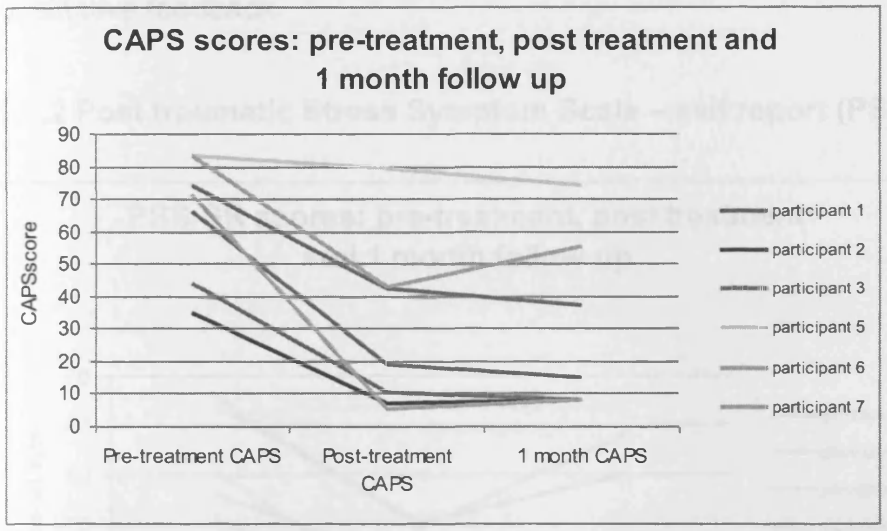


Figure 9.1 CAPS scores pre-treatment, post-treatment and at one-month follow-up

The mean CAPS score decreased considerably from pre-treatment (mean = 65.14; SD = 18.73) to post treatment (mean = 29.28; SD = 27.03), with a slight increase at one-month follow up (mean = 31.38; SD = 26.71). The ITT effect size was 1.15 (Cohen's-d). All participants scored lower on the CAPS post-treatment than they did pre-treatment, with most participants maintaining treatment gains at one month follow up. These results are illustrated by figure 9.1.

A 15-point change in CAPS total severity score has been proposed as a marker for clinically significant change (261). By this definition, 85% (6/7) of the completers, and 67% (6/9) of all participants made clinically significant improvement post-treatment. This was a better outcome than pilot-one, when only 50% (5/10) of the participants attained more than a 15-point reduction.

One participant remained highly symptomatic, with a CAPS score of 83 pre-treatment, decreasing to 79 post-treatment, and 74 at one-month follow-up.

This participant made little use of the GSH programme, as indicated by his qualitative feedback.

9.1.2 Post traumatic Stress Symptom Scale – self report (PSS-SR)

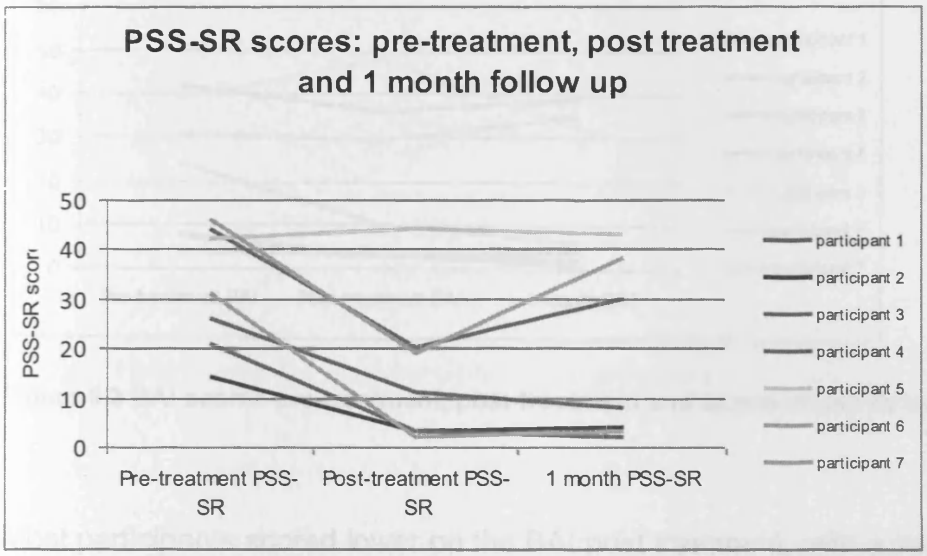


Figure 9.2 PSS-SR scores pre-treatment, post-treatment and at one-month follow-up

PSS-SR scores followed a similar trend to CAPS scores. The mean of PSS-SR scores was 34.00 (SD = 5.97) pre-treatment, 24.68 post-treatment, and 26.00 (SD = 12.60) at one-month follow-up.

All but one participant had a lower score on the PSS-SR post-treatment. This was the same participant who remained highly symptomatic on the CAPS. Most participants maintained treatment gains at one-month follow up. Three participants scored higher than at post-treatment, but their scores remained lower than they were pre-treatment. Results are illustrated by figure 9.2.

9.1.3 Beck Anxiety Inventory (BAI)

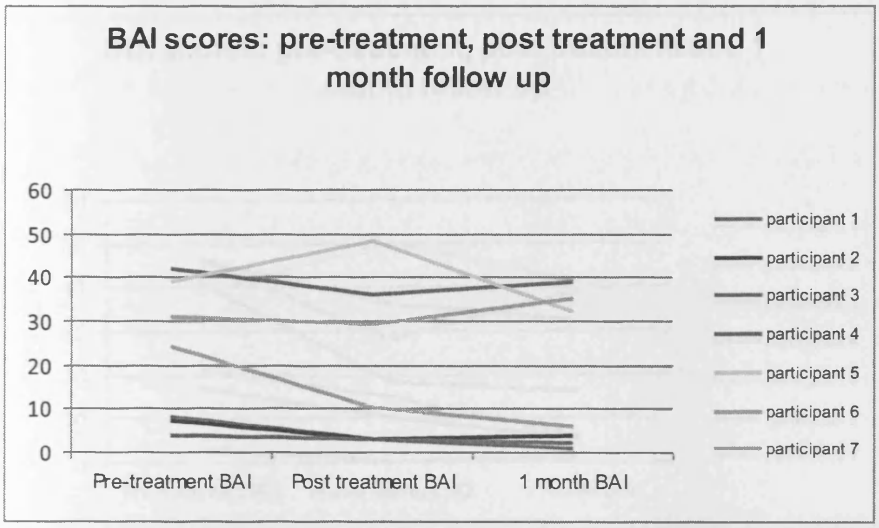


Figure 9.3 BAI scores pre-treatment, post-treatment and at one-month follow-up

Most participants scored lower on the BAI post treatment, with a decrease in the mean from 22.41 (SD = 15.91) to 18.85 (SD = 10.8). The mean at one month follow-up was 17.00 (SD = 17.33). All but one had a lower BAI score post-GSH. This was the participant who fared badly on the CAPS and PSS-SR. Figure 9.3 illustrates the results of individual participants.

9.1.4 Beck Depression Inventory (BDI)

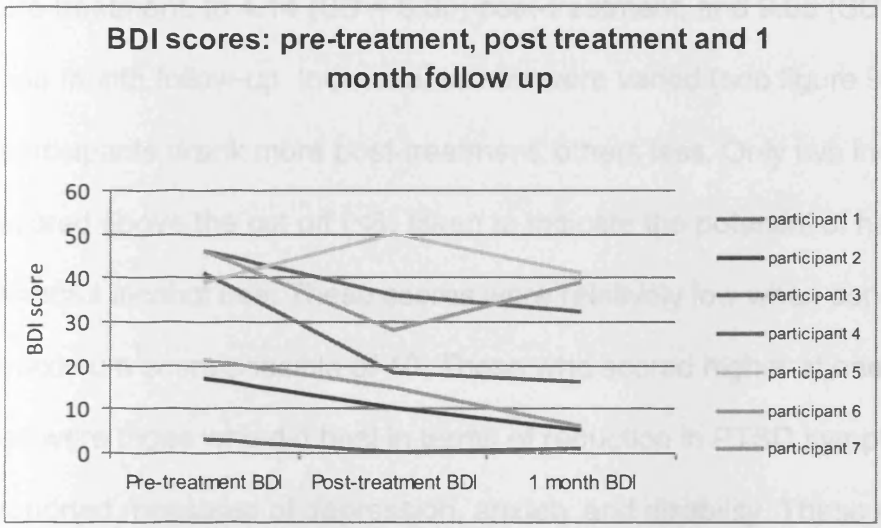


Figure 9.4 BDI scores pre-treatment, post-treatment and at one-month follow-up

Scores on the BDI followed a similar trend to the BAI scores. The mean reduced from pre-treatment (mean = 30.42; SD = 16.79) to post-treatment (mean = 22.41; SD = 16.87), with a further drop at one month follow-up (mean = 20.00; SD = 17.04). All but one participant had a lower score post-treatment, with most maintaining treatment gains at one month follow-up (see figure 9.4).

9.1.5 AUDIT

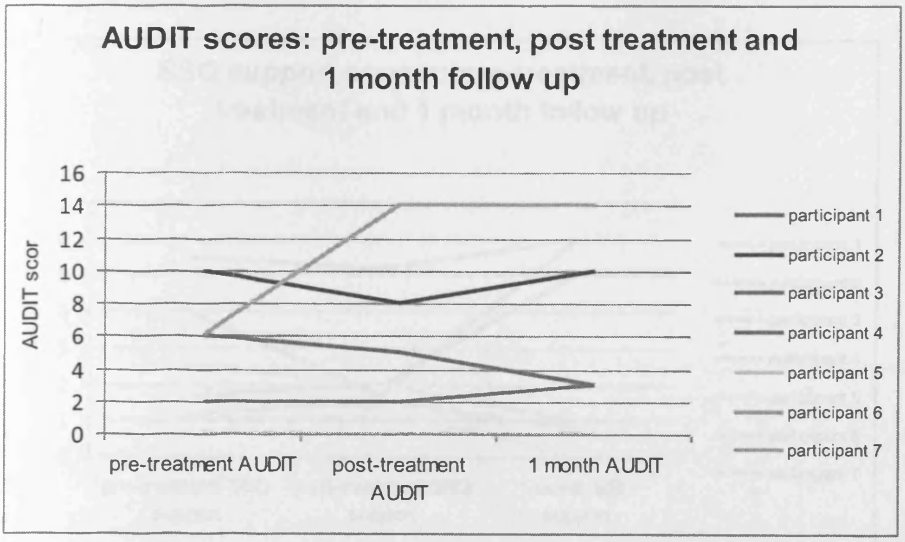


Figure 9.5 AUDIT scores pre-treatment, post-treatment and at one-month follow-up

Mean scores on the AUDIT questionnaire saw a rise from 3.42 (SD = 3.95) pre-treatment, to 4.14 (SD = 5.30) post-treatment, and 9.85 (SD = 13.87) at one month follow-up. Individual scores were varied (see figure 9.5). Some participants drank more post-treatment, others less. Only two individuals scored above the cut off (<8) taken to indicate the potential of hazardous or harmful alcohol use. These scores were relatively low when considering the maximum score possible of 40. Those who scored higher at one month follow-up were those who did best in terms of reduction in PTSD symptoms and self-reported measures of depression, anxiety and disability. These individuals did not feel that their drinking was problematic or used as a coping mechanism. The increase may be attributable to the individuals resuming their social lives and drinking more on this basis. One participant started going on regular holidays to make the most of his retirement, felt that he was drinking more socially when away, and did not see this as an issue. Three participants scored 0 on the AUDIT questionnaire at all three points in time.

9.1.6 Social Support Questionnaire (SSQ) - support

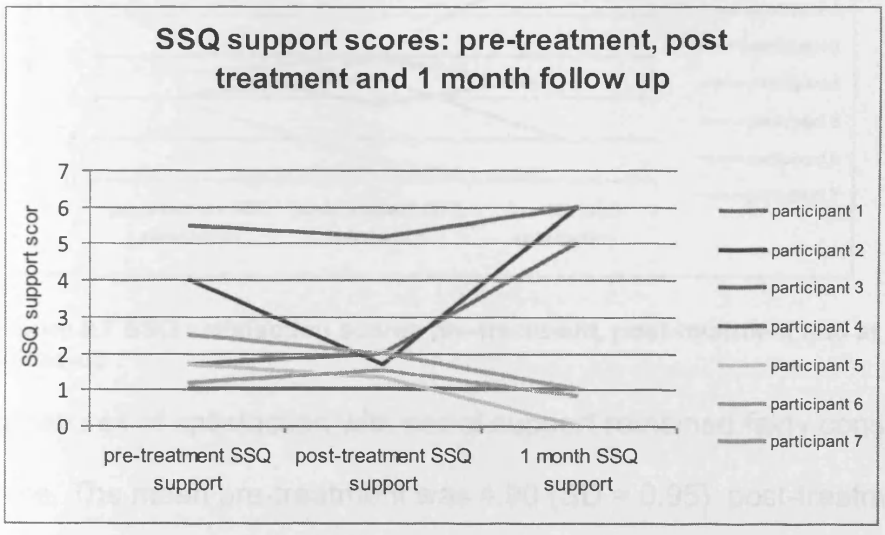


Figure 9.6 SSQ support scores pre-treatment, post-treatment and at one-month follow-up

Ratings of perceived social support were varied, following no set pattern over time (see figure 9.5). The mean pre-treatment was 2.49 (SD = 1.66), dropping to 2.09 (SD = 1.39) at post-treatment, and 2.83 (SD = 2.69) at one-month follow-up. SSQ scores obtained from both pilot studies were very difficult to interpret. Some participants reported fewer sources of support post-treatment, others reported many more. Although the intention was to gauge the level of support available to the participant, results may have been influenced by other factors, such as a greater or lesser need for support, their ability to seek desired support, and their level of engagement with social / family life. Some individuals listed very few sources of support, but a high level of satisfaction, indicating that quality is perhaps more important than quantity.

9.1.7 Social Support Questionnaire (SSQ) – satisfaction

Figure 9.7 SSQ satisfaction scores pre-treatment, post-treatment and at one-month follow-up

Measures of satisfaction with social support remained fairly constant over time. The mean pre-treatment was 4.90 (SD = 0.95), post-treatment it was

4.76 (SD = 1.93), and at one-month follow-up it was 4.66 (SD = 3.44). Figure 9.7 illustrates the results of individual participants.

9.1.8 Sheehan Disability Scale (SDS)

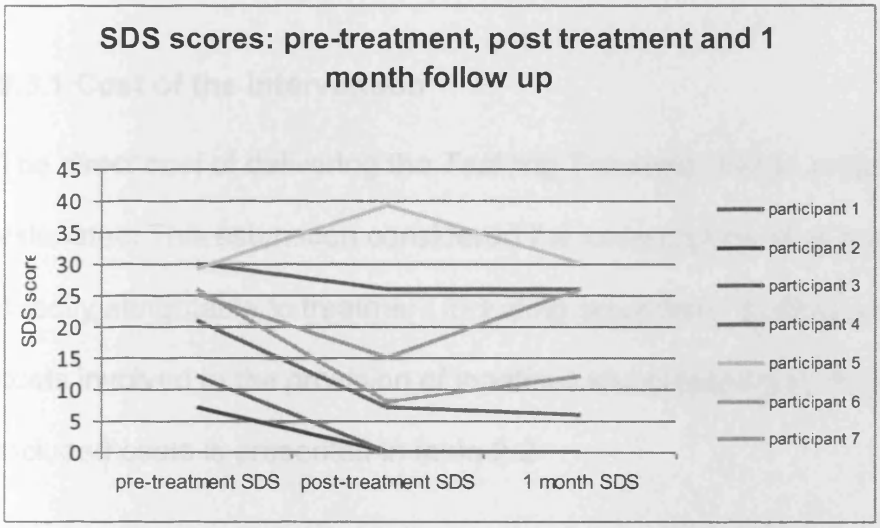


Figure 9.8 SDS scores pre-treatment, post-treatment and at one-month follow-up

The mean SDS score pre-treatment was 21.42 (SD = 8.77), falling to 13.57 (SD = 14.40) post-treatment and remaining fairly constant at 14.28 (SD = 12.93) at one-month follow-up. Two participants reported a disability score of zero post-treatment and at one month follow-up. All but one participant reported less disability at one-month follow-up than they had pre-treatment. These results are illustrated by figure 9.8.

9.3 Economic data

The Client Socio Demographic and Service Receipt Inventory European Version (CSSRI-EU) questionnaire (259) was used to collect economic data from participants. This was administered to inform an understanding of the cost-implications of GSH for PTSD. As indicated in Chapter 6, conducting a full economic evaluation was not possible given the small sample size and

lack of control group. This section presents an estimation of the average cost of delivering the *Tackling Traumatic Stress* programme versus therapist administered treatment, and provides a summary of other health resources used by participants.

9.3.1 Cost of the intervention

The *direct cost* of delivering the *Tackling Traumatic Stress* programme was estimated. This estimation considered the consumption of all resources directly attributable to treatment including equipment, staffing and all other costs involved in the provision of inpatient and outpatient care. A summary of included costs is presented in table 9.2.

Cost	Therapist administered psychological treatment	Tackling Traumatic Stress programme
Therapist time (with oncosts, overheads and capital overheads)	£803	£201.48
GSH hardcopy	-	£6.50
GSH website	-	£22.11
Phone calls	-	£0.65
Total	**£803**	**£230.74**

Table 9.2: Cost of delivering the *Tackling Traumatic Stress* programme versus therapist administered psychological treatment

9.3.1.1 Cost of therapist time

The hourly cost of CBT was taken from the 2010 UK *Unit Costs of Health and Social Care* issued by the Personal Social Services Research Unit. Component costs were calculated based on 2009–2010 prices. An average

wage of £40,000 per year was estimated by taking the average hourly wage of a specialty doctor (midpoint), a clinical psychologist (band 7 median) and mental health nurse (band 5 median). Oncosts of £9,988, overheads of £3,130, and capital overheads of £3,292 per year were added. This gave an estimate of £73 per hour of face-to-face contact.

The mean amount of therapist time required to guide a participant through the *Tackling Traumatic Stress* programme was 2.76 hours. It therefore cost an average of £201.48 to guide a participant through the programme.

The NICE guidelines for PTSD recommends 8-12 on-hour sessions of therapist administered psychological treatment, with longer 90 minute sessions when the trauma is discussed. Based on this recommendation, therapist input of 11 hours was estimated at a cost of £803.

9.3.1.2 Cost of Tackling Traumatic Stress hardcopy

The hardcopy was presented on black and white A4 photocopied sheets, in a ring binder, with subject dividers separating each module. The cost of photocopying was estimated at 3p per sheet, and the hardcopy was composed of approximately 150 pages including diary sheets. This gave a total cost of £4.50. The ring binders cost £1.50 and the subject dividers £0.50. This gave a total cost of £6.50 for each hardcopy.

9.3.1.2 Cost of Tackling Traumatic Stress website

The *Tackling Traumatic Stress* programme was developed and hosted using the free of charge service offered by the company *Yolasite*. Filming the video

clips for the website cost approximately £120. Hiring actors to play the parts of Michael and Chloe cost £150 each. This gave a total of £420. Dividing this cost between the 19 participants gave a total of £22.11.

9.3.1.3 Cost of phone calls

The cost of calls to participants was estimated at 5p per minute. The average time spent guiding participants over the phone was 13 minutes. The cost of phone calls was therefore estimated at £0.65 per participant.

9.3.1.4 Other costs

Conducting a formal economic evaluation of the programme would require consideration of costs other than those considered by this estimation. Firstly, the input of stakeholders would have to be costed. Additionally, the time taken to research and write the SH materials would need to be taken into account. Also, direct non-medical costs such as transport to and from the health care setting would have to be included, as would indirect costs such as lost productivity. Healthcare service use and medication costs would also need to be considered.

Perhaps most importantly, the cost of additional therapist administered treatment delivered after GSH would need to be considered. Three of the seven completers required further intervention. Although therapists judged that the length of their treatment would be reduced as a consequence of their

GSH treatment, participants were on the waiting list / engaged in treatment at the time of submitting this work.

9.3.2 Cost of service receipt

The CSSRI-EU questionnaire was administered at pre-treatment, post-treatment, and at one month follow-up. The aim was to gauge the level of health resource use. Table 9.3 presents a self-reported record of service use with unit costs.

A total of nine psychiatric outpatient visits were reported prior to starting the programme. Aside from contact with guiding therapists, no one reported any further visits of this sort, with the total cost being £1134. Three participants had been admitted to a general medical ward as an inpatient in the 12 months prior to their pre-treatment assessment, totalling 24 nights at a cost of £5976. There were no further admissions during, or one month after treatment. Fifty-five outpatient visits were made pre-treatment costing £5115, this rose to 79 at a cost of £7347 after treatment and 81 costing £7533 at one month follow up. In the three months after pre-treatment assessment, this cost rose by £2418. It is worth noting that all participants experienced a trauma that had resulted in some degree of physical injury. It is predominantly these physical injuries which required ongoing care and expenditure.

9.3.3 Medication use

Table 9.4 presents a self-reported record of medication use. There was little change in the use of medication post-treatment and at one month follow up, compared with pre-treatment reports. The use of tricyclics decreased by one

at one-month follow up, as did use of benzodiazepines. Use of anti-histamines increased by one at one-month follow-up. Finally, the use of unspecified antidepressant decreased post-treatment, but rose again by one at one-month follow up.

	Pre				Post				One month			
Unit cost (£s)	In-patient services	In-patient services (no. of admissions)	In-patient services (no. of days in past 12 months)	Pre-Total unit costs (£s)	In-patient services (no. of admissions)	In-patient services (no. of days in past 12 months)	Post-Total unit costs (£s)	Increment (£s)	In-patient services (no. of admissions)	In-patient services (no. of days in past 12 months)	Post-Total unit costs (£s)	Increment (£s)
126	Psychiatric out-patient visit								9	-	1134	0
249	General medical ward								3	24	1134	0
93	Other hospital outpatient								81	-	**7533**	2418

Table 9.3: Health resource use within the past 12 months as measured by the CSSRI-EU at pre-treatment, post-treatment and one month follow up

Pre-treatment			Post-treatment			one-month follow-up		
Medication Profile	No.	%	Medication Profile	No.	%	Medication Profile	No.	%
SSRI - Citalopram, Sertraline, Fluoxetine	1	12.5%	SSRI - Citalopram, Sertraline, Fluoxetine	1	12.5%	SSRI - Citalopram, Sertraline, Fluoxetine	1	12.5%
Tricyclic – Amitryptaline	1	12.5%	Tricyclic - Amitryptaline	1	12.5%	Tricyclic - Amitryptaline	0	0%
Benzodiazepin – temazepam	2	25%	Benzodiazepin - temazepam	2	25%	Benzodiazepin - temazepam	1	12.5%
antidepressant unspecified	1	12.5%	antidepressant unspecified	0	0%	antidepressant unspecified	1	12.5%
IBS anti-spasmodics - Colpermin, Lactulose, Omeprozole	1	12.5%	IBS anti-spasmodics - Colpermin, Lactulose, Omeprozole	1	12.5%	IBS anti-spasmodics - Colpermin, Lactulose, Omeprozole	1	12.5%
NSAID - Ibuprofen, Arthrotec, Naproxen	2	25%	NSAID - Ibuprofen, Arthrotec, Naproxen	2	25%	NSAID - Ibuprofen, Arthrotec, Naproxen	2	25%
Antacid	1	12.5%	Antacid	1	12.5%	Antacid	1	12.5%
Inhalers - Salbutomol, Seritide, Clenil Modulate	1	12.5%	Inhalers - Salbutomol, Seritide, Clenil Modulate	1	12.5%	Inhalers - Salbutomol, Seritide, Clenil Modulate	1	12.5%
anti-histamines - Lotradine, Beclometasone Aqueous nasal spray	0	0%	anti-histamines - Lotradine, Beclometasone Aqueous nasal spray	0	0%	anti-histamines - Lotradine, Beclometasone Aqueous nasal spray	1	12.5%

Table 9.4: Medication use as measured by the CSSRI-EU at pre-treatment, post-treatment and one month follow up

9.4 Qualitative Results

9.4.1 Overview of qualitative results

The qualitative results of semi-structured interviews conducted with seven programme completers, one participant who dropped-out, and three guiding therapists, were analysed and summarised under the same categories as the results of pilot-one: 1) overall impressions; 2) feedback on specific modules; 3) feedback on additional components of the programme; 4) feedback on delivery; and 8) feedback on guidance.

9.4.1 Overall impressions

9.4.1.1 General opinions

In line with feedback from pilot-one, both participants and therapists were positive about the *Tackling Traumatic Stress* programme. Seven of the eight participants praised the SH materials, and the guidance they received. The intervention was said to be a good alternative to therapist administered treatment.

> *"For me, I think it was better than an acceptable alternative [to therapist administered psychological therapy] ... The slots with X and this package has kept me focused in relation to recovery. We discussed the exercises I'd done in bite-size, two at a time, one a week...the balance of it for me was good."*
>
> *Pilot-two research participant*

The process of completing the *Tackling Traumatic Stress* programme was said to be a difficult one, and one which participants often doubted would be effective. Six of the nine participants however, reported satisfaction by the end of treatment, and a

perception that their traumatic stress symptoms had improved. Many commented that they had developed skills and techniques that they would continue to use.

> *"Even though there were points where I thought, "this isn't working for me", and "this isn't what I want to do", by the time I got to the end of it, I thought, "oh, it does actually work". All the things that X was telling me all along and I was thinking, "it's rubbish", "it's not going to happen", did happen. So it really is an acceptable form of treatment. And even though it's time consuming, it's good not to have to come here every week if you've got other stuff going on."*
>
> *Pilot-two research participant*

Two individuals dropped out of the study; one however consented to take part in a post-treatment interview. She gave positive feedback related to the sections of the programme she had used. Despite her decision not to continue with GSH, she reported some benefit from the programme and commented that the treatment had been acceptable and worth trying.

> *"I think it's an excellent programme and I think for most people, it would get them through it. I think anyone that has severe problems of another nature will find it hard going to motivate themselves and to concentrate to sit themselves down and think "right I'm going to do this for an hour now this morning", when you get up and sit on the sofa and it takes two or three hours before you can even be bothered to make a cup of coffee."*
>
> *Pilot-two research participant*

She attributed her decision not to finish the programme primarily to motivational problems caused by symptoms of depression. She also implicated financial and housing problems, which she felt should be the focus of her attention. Resolution of traumatic stress symptoms was seen as a difficult task that could be put on hold until she was less depressed and more stable financially.

"I think it's definitely a motivational problem... I'm not sure that somebody in my situation would be able to cope with it on their own... when you're depressed, and when you have more than one thing to deal with apart from traumatic stress, you have financial problems, you don't know if you're going to have the same place to live in three months time, it's all too much, and it's so easy to say I'll put this to one side, I can deal with what I'm going through... I really don't know how for someone in my particular situation it could be made easier."

Pilot-two research participant

9.4.1.2 Acceptability of the GSH approach

When asked whether the tackling traumatic stress programme represented an acceptable alternative to therapist administered treatment, all participants said that it was.

"It's definitely acceptable yeah. I think it's more of a help than actually sitting there pouring your heart out and upsetting yourself day after day. This is making you help yourself, which is the better kind of help."

Pilot-two research participant

This included one individual who had failed to gain benefit from the programme, and one who dropped out. These participants indicated however, that GSH was a treatment to which they felt well suited.

"I think it's acceptable, but I think I'll probably go for more higher treatment. I need more treatment. More days."

Pilot-two research participant

Participants commented that they would recommend GSH treatment to other PTSD sufferers.

"Any help is good help, but this is well prepared, it flowed, it had all the right ingredients. It's hard, but it's been what I needed. You know the old questionnaires you get, customer satisfaction... "would I recommend it to somebody in the same situation?" Definitely. I'd even say that, and I know I'm not qualified in this field, but it should be the first step for everyone to look at"

Pilot-two research participant

All three therapists reported that GSH was an acceptable way if providing psychological therapy.

"I thought it was a really good package, and overall it was good for the client, and it enabled me to work with her in a concise and structured way, and that was good."

Pilot-two research participant

9.4.1.3 Comprehension

All but one participant described the programme as understandable. The participant who experienced difficulties attributed these to a perceived inability to concentrate on the text. He did not have internet access to use the online version of the programme, and suggested the provision of video-clips of the information.

"A video, that would probably help. Most of the parts I read, I read four or five times. The first once or twice because I can't concentrate. When I read one bit, when I get to the second bit I forget."

Pilot-two research participant

9.4.2 Feedback on specific modules

9.4.2.1 What is PTSD?

All pilot-two participants found the module *What is PTSD?* helpful. They felt reassured that PTSD was a recognised and treatable disorder that others had experienced.

> *"It was a relief to go "oh god that's happening to me, and that's happening to me and I feel that", and it's actually recognised you know, by the medical profession, that you go through all these things. It was a relief. A relief to know that I wasn't on my own; that when I get panic attacks, nervous attacks when I'm crossing a road, that it's a natural reaction to what happened to me, and it's a relief to know that it can actually be cured... a great relief."*
>
> *Pilot-two research participant*

Some participants had previously been sceptical about PTSD, and described a misconception that the disorder could result only from war. The module *What is PTSD?* corrected these views and provided some more accurate information.

> *"I've got to be perfectly honest, I was a bit sceptical about post traumatic stress disorder before... I wasn't a beliver in it. Since I've experienced it and actually seen it in writing... I've sort of tallied it up with my symptoms, I now respect the condition. I used to read about it after Vietnam, but I didn't really believe in that particular symptom. But now, after reading, what the actual symptoms are, it's helped me understand that yes, you do have this condition, and yes, you do need treatment. And that is a step forward in my eyes you know."*
>
> *Pilot-two research participant*

One participant already possessed the level of knowledge provided by the module, but acknowledged that this may have been due to her medical background.

> *"I don't know if it's because I'm sort of medical anyway, but a lot of this I knew it all already. I knew what the symptoms of PTSD were... so maybe a little too basic, but that depends on the person."*

Participants were positive about the fictitious patient stories. Some commented that they could relate to Michael and Chloe's experiences.

> "[One] thing I really found helpful was Michael's story, because it was similar to my story. I found like, some of the things he was saying matched most of the things I went through."
>
> *Pilot-two research participant*

Guiding therapists believed the module was useful to participants. They were satisfied with its content and did not feel that it required further refinement.

> *"I wouldn't want to alter that [the module what is PTSD?], it seemed to go down well with the people I treated."*
>
> *Pilot-two therapist*

There were no suggestions for improving the module *What is PTSD?*

9.4.2.2 Grounding Yourself

All participants reported use of the module *Grounding Yourself*. As in pilot-one, participants adopted different techniques. Preferred techniques varied from person to person, supporting the provision of a choice of techniques from which participants could choose. Grounding techniques were a particularly helpful coping tool in stressful situations. For example, a victim of a physical attack used the techniques to cope with his feelings when faced with the perpetrators of his trauma at court, and two victims of road traffic accidents found the techniques valuable whilst travelling by car.

"I liked that bit [grounding yourself], because my main problem now is travelling in a vehicle with somebody else driving... I was feeling sick, as soon as I got in the car, even the smell of the car, was making me feel sick. Having something else to concentrate on with the grounding techniques stopped me from worrying as much. Things like taking note of every single thing you passed, being aware of things around you more, it was easier to sort of switch off what else was going on in my mind."

Pilot-two research participant

The techniques most frequently cited as useful were the creation of a mental inventory of visual stimuli, and listening to loud music.

"Grounding yourself was really good because, not so much now, but at the time when I was still having flashbacks, to think, I'm here, I'm not somewhere else, so that was really, really, good. Erm, yeah, like counting your breaths and stuff and using the sight one, sort of looking around you, which worked really well for me."

Pilot-two research participant

These techniques were intended primarily for use by individuals who experienced flashbacks and distressing intrusive thoughts. Their use in pilot two was predominantly for the purpose of distracting the individual from overwhelming feelings in stressful situations. They were often used in conjunction with relaxation techniques.

"[there were] two incidents when we ended up in court, and they pleaded guilty, and we were in the witness room, and I could feel myself getting wound up, and I'd look at a picture on the wall, which had a pine frame, and a cartoon picture of a fish, and I focus on the fish, and I focus on where the fish might be, and I constantly brought my breathing down and do a breathing exercise. It stopped me losing my cool, and I calmed down with it. It's something I used, and do use, and will use"

Pilot-two research participant

One participant struggled to gain benefit from the techniques. She found use of the controlled breathing techniques of greater use in stressful situations.

> *"I didn't get on too great with the grounding.... I tried that one day on the bus actually when I left here the last time, I was quite upset and I was finding two hours later I was still trying to ground myself I was that knotted up and anxious. The breathing techniques, they were brilliant, really good, I used those and still do, they completely relax me... even now recently if I find myself needing to calm down, no matter where I am I just use the breathing exercises and that relaxes me."*
>
> *Pilot-two research participant (drop-out)*

Therapists reiterated that many participants used the module, adopting different techniques.

> *"A couple of individuals definitely picked out techniques that they felt useful and having a variety of different examples I think was useful."*
>
> *Pilot-two therapist*

One therapist suggested that the module might be made optional, but this point was not supported by participant feedback.

> *"In a way I wonder... whether the grounding techniques should be a compulsory module? Maybe useful as an optional? I don't know that it's essential for everyone? I think [it's] probably more relevant to people with more intrusive and problematic memories and flashbacks really. So you know, for some people who have difficulty managing their intrusions, probably more useful. It's interesting the first client, I didn't think it was particularly the case for her, although she didn't use it for the type of problem it was written about."*
>
> *Pilot-two therapist*

9.4.2.3 Learning to Relax

As in pilot-one, participants were very positive about the controlled breathing technique. Several individuals used it to calm down in stressful situations, adopting it as a highly valued anxiety management tool.

> *"One thing I did find [helpful], X taught me to relax by using breathing techniques, and I've got to give him respect, in the beginning, and especially when coming to a roundabout, I was very jittery and everything and I remember X going relax, take deep breaths, and I started doing that and it was very, very helpful indeed."*
>
> *Pilot-two research participant*

Opinions were mixed in terms of the progressive muscular relaxation CD. Several participants gave negative feedback, suggesting the need for alternatives.

> *"To be honest it [the CD] didn't help me much. The one side of was alright, because it was more focused on your breathing, so it was nice to listen to that before bed because it was nice and relaxing, but the guy's voice on it was just so boring, it got to the point that I was just "I'm going to have to switch this off now", even the cats were there thinking what the hell's this guy on about? It just went on and on and on."*
>
> *Pilot-two research participant*

Several participants commented retrospectively that they should have made greater use of the CD. They could not comment on the reasons for not using it more frequently.

"I've got an iphone, which I've got all my music on, so what I did was I burnt the CD on to my apps, and I've got it on my phone, so I can listen to it anytime I want to. I listened to it at night at first... I should have used it more through the day sometimes, you don't have to be lying flat on your back to use it."

Pilot-two research participant

One participant commented that a video-clip would have been more descriptive and easier to follow that the audio-CD. It is worth noting that this participant's native language was not English, which raises issues related to the acceptability of the programme to culturally diverse groups.

"I had to listen to the CD five to six times... I lost it in the middle of it because it's too fast. It was really hard... At least if there's a picture of how to do it, or a video, that would probably help."

Pilot-two research participant

Another participant commented that tensing muscles, as a method of relaxation had not been effective. It had caused him physical pain, leading to the recommendation of a guided imagery technique as an alternative. Two male participants in pilot-one had also expressed difficulties with the technique.

"When I was really wound up, tensing and relaxing could hurt. Because I was really tensing hard, I don't know if that's just unique to me. I don't know if that's the wrong way forward, using tensing and relaxing to calm down. I have listened to other relaxation tracks before, and it was just taking you to a different place. That's another way to relax. More of like a chilled dolphin in the background or whatever."

Pilot-two research participant

One participant skipped the module commenting that she experienced no difficulties with relaxation. This emphasises the idea that some degree of flexibility should be

allowed even in terms of mandatory modules. It would be inappropriate to ask participants to follow irrelevant materials, again supporting the importance of a tailored intervention that adopts an adaptable format.

> *"I didn't do it... I didn't have a lot of problems relaxing or getting to sleep."*
>
> *Pilot-two research participant*

Therapists were satisfied with the module, commenting that participants had selected effective techniques, which provided some benefit. They made no suggestions for improvement.

> *"I think the controlled breathing seemed to go down well with people. I think other people tried some other things but it's a case of not everything suiting everyone, but most people finding something from either grounding or relaxation to help."*
>
> *Pilot-two therapist*

9.4.2.4 Becoming More Active

Some participants benefited from the module *Becoming More Active,* which helped them re-engage with meaningful activities.

> *"[It was] very beneficial, to get myself back to some sort of a routine, timetable, but doing things at my own pace, when I wanted to. I gave myself some goals and I achieved them all."*
>
> *Pilot-two research participant*

Others found it irrelevant since their lives were already busy and active. This suggests that the module would be better placed as an optional module.

"I found [becoming more active] quite tiresome, because you have to sort of fill it in and tick it off when you've done it, and I understand that might be helpful for some people, but I was really active anyway, so it wasn't really relevant to me. I could have done with leaving that out."

Pilot-two research participant

Two participants struggled to fully engage due to lack of motivation. One in particular felt that the module came too early and that it would be better placed once progress had been made in terms of reducing traumatic stress symptoms.

"The problem is I haven't been able to motivate myself to do it. I'm a bit run down at the moment. Like going to the gym, going jogging, I still haven't done some of these. I've got lack of energy, lack of enthusiasm, I haven't been able to motivate myself... but it would be good in my eyes, say 8 months down the line, 6 months, once the treatment has actually come in a little bit through counselling or whatever... But the module was perfect, but it was a bit too soon for me. But other people are different."

Pilot-two research participant

Therapists agreed that the module had not been relevant to everyone and that it would be better as an optional module presented only when appropriate.

"Yeah, several individuals I saw were already quite active, so it was one that I didn't find was necessary in most of the people I was dealing with. You know, there were a couple of people that did get re-engaged with hobbies again, but I'd say that most people were already reasonably active, that wasn't a big issue to them. But in terms of the content of it, if somebody did require that, then they had no problems with that at all."

Pilot-two therapist

9.4.2.5 Coming to terms with what happened

Despite experiencing some distress, participants who attempted the module *coming to terms with what happened,* found the process to be therapeutic. Many commented

on the impact of writing and re-reading a trauma narrative had in terms of understanding what happened, coming to terms with the trauma, and moving on with their lives.

> *"Coming to terms with what happened [was the most beneficial module], because it was sort of asking me to write down what had happened and write down what's happening now, and how it's affected me, and who else it's affected, you know, and it did help a lot because I'd never actually written anything down, apart from just explaining to people what had happened, I'd never sot of gone through everything step by step, and sort of come to terms with it myself, so it was nice to put it down on paper and sort of see you know, that it isn't... well it is a big deal, but it can be forgotten, and we can move on."*
>
> *Pilot-two research participant*

Therapists continued to advocate the inclusion of imaginal exposure. One commented that it was better placed, compared to its position in prototype one.

> *"That [coming to terms with what happened] is the one that as a therapist, I think is the key one and the people that seemed to go through it, they benefited from it. I don't think they particularly liked it, but I think they could see the rationale behind it and gave them some insights into and made it a bit less scary I think. I'm a fan of that and thought that it worked well, definitely it was good introducing it earlier on so that I could guide people and support people with it and make sure that it was done, and then also get people reading it again and again to get some habituation."*
>
> *Pilot-two therapist*

Therapists commented that participants needed to be prompted and encouraged to read and re-read the narrative.

"X put this off and put this off and I had to nag her a little bit. From what I can remember that was a bit of a turning point for her, having done this, so that was positive. That was one of the reasons we thought it had to come further forward, wasn't it?"

Pilot-two therapist

9.4.2.6 Changing the way you think

Several participants found benefited from the module *Changing the Way you Think*.

One participant described it as the most helpful module of the programme.

"Changing the way you think was the best module in there because it asked lots of really good questions, which I hadn't asked of myself. That's the one I go back to most when I've thought, oh well you know I could of done this and maybe it wouldn't have gone like that, but I think, well no, there's nothing else you could have done. And I think there's a question in there about if you were a friend what would you say... that was a good question."

Pilot-two research participant

Many individuals found it useful in terms of rationalising their thoughts and feelings surrounding the trauma.

"It [changing the way you think] did help a lot, because again, it was just putting things into perspective. Putting it down on paper, you do tend to look at things in a different way; looking at it as if someone else is looking at it and giving a different point of view."

Pilot-two research participant

There were no specific suggestions for refinement of the module. One participant however, felt that filling in a thought diary was too consuming in addition to the other diaries. She suggested a diary that incorporated each of the individual diaries.

> *"If you have kids or a job or anything like that I don't think there's any way you could do that [the thought diary] to be honest...Maybe just have one diary that incorporates "what have you done? Have you been active today? Did you have any thoughts? How did you manage them?" rather than filling them all in separately. Because I'm sure a lot of it overlaps."*
>
> *Pilot-two research participant*

Therapists commented that the module took a little explaining. One therapist felt that it should have come earlier in the programme.

> *"No, can't remember any problems here, other than I half wonder whether that should be a little bit further forward. It might have been more beneficial. I think if I remember, I think one of the challenges she had was doing the becoming more active module, I think doing this first would have been better."*
>
> *Pilot-two research participant*

9.4.2.7 Overcoming avoidance

Participants acknowledged a tendency to avoid certain situations. Many benefited from the phased approach to in vivo exposure presented by the module *Overcoming Avoidance.*

> *"I've been avoiding the place where it happened, the type of people who were involved in my attack, TV programmes of a similar theme, I've been walking away from that. Also, the anticipation of or the fear of seeing the guy who attacked me again, which I did when I went to court the last time."*
>
> *Pilot-two research participant*

One participant raised the very valid point that it was unsafe for her to confront many of her fears due to ongoing real-life threat. This had also been an issue for two pilot-one participants. Another raised practical issues surrounding exposure. This was the case of a nurse who avoided hospital settings following a medical trauma. Returning to work depended on her ability to overcome this avoidance, but exposure to this situation was difficult to arrange.

> *"I had 9 things on my list... I've only got my two highest ones to do... I guess like quite a lot of people with PTSD you can't easily go back to the situation. You know I've got to arrange it and stuff like that. Soldiers... you can't just whip them back to Afghanistan for a bit of exposure. You know it is difficult. But I'm going to do the last two with the help of the advanced midwifery practitioners."*
>
> *Pilot-two research participant*

Therapists were positive about their experiences of delivering the module and made no recommendation for refinement. One therapist introduced the module with *coming to terms with what happened* and *changing the way you think* since the three were interlinked.

> *"Again, very much like that and think that's a good thing to follow and again I was finding myself introducing the overcoming avoidance, the challenging the thoughts and the exposure modules at the same and people were doing them in tandem which seemed to go quite well. And I mean I think they deal with some of the key issues and they're interlinked really, so just like you do in therapy with someone you'll often do exposure but then a bit of cognitive work with some of the hotspots, so I though it was useful to do them both at the same time."*
>
> *Pilot-two therapist*

9.4.2.8 Staying well

Few participants reported use of the module *Staying Well* since it came after the last appointment with the guiding therapist. This had also been the case in pilot-one. Without deadlines and the awareness that someone would be checking their progress, adherence was low. This provides support for the necessity of guiding a SH programme for PTSD. Only one participant had any comment to make on the module. He used the module to reflect on his use of the programme.

> *"I've written about what worked for me and what I'll keep on using. You don't break the glass to get the key in an emergency if you don't know it's there, and having this, that's what it is."*
>
> *Pilot-two research participant*

One therapist suggested introducing the module in the penultimate session, to prevent it being seen as an 'afterthought'.

> *"I did introduce that at the end to people, in the final session, so it kind of almost feels that when you introduce things right at the end, it's an afterthought in a way, so it's a difficult one. Maybe with the benefit of hindsight, I'd make sure I introduced it in the penultimate session and then use the final session to review everything."*
>
> *Pilot-two therapist*

9.4.2.9 Getting a Better Night's Sleep

Surprisingly few individuals described significant difficulties sleeping. One participant

> *"I found the sleeping part of it extremely helpful, because it was you know, gave you some ideas on how to get a good night's sleep and you know, I was doing all of those things, just I wasn't sort of relaxing myself. You know, I was blocking out the light and I was wearing earplugs to block out any noise, but it was little simple things like having a bath before bed, things you probably do anyway, but you know, just consciously thinking, I need time to relax, it was nice to have it in writing, the list of things that you could do."*
>
> *Pilot-two research participant*

reported finding the advice provided by the module *Getting a Better Night's Sleep* helpful.

One participant suggested the provision of a relaxation technique intended specifically for use before bed. This reiterates the view of some pilot-one participants who suggested the use of relaxation techniques to aid sleep.

> *"I think I'd want to just look again at the sleep section, thinking about what we've been saying, and maybe looking at what other forms of self help information have said. This is just an off the top of my head sort of comment."*
>
> *Pilot-two therapist*

One of the therapists suggested that the content should be reviewed with consideration of advice provided by other SH programmes. He thought the module could be improved.

9.4.2.10 Managing Your Anger

Only two participants used the optional module *Managing Your Anger*. Both found it useful with no recommendations for improvement. Neither made use of the anger diary, though one reported writing about his angry feelings in the main diary.

> *"I didn't record them [angry thoughts]. Not separately. I did it in my diary. When I saw the guy in court I wrote about it in my diary."*
>
> *Pilot-two research participant*

Therapists made no recommendations for refinement on the basis of its low uptake. They advocated its continued inclusion as an optional module.

"I think it reads well and it makes sense but it wasn't a key issue with people that I saw this time... I'd have it as an optional. But I think it just gives you and the individual a range of things they can use. I don't think it's a core thing that everyone needs."

Pilot-two therapist

9.2.2.11 Cutting Down on Substances

Only one participant revealed any issue with substance use. This participant dropped out of the study early. She chose not to cut down on alcohol, since she viewed it as a necessary coping tool.

"I know I've read the alcohol one and I think I might have decided that I'm not in the mood to cut down alcohol, I know it sounds dreadful, but it's.. I think it's a coping mechanism."

Pilot-two research participant

There were no recommendations for refinement since no one used the module. Therapists suggested that the module should be retained, since it is useful to address these issues when relevant.

"The people I've seen haven't had a problem with alcohol or even caffeine really. So I found myself not using that really, so again I think it's useful to have there because if people do have those problems its important. I think by the time people get into treatment they've often addressed things like that to a degree."

Pilot-two therapist

9.2.3 Feedback on additional programme components

9.4.2.1 Diary

The diary underwent substantial changes on the basis of feedback from pilot-one providing greater room to write. Feedback on the diary was however less positive than pilot-one. Many participants felt that completing the diary on a daily basis was too time consuming. They also felt that completing separate anger and thought diaries resulted in too much work. Recommendations were made for consolidating these materials and reducing the amount participants were required to write.

> *"The diary I found really hard to do every day, and the bit about the thought diary I thought was not practical at all. I think it could be done another way, I'm not sure how. When I read it, I just thought, I'm not even going to attempt to do that."*
>
> *Pilot-two research participant*

Others were more positive about the experience of keeping a diary. Monitoring progress on a daily basis was felt to be beneficial.

> *"The best thing of the diary entry was how you score your day. The diary is a must have, and I will carry on doing it every day for as long as I can."*
>
> *Pilot-two research participant*

One participant made the simple suggestion of adding lines to the diary to make it easier to write. This was her top tip for improving the programme overall.

> *"I'd put lines in the diary, I know it sounds really daft, but I felt that I had to write a certain amount, so I put lines there, because it's nicer to write on lines."*
>
> *Pilot-two research participant*

Therapists commented that the diary would benefit from further refinement. They indicated that some participants had struggled to complete it on a daily basis.

> *"The diary I liked, but it doesn't quite work with people doing it on a regular basis. I don't know how to get round it. To be honest I don't think people are willing to spend the time completing it in detail on a daily basis... I ended up wondering whether we needed a sheet for each day, it might be better to have a weekly sheet... I wonder with some of the people I saw whether having so much space actually put them off doing anything."*
>
> *Pilot-two therapist t*

9.4.2.2 Family and Friend Involvement

As in pilot-one, no one chose to bring a loved one to any of the sessions, despite being invited to do so. Participants found the information leaflet for relatives and friends useful, with no feedback suggesting the need for refinement.

> *"I also liked the little bit you can give to your family. Because it's a journey, and it's a journey you don't take on your own. You, and X, I've been on the journey with you two, and my family were with me... It was like saying, I'm aware of what I'm going through, and I want to be better, I want to be back to how I was, and this is where we're starting. So my family were aware I was doing this package and when I went into a room and shut the door, they knew I was doing some of this, and they give you a bit of space, you know?"*
>
> *Pilot-two research participant*

9.4.3 Feedback on delivery

As in pilot-one, the hard copy was more popular than the website. Only one participant reported regular use of the online programme. This participant used the programme on his Apple I-pad, which he found particularly useful when on holiday. He also made concurrent use of the hardcopy. Two of the nine participants had no

internet access. The remaining participants chose to use the hardcopy for various reasons including portability, the ability to access materials without logging into a computer, the ability to make notes and personalise the hardcopy, and challenges gaining access to a shared computer.

> *"I thought it [the hardcopy] was nice because it was personal. You know, having the diary at the back... you can make you own notes, scribble all over it, it was nice to have it, you know, it was nice and personal, having your own little notebook. I think that's the reason I didn't use the website, because I could just scribble over it if I wanted to, and take a page out, and look at that page, or put that page somewhere, you know, and then be able to put it back in, rather than having to log on to the internet and scroll through it every time I had to go on it."*
>
> *Pilot-two research participant*

Despite a preference for the hardcopy, participants enjoyed having the option of using the website.

> *"It [the hardcopy] was more convenient. But it was nice to know that that the website was there if I wanted to use it online."*
>
> *Pilot-two research participant*

As in pilot-one, participants were satisfied with the simplicity of the hardcopy and no one suggested improving the look of the materials. Therapists disagreed, commenting that maximising the aesthetic appeal of the materials would potentially improve engagement.

"I guess the more attractive you can make it, I think the more that people will engage and be drawn into it. So I guess I've seen stuff on the market research that was sort of like a spiral bound manual where there are pictures and there's colour and people can still write... if we had the resources to produce a manual package that was attractive in that kind of way, I'm sure that would kind of help."

Pilot-two research participant

As in pilot-one, there was insufficient uptake of the online programme to be able to ascertain any feedback that would help improve the website.

9.4.4 Feedback on guidance

9.4.4.1 General opinions

Participants were positive about the guidance they received. They felt well supported by their therapists.

"It worked really well for me, really well... I felt that I was being supported throughout it, even though it's been a package I've taken away. The support I've had from yourself and your colleagues has always been there."

Pilot-two research participant

Therapist input was thought to be an integral part of the intervention. Participants could not envisage completing the programme without guidance.

"With the best intentions in the world, if you give people the tools to do a job, without maintenance it doesn't work. She makes it look easy, because I think she's very good at what she does, and she's been a big part of me getting over this. The interaction wasn't heavy, little emails just to say "how are you going?" and it made it easier to come here. One without the other wouldn't have worked. It's worked well for me. Knowing that there was someone to talk to every week was good. I'm going to leave here with a good experience of putting myself back on track."

Pilot-two research participant

A non-judgemental, easy-going approach to guidance was appreciated by participants, who spoke fondly of their therapists.

> *"We spoke once a week by phone or email, and we saw each other every fortnight. He was there if I needed to speak to him. He didn't judge you there was no "you should have read this" or "actually you should have come past this" and things. It was just nice to move at my own pace and have him just for back up if I needed it."*
>
> *Pilot-two research participant*

Participants enjoyed sharing their completed tasks and receiving praise for accomplishments and progress.

> *"I liked being able to show him what I'd done, and it was nice for him to say well done. I know it's like being back in school, but to say look, I used to be like this and now I'm like this, to show him that I'd accomplished something."*
>
> *Pilot-two research participant*

Therapists reported positive experiences of providing guidance. They felt that GSH was an acceptable way of delivering psychological therapy for PTSD.

> *"I enjoyed doing it with people, I think it's very easy to deliver really, I mean I felt that it was helpful to be sort of told to stay on track and check things more formally than in the first which I think helped with the guidance, but I thought it went well yeah."*
>
> *Pilot-two therapist*

9.4.4.2 Frequency

The frequency of guidance worked well, with no feedback suggesting the necessity of refinement. Participants appreciated contact with their therapist by phone or email between sessions.

> *"It was nice to have someone there monitoring me rather than just over the phone."*
>
> *Pilot-two research participant*

Some participants expressed a desire for greater input from their therapists, but they acknowledged that this would defeat the object of GSH.

> *"I know the point of a guided study is to reduce the amount of time you spend with the therapist, but maybe more would have been good. But I don't know if it would have made me do the work any quicker."*
>
> *Pilot-two research participant*

Participants appreciated the reassurance of being able to contact their guiding therapist at anytime, but no one took up this option.

> *"Every now and again, having an email off X asking how things are in between coming to see her has been great."*
>
> *Pilot-two research participant*

9.4.4.3 Guidance method

There was a preference for face-to-face guidance in pilot two. This is in line with feedback from pilot-one.

"Just the thought of knowing he was there at the end of the phone call, that he would always make himself available if I needed him, or even an email. I didn't use those options, but just to know he was there was a real good help."

Pilot-two research participant

9.5 Final prototype

The qualitative and quantitative results of the second pilot study informed a summary of outcomes. This was circulated to pilot-two participants, and the original stakeholders. Professional stakeholders were invited to take part in further focus groups to discuss refinement. Participants and former PTSD sufferers were invited to comment by phone, email, or post. All feedback was discussed with the project steering group.

Refinements are summarised under the headings of 1) refinement of delivery; 2) refinement of programme structure and components; 3) refinement of guidance arrangements; and 4) refinement of participant recruitment. The final prototype is presented in hardcopy as an appendix, and online at http://tacklingtraumaticstress.yolasite.com.

9.5.1 Refinement of delivery

Programme delivery remained unchanged, providing a choice between the online and hardcopy versions of the programme. It was acknowledged that future materials would benefit from a professionalised appearance should resources allow.

9.5.2 Refinement of programme structure and components

The final prototype consisted of mandatory and optional modules, allowing the programme to be tailored to meet individual needs (presented in table 9.5).

Core Modules (to be completed by everyone)	Optional lifestyle modules (to be completed alongside the Core Modules when relevant)
1. What is Post Traumatic Stress Disorder?	8. Becoming More Active
2. Grounding Yourself	9. Getting a Better Night's Sleep
3. Learning to Relax	10. Managing your Anger
4. Coming to Terms with What Happened	11. Cutting Down on Substances (Alcohol / Caffeine / Illegal drugs)
5. Changing the Way you Think	
6. Overcoming Avoidance – Facing your Fears	
7. Staying Well	

Table 9.5 Prototype-two modules

9.5.2.1 What is post traumatic stress disorder?

The module *What is Post Traumatic Stress Disorder?* remained unchanged.

9.5.2.2 Grounding Yourself

No further refinements were made to the module *Grounding Yourself.*

9.5.2.3 Learning to Relax

A relaxation exercise based on guided imagery was added to the module *Learning to Relax* as an alternative to progressive muscle relaxation. Further links were made with the module *Getting a Better Night's Sleep,* advising possible use of techniques before going to bed and during the night if distressed.

9.5.2.4 Becoming More Active

The module *Becoming More Active* became an optional module. Module content remained unchanged.

9.5.2.5 Coming to Terms with What Happened

No further refinements were made to the module *Coming to Terms with What Happened.*

9.5.2.6 Changing the Way you Think

The thought diary was combined with the main diary pages with explicit instructions not to attempt filling it in until the module *Changing the Way you Think* had been completed. The module remained otherwise unchanged.

9.5.2.7 Overcoming Avoidance

The module *Overcoming Avoidance* remained unchanged.

9.5.2.8 Staying Well

The module *Staying Well* remained unchanged. The therapist manual was refined to include specific instruction to emphasise the importance of completing the module after the final guidance session.

9.5.2.9 Getting a Better Night's Sleep

Further links were made between the modules *Getting a Better Night's Sleep* and *learning to relax,* suggesting the use of relaxation techniques to aid sleep.

9.5.2.10 Managing Your Anger

The anger diary was combined with the main diary pages with explicit instructions not to attempt filling it in until the module *Managing your Anger* had been completed. The module remained otherwise unchanged.

9.5.2.11 Cutting Down on Substances

The module *Cutting Down on Substances* remained unchanged.

9.5.2.12 Diary

The diary was refined to combine the thought and anger diaries, creating an all-inclusive weekly diary. Lines were added to write on.

9.5.2.13 Information for Families and Friends

No further refinements were made to the information leaflet for family and friends.

9.6 Guidance arrangements

Guidance arrangements remained unchanged. Apart from emphasising the importance of completing the module *Staying Well,* the therapist manual also remained unchanged.

Chapter 10: Discussion

10.1 Main findings

A GSH programme has been systematically developed for the treatment of mild to moderate chronic PTSD following Medical Research Council (MRC) guidance for the development of a complex intervention. The first stage involved carrying out a systematic review of SH interventions for PTSD and other anxiety disorders. The review revealed insufficient evidence to inform content, delivery and guidance options, indicating the importance of a modelling phase to gather stakeholder opinion. Former PTSD sufferers and mental health professionals took part in a series of semi-structured interviews and focus groups. Data was analysed through a process of inductive thematic analysis, which revealed key themes used to guide development of the first prototype. The *Tackling Traumatic Stress* programme was piloted twice and refined on the basis of qualitative feedback, and the quantitative outcome of each study, with further stakeholder consultation at each stage.

Quantitative outcome measures supported the potential of the programme to reduce traumatic stress symptoms. All but one of the fifteen completers had a lower score on the CAPS and PSS-SR post-treatment in comparison with their pre-treatment scores. A 15-point change in CAPS total severity score has been proposed as a marker for clinically significant change (261). By this definition, 50% (5/10) of pilot-one participants, and 67% (6/9) of pilot-two participants, showed clinically significant improvement post-treatment. It is worth noting that this marker has not been empirically evaluated, acting only as a guide for researchers using the CAPS.

Secondary outcome measures revealed that 50% (5/10) of pilot-one participants were less anxious post-treatment (indicated by lower scores on the BAI), 40% (4/10) were less depressed (indicated by lower scores on the BDI), 50% (5/10) reported a greater level of social support and increased satisfaction with this support (as indicated by scores on SSQ), 60% (6/10) reported a lower level of disability (as indicated by the SDS), 40% (4/10) had reduced their alcohol intake (as indicated by the AUDIT questionnaire), and 40% (4/10) remained teetotal. The outcome measures of pilot-two revealed that 66% (6/9) participants were less anxious post-treatment, 66% (6/9) were less depressed, 22% (2/9) reported a greater level of social support, 33% (3/9) reported increased satisfaction with this support, 66% (6/9) reported a lower level of disability, 22% (2/9) had reduced their alcohol intake and 33% (3/9) remained teetotal.

The ITT effect sizes for the primary outcome measure (CAPS score) was 1.06 in pilot 1, and 1.15 in pilot 2. These are considered to be large effect sizes (144). They are slightly lower than the completed pre-post effect size for therapist administered CBT reported in a meta-analysis by Van Etten et al (70) (d = 1.27).

The drop out rate from pilot-one was 20% (2/10), and from pilot-two it was 22% (2/9). These rates are comparable with drop-out rates from therapist administered treatments for PTSD (262). Qualitative feedback from both pilot studies was largely positive. Participants found the programme to be an acceptable and empowering treatment option. There was much enthusiasm for the SH materials and the guidance provided. Participants reported benefit from different aspects of the programme, supporting the provision of a menu of components from which they could choose.

Therapists who guided participants reported that GSH was an acceptable way of delivering psychological treatment for PTSD. A more detailed account of both the qualitative and quantitative results is presented in Results Chapters 8 and 9.

The average cost of delivering the *Tackling Traumatic Stress* programme was estimated at £230.74. This is compared to an average estimate of £803 for a course of therapist-administered treatment. This represents an average saving of £572.26. A full economic evaluation could not be carried out due to the small sample size, and lack of control group. A summary of the costs implications of GSH is presented in Results Chapter 9.

The final programme was designed to be delivered over eight weeks. Individuals first met with their therapist for a one-hour session to introduce the programme. Further guidance was scheduled fortnightly in 30-minute sessions available face to face or over the phone. The programme was available online and in hardcopy and consisted of 11 modules, some being mandatory and others optional, allowing tailoring of the intervention to meet an individual's specific needs. Each module consisted of an information section concluding with 10 top tips for bringing about change, a multiple choice quiz aimed at consolidating learning, and an exercise to be completed and discussed with the guiding therapist. Two patient stories were followed throughout the programme to illustrate the information given. Those using the programme were provided with a diary to record their use of the SH materials and how they felt on a daily basis. Information for family and friends was also provided with the aim of promoting understanding and encouraging support. The online and hardcopy versions of the programme were identical in terms of content, with the addition of

video-clips on the website featuring actors presenting the patient stories and a clinician providing psychoeducation.

All modules aimed to be brief, succinct, and easy to follow. This was strongly advocated by stakeholders during the modelling phase of development, and is consistent with previous qualitative research examining the acceptability of SH materials for anxiety disorders, which found that shorter programmes, which avoided use of technical language were favoured (263). Although the vast majority of participants commented that the materials were understandable, the text was simplified after both pilots one and two following feedback from one participant in each study who found difficulty following the programme on the basis of poor concentration.

The materials aimed to instil hope, to motivate, and to empower. This is in line with the core concepts of recovery models for mental health, which implicate the importance of self determination, self-control, confidence, empowerment, and the development of personal coping strategies in effective recovery (126). Those participants who benefited most from the programme reported a sense of pride in their achievements, and a feeling of confidence that they could deal with future adversity.

10.2 Critical components of a GSH programme for mild to moderate PTSD

A primary aim of this research was to establish the critical components of a GSH programme for mild to moderate PTSD. The results of this work indicate programme

content, delivery, and guidance options that are supported by the existing evidence base, advocated by stakeholders, and approved by those who used and delivered the programme.

10.2.1 Delivery

Evidence from previous research was insufficient to suggest the most effective way of delivering SH materials as part of a GSH programme for PTSD. Some previous studies compared different delivery methods, but results have been inconsistent. A meta-analysis of interventions for depression found no statistically significant difference between SH based on written materials versus programmes that used computerised methods (120). However, the review included only 34 studies and had only limited power to detect differences between variables in sub-group analyses. In contrast, a head to head RCT of a SH programme for panic disorder (264) found web-based presentation to be superior to the provision of a hardcopy of the same information. Self-referral limited the generalisability of these findings, since individuals volunteering to take part in a study of a web-based intervention were likely to be enthusiastic internet-users.

In the absence of clear evidence indicating the optimal way of delivering SH materials, the initial modelling phase played an important role in generating stakeholder opinion. Due to the lack of consensus, the *Tackling Traumatic Stress* programme was offered both online and in hardcopy, allowing participant preference to dictate the chosen option.

Post-treatment qualitative interviews indicated that participants appreciated the choice of media, but preferred using the hardcopy. Reasons for this preference varied from convenience (e.g. not having to log into a computer to access the materials), the ability to use the hardcopy in various settings (e.g. at work, at home, or away from family members), and having a personalised copy of the programme inclusive of all completed tasks and diary entries. These findings are consistent with suggestions and comments made by former PTSD sufferers during the modelling phase.

It may be argued that the low-cost presentation of the hardcopy compromised engagement. However, only one participant reported this as an issue. Some participants commented that use of coloured text and images would have been distracting. They appreciated the simplicity of the hardcopy, and enjoyed being able to personalise the materials with their own notes, diary entries, and completed exercises. Many anticipated referring back to their hardcopy in the future, offering the potential of unaided SH intervention for future problems, at no additional cost to the healthcare provider.

Although a free of charge service was used to create and host the web-based version of the *Tackling Traumatic Stress* programme, the input of an information technology expert was used to maximise the potential of the site, producing a fully functional online programme presenting text and video clips of the information provided in the hardcopy. Despite these efforts, there were obvious limitations to the online programme.

It can be argued that it was not optimally interactive or engaging. Exercises were presented on the website, but there was no facility for online completion, which required the use of word processing software or the hardcopy. There was no way of monitoring progress online, or saving information between sessions. It is difficult to judge whether an improved version of the website would have encouraged greater engagement with the web based materials.

Future versions of both the hardcopy and website should seek to be more professional in terms of appearance and functionality with the aim of creating an engaging and individualised experience. Evaluation of optimal materials is essential, to allow meaningful conclusions to be drawn regarding both the utility of the GSH approach overall, and the relative efficacy of different methods of delivering SH materials. Qualitative findings that indicated the importance of simplicity, portability, and personalisation, should however be considered when planning any future refinement.

10.2.2 Guidance

Meta-analyses of SH interventions for mental health problems have found that the addition of guidance improves treatment outcome. Spek and colleagues (265) found internet GSH to be superior to internet PSH in a meta-analysis of 12 studies of depression and anxiety. Similarly, Gellatly and colleagues (266), found GSH to be superior to PSH in a meta-analysis of 34 studies of SH interventions for depression. An analysis restricted to GSH however, failed to identify a relationship between the number of guidance sessions and treatment outcome. Additionally, the meta-analysis found no clear advantage of guidance based only on monitoring, favouring

approaches that allowed some use of therapeutic techniques. The authors acknowledged however, that coding the nature of guidance had been problematic due to inadequate reporting.

Although PSH represents the cheapest way of delivering SH interventions, it is unlikely to result in optimal cost-effectiveness. Scogin (267) points out that whilst PSH is beneficial for some disorders, increased levels of therapist input may be necessary for the efficacy of interventions in other diagnostic categories.

The only RCT of a SH intervention for individuals with a clinical diagnosis of PTSD took a PSH approach. The study found no statistically significant differences between the provision of PSH and repeated assessment. Although the aim of the study was not to evaluate the efficacy of an optimally effective programme (PSH acted as a control in an evaluation of CT), the study failed to support its role in treating the disorder. Since there have been no RCTs of GSH for individuals diagnosed with PTSD, there was no evidence to suggest the optimal level of guidance, nor was there any indication of the best method of providing this guidance.

The arrangement for guidance in pilot-one consisted of a one-hour initial session at the *Traumatic Stress Service*, followed by a 30-minute session twice weekly over the eight week programme. Participants were able to chose whether these sessions were conducted face-to-face or over the phone.

In both pilot studies, all participants opted for face-to-face guidance. This finding is consistent with the views of former PTSD sufferers during the modelling phase of the

project. In pilot-two, guidance arrangements remained the same, with the addition of a brief weekly telephone check-in between fortnightly sessions. Participants were given the number of a clinic secretary and invited to contact their therapist between sessions if necessary.

At post-treatment interview, participants cited guidance as an integral part of the *Tackling Traumatic Stress* programme. Many would have lacked the motivation to use the materials without deadlines and the requirement of sharing completed tasks with their therapist. Participants expressed a strong desire to avoid use of the programme, and most commented that their progress would have been minimal without the support and motivation of their guiding therapist. Guidance was said to be especially important in terms of encouraging engagement with imaginal exposure, which would have been avoided had the programme adopted a PSH approach.

The mean amount of therapist input required to guide participants through the *Tackling Traumatic Stress* programme was 3.4 hours in pilot-one and 2.76 hours in pilot-two. This represents a substantial saving over therapist administered trauma focused psychological therapies, which require 8-12 one-hour sessions (with some 90 minute sessions if exposure based) (64). The programme succeeded to minimise therapist input, and maximised the capacity to treat PTSD, creating the potential for shorter waiting lists.

The role of *therapeutic alliance* (the mutually collaborative relationship between therapist and client, by which the therapist encourages engagement and effects change) is poorly understood in GSH (121). There is however evidence that a strong therapeutic alliance predicts better outcomes for therapist administered treatment

(268). At post-treatment interview, participants and therapists reported a good rapport, despite the minimal nature of their contact. Although many participants would have enjoyed more frequent contact, all but two felt that guidance had been sufficient to support and motivate them through the programme. This is in line with a study by Knavelsrud and colleagues (189) of a web-based GSH programme for sub-threshold traumatic stress symptoms, which found that a positive and stable therapeutic relationship could be established through minimal online contact. The study found a strong correlation between quality of the relationship at the end of treatment and treatment outcome. An alternative explanation might be that ratings of therapeutic alliance were confounded with outcome. Future research should seek to better understand the role of therapeutic alliance and other factors associated with maximising the efficacy of guidance.

10.2.3 Programme content

10.2.3.1 What is Post Traumatic Stress Disorder (PTSD)? (Psychoeducation)

Research suggests that psychoeducation alone is unlikely to bring about change in PTSD symptoms. However, few good quality Randomised Controlled Trials (RCTs) have examined the efficacy of psychoeducation in isolation. One published study of twenty-nine women treated through 16-weekly trauma-focused psycho-educational group sessions supported its use (269). Sessions consisted of a 15-minute lecture followed by group discussion. The subjects demonstrated significant reductions in their PTSD symptoms. However, there were some cognitive behavioural components to the treatment, and improvement was likely to be associated with other factors such as support, and the opportunity to discuss their trauma.

Studies have also looked at providing written psychoeducation as a preventative measure after trauma. Turpin and colleagues (270) recruited 142 traumatised individuals from an accident and emergency department. They were randomised with approximately half given an eight-page psycho-educational booklet describing common physiological, psychological and behavioural reactions and advice regarding non-avoidance and emotional support. The remainder received nothing. PTSD, depression, and anxiety all decreased over time, but there were no between group differences in terms of outcome. Two thirds however, rated the leaflet as "useful".

The 63-page booklet provided in the Ehlers et al. (165) RCT of PSH, included 38 pages of psychoeducation. The intervention was not effective in terms of reducing traumatic stress symptoms, which is consistent with a meta-analysis of SH for depressive disorders (266), which found that interventions based on CBT principles were more effective than those based on psychoeducation. Although the remainder of the booklet included simple cognitive behavioural techniques, these were presented as coping strategies, and the booklet was not intended as a substitute for therapist administered treatment. Participants were also provided with a four-page leaflet specifically written for the study, which focused on common avoidance and safety-seeking behaviours after RTAs. There was no requirement to complete tasks or practice techniques. No follow-up appointments were made to encourage engagement. It is impossible to determine whether failure was due to the content of the booklet or the lack of guidance. It is likely that both factors compromised its efficacy.

Although the evidence base discouraged the provision of psychoeducation as a stand-alone intervention, it did not indicate that inclusion would be unhelpful or harmful to participants. Indeed, most TFPT protocols provide psychoeducation and an explanation of treatment rationale as a starting point for therapy (64). Although not considered a treatment in its own right, psychoeducation is a tool that fits within a broader treatment approach. Research has indicated that the more an individual knows about their mental health problem, the greater their sense of control over the illness (271).

The psychoeducation module (*What is PTSD?)* included information about the causes of PTSD, its symptoms, and how the disorder is treated. It aimed to answer common questions regarding PTSD. A separate leaflet providing information for loved-ones, was also included.

Participants were positive about the module. They appreciated the opportunity to learn about the disorder, and felt relieved to put a name to how they were feeling. No feedback suggested the need to refine the module. As a result, the module remained unchanged from the first prototype to the finalised version.

10.2.3.2 Grounding yourself (grounding techniques)

Flashbacks, dissociation, intrusive thoughts and the experience of intense psychological distress are characteristic of PTSD (1). The use of grounding techniques has been recommended to help the individual cope with these symptoms (272-274). These recommendations are based on anecdotal reports of their utility.

The efficacy of the technique has not been formally evaluated in terms of reducing the frequency and severity of flashbacks and intrusive thoughts. Grounding techniques are considered an adjunct to therapy as opposed to a stand-alone intervention.

Although some pilot-one participants found the concept hard to grasp, many took to it, and adopted regular use of the techniques. In terms of side-effects, one participant found that a technique which involved plucking a rubber band against the wrist instigated ideas of self harm. He was a long-term, regular self-harmer. The module *Grounding Yourself* was refined on the basis of feedback from pilot-one participants. All pilot-two participants found the module to be useful, with no feedback indicating the need for further refinement.

10.2.3.3 Learning to relax (relaxation techniques)

A meta-analysis conducted in 2005 (64) identified seven RCTs of stress management therapy for PTSD, revealing limited evidence favouring stress management therapy over waiting list in terms of reducing the likelihood of a diagnosis of PTSD post-treatment. It was not however possible to determine if there was a clinically significant difference between stress management therapy and waiting list in terms of reducing the severity of PTSD symptoms, or symptoms of anxiety and depression.

Participants found the techniques useful in terms of coping with their feelings. The ability to manage anxiety helped individuals cope with the demands of the programme, and ultimately played a part in maintaining engagement. The benefits were particularly pronounced during the module *Coming to Terms with What Happened,* which involved imaginal exposure to the trauma memory. This was a process unanimously described as distressing, and one, which depended on the individual's ability to manage their feelings and reduce their state of arousal after writing or re-reading their narrative. Relaxation techniques are likely to have increased participant's ability to tolerate exposure, and had a role in terms of minimising premature drop-outs.

The module was well received. However, preference for specific techniques varied between participants. This supported the utility of providing a choice of techniques. This is a theme, which emerged as important throughout the development process in terms of programme components as well as delivery and guidance options.

10.2.3.4 Coming to terms with what happened (imaginal exposure)

There is strong evidence supporting the efficacy of various exposure-based approaches to the treatment of PTSD. Prolonged Exposure (PE) for example, which includes a prominent role for imaginal exposure, has received significant attention. A recent meta-analysis of 13 studies of PE for PTSD showed a large effect (Hedge's g = 1.08) (275).

In terms of evaluating the efficacy of IE in isolation from other components of exposure based treatments for PTSD, Tarrier and colleagues (276) conducted an

RCT of CT versus IE. Seventy-two participants who met diagnostic criteria for PTSD at the end of a four-week symptom-monitoring phase were randomly allocated to either IE or CT. Both treatments resulted in significant improvement in all measures, with no indication of the superiority of either treatment.

The module *Coming to Terms with what Happened* was a challenge for participants. The desire to avoid the module prompted comments regarding the necessity of guidance to provide support and motivation to write and re-read the trauma narrative. Many participants described the module as a "turning point" in their recovery. Three pilot-one participants, and one pilot-two participant were unable to tackle the imaginal exposure module. They focused on other modules. These were the participants who fared worst in terms of symptom reduction. Since these individuals were among those who scored highest on the CAPS pre-treatment, it is unknown whether imaginal exposure was linked to better outcome, or whether poor outcome and the inability to engage with imaginal exposure as part of a GSH programme, were both linked to their pre-treatment presentation.

It seemed that imaginal exposure was a key ingredient in terms of reducing traumatic stress symptoms. On this basis, it was made mandatory in the second prototype. It was felt that an effective GSH programme should be trauma focused with a prominent exposure component. This is in line with meta-analyses of therapist administered PTSD treatment, which found that trauma focussed psychological therapies were superior to their non-trauma focused counterparts (74). Its status as a mandatory module aimed to emphasise its importance, and create a central role for

the module. Its significance was further emphasised by earlier modules, with mastery of grounding and relaxation techniques stressed as important precursors.

However, the finding that some participants were unable to tackle imaginal exposure, leads to the recommendation of some degree of flexibility, even in terms of mandatory modules. It also raises the issue that GSH is not suitable for everyone, suggesting the need to examine predictors of a favourable response.
Despite the demonstrated efficacy of exposure therapy, there are concerns that imaginal exposure may exacerbate symptoms, and compromise tolerability (277, 278). One way of evaluating tolerability, is to examine the number of participants prematurely terminating treatment. Drop-outs from the two pilot studies were comparable with drop-out rates from studies of trauma focused therapist administered psychological therapy for PTSD (20% from pilot-one, and 22% from pilot-two) (262). It is therefore worth considering that drop-outs were related to the exacerbation of symptoms.

Symptom exacerbation has been associated with the introduction of exposure. Foa and colleagues (279) examined this association, revealing that 9–21% of participants showed a reliable exacerbation of traumatic stress symptoms, depression, or anxiety. This exacerbation, however, was only temporary. Those whose symptoms were exacerbated benefited from treatment as much as those whose symptoms did not. Furthermore, they were no more likely to dropout prematurely.

In the case of GSH however, symptom exacerbation poses a greater concern. With only minimal therapist contact, there is a possibility of individuals avoiding further

exposure work. The *Tackling Traumatic Stress* programme addresses this issue by allowing weekly therapist input, so that any difficulties could be discussed. Participants were also free to contact their therapist at any time if they had concerns. The programme acknowledged the possibility of temporary symptom worsening, urging participants to give their recovery time.

It would be interesting to explore whether a possible variation that enables participants to carry out some imaginal reliving with the therapist, has the potential to improve outcome. This strategy would enable more cognitive work to be incorporated. The impact of this potential variation on the amount of therapist time required by the intervention would have to be carefully weighed up against any improvements in the outcome.

10.2.3.5 Changing the way you think (cognitive restructuring)

Cognitive approaches including Cognitive Therapy (CT) (53), are well supported by the literature. An RCT comparing CT with a waitlist condition resulted in large reductions in traumatic stress symptoms, depression and anxiety for the CT group, whereas the wait-list group did not improve (53). Treatment gains were well maintained at 6-month follow-up, and the dropout rate was low.

Cognitive Processing Therapy (CPT) (280) is another well researched approach. Its primary focus is to challenge and modify unhelpful thoughts related to the index trauma, but it also includes an exposure component. A dismantling study of CPT, compared its components; cognitive therapy and exposure therapy (281). Results indicated statistically significant improvement in terms of traumatic stress symptoms

for each component presented alone, and both presented in combination. A head to head study of CPT and PE found both were equally effective in terms of reducing traumatic stress symptoms in female sexual assault victims (282).

Feedback related to the module was varied. Whilst some found completing a pie chart of responsibility, and other exercises aimed at cognitive restructuring beneficial, others found no effect. Whilst the evidence base for PTSD treatment, and the positive experiences of some participants advocate the module's inclusion, the more negative comments support the provision of multiple programme components from which participants can choose. This discourages the adoption of a "one size fits all" approach.

Exploring the utility of a more individualised cognitive module may be worthwhile. For example, pie charts of responsibility and exercises exploring issues of guilt are only useful for those who overestimate their own responsibility for the trauma. It might be preferable to use an assessment of problematic cognitions to direct individuals to exercises addressing only their presenting complaints.

10.2.3.6 Overcoming avoidance (in-vivo exposure)

Exposure based therapies such as PE comprise both in vivo and imaginal exposure. They have shown positive results in meta-analyses (275). There have been no studies evaluating the impact of in-vivo exposure in isolation from other components of trauma focused psychological therapies.

In support of in vivo exposure, the Australian guidelines for PTSD (91) recommend its addition to the standard EMDR protocol to improve efficacy. The recommendation was based on the observation that one of two studies (283) favouring the long-term outcome of EMDR over CBT differed from other studies through the addition of in vivo exposure. The guidelines suggest the inclusion of real-life exposure as an adjunct, may be important for achieving positive longer-term outcomes. It is suggested that the exclusion / inclusion of in vivo exposure may explain some of the divergence between the findings of existing studies of EMDR.

Participants found the module helpful, appreciating the gradual approach to confronting their fears. Some participants pointed out that it would have been unsafe for them to confront many of the situations they feared on the basis of ongoing real-life threat. The module was amended to address this issue, but remained otherwise unchanged.

10.2.3.7 Staying well (relapse prevention)

Relapse prevention is included in many trauma focused CBT protocols, and is a common component of SH interventions (152, 167, 170).

Unfortunately, few participants used the relapse prevention materials provided by the *Tackling Traumatic Stress* programme since the module came after the final guidance session. When asked why this had been the case, participants commented

that they lacked the motivation to complete the module on the basis that they would not be seeing their therapist again. This supports the necessity of guidance for module completion. Those who completed the module found it helpful.

10.2.3.8 Getting a better night's sleep (sleep hygiene)

The association between sleep disturbance and PTSD is well documented (284). For example, Kato and colleagues interviewed 143 individuals three and eight weeks after the Hanshin earthquake in Japan. Sleep disturbance was the most common symptom reported, affecting 63% of the sample at three weeks, and 46% at eight weeks. Subjective reports haveindicated that individuals with PTSD may be affected by sleep onset insomnia, sleep maintenance insomnia, and nightmares (285).

Sleep disturbances are typically expected to resolve through the course of PTSD treatment. It has rarely received specific therapeutic attention on this basis. Krakow and colleagues (286) conducted a study examining imagery rehearsal therapy for nightmares, sleep hygiene, sleep restriction, and cognitive restructuring. Ratings of sleep disturbance improved from severe to moderate at three-month follow up. However, 66% of participants were also receiving CBT, so caution must be exercised in terms of attributing improvement to the intervention targeting sleep.

Most participants who used the optional module, selected specific sleep hygiene tips, and found these useful in terms of improving their sleep pattern. In particular, individuals appreciated advice to get up, rather than lying in bed if unable to sleep. For many participants, sleep improved through the course of treatment, though this

was generally attributed to an improvement in their symptoms on the basis of other modules (e.g. exposure, cognitive restructuring), rather than following sleep hygiene advice per se.

10.2.3.9 Becoming more active (behavioural activation)

Behavioural activation emerged from the component analysis of CBT for depression (287). The analysis revealed that cognitive components added little to the overall effect of the treatment. This led to the proposition that it would be more efficient to pursue a purer behavioural treatment for the disorder (288).

Research into its application to PTSD has been more recent. A 2004 case study of a police officer with a history of multiple traumas (289), reported that the participant no longer met criteria for PTSD after 11 sessions of behavioural activation. Statistically significant reductions were however limited to the avoidance subscale of the CAPS. In a later pilot study (290), researchers provided 11 veterans diagnosed with PTSD, with 16 weeks of behavioural activation. The veterans identified rewarding activities to resume or take up, as well as the avoidance behaviours acting as obstacles to an active life. Of the nine completers, CAPS scores showed a significant decrease pre- to post-treatment, but four of the five patients who showed a reliable change still met diagnosis of PTSD after treatment. There were no significant changes on mean depression scores. An RCT of eight participants with traumatic injury (291), compared four–six sessions of behavioural activation to treatment as usual one-month after the traumatic event. Statistically significant reduction in PTSD symptoms was reported for the behavioural activation group, but depression scores increased in half of the sample. Although these initial results do not support the use of behavioural

activation as a stand-alone treatment capable of addressing the full spectrum of PTSD symptoms, the studies offer limited support for its efficacy in reducing symptoms of avoidance, supporting its inclusion as part of a wider treatment protocol including approaches to address other aspects of the disorder.

A graded approach to behavioural activation was presented by the *Tackling Traumatic Stress* programme. The module encouraged participants to identify activities to resume or take up. Materials helped the individual set weekly goals, and to report on their progress.

Pilot-one participants provided largely positive feedback on the module. Some found that their goals were too ambitious, leading to a sense of failure when targets were not met. The prototype was amended to include advice on setting realistic goals. Use of the structured materials was variable, with participants commenting retrospectively that greater use would have aided the process. Participants in pilot-two were asked to bring completed materials to guidance sessions to encourage greater adherence. Many pilot-two participants commented on leading active lives despite their traumatic stress symptoms. These individuals found the module to be irrelevant. On this basis, the module became optional in the final version of the programme.

10.2.3.10 Managing your Anger (anger management)

The relationship between anger and PTSD is well documented (292-294). Anger is thought to adversely impact the outcome of trauma focused psychological therapy (295). This presented the rationale for addressing anger issues specifically.

Chemtob and colleagues conducted an RCT of a 12-week CBT based treatment for anger in Vietnam veterans with PTSD. The intervention developed by Novaco (296) included: (1) self-monitoring anger frequency, intensity, and triggers; (2) devising a personal anger provocation hierarchy; (3) progressive muscle relaxation, controlled breathing and guided imagery training to regulate physiological arousal; (4) cognitive restructuring of anger; and (5) training behavioural coping, communication, and assertiveness skills through role play. Significant improvements were made in terms of some but not all measures of anger. There have been no empirical studies to date examining the impact of completing an intervention to reduce anger prior to an intervention aimed at the core symptoms of PTSD, though improved outcomes may be hypothesised.

Feedback from pilot-one indicated that individuals had a desire to understand their anger as opposed to learning techniques to suppress it. On this basis, pilot-two invited participants to keep an anger diary, and to challenge their angry thoughts. This approach seemed to be more beneficial to participants.

10.2.3.11 Cutting Down on Substance Use (advice on reducing use of alcohol, caffeine and illicit drugs)

Data from the National Co-morbidity Study (NCS) (20) indicated that more than half of men with PTSD had a co-morbid alcohol problem, and a significant portion of men and women with PTSD suffered a co-morbid illicit-substance use problem. UK data from the NISHS found that individuals who met the criteria for PTSD were twice as likely as those who did not to have at least one other co-morbid mood, anxiety or substance use disorder (21). This provides a strong rationale for the inclusion of advice on tackling these issues. Several studies have documented high rates of caffeine use in individuals with PTSD (297, 298). Since caffeine use can interfere with treatment (299), a module aimed at reducing intake was seen as a simple addition to the programme, with the potential to benefit participants who consumed too much.

The module explained the negative effect of alcohol consumption on traumatic stress symptoms and the outcome of treatment. Sensible drinking was advocated, and tips were presented to help the participant cut-down.

Only two participants reported any issue with alcohol. Indeed many participants were teetotal. This sample may not have been representative of individuals with PTSD in this respect. Given the well-documented association between PTSD and alcohol misuse, it would seem intuitive to include a section on cutting down on alcohol. After pilot-one, sections on cutting down on caffeine intake and use of illicit drugs were added on the basis of participant feedback. No one used the sections aimed at

cutting down caffeine intake and illicit drug use. No conclusions can therefore be drawn with regards to any potential benefit these modules may have offered participants.

10.2.4 Theoretical basis of the *Tackling Traumatic Stress* programme

The *Tackling Traumatic Stress* programme is an eclectic psychological treatment drawing components from a range of evidence based cognitive behavioural approaches. It is a trauma focused intervention, with imaginal and in vivo exposure holding a central role.

The exposure elements of the programme are primarily a variation of a Prolonged Exposure (PE) protocol (54). PE draws on Emotional Processing Theory (42), which attributes PTSD to the development of a pathological fear structure related to a traumatic event. The pathological structure contains representations of stimuli, responses and their meaning. It is easily activated by any information related to the trauma, providing an explanation for re-experiencing symptoms. Avoidance symptoms, meanwhile, are attributed to the tendency to avoid activating the fear-structure.

Emotional Processing Theory predicts that successful treatment requires correction of pathological components of the fear structure. This requires (1) that the fear structure is activated; and (2) that incompatible information is presented allowing modification of the fear structure. The goal is to help the individual emotionally process the trauma by vividly imagining the event. This includes recall of thoughts, feelings, and sensations, which occurred at the time of the trauma. The rationale

stipulates that fear is connected to memories, as opposed to current threat. These memories tend to be stored as perceptual and affective states, with little or no verbal representation. Re-experiencing fragments of the trauma does not lead to resolution, since the incomplete reliving of perceptual or affective elements of the trauma prevents the construction of an integrated memory. Treatment therefore involves translating the nonverbal memory into a verbal narrative of the trauma memory. The treatment works based on the principles of habituation. This leads to a realisation that anxiety diminishes without avoidance, and an acceptance that thinking about the trauma is not dangerous. PE advocates an important role for in vivo exposure, also based on principles of habituation. The aim is to teach the individual that avoided stimuli do not pose a real life threat.

The programme also includes prominent cognitive components. A module dedicated to cognitive restructuring aims to help the individual identify self defeating thoughts, and replace these with alternatives, with the goal of creating a more balanced view of the world. The imaginal exposure module also encourages the identification of distressing 'hot spots' in the trauma narrative, recommending more detailed exploration and elaboration of these aspects of the event. This element is much akin to Cognitive Therapy for PTSD (53).

The introductory modules: *What is PTSD?;*, *Grounding Yourself*; and *Learning to Relax*, aim to prepare the individual for later exposure modules, and to teach coping techniques. Their aim is not to reduce PTSD symptoms as stand-alone modules. The lifestyle section of the programme, including the modules *Becoming More Active*, *Getting a Better Night's Sleep*, *Managing Your Anger*, and *Cutting Down on Substance Use* aim to address some of the difficulties associated with PTSD. The

aim overall, was to create a programme that adequately addressed the full spectrum of PTSD symptoms and related issues.

Although the Tackling Traumatic Stress programme was created specifically for the treatment of PTSD, there is potential for the adaptation of many components for the treatment of other anxiety disorders. The relaxation module may be useful for a variety of purposes, and is applicable to those suffering any anxiety disorder. The module based on in-vivo exposure could easily be adapted for the treatment of specific phobias. The lifestyle modules on anger, alcohol misuse and behavioural activation could be useful in isolation for individuals experiencing problems in these domains. The basic format of the programme could be taken and used as a basis for the development of a SH programme for almost any mental health problem. Use of variants of the programme for purposes other than the treatment of PTSD would of course require further phase I development work.

10.3 Strengths and limitations

The principles underlying the MRC guidelines for the development of a complex intervention aim to draw on a range of evidence to produce an intervention that is: (1) evidence based; (2) patient centred; and (3) acceptable to professional stakeholders. These guidelines were followed, and the intervention was developed systematically using recognised techniques for data collection and analysis.

The guidance advocates a comprehensive modelling phase to inform the development of a novel treatment approach. In this instance, the evidence base was

reviewed, stakeholder opinion was sought, and the programme was piloted to generate feedback for programme refinement. An alternative approach would have been to take an existing TFCBT treatment manual, and to adapt if for delivery in a GSH format. In its favour, this approach would have resulted in a programme with an existing evidence base. However, it would be wrong to assume that delivering treatment in a GSH format would give equivalent results to the same intervention delivered by a therapist. Furthermore, it was felt that different aspects of various TFCBT protocols lend themselves well to GSH. Restricting development to a single TFCBT treatment manual would have been unnecessarily restrictive. After careful consideration and discussion with the project steering group, modifying an existing treatment was not felt to be the best option. Another possibility was to base the intervention solely on a systematic review of the existing evidence base. This approach was not felt to be inappropriate. Literature related to GSH treatment of PTSD is scarce. There was no evidence to support the efficacy or acceptability of specific components, nor was there any previous research capable of guiding decisions on the best way of delivering and guiding the intervention. The chosen approach was therefore deemed the most suitable option.

There were some more specific strengths and limitations of both the modelling and pilot phases, which are worthy of discussion.

10.3.1 Modelling

10.3.1.1 Data collection

The existing evidence base, and the opinions of key-stakeholders guided the modelling phase. Respondents were provided with an up-to-date portfolio of information regarding the efficacy of existing PTSD treatments and SH interventions for other disorders. There was no intention of "re-inventing the wheel". The role of stakeholders was to inform the content, delivery, and guidance of the programme in the absence of specific evidence indicating the best options.

Stakeholders involved in the modelling phase of the project were carefully selected using a purposive sampling technique. This ensured a diverse sample of respondents, with the specialist knowledge and relevant experience necessary to inform development of the programme.

Professional stakeholders were identified using a *snowball sampling technique*. This began with the initial identification of a small number of participants recommended by the project steering group. These individuals were subsequently used to refer the researcher to further respondents. A wide range of disciplines were represented, including psychiatrists, psychologists, researchers, and counsellors, bringing together a variety of ideas and suggestions stemming from various specialities.

However, it may have been beneficial to represent stakeholders from additional groups such as social services and the voluntary sector. Interviewing family members of PTSD sufferers might also have added an additional dimension to the qualitative data. Last minute dropouts also contributed to the absence of certain professions thought useful to the development process. This included an occupational therapist, a GP, a psychiatrist with an interest in medical illustration, and an expert in the field

of motivational interviewing. Although the majority of professional stakeholders were based in Cardiff, a telephone conference was conducted to include professional stakeholders from other areas.

A purposive sampling technique was used to generate a sample of former PTSD sufferers. This ensured a range of respondents from a variety of backgrounds, who had experienced various traumatic events. They had received TFPT with varying levels of satisfaction. Despite these efforts, we might question whether the target population was accurately represented. The conditions of the ethical consent granted for the study prevented the recruitment of former PTSD sufferers from outside the Cardiff and Vale Local Health Board. This resulted in a sample of participants who received treatment from a limited number of therapists based at the same traumatic stress service. As such, they were limited in their ability to advocate any ingredients that were not part of the evidence-based treatments (EMDR and TFCBT) offered by the service. Although it might be argued that that suggestions were translated into a GSH programme that was itself evidence based by default, it precluded any novel suggestions that may or may not have improved treatment outcome. Respondents were however able to comment on treatment received prior to their referral (for example primary care counselling), and a range of self-sourced materials and services, such as psycho-educational or self-help books and websites, self-help groups, relaxation CDs, acupuncture, and self-help groups. They were also able to comment on any coping mechanisms or activities they had discovered to aid them through the treatment process.

All former PTSD sufferers were literate, and all but one were native English speakers. It might therefore be argued that consultation on issues pertaining to the presentation of materials suitable for those less confident using written materials was inadequate. This is a well documented limitation of current SH materials for mental health problems (137), and one which should be addressed by future development and evaluation work. It is important that issues of acceptability are properly examined with the inclusion of diverse groups.

None of the former PTSD sufferers had undergone GSH treatment, and few of the professional stakeholders had any experience of delivering GSH. This resulted in a possibility of assuming transferability of techniques, without a solid basis for recommendation. On reflection, it would have been useful to include respondents with experience of using or delivering GSH interventions for other disorders.

To avoid power differentials, former PTSD sufferers took part in semi-structured interviews, rather than being included in focus groups. It was hoped that this would enable the expression of open and honest opinions. Participants may still have been reluctant to indentify unhelpful aspects of their treatment or talk discouragingly about GSH. One former PTSD sufferer also pointed out that it was difficult to suggest specific components. Her therapy had not involved distinct techniques delivered in isolation. Former PTSD sufferers were therefore less able to pinpoint distinct, named components of their treatment for recommendation.

There was also the issue of recall bias. The least distressing components of trauma focused psychological therapy (such as relaxation) may have been recalled more

favourably and recommended more frequently than those perceived as distressing (such as imaginal exposure). The preference for components that caused least distress does not however equate to efficacy in terms of symptom reduction.

10.3.1.2 Analysis

The data was analysed using a process of Inductive Thematic Analysis. The choice of methodology was carefully considered with expert consultation. Braun and Clarke's (235) framework for carrying out a Thematic Analysis was followed. This comprised three broad stages (237): (1) breakdown of the text; (2) exploration; and (3) the integration of an interpretation. These processes were further broken down into six stages of data analysis, which were carefully followed with the assistance of QSR NVivo 7 (244) software for Computer Aided Qualitative Data Analysis (CAQDA). This resulted in a rich description of the entire data set, giving an accurate account of themes. At each stage of the project, the outcome of qualitative analyses was fed back to the stakeholders for comment. This ensured an iterative process of analysis, member checking, and refinement.

Despite this thorough approach to qualitative analysis, the process may be criticised on the basis that data was coded by only one researcher. Although this ensured consistency, the data was only analysed from one perspective. Discussion with the project steering group and member substantiation aimed to reduce the impact of this limitation, ensuring all avenues had been adequately explored.

There are criticisms that can be made of inductive thematic analysis as a method. Firstly, there is a danger of creating a mismatch between the data and the analytic

claims made by the resulting report of outcomes. In this case, the results are not supported by the data. This was avoided by carefully following Braun and Clark's framework, and by thoroughly checking that interpretations and analytic points were consistent with the data extracts. It is also possible to perform a weak analysis by failing to consider contradictions in the data. This potential pitfall was addressed through discussion with the project steering group, and through explicitly and transparently divulging conflicts within the data in the written report. Lastly, Thematic Analysis is open to the 'anything goes' criticisms of qualitative research. The method is however more rigorous and systematic than many of its counterparts, holding a status as the most commonly used method of qualitative data analysis for health research (211).

10.3.2 Piloting

The *Tackling Traumatic Stress* programme was piloted twice to allow refinement of the intervention on the basis of quantitative outcome and qualitative feedback. This process aided development of an optimal programme.

The pilot studies were uncontrolled. This was a serious limitation in terms of interpreting the efficacy data. The role of the pilot work was not however to establish efficacy. The primary aims were to generate feedback from participants, and to determine its *potential* to reduce traumatic stress symptoms. With these objectives in mind, uncontrolled studies were considered the most appropriate option.
The samples included in the pilot studies were carefully selected from the waiting list at the Cardiff and Vale Traumatic Stress Service using a process of purposive

sampling. This resulted in samples with equal numbers of males and females, of a variety of ages, traumatised by a range of events. These participants may not however, have been characteristic of individuals with mild to moderate PTSD. Since they had been referred to a specialist service, their presentation was likely to be more complex than the average sufferer presenting to primary care. It is for milder conditions that brief, inexpensive interventions are most appropriate. It can be argued that many of the individuals recruited into the study had at least moderate PTSD. This is evident from pre-treatment CAPS scores, which were for the most part in the upper range of those considered to indicate mild to moderate PTSD.

The Tackling Traumatic Stress programme was delivered by highly experienced trauma therapists. Subsequent studies should seek to explore the potential influence of the experience and expertise of the guiding therapist might have on the efficacy of the intervention. Since GSH is a treatment aimed at cost-saving, it is intended for delivery by appropriately trained non-specialist mental health workers, such as primary care counsellors. This issue was not explored by the pilot studies.

Participants who took part in post-treatment interviews were assured that their responses would be treated as anonymous. It was emphasised that honest feedback was important for programme refinement to provide maximum benefit for future users. It is possible however, that participants felt compelled to discuss their experiences favourably since they were aware of interviewer C.L.'s link to the programme and to the therapists who provided their guidance.

Participant contact with guiding therapists was timed and recorded. Adherence to the use of SH materials outside sessions was not however measured. We cannot

therefore assess the extent to which participants used or engaged with the programme. In some cases, therapists commented that participants had failed to complete tasks or make adequate use of the materials. It is difficult to know whether certain participants failed to benefit due to ineffective materials or an inability/unwillingness to engage with the programme. Many recent computerised SH interventions have the capacity to measure and record the frequency at which participants log into the system, how long they spend on each part of the programme, and which modules they have accessed. This allows researchers to analyse the extent to which the materials are used. This is clearly necessary in terms of drawing any meaningful conclusions regarding efficacy. It is a shortfall of the current research that adherence was not measured. Future research should seek to provide a log for participants to complete indicating their use of the programme. This would allow analysis of the effect of frequency and duration of programme use on symptom reduction, and the establishment of a possible dose-response relationship.

The intervention was more effective for some participants than others. Despite qualitative interviews to probe experiences of GSH and possible reasons for success/ failure, it was difficult to predict the most suitable candidates for this novel approach. It seemed however, that individuals with complex issues derived less benefit than those with a more straightforward presentation. Individuals experiencing issues such as ongoing threat and legal proceedings were understandably less able to engage with the programme and focus on their recovery. Participants with pronounced depressive symptoms reported greater motivational issues, which also impacted progress. The inclusion criteria in pilot-two were tightened to exclude individuals who were engaged in court cases or under conditions of continued real-life threat, limiting

participants to the mild to moderate cases to which the intervention was originally targeted. Results in pilot-two were better than in pilot-one. It is unknown whether the revised criteria for inclusion or the improved programme was responsible for the more promising outcome. It is likely that both factors played a part. It is important that GSH interventions are both optimal in terms of content, and also that they are targeted at the individuals most likely to gain benefit.

Despite qualitative data related to the efficacy of various modules, there was no way of knowing objectively whether any given component had an impact on symptoms. All participants received the same intervention. It was therefore impossible to quantify the effect of any specific constituent or variation of the programme. Although we might speculate that certain modules were effective and/or necessary on the basis of participant/therapist feedback, it would be inappropriate to assume that this was anything other than subjective/anecdotal opinion,

Lastly, budgetary constrains may have compromised the aesthetic appeal, usability and functionality of the materials presented by the pilot studies. Post-treatment interviews revealed that all participants favoured use of the hardcopy over the website, but it is impossible to know whether a more professional website would have attracted more participants to follow the programme online.

10.4 Feasibility of a phase II RCT

Given the success of GSH for disorders including depression and anxiety (147, 266), the NICE guidelines for PTSD recommended an RCT of GSH using newly developed materials (300). This research represents the first stage in that process. The *Tackling Traumatic Stress* programme was piloted twice. Although qualitative and quantitative results supported its efficacy and acceptability, the process represented only the first

of four stages recommended by the MRC guidelines for the development of a complex intervention. The next stage is to conduct a phase II RCT of the intervention. This will put the evidence gathered so far to the test, with the aim of evaluating the efficacy, cost-effectiveness, and acceptability of the intervention. A comparison will be made between GSH and a wait-list control group, therapist administered treatment, or both. Phase II results will subsequently inform the feasibility of a phase III definitive RCT; a larger-scale study probing the possibility of GSH as a routine treatment for mild to moderate PTSD. The fourth and final phase aims to determine whether the intervention can be reliably replicated long-term, in an uncontrolled real world setting. These phases (presented in figure 10.1) are necessary for GSH to be implemented as a routine treatment for mild to moderate PTSD.

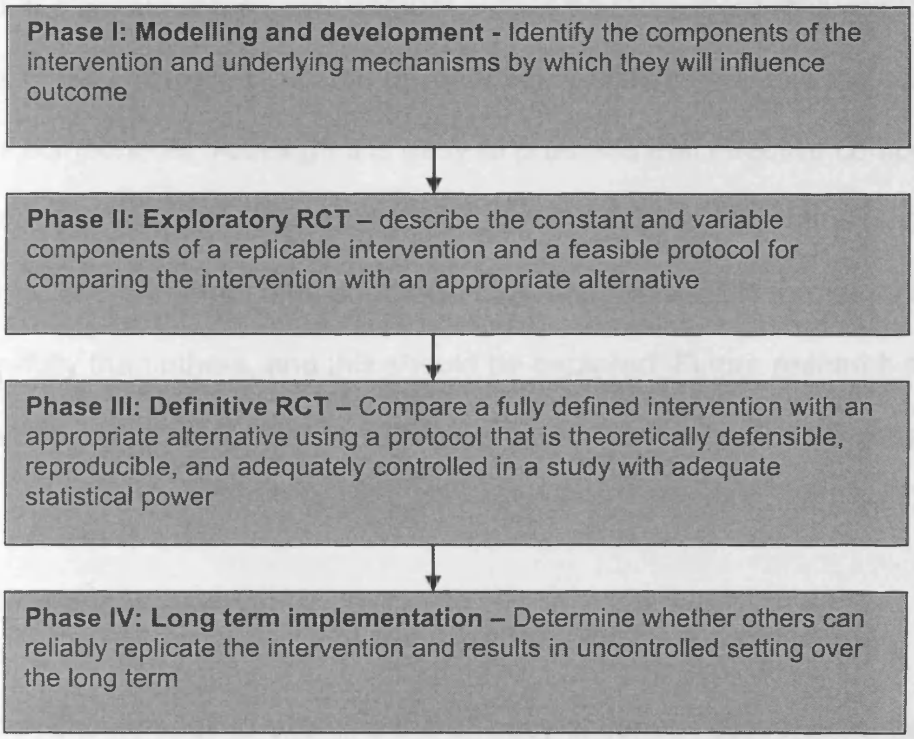


Figure 10.1 Phases outlined by the MRC guidelines for the development of a complex intervention

10.5 Implications for future researchGSH is a relatively new therapeutic modality, especially in the field of PTSD. Many recommendations can be made for future research, with the aim of generating a better understanding of its potential as a cost-effective treatment option. Many factors require further exploration, including consideration of active ingredients, optimal delivery methods, the feasibility of various guidance options, target populations, acceptability of the approach, cost-effectiveness, long-term follow-up, independent evaluation, and the role of GSH in a stepped care model of mental healthcare.

10.4.2.1 Active ingredients

Little is known about the *active* ingredients of a successful GSH programme. Factors related to effective programme content should be more thoroughly explored. In the case of PTSD, this would include dismantling studies to evaluate the contribution of various components. Although it is easy to presume that effective components mirror the active ingredients of therapist-administered treatment, this should not be assumed. Some components doubtless translate into a GSH format more successfully than others, and this should be explored. Future research should seek to establish components that are effective and/or necessary for GSH treatment of PTSD.

10.4.2.2 Delivery methods

Research should seek to examine the efficacy of various delivery methods. Results of earlier work have been inconclusive. Pilot studies of the *Tackling Traumatic Stress* programme struggled to draw any meaningful conclusions regarding the efficacy of a

hardcopy versus an online version of the programme. This was on the basis of low uptake of the web-based intervention.

Patient preference for various methods should be probed by qualitative interviews. It may be the case that preference varies in relation to characteristics such as age, gender, education, and IT familiarity/expertise. A greater understanding of patient preference would enable clinicians to predict the most beneficial SH materials based on an individual's presentation.

Issues related to accessibility should not be ignored. Not everyone has access to the internet or a computer, and this should be considered when choosing how to present materials. An exclusively web-based delivery method raises questions of potential exclusion, especially of older generations. Reliance on the written word can also serve to exclude certain populations, yet readability statistics have rarely been reported for SH materials (113). A greater emphasis should be placed on issues of accessibility and readability, to ensure that GSH is a viable option.

10.4.2.4 Guidance options

Although PSH offers the cheapest way of delivering SH, meta-analyses have found that the addition of guidance improves outcome (265). The level at which guidance is optimally cost-effective, is however unknown. It would be useful to examine the influence of various guidance options on treatment outcome.

Patient preference should be examined through qualitative work. Again, preference may vary on the basis of numerous factors. An understanding of patient preference,

and the possibility of flexibility within programmes to allow the fulfilment of choice, could potentially maximise the benefits of guidance.

It would be helpful to examine the influence of therapist experience / expertise on outcome. In particular, it would be useful to establish whether appropriately trained non-specialists (for example primary care counsellors or practice nurses) were able to achieve the same results as experienced trauma therapists.

10.4.2.5 Cost effectiveness

Future studies of GSH for PTSD should seek to collect high quality economic data. The promise of cost-effectiveness is a major driving force behind the creation of GSH programmes, but the investment required to develop and implement a programme is significant, and should not be underestimated. The economic evaluation of GSH interventions for mental health problems has not received sufficient attention to date. Rigorous economic evaluation is necessary to determine the cost-effectiveness of GSH relative to therapist administered treatment.

Economic evaluations comparing the cost effectiveness of various delivery options would also serve a useful purpose. This would allow the necessity of developing complex delivery methods, compared with cheaper alternatives such as books or leaflets, to be fully evaluated. The cost-effectiveness of various guidance options such as face-to-face, telephone, and email contact should be evaluated. Only when issues of cost effectiveness have been thoroughly examined can we be certain that GSH interventions make good use of scarce resources.

10.4.2.6 Target populations

Newman (2000) highlights the finding that SH interventions are more appropriate for some than others. This suggests the importance of the determining individual predictors of treatment response (182). Information is lacking as to the characteristics of individuals most likely to benefit from GSH. For example, factors such as intelligence, motivation and conscientiousness may impact the outcome of an intervention.

Pilot studies of the *Tackling Traumatic Stress* programme found that individuals who experienced difficulties such as continued real life threat, ongoing legal proceedings, and financial hardship, were less able to engage with the programme. It would be interesting to explore the influence of these factors further. It would also be useful to explore the impact of trauma type, the number of traumatic events experienced, and the length of time since the index trauma. Factors such as age, gender, and education may also predict outcome. The impact of these issues should be explored through large-scale studies incorporating a qualitative component to fully examine quantitative findings.

10.4.2.7 Acceptability

There is much public enthusiasm for psychological treatment (134). SH offers a way of fulfilling demand for these therapies through an approach which has been found to be acceptable to service users (135). However, we know little about the views of minority and culturally diverse groups (137). There is particular concern for those whose first language is not the native language of the country. It is important that issues of acceptability are properly examined. Ideally, culturally specific materials

should be developed and evaluated in a range of languages. Cultural differences may exist in terms of optimal design, wording, and presentation of SH materials.

Working through a SH programme is a challenge for those lacking motivation or concentration. An inability to engage with the material may lead to perceived failure, with impact on self-esteem. It is important to examine these issues, and their potential influence on the acceptability of GSH interventions for mental health problems. Qualitative studies offer scope to assess how materials are rated in terms of acceptability, ease of use, perceived benefits, and possible barriers.

10.4.2.8 Stepped care

Evaluation of GSH interventions in the context of a stepped care model would be valuable. Though the evidence so far is promising, future work evaluating the cost effectiveness of stepped care approach including GSH would serve to inform its role in a real-world setting.

10.4.2.9 Long-term follow-up

Few studies of GSH have included long term follow-up data. This is an important consideration for future research, which should seek to understand the long-term implications of GSH.

It has been suggested that improvement due to GSH may be sustained and continued to a greater extent than therapist-administered treatment. Bailer (130) found that individuals with Bulimia Nervosa made greater improvement post-treatment than group CBT controls. In addition, the individual can refer back to the

SH materials at no extra cost when faced with challenges or signs of relapse. These possible advantages need to be further explored.

10.4.2.10 Independent evaluation

Many GSH interventions have only been evaluated by those who developed the programme. This lack of independent evaluation is a limitation of the existing literature. Future research conducted by independent research groups is desirable to minimise the potential for bias.

10.4.2.10 Potential for adverse events

Studies of GSH interventions should explicitly consider the potential for adverse events. It would be interesting to establish whether symptom exacerbation is an issue, and to which components of the programme this problem relates. The issue of SH materials being relied upon inappropriately during times of crisis should be examined. Additionally, it would be helpful to consider whether the intervention is less appropriate for certain subgroups, such as those with very high symptom scores, comorbidities, or histories of multiple traumas. The potential for adverse events and poorer outcomes within these sub-groups should be examined specifically.

10.6 Clinical implications

Demanding less therapist time than existing trauma focused psychological therapies, GSH for PTSD has the potential to maximise the use of healthcare resources and widen access to effective treatment. GSH offers the possibility of alleviating pressure

on psychological services and a potential solution to the current shortfall in suitably qualified psychological therapists.

GSH has a place in a stepped care model of mental healthcare. Stepped care presents a hierarchy of treatments, which increase in intensity from step to step. Many patients benefit from the use of a first stage treatment and require no further intervention. Only a proportion of those presenting with a given disorder receive more complex and expensive treatments.

Stepped-care models are increasingly common within the field of mental health. If implemented, GSH for mild to moderate PTSD would have a place as a first-line intervention in a stepped model of care. Only those unresponsive to treatment would progress through the model to receive more intensive intervention.

Stepped care models have been proposed for numerous disorders with the aim of maximising the use of healthcare resources. Sobell and Sobell (301) advanced a stepped care model for the treatment of alcohol abuse. The proposed first-line treatment was a brief outpatient intervention with concurrent progress monitoring. For those who were unresponsive, sequential progression through the model involved more intensive options such as enrolment into residential programmes. Otto and colleagues (302) put forward a similar model for the treatment of panic disorder. CBT and pharmacotherapy were both said to be empirically supported treatments for the disorder. Since pharmacotherapy required continuous treatment to maintain effect, the first-line approach was CBT. It was recommended that the individual moved on to pharmacotherapy as the next alternative.

The 2009 NICE guidelines for depression (303) presented a stepped care model for the disorder. Assessment, support, psychoeducation, active monitoring and referral for assessment were presented as the first step. The second step consisted of low intensity psychological therapies including SH materials presented in a PSH or GSH format. It was proposed that individuals made sequential progress through the model, advancing to more intensive psychotherapy with pharmacotherapy options as necessary.

With reference to existing stepped care models for mental health problems, and the current NICE guidelines for the treatment of PTSD, a hypothetical stepped care model for PTSD treatment has been created (see figure 10.2). It proposes that individuals who present with traumatic stress symptoms are first assessed and offered information and support. When symptoms are mild and have been present for less than four weeks, a period of watchful waiting is recommended with a follow-up appointment arranged within a month. If symptoms are severe or have been present for more than four weeks after the traumatic event, the individual enters the model at step two to four as appropriate. Individuals with mild to moderate PTSD that has been present for more than four weeks after the traumatic event receive GSH as a first-line treatment. If the individual fails to respond to this low-intensity psychological therapy, they will progress to receive more intensive intervention, with the option of combined treatment, and the option of additional pharmacotherapy.

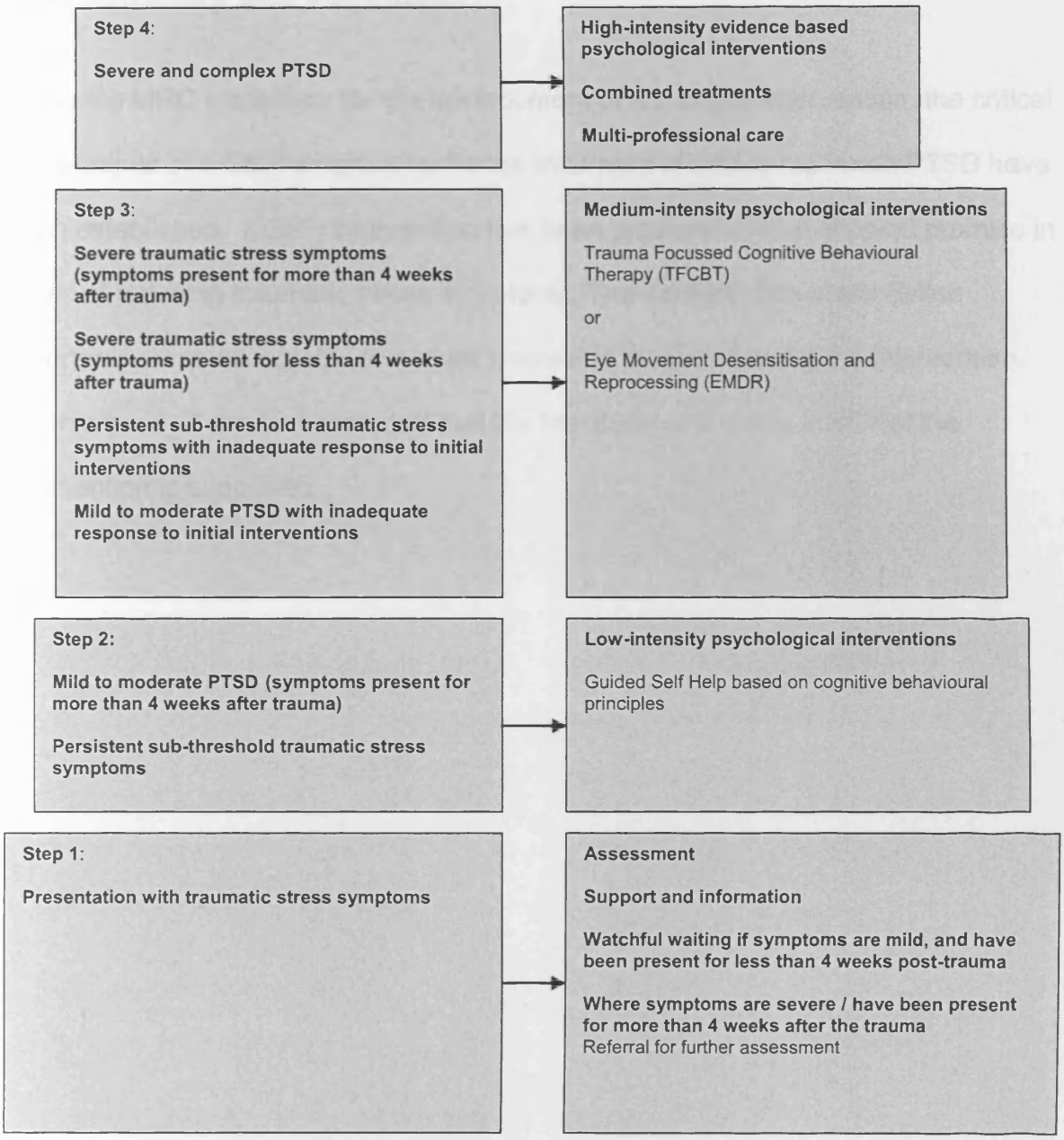


Figure 10.2: Stepped care model for PTSD

10.6 Summary and conclusion

Following MRC guidelines for the development of a complex intervention, the critical components of a GSH programme for the treatment of mild to moderate PTSD have been established. AGSH intervention has been produced, which showed promise in terms of reducing traumatic stress symptoms. The *Tackling Traumatic Stress* programme was acceptable to service users and those delivering the intervention. On this basis, it can be concluded that the feasibility of a phase II RCT of the intervention is supported.

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Appendix A

- **Participant information**
- **Study participation letter**
- **Screening checklist**
- **Consent form**

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INFORMATION ABOUT THE RESEARCH

Title of Project: Phase I development of a guided self-help programme in the treatment of mild to moderate post-traumatic stress disorder

Name of Researchers: Prof. Jonathan Bisson, Miss Catrin Lewis

Part 1

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Please take time to decide whether or not you wish to take part.

What is the purpose of the study?

The purpose of the study is to investigate the feasibility and effectiveness of a Guided Self Help programme based on Trauma Focused Cognitive Behavioural Therapy to treat mild to moderate chronic Post Traumatic Stress Disorder (PTSD). Trauma focused psychological treatments have been found to be effective in the treatment of PTSD. Unfortunately, there are not enough suitably qualified therapists to deliver these treatments and waiting times of over one year are common. The delivery of TFCBT using guided self-help (GSH) is one potential alternative method. No trials have explored the effectiveness of GSH in PTSD and as it has been helpful for other psychiatric disorders there is a need for research in this area.

Why have I been asked?

You have been chosen because you have been diagnosed with PTSD.

Do I have to take part?
It is up to you to decide. We will describe the study and go through the information sheet, which we will then give to you. We will then ask you to sign a consent form to show you have agreed to take part. If you decide to take part you are still free to withdraw at any time, without giving a reason. This would not affect the standard of care you receive.

What will happen to me if I take part?

If you decide to take part in the study, we will arrange to meet you for an initial assessment. This will involve completing some questionnaires about your symptoms. The assessment will last approximately 60-90 minutes. If it is agreed that Guided Self Help is right for you, you will meet at a later date with an experienced trauma therapist at the Cardiff and Vale Traumatic Stress Service. You will then engage in a Guided Self Help programme. This will consist of activities that you will carry out at home in your own time, with regular guidance from your therapist by phone or at the Traumatic Stress Service. The guidance will be used to discuss your progress, tackle any problems and guide you to new materials. The programme will be presented in modules available on a website or in hardcopy. You will be able to choose which format you would prefer or use both. The programme will last 8 weeks and it will be up to you how much time you dedicate to it. At the end of the programme, we will assess you again with the same questionnaires you completed during your initial assessment. You will also be asked about your views on the Guided Self Help programme in an informal interview.

What will I have to do?

You will be asked to take part in assessments of your symptoms before and after using the Guided Self Help programme. You will be expected to carry out activities your own at home and receive guidance from an experienced trauma therapist either by phone or in person at the Cardiff and Vale Traumatic Stress Service. You will be asked to share your views on the Guided Self Help programme in an informal interview at the end of treatment.

What are the side effects?

There are no side effects known, although some people may find talking about their experiences and engaging in therapy upsetting. Participants will be provided additional support if the research causes them distress or they request it.

What are the possible benefits of taking part?

There is likely to be an improvement in your symptoms if the programme proves to be effective in treating mild to moderate PTSD.

What happens when the research study stops?
If you have found benefit from the materials provided during the study (e.g. information leaflets or CDs), you will be free to keep these and continue using them. If symptoms persist and you have not benefited from the GSH programme, you will be offered alternative psychological therapy with an experienced therapist at the Cardiff and Vale Traumatic Stress Service.

What if there is a problem?

Any complaint about the way you have been dealt with during the study or any possible harm you might suffer will be addressed. The detailed information on this is given in Part 2.

Will my taking part in this study be kept confidential?

Yes. We will follow ethical and legal practice and all information about you will be handled in confidence. The details are included in Part 2.

<u>If the information in Part 1 has interested you and you are considering participation, please read the additional information in Part 2 before making any decision.</u>

<u>Part 2</u>

What will happen if I don't carry on with the study?
If you withdraw from the study, we will destroy all your identifiable information, but we will need to use the data up to your withdrawal.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the researchers who will do their best to answer your questions (Dr Jonathan Bisson – tel. 02920 744534 or the Research Assistant – Miss Catrin Lewis - tel. 02920 20743752). If you remain unhappy and wish to complain formally, you can do this through the NHS Complaints Procedure. Details can be obtained from the hospital.

Will my taking part in this study be kept confidential?

All information will be made anonymous and stored in compliance with the data protection act. No individual will be able to be identified in any reports or publications that result from the study.

Will my General Practitioner (GP) be told that I am taking part in this study?

With your permission we will inform your General Practitioner (GP) that you are taking part in the study.

What will happen to the results of the research study?

It is likely that the results of the study will be presented at conferences and written up for publication in journals. If you would like a copy of the summary report this will be available to you after the study is completed.

Who has reviewed the study?

The study has been reviewed and approved by Cardiff University, Cardiff & Vale NHS Trust and the South East Wales Local Research Ethics Committee.

In the event that something does go wrong and you are harmed during the research and this is due to someones negligence then you may have grounds for legal action for compensation against Cardiff University, but you may have to pay your legal costs.

Contact for Further Information

If you require any further information about this study, please contact the Lead Investigator – Prof. Jonathan Bisson – tel. 02920 744534 or the Research Assistant – Miss Catrin Lewis - tel. 029 20743752. If you have any concerns about this study, please contact Dr Daniel Smith – tel: 029 20743871.

Thank you for considering taking part in this study.

Date

Dr Address

Dear Dr ,

Re: Name, DOB.

The above named patient has agreed to take part in a study investigating the feasibility and effectiveness of a Guided Self Help programme based on Trauma Focussed Cognitive Behavioural Therapy to treat mild to moderate chronic Post Traumatic Stress Disorder.

The patient will receive an initial assessment and if suitable will begin a programme of Cognitive Behavioural self help guided by experienced trauma therapists based at the Cardiff an Vale Traumatic Stress Service.

The research has been reviewed and approved by Cardiff University, Cardiff and Vale NHS Trust and the South East Wales Local Research Ethics Committee. If you require any further information about this study please do not hesitate to contact myself or the research assistant on tel. number 029 2074 4534.

Yours Sincerely,

Dr Jonathan Bisson
Clinical Senior Lecturer in Psychiatry

Screening Checklist

Aged 18 or over	☐
Informed consent given	☐
Meets DSMIV criteria for chronic PTSD of mild to moderate severity (score less than 80 on the clinician administered PTSD scale)	☐
Ability to read and write fluently in English	☐
No previous TFPT for PTSD	☐
No psychosis	☐
No DSMIV severe major depressive episode	☐
No substance dependence	☐
No change in psychotropic medication in past one month	☐
No suicidal intent	☐

Centre Number:
Study Number:
Patient Identification Number for this trial:

Consent Form

Phase I development of a guided self-help programme in the treatment of mild to moderate post-traumatic stress disorder.

Name of Researchers: **Prof. Jonathan Bisson**
Miss Catrin Lewis

	Please initial box
1. I confirm that I have read and understand the information sheet dated 07/01/09(version 3) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected.	☐
3. I understand that relevant sections of my medical notes and data collected during the study, may be looked at by individuals from the research team, from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.	☐
4. I agree to my GP being informed of my participation in the study	☐
5. I agree to take part in the above study.	☐

Name of Patient	Date	Signature
Name of Person Taking Consent	Date	Signature

Appendix B

- **Moderator topic guide for stakeholder focus groups (modelling)**
- **Moderator topic guide for stakeholder telephone conference (modelling)**
- **Interview schedule for former PTSD sufferers (modelling)**
- **Interview schedule for steering group members (modelling)**
- **Post-treatment interview schedule for pilot study participants**
- **Post-treatment interview schedule for pilot study guiding therapists**

Moderator topic guide for focus groups

Phase I Development of a Guided Self-Help Programme in the Treatment of Mild to Moderate Post Traumatic Stress Disorder (PTSD)

Focus Group Members: Experts in the field of Post Traumatic Stress Disorder and/or Self Help

Introduction

1) Welcome and thank you to everyone for coming

2) Introduction to Catrin

3) Introductions to focus group members

4) Review of the research project and its objectives

Guided Self Help: A Brief Overview

There is currently a waiting list of over 6 months to receive psychological treatment for PTSD in Cardiff. To offer assistance sooner we need to look for new methods of providing psychological treatment for PTSD such as Guided Self Help.

Guided self help makes use of self help materials including books, websites, computer based programmes and written exercises designed to be followed at home. In addition the individual receives brief contact with a therapist whose role it is to motivate and tackle any problems the individual is having following the programme.

5) Goals of the Focus Group

This Focus Group has the task of discussing what to include in a Guided Self Help programme for mild to moderate post traumatic stress disorder and how it should be presented to individuals with PTSD.

Transcripts of Focus Group discussions and interviews with individuals previously treated for PTSD will be analysed using qualitative techniques to create a prototype Guided Self Help Programme which will be brief, feasible, accessible and acceptable to PTSD sufferers for the piloting phase.

During this meeting we will:-
Firstly – Discuss what components should make up a Guided Self Help Programme for Mild to Moderate PTSD.
Secondly – Consider how Self Help materials should be presented
And finally – What form of guidance should be used.

1. Guided Self Help - Components

1) What are the essential components of a Guided Self Help Programme for mild to moderate PTSD?
These can be any of the components from the list provided or any others which you can think of.
Why are these essential components?
Are these appropriate components for use in a Guided Self Help format (i.e. without the presence of a therapist)?

1. Education
-Psychoeducation

2. Stress Management Techniques
-Breathing Retraining
- Progressive Muscular Relaxation
- Guided Imagery
- Grounding
- Positive Self Talk
- Mindfulness

3. Lifestyle Advice
- Sleep Hygiene
- Exercise
- Anger Management
- Assertiveness Training
- Positive Distracting Activities
- Social Support
- Advice on use of Drugs and Alcohol

4. Exposure Techniques
- Imaginal Exposure
- Graded Real Life Exposure
- Returning to the scene

6. Writing Exercises
-Narrative of the Trauma
-Therapeutic Letter

7. Cognitive Techniques
- Cognitive restructuring
- Motivational Interviewing
- Acceptance and Commitment Therapy (ACT)
- Farewell Ritual

2) Are there any other components which you think it would be useful to include?
Why is this?
Are these appropriate components for use in a Guided Self Help format (i.e. without the presence of a therapist)?
Why are these less important than the components we discussed as being essential?

3) Should the intervention be "one size fits all" in terms of components or tailored to the individual with the guiding therapist selecting relevant components from a pool of possible alternatives?
Why do you think this?
Should there be core components which everyone follows and other optional components?

2) Are there any components which you think should definitely NOT be included in a Guided Self Help Programme for Mild to Moderate Post Traumatic Stress Disorder?
Why is this?

3. Guided Self Help – Self Help Delivery Methods

1) Do you have any ideas regarding the best method of delivering the self help aspects of the programme?

We have considered the using the following materials:
- Books and leaflets
- DVDs
- CDROMS
- CDs
- Websites

What would you suggest?

2) Are there specific components which should be delivered in certain ways?
What are these?
Why is this?

4. Guided Self Help – Guidance Options

1) How do you think guidance by the therapist would be best provided:

Face-to-face (at the Traumatic Stress Service)?
Over the phone?
By email?
Or by using a combination of these methods?

Why do you think this method(s) would be the best?

2) Should guidance be scheduled (e.g. once weekly meetings/phone calls) or requested by the patient as and when required?
Why do you think this method(s) would be the best?

3) How much guidance should be given? If there are face to face meetings or phone calls, how long should these last?
Should there be a minimum, a maximum or a guideline amount of guidance that will be given?

Focus Group Close - Wrap up and thanks for participation

Moderator topic guide for telephone conference

Phase I Development of a Guided Self-Help Programme in the Treatment of Mild to Moderate Post Traumatic Stress Disorder (PTSD)

Focus Group Members: Experts in the field of Post Traumatic Stress Disorder and/or Self Help

Introduction

1) Welcome and thank you to everyone for coming

2) Introduction to Catrin

3) Introductions to focus group members

4) Review of the research project and its objectives

Guided Self Help: A Brief Overview

There is currently a waiting list of over 6 months to receive psychological treatment for PTSD in Cardiff. To offer assistance sooner we need to look for new methods of providing psychological treatment for PTSD such as Guided Self Help.

Guided self help makes use of self help materials including books, websites, computer based programmes and written exercises designed to be followed at home. In addition the individual receives brief contact with a therapist whose role it is to motivate and tackle any problems the individual is having following the programme.

5) Goals of the Focus Group

This Focus Group has the task of discussing what to include in a Guided Self Help programme for mild to moderate post traumatic stress disorder and how it should be presented to individuals with PTSD.

Transcripts of Focus Group discussions and interviews with individuals previously treated for PTSD will be analysed using qualitative techniques to create a prototype Guided Self Help Programme which will be brief, feasible, accessible and acceptable to PTSD sufferers for the piloting phase.

During this meeting we will:-
Firstly – Discuss what components should make up a Guided Self Help Programme for Mild to Moderate PTSD.
Secondly – Consider how Self Help materials should be presented
And finally – What form of guidance should be used.

1. Guided Self Help - Components

1) What are the essential components of a Guided Self Help Programme for mild to moderate PTSD?
These can be any of the components from the list provided or any others which you can think of.
Why are these essential components?
Are these appropriate components for use in a Guided Self Help format (i.e. without the presence of a therapist)?

1. Education
-Psychoeducation

2. Stress Management Techniques
-Breathing Retraining
- Progressive Muscular Relaxation
- Guided Imagery
- Grounding
- Positive Self Talk
- Mindfulness

3. Lifestyle Advice
- Sleep Hygiene
- Exercise
- Anger Management
- Assertiveness Training
- Positive Distracting Activities
- Social Support
- Advice on use of Drugs and Alcohol

4. Exposure Techniques
- Imaginal Exposure
- Graded Real Life Exposure
- Returning to the scene

6. Writing Exercises
-Narrative of the Trauma
-Therapeutic Letter

7. Cognitive Techniques
- Cognitive restructuring
- Motivational Interviewing
- Acceptance and Commitment Therapy (ACT)
- Farewell Ritual

2) Are there any other components which you think it would be useful to include?
Why is this?
Are these appropriate components for use in a Guided Self Help format (i.e. without the presence of a therapist)?
Why are these less important than the components we discussed as being essential?

3) Should the intervention be "one size fits all" in terms of components or tailored to the individual with the guiding therapist selecting relevant components from a pool of possible alternatives?
Why do you think this?
Should there be core components which everyone follows and other optional components?

2) Are there any components which you think should definitely NOT be included in a Guided Self Help Programme for Mild to Moderate Post Traumatic Stress Disorder?
Why is this?

3. Guided Self Help – Self Help Delivery Methods

1) Do you have any ideas regarding the best method of delivering the self help aspects of the programme?

We have considered the using the following materials:
- Books and leaflets
- DVDs
- CDROMS
- CDs
- Websites

What would you suggest?

2) Are there specific components which should be delivered in certain ways?
What are these?
Why is this?

4. Guided Self Help – Guidance Options

1) How do you think guidance by the therapist would be best provided:

Face-to-face (at the Traumatic Stress Service)?
Over the phone?
By email?
Or by using a combination of these methods?

Why do you think this method(s) would be the best?

2) Should guidance be scheduled (e.g. once weekly meetings/phone calls) or requested by the patient as and when required?

Why do you think this method(s) would be the best?

3) How much guidance should be given? If there are face to face meetings or phone calls, how long should these last?
Should there be a minimum, a maximum or a guideline amount of guidance that will be given?

Telephone conference close - Wrap up and thanks for participation

Semi-structured interview schedule

Phase I Development of a Guided Self-Help Programme in the Treatment of Mild to Moderate Post Traumatic Stress Disorder (PTSD)

Interviewees: Individuals previously treated for PTSD through trauma focussed psychological therapy.

> I want to start by thanking you for agreeing to take part in this research and for coming here today. As we mentioned in the information sheet I will be tape-recording the interview. This is just to make sure that I don't miss anything you say. I would also like to assure you that anything you say will be confidential; no one will know who said it. Are we ready to get started?

As you know, we are trying to develop a guided self help programme for post traumatic stress disorder. We are in the process of deciding what to include in the programme and how it should be presented to individuals with post traumatic stress disorder. A key part of this process is to talk to people who have received treatment for post traumatic stress disorder to see what they think will work from their experiences. I am really interested in talking to you about your experience of trauma focussed psychological therapy and discussing Guided Self Help for PTSD with you. We will first discuss the therapy you received here at the clinic and any tasks you completed in your own time as homework. I would then like to discuss the guided self help programme we are trying to develop and any ideas you may have.

Your honest opinions and advice are very important to us.

1. Treatment

- To start, could you tell me about your experience of receiving treatment for post traumatic stress disorder?
- I'd like to know what you found helpful, what you didn't find helpful, and why this was.
Why were these things helpful/unhelpful? Could you name one thing which stands out as having been being particularly helpful? Why?
Could you name one thing which stands out as having been particularly unhelpful? Why?

- Were there any parts of your treatment that would have been too difficult to go through without the presence of a therapist?
(This might include initially writing a narrative of the trauma, exposure the trauma narrative, learning relaxation exercises, identifying and correcting negative thinking and so on....)
Why do you think this would have been difficult? Could this be done differently so that it would be easier alone?

- Could you tell me about any involvement friends or family had in your treatment?
(This might have included attending therapy session with you, meeting the therapist, receiving information from the service about symptoms/treatment, discussing treatment with yourself, helping with homework tasks).
Was it important that friends and family received information about your symptoms and your treatment? Did a family member or friend ever meet or speak to the person providing your therapy? Was this useful/ would this have been useful?

- Looking back, could you tell me about anything that would have been helpful for you to have while you were waiting for treatment?
(This might include information about the symptoms of post traumatic stress disorder for you to read, information to give to friends or relatives, relaxation CDs or some simple self help exercises).
How would this have helped you?

2. *Homework*

- Could you tell me a bit about any tasks you were given to do as homework? Could you tell me whether or not these were helpful?
In what way were these helpful/unhelpful? Could you name one thing which stands out as having been being particularly helpful? Why?
Could you name one thing which stands out as having been particularly unhelpful? Why?
Can you think of any other tasks or activities which you could have done at home?

- Could you tell me about any problems you had completing your homework?
Why was this? Could anything have been done to avoid these problems?

- Did you have any problems understanding instructions given to you by the therapist?
Why was this?
How could these instructions have been improved?

3. Your Opinions on Guided Self Help for Post Traumatic Stress Disorder

If it's okay with you, I'd now like to talk to you about the guided self help programme we are trying to create.

As we explained in the information sheet, guided self help involves regular brief supportive meetings with a therapist who provides self help materials for the person to work through in their own time at home.

- Having read the information about this project, do you have any opinions about providing psychological treatment for post traumatic stress disorder through Guided Self Help?
Why do you think this?
Would you like me to explain a little more about the project and what we are trying to do? [if interviewee appears unfamiliar with what we are trying to achieve].

- What parts of your treatment (if any) do you think could be successfully provided in a guided self help programme?
What makes you think this?
Would this have been acceptable to you as an alternative to face to face therapy?

- Do you think guidance by the therapist would be best provided:
Face-to-face (at the Traumatic Stress Service)? Over the phone? By email?
Or by using a combination of these methods?
Why do you think this method(s)would be the best?

- Do you have any ideas regarding the best method of delivering the self help aspects of the programme? We have considered the using the following materials:
- Books and leaflets - DVDs - CDROMS - CDs - Websites
What would you suggest? *Why do you suggest this? Do you have any other suggestions?*

4. Interview Close

- Is there anything we haven't covered which you would like to add?
- Would you like to make any other comments?

I would like to thank you very much for your time and for your very important contribution to this project. It has been very interesting to talk to you.

Semi-structured interview schedule

Phase I Development of a Guided Self-Help Programme in the Treatment of Mild to Moderate Post Traumatic Stress Disorder (PTSD)

Focus Group Members: Project steering group members

As you know, we are trying to develop a guided self help programme for post traumatic stress disorder.

We are in the process of deciding what to include in the programme and how it should be presented to individuals with post traumatic stress disorder.

We would like to hear your views and opinions on what to include in the programme and how it should be delivered.

1. Guided Self Help - Components

1) What are the essential components of a Guided Self Help Programme for mild to moderate PTSD?
These can be any of the components from the list provided or any others which you can think of.
Why are these essential components?

2) Are there any other components which you think it would be useful to include?
Why is this?
Are these appropriate components for use in a Guided Self Help format (i.e. without the presence of a therapist)?
Why are these less important than the components we discussed as being essential?

3) Should the intervention be "one size fits all" in terms of components or tailored to the individual with the guiding therapist selecting relevant components from a pool of possible alternatives?
Why do you think this?
Should there be core components which everyone follows and other optional components?

4) Are there any components which you think should definitely NOT be included in a Guided Self Help Programme for Mild to Moderate Post Traumatic Stress Disorder?
Why is this?

Are these appropriate components for use in a Guided Self Help format (i.e. without the presence of a therapist)?

3. Guided Self Help – Self Help Delivery Methods

1) Do you have any ideas regarding the best method of delivering the self help aspects of the programme?

What would you suggest? We have considered the using the following materials:
- Books and leaflets - DVDs - CDROMS - CDs - Websites

2) Are there specific components which should be delivered in certain ways?
What are these?
Why is this?

4. Guided Self Help – Guidance Options

1) How do you think guidance by the therapist would be best provided:

Face-to-face (at the Traumatic Stress Service)?
Over the phone?
By email?
Or by using a combination of these methods?

Why do you think this method(s) would be the best?

2) Should guidance be scheduled (e.g. once weekly meetings/phone calls) or requested by the patient as and when required?
Why do you think this method(s) would be the best?

3) How much guidance should be given? If there are face to face meetings or phone calls, how long should these last?
Should there be a minimum, a maximum or a guideline amount of guidance that will be given?

Interview topic guide - first post-piloting refinement stage

Phase I Development of a Guided Self-Help Programme in the Treatment of Mild to Moderate Post Traumatic Stress Disorder (PTSD)

Interviewees: Individuals who have been through the 8 week initial prototype of the GSH programme.

I want to start by thanking you for agreeing to take part in this research and for coming here today. If it's okay with you, I will be tape-recording the interview. This is just to make sure that I don't miss anything you say.I would also like to assure you that anything you say will be confidential; no one will know who said it. Are we ready to get started?

As you know, we are trying to develop a guided self help programme for post traumatic stress disorder.

You have been through the 8 week programme and we are very interested in hearing about how you found it and how you think we can improve the programme for other users.

Your honest opinions and advice are very important to us.

Overall impressions

1. To start, could you tell me how you found the programme?
I'd especially like to know what you found helpful, what you didn't find so helpful.
Why were these things helpful / unhelpful?
Could you name one thing which stands out as having been being particularly helpful?
Why?
Could you name one thing which stands out as having been particularly unhelpful?
Why?

Modules

I would appreciate your comments on each of the following modules:1. What is post traumatic stress disorder?; 2. Grounding Yourself; 3. Learning to relax; 4. Getting a better night's sleep (optional); 5. Controlling your anger (optional); 6. Cutting down on your drinking (optional); 7. Getting more exercise (optional); 8. Becoming more active; 9. Changing the way you think; 10. Overcoming avoidance – facing your fears; 11. Coming to terms with what happened (optional); 12. Staying well

What do you think of this module?
Can you suggest any improvements?

Delivery

2. How did you find the self help materials we gave you?
What was the best thing about them and what was the worst? How can they be improved?

3. Did you use the website?
If not, why not? What did you like about the website? What didn't you like? How can it be improved?

4. Did you use the hardcopy?

If not, why not? What did you like about the hardcopy? What didn't you like? How can it be improved?

Guidance

5. How did you find the guidance you received from your therapist?
What was done well?
How could your guidance have been improved?

6. How did you find your initial guidance session?
What was good about it? What was bad about it? What could be improved?

7. Did you feel that you received enough guidance?
How much more would you have liked? Could you have managed with less guidance?
Did you contact your therapist outside your scheduled sessions? Could you tell me what this was concerning?

8. How did you receive your guidance? (over the phone or face to face?)
Was this acceptable to you? Did you appreciate having the choice?

Understanding

9. Could you tell me about any problems you had completing any parts of the programme?
Why was this?
Could anything have been done to avoid these problems?

10. Did you have any problems understanding instructions given in the programme or by the therapist?
Why was this?
How could these instructions have been improved?

Family involvement

11. Could you tell me about any involvement friends or family had in your treatment?
(This might have included attending the initial guidance session with you, meeting the therapist at any other point, reading the information sheet for family and friends, discussing the programme with yourself, helping with tasks issued by the programme or providing other support). Was it useful that friends and family and friends were involved?Could we have done more to involve or inform your family or friends

Conclusion

12. Overall, would you say that this type of treatment was acceptable to you?
Would you recommend it to other people with PTSD?
If not, why not? What are your suggestions for helping us improve the programme?

Interview Close

I would like to thank you very much for your time and for your very important contribution to this project. It has been very interesting to talk to you. If you have any further questions, comments or suggestions, please feel free to get in touch with me.

Interview topic guide - first post-piloting refinement stage – therapist

Phase I Development of a Guided Self-Help Programme in the Treatment of Mild to Moderate Post Traumatic Stress Disorder (PTSD)

Interviewees: Therapists who guided participants through the 8 week initial prototype of the GSH programme

I want to start by thanking you for all your help with this research and for taking part in this interview. If it's okay with you, I will be tape-recording the interview. This is just to make sure that I don't miss anything you say. Are we ready to get started?

As you know, we are trying to develop a guided self help programme for post traumatic stress disorder.

You have guided a participant(s) through the 8 week programme and we are very interested in hearing about how you found it and how you think we can improve the programme.

Your honest opinions and advice are very important to us.

Impressions of guiding the programme

1. To start, could you tell me about your experience of guiding the programme?
What were the biggest challenges you faced in delivering therapy in this way?
Was there anything you particularly liked about delivering therapy in this way?
Can you think of anything we can do to make the process of guiding an individual through the programme easier?

2. How did you as a therapist provide guidance (face to face, by phone, by email or through a combination of these methods)?
How and why were these methods of providing guidance chosen?
In your opinion, which is the best method (or combination of methods) for providing guidance?
Did you encounter difficulties with any method of guidance?

3. Did you feel you were able to provide a sufficient amount of guidance?
How much more would you have liked to be able to give?
Could you have managed with providing less guidance?
Did your participant(s) contact you outside scheduled guidance sessions?

4. How did you find the materials for recording sessions contained within the CRF?
Was there anything you found particularly difficult in using these materials?
Was there anything you particularly liked about these materials?
Can you think of any ways which we can change these materials to make it easier for the therapist?

Overall impressions

Having guided participant(s) through the programme we expect that you have gained insight into the strengths and weaknesses of the programme itself. This may be through participant feedback / problems using the materials or your own observations.

4. Could you tell me how your current opinions of the programme?

I'd especially like to know what aspects of the programme you think are helpful to those using it?
Which aspects of the programme do you think are less helpful to those using it?

5. I would appreciate your comments on each of the following modules:1. What is post traumatic stress disorder?; 2. Grounding Yourself; 3. Learning to relax; 4. Getting a better night's sleep (optional); 5. Controlling your anger (optional); 6. Cutting down on your drinking (optional); 7. Getting more exercise (optional); 8. Becoming more active; 9. Changing the way you think; 10. Overcoming avoidance – facing your fears; 11. Coming to terms with what happened (optional); 12. Staying well

What do you think of this module?
Can you suggest any improvements?

6. Are there any optional modules you would make compulsory? Or vice versa?
Why?

7. What is your current opinion of the hardcopy?
What do you like about the hardcopy?
What don't you like?
How can it be improved?

8. What is your current opinion of the website?
What do you like about the website?
What don't you like?
How can it be improved?

Conclusion

9. Overall, would you say that this method of delivering treatment was acceptable to you as a therapist?
If not, why not?

10. What are your suggestions for helping us improve the programme?
For the guiding therapist?
For the person using the programme?

Interview Close

11. Is there anything we haven't covered which you would like to add?

12. Would you like to make any other comments?

I would like to thank you very much for your time and for your very important contribution to this project. It has been very interesting to talk to you. If you have any further questions, comments or suggestions, please feel free to get in touch with me.

Appendix C

- **Final prototype of the Tackling Traumatic Stress Guided Self Help (GSH) programme for the treatment of mild to moderate Post Traumatic Stress Disorder (PTSD)**

TACKLING traumatic stress

Welcome to the ***TACKLING Traumatic Stress*** guided self help programme for Post Traumatic Stress Disorder (PTSD). You have made the important first step of deciding to start treatment. Although your symptoms will not improve overnight, PTSD is a ***treatable*** condition.

The ***TACKLING traumatic stress*** programme includes self-help materials designed to be followed at home with regular guidance from an experienced trauma therapist at the Cardiff and Vale Traumatic Stress Service. The programme will provide you with the tools to help reduce your symptoms and improve your health and wellbeing.

We strongly recommend that you spend time using the programme **EVERY DAY**. It is designed to be used in a flexible way fitting in around your lifestyle. It is up to you how often you use the materials, and how much time you spend on each module. We can only emphasise that **the more you use the programme, the greater the improvement you are likely to see in your symptoms.**

The programme is made up of 11 modules. Modules 1-7 are essential core modules. These will be followed under the guidance of your therapist. Modules 9-11 are optional lifestyle modules. These will be followed if you and your therapist think it would be helpful.

Core Modules (to be completed by everyone)	**Optional lifestyle modules** (these can be completed alongside the Core Modules)
1. What is post traumatic stress disorder? 2. Grounding yourself 3. Learning to relax 4. Coming to terms with what happened 5. Changing the way you think 6. Overcoming avoidance – facing your fears 7. Staying well	8. Becoming more active 9. Getting a better night's sleep 10. Managing your anger 11. Cutting down on substances (alcohol / caffeine / illegal drugs)

Each module has 3 sections:

4. **Information** - You will be asked to read the **'information'** section at your own pace. It will teach you about problems you may be facing. The information section gives simple advice to help you feel better. This section ends with **ten tips** to summarise the most important parts of the module. Follow these tips help yourself get well.

5. **Quick quiz** – Each module includes a **'quick quiz'**, which asks 5 multiple choice questions. It is not important whether you get these questions right or wrong. They are simply to help you learn.

6. **Exercise -** At the end of each module, there will be an exercise for you to complete. You will discuss these exercises with your therapist during guidance sessions.

To complete each module you must fill in the **quick quiz** and the **exercise** and **bring these to your guidance session.**

You will find a **diary** at the back of the file. Keep this with you to note down what you've been doing and how you're feeling. **Please bring the diary to your guidance session.**

You will also find a leaflet entitled **Information for Family and Friends** at the back of the file. We suggest that you share this with your loved ones to help them learn about PTSD.

Ten tips to help you through the programme

1. Do not expect results overnight - recovering from PTSD takes time.

2. Dedicate time each day to using the programme - we ask that you use the materials for **AT LEAST 30** minutes **EVERY DAY**. The more time you dedicate to your recovery, the better the results will be.

3. Work through the modules at your own pace – move on to the next module when you feel happy that you have mastered the previous one. Feel free to go back to earlier modules. Re-read the information and re-do the exercises at any time.

4. Find a quiet place to use the programme - somewhere you will not be disturbed.

5. Involve your loved ones in your recovery – tell them how you are feeling. Let them know that you are using the ***TACKLING traumatic stress*** programme. Read through the **information for family and friends** with them.

6. Fill in your diary every day - this will help you express how you are feeling and monitor your progress.

7. Make a note of any problems to discuss with your therapist – this will help you make the most of your guidance sessions.

8. Reward yourself for progress – this can include activities like watching a film, having a long bath, or going for a walk.

9. Don't be afraid to contact your therapist if you have any difficulties - he or she will be keen to discuss any problems with you between guidance sessions

10. Don't give up! - recovering from PTSD isn't easy. There will be times when you feel like giving up. Remember your reasons for wanting to get better and focus on these. It will be worth it in the end.

We are here to help and support you in any way we can. Please do not hesitate to contact us.

What is Post Traumatic Stress Disorder?

Post Traumatic Stress Disorder (or PTSD) is an emotional disorder that can start after a traumatic event. A traumatic event is something shocking or frightening that doesn't usually happen to a person. These events make us feel scared and threatened.

Michael and Chloe were referred to the Traumatic Stress service in Cardiff and diagnosed with PTSD. We will share their stories with you and follow their progress through the programme:

Michael

Three years ago, Michael was involved in a car accident. He was driving home with his son from a Christmas party when a drunk driver sped around a corner, lost control of his vehicle and crashed into the passenger side of his car. His son was injured but luckily recovered in hospital in the weeks that followed. Michael had only minor injuries.

In the days following the accident Michael could not believe or accept what had happened. He started having vivid distressing nightmares which would wake him up in the middle of the night. At work he found it difficult to concentrate or focus on what he was doing. He felt anxious, tense, and easily startled. He worried constantly for the safety of his family and felt very angry that the drunk driver had put his son's life in danger. He couldn't keep thoughts of the accident from his mind. He was troubled day and night by the sounds of screeching tyres and his son screaming. Michael, a once sociable man, no longer enjoyed spending time with friends or doing the activities he used to. He felt he had no future.

Chloe

Chloe was 25 when she was mugged on her way home from a shift at a local supermarket. It was daylight and she was walking along a route she had walked hundreds of times before. The mugger held a knife to her throat and demanded her bag and mobile phone. Chloe handed over her belongings and the mugger ran away.

For the rest of the day Chloe felt shaken by the ordeal, but tried to convince herself that it could have been worse; that she'd had a lucky escape. In the weeks that followed Chloe couldn't stop thinking about what happened. She made excuses not to go to work, to avoid walking through the area she was mugged. Gradually she became hesitant of leaving the house at all. She found it difficult to sleep and felt dazed and on edge all day. Chloe felt angry at the mugger for what he had put her through and guilty for causing her family worry.

PTSD is a distressing disorder that can affect work, daily activities and relationships. The good news is, that with a bit of hard work, there is a good chance of recovering from PTSD. ***A useful first step is to learn about PTSD and its symptoms.***

How does PTSD start?

PTSD can start after any traumatic event. These events usually involve fearing for your life or safety, or for somebody else's life or safety. People react differently to traumatic situations. It doesn't have to be a life threatening event, it just has to be seen as traumatic by the victim.

Examples of traumatic events which sometimes cause PTSD:

- Road traffic accidents
- Physical assault
- Physical injuries or accidents
- Rape
- Sexual assault
- Childhood sexual abuse
- Natural disasters
- Manmade disasters
- Terrorist attacks
- Combat or military exposure
- Fire
- Emotional abuse
- Kidnapping
- Torture
- Receiving a life threatening diagnosis
- Medical complications
- Traumatic child birth
- Mugging

Thousands of people around the world suffer from PTSD. You are not the first or last person to feel the way you do. But PTSD is a distressing illness that requires treatment.

What does PTSD feel like?

We will describe some common symptoms of PTSD. These are not experienced by everyone. There is no reason to think that you will suffer any of these symptoms if you have not experienced them already.

PTSD symptoms fall into 3 groups:

1. *RE-EXPERIENCING WHAT HAPPENED – having distressing memories or feeling like the event is happening all over again when awake or asleep.*

2. *AVOIDING REMINDERS OF WHAT HAPPENED – trying to avoid thinking about or talking about what happened. Avoiding people, places or activities connected to the trauma. Feeling emotionally numb.*

3. *HYPERAROUSAL – feeling constantly anxious and on edge. Feeling unable to relax, concentrate or sleep.*

We will learn about each of these symptoms groups in turn:

1. Re-experiencing what happened

- People with PTSD suffer upsetting memories and frightening thoughts about the traumatic event.

- Thoughts about the event can be easily brought up by sights, sounds or smells connected to the trauma. These are often called 'triggers'. Simple every day things can be 'triggers' which cause bad memories. Here are some examples:

  Sound – unexpected loud noises, songs, sirens
  Smell - smoke, alcohol, a certain perfume
  Movement – sudden movement, sudden stillness
  Sights - crowded streets, sunsets, flames, television
  Touch – blood, water, rain, certain surfaces

- Most people with PTSD experience feelings of distress when they are reminded of what happened. This can involve physical reactions such as increased heart rate and sweating.

- People with PTSD may also re-experience what happened when they are asleep, as a nightmare about the event.

- Some people have episodes where they feel or act as though the event is happening again. This is called a 'flashback'. During a 'flashback' the person may lose their connection with what is happening around them, being taken back partially or completely to the traumatic event.

Here's what Michael had to say about his experiences of re-experiencing what happened:

"I just couldn't stop thinking about the accident. The slightest thing would bring back these memories of what had happened. The sound of tyres screeching or a car horn particularly would bring back these memories of what had gone on. The nightmares started quite soon afterwards and I'd wake up feeling absolutely terrified."

2. Avoiding reminders of the traumatic event

- People with PTSD often try to avoid thinking about what happened.
- They may also attempt to avoid people, places or activities which remind them of the trauma.
- Feeling 'emotionally numb' is also common. They sometimes find it hard to feel emotions like love and happiness.
- People with PTSD often feel distant from loved ones.
- Often people with PTSD find they don't enjoy the activities they used to.

Here's what Chloe had to say about her experience of avoiding reminders of the traumatic event:

"After the attack I was avoiding a lot of things that reminded me of what happened. I avoided thinking about it or talking about it. I even went out of my way to avoid the neighbourhood where I was attacked. I avoided programmes about crime on TV, and anything to do with knives. I stopped spending time with my friends and I sort of felt very, very distant from everyone."

3. Hyperarousal

- People with PTSD often find it difficult to fall or stay asleep.
- They find it difficult to concentrate or focus on tasks.
- They may also feel jumpy or easily startled.
- They may feel as though they (and their families) are constantly in danger. They are 'on-guard' at all times.
- It is common for people with PTSD to feel irritable or angry.

Here's what Michael had to say about his experiences of hyperarousal symptoms:

"I felt really restless and on edge. Before the accident I used to drift off to sleep straight away, my head used to hit the pillow and I'd be gone. But after the accident I just felt really on edge and I couldn't relax, I just couldn't get to sleep. Also, I couldn't really concentrate. Concentrating on work was just about impossible! My mind would just wander off. And I felt that I had to be constantly on my guard as well, all the time. Things would startle me and make me jump. I just couldn't relax at all."

Other problems

- **Physical Problems** - often people with PTSD suffer physical problems as a result of the traumatic event. You should talk to your GP about these issues.

- **Problems with alcohol or other substances** – it is common for people with PTSD to drink too much alcohol or use other substances. Module 11 aims to help you cut down on alcohol, caffeine or illegal drugs.

- **Depression** – often people feel depressed after a trauma. Symptoms of depression include feeling hopeless, loss of appetite and having no energy. Feel free to discuss these feelings with your therapist.

- **Feelings of guilt or shame** – it is common for individuals to blame themselves for their actions at the time of the trauma. This leads to feelings of guilt. Module 5 will help you deal with guilty feelings.

- **Relationship problems** – PTSD can seriously affect relationships with others. We hope that these will improve through as your symptoms lessen. Feel free to discuss these issues with your therapist.

- **Anger** – problems with anger are common in PTSD. Uncontrolled anger can cause problems. Module 10 aims to help you manage your angry feelings.

- **Ongoing legal proceedings** – many individuals with PTSD are involved in ongoing legal proceedings. Feel free to discuss these issues with your therapist.

- **Ongoing threat** – some people with PTSD remain in real danger after the traumatic event. If you feel that you are facing continued dangers, discuss these with your therapist.

What causes post traumatic stress disorder?

- Almost everyone who goes through a nasty trauma will suffer some of the reactions already described for a few weeks. In most cases these slowly fade. Unfortunately, some people find their symptoms carry on.

- Researchers are still trying to understand what causes some people to develop PTSD after a trauma when others don't. As with most mental illnesses, it is probably caused by a mixture of:

  Genetics
  Life experiences and history
  Changes in the chemicals in your brain

- We also know that some characteristics of the event itself make PTSD more likely. These include:

  Fearing for your life
  The event being sudden or unexpected
  Remaining conscious throughout
  The event going on for a long time
  The event being man-made (e.g. a terrorist attack)
  Not being able to get away
  The event causing deaths

- Certain things can maintain traumatic stress symptoms such as not having enough social support or a lack of help / treatment.

The psychological explanation

- We generally believe that nothing bad can happen to us. We think that traumatic events happen to other people. A trauma shakes these beliefs. Suddenly the world seems like a more dangerous place.

- A traumatic event is usually very sudden and unexpected. There is no time to mentally prepare for what is about to happen.

- During a trauma, your mind is unable to properly take in what is happening. As a result, thoughts and feelings can't be processed in the normal way. These thoughts and feelings go on to cause problems.

- At the time of the trauma, you may have believed that you (or others) were going to die. The mind holds on to these vivid memories, possibly to stop the same thing from happening again. It is common for the trauma memory not to be updated to include the fact that you (or others) survived. Thinking back to the trauma is very painful as a result.

- The *Tackling* Traumatic Stress programme will help you process these thoughts properly, to stop them causing problems.

Ten tips to help you learn about PTSD

1. It might be a comfort to realise that you are not the first or last person to feel the way you do - thousands of people around the world suffer from PTSD. It is however a distressing illness which requires treatment.

2. Learn as much as you can about the diagnosis of PTSD, its causes and how it feels - you will be better able to tackle or cope with PTSD and its symptoms when you understand more about it.

3. It is sometimes useful to identify the PTSD symptoms you are experiencing - there is however no reason to think that you will go on to suffer any symptoms that you have not experienced already.
Symptoms fall into 3 groups: 1) re-experiencing what happened; 2) avoiding reminders of what happened; 3) hyperarousal

4. It is helpful to identify any other issues you are having - this can include physical problems as a result of the traumatic event, problems with substance use, feelings of guilt and shame or anger. Tell your therapist if you are experiencing any of these difficulties.

5. Be aware that PTSD can impact on relationships and family life - help your loved ones learn about PTSD too. Offer them the *Information for Family and Friends.*

6. It might be helpful to read the module more than once - this will help you learn the information.

7. Summarise important points in a note pad or on some cards - you can refer to these notes later.

8. Highlight any information you have difficulty understanding - it might be helpful to come back to it later or discuss with your therapist.

9. Ask your therapist any questions you have that weren't answered by the 'What is Post Traumatic Stress Disorder?' module – he or she will be happy to help.

10. Keep the psychological explanation of PTSD in mind - as you go through the programme. This suggests that during the trauma your mind was unable to take in what was happening properly. As a result, thoughts and feelings you had at the time were not processed in the normal way. These thoughts and feelings are now causing problems. The *Tackling* Traumatic Stress programme will help you process these thoughts properly so they stop causing problems.

It is now time to try the 'Quick Quiz'! Don't worry if you can't answer correctly first time, the aim is to help you understand more about PTSD. Feel free to come back and read this information again.

What is PTSD? – *Quick Quiz*

1. Only disasters like hurricanes and terrorist attacks can cause PTSD

True ☐ **False** ☐

2. PTSD can start after witnessing a trauma happening to someone else

True ☐ **False** ☐

3. People with PTSD often re-experience what happened to them as upsetting memories and frightening thoughts

True ☐ **False** ☐

4. Some people with PTSD feel detached from their loved ones and unable to feel emotions like love and happiness

True ☐ **False** ☐

5. Everyone who goes through a traumatic event develops PTSD

True ☐ **False** ☐

What is PTSD? – *Quick Quiz Answers*

1. Only *disasters like hurricanes and terrorist attacks can cause PTSD*

Answer – False – PTSD can be caused by more common traumatic events such as assaults or road traffic accidents.

2. *PTSD can start after witnessing a trauma happening to someone else*

Answer – True – witnessing something traumatic happening to someone else can also lead to PTSD.

3. *People with PTSD often re-experience what happened to them as upsetting memories and frightening thoughts*

Answer – True – re-experiencing the traumatic event when awake and when asleep is common in PTSD.

4. *Some people with PTSD feel detached from their loved ones and unable to feel emotions like love and happiness*

Answer – True – it is common for people with PTSD to feel detached from other people and 'emotionally numb'.

5. *Everyone who goes through a traumatic event develops PTSD*

Answer – False – almost everyone who goes through a nasty trauma will suffer some traumatic stress symptoms for the first few weeks. In most cases these will slowly fade. Unfortunately, about 1 in 3 people find their symptoms carry on.

What is Post Traumatic Stress Disorder – Exercise

Complete the following exercise to finish the module.

Exercise - It can be helpful to identify and understand your traumatic stress symptoms. As mentioned in the information section, there are three groups of PTSD symptoms:

4. RE-EXPERIENCING WHAT HAPPENED – having distressing memories or feeling like the event is happening all over again when awake or asleep.

5. AVOIDING REMINDERS OF WHAT HAPPENED – trying to avoid thinking about or talking about what happened. Avoiding people, places or activities which remind the person of the trauma. Feeling emotionally numb.

6. HYPERAROUSAL – feeling constantly anxious and on edge. Feeling unable to relax, concentrate or sleep.

Try to identify the groups your symptoms fit into, by filling in the checklist below:

RE-EXPERIENCING WHAT HAPPENED

I have upsetting thoughts about the event ☐

I have nightmares about the event ☐

I sometimes feel as if the event is happening all over again (this is known as a flashback) ☐

I have emotional feelings when I am reminded of the event ☐

I have physical sensations when I am reminded of the event (e.g. heart racing, sweating, finding it hard to breathe, feeling faint) ☐

AVOIDING REMINDERS OF WHAT HAPPENED

I try to avoid thoughts, conversations, or feelings that remind me about the event ☐

I try to avoid people, places, or activities that remind me of the event ☐

I have difficulty remembering some important part of the event ☐

I have lost interest in things I used to enjoy ☐

I feel detached from other people ☐

I feel emotionally "numb" ☐

HYPERAROUSAL

I find it difficult to fall or stay asleep ☐

I am irritable and have problems with my anger ☐

I find it difficult to concentrate ☐

I am jumpy and get startled easily ☐

I am always "on guard" ☐

Congratulations! You have completed the 'What is Post Traumatic Stress Disorder' module. We recommend that you come back and re-read this module at a later date to refresh your memory and improve your learning. Feel free to refer back to this module whenever you feel it would be helpful.

Grounding Yourself

'Grounding yourself' brings you back to reality and stops your thoughts racing when you feel very anxious. Grounding techniques are also very useful if you suffer from flashbacks or panic attacks.

Grounding yourself stops you losing touch with where you are by concentrating your thoughts on your surroundings. Grounding techniques can be useful to distract yourself when you feel like your anxiety is getting out of control.

Here's what Chloe had to say about her experiences of grounding herself:

"I learned some grounding techniques during my treatment and I found them really very useful. I would become so overwhelmed with anxious feelings and horrible memories. It was good to be able to distract myself and draw myself out of panicky feelings. It was so simple, but so effective. I'd recommend learning some grounding techniques to anyone with PTSD!"

Grounding techniques use sight, sound, smell, touch and taste to help draw your attention to the present moment. It is useful to practice these techniques when you are calm, so that you know how to use them when you feel anxious. Some helpful grounding techniques are listed below. Try as many as you can.

Sight: List everything you can see around you. Count all the pieces of furniture in the room. Notice what colour the carpet and curtains are etc. You can also try focusing on anything in the room that brings comfort or makes you feel safe.

Sound: Listen to loud music or sing/speak aloud. As with sight you can also list of all the noises around you. Some people find clapping their hands or stomping their feet on the ground helpful.

Touch: Feel and notice the texture of the clothes you're wearing or the chair you're sat in. Some people find rubbing ice on themselves also grounds them.

Smell: Sniff something strong smelling e.g. perfume, peppermint.

Taste: Eat or bite into something with a strong taste e.g. a lemon or salt.

The mind: Telling yourself repeatedly that you are in the here and now and that you're safe can help. Calling a friend or family member and asking them to talk to you about things you have done together recently may also be effective. Some people find that mentally distracting themselves by listing as many cities, football teams etc. as they can works for them.

Chloe tried several techniques and continues using what works for her: *"When I get anxious, I make a list in my head of everything I see around me. I describe it all in detail "there are curtains, they're red, they don't quite touch the floor, there's a pattern of blue squares running along the bottom" and so on. It takes my mind away from my worried feelings and makes me feel safe. It distracts me and refocuses my thoughts so that I stop feeling like I'm losing control".*

Later in the programme we will ask you to complete tasks aimed at helping you to face your fears and start coming to terms with the trauma. We will ask you to use grounding techniques to control your anxiety. It is therefore useful to learn and master these techniques now, so that you can use them easily later.

Ten tips for grounding yourself

1. Remember that a panic attack, flashback, or period of feeling very anxious will never harm you - it is a medical fact that you are safe. The sensations are unpleasant, but will pass and no harm will come to you. Learning *grounding techniques* will help you stay in control until the feelings fade.

3. Practise the techniques when calm – so that you will already know how to use them when needed.

2. Print out or write a list of grounding techniques - and keep these to hand to try when you feel anxious.

4. Keep your eyes open when grounding yourself – to help you focus on what is around you.

5. Speak aloud - if you're able. Describe what you are seeing and doing.

6. Teach a loved one about grounding – so that they can help you to use the techniques (e.g. by prompting you to describe your surroundings).

7. Try several of the techniques before deciding what works for you - different techniques work for different people.

8. Don't give up - if one technique doesn't work for you, simply try another. Continue using the techniques that work for you as and when you need to.

9. Once you have grounded yourself, do something relaxing - like going for a walk or playing some music.

10. Record the grounding techniques you use - in your Diary. Describe the situation and whether or not the technique you used was helpful.

It is now time to try the 'Quick Quiz'! Don't worry if you can't answer correctly first time, the aim is to help you understand more about grounding yourself. Feel free to come back and read this information again.

Grounding Yourself – *Quick Quiz*

1. Grounding techniques can help you when you feel you feel very anxious

True ☐ **False** ☐

2. Grounding techniques use the senses (sight, hearing, smell, touch and taste)

True ☐ **False** ☐

3. It is best to try just one grounding technique and stick to it

True ☐ **False** ☐

4. It is best to close your eyes when grounding yourself

True ☐ **False** ☐

5. It is a good idea to practice grounding techniques when you feel calm so that you can use them easily when you feel anxious.

True ☐ **False** ☐

Grounding Yourself – *Quick Quiz Answers*

1. *Grounding techniques can help you when you feel you feel very anxious*

Answer – True – grounding yourself helps to stop you losing touch with your surroundings by concentrating on where you are. Grounding techniques can be useful to distract yourself when you feel very anxious or panicky.

2. *Grounding techniques use the senses*

Answer – True – grounding techniques use sight, hearing, smell, touch and taste to help you draw your attention to the present moment.

3. *It is best to try just one grounding technique and stick to it*

Answer – False - different things work for different people. Try as many as you like. Carry on using those you find effective.

4. *It is best to close your eyes when grounding yourself*

Answer – False – it is best to keep your eyes open so that you can see and focus on what is around you.

5. *It is a good idea to practice grounding techniques when you feel calm so that you can use them easily when you feel anxious.*

Answer – True - if you have tried using the technique when you were calm, you will already know how to use it.

Grounding Techniques – *Exercise*

Complete the following exercises to finish the module.

Exercise 1 - Write a few of the techniques in a notepad or on a card. Practice these when you're calm so that you're prepared to use them when you feel anxious or when you notice a flashback starting.

Exercise 2 - Which techniques do you find most useful? Why is this?

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Exercise 3 -Try a technique next time you feel your anxiety getting too much. This will help you know which will work for you in the future.

Exercise 4 - Carry on using these techniques every time you feel very anxious or panicky. Also use them if you suffer from flashbacks. Write in your Diary when you use a technique. Describe how it was useful.

Congratulations! You have completed the 'Grounding Yourself' module. We recommend that you come back and re-read this module at a later date to refresh your memory and improve your learning. Feel free to refer back to this module whenever you feel it would be helpful.

Learning to Relax

People with PTSD find it very difficult to relax. They feel constantly anxious and on edge. Switching these feelings off is difficult.

Here's what Michael had to say about his experiences of learning to relax:

"After the accident I felt wound up all the time. I hadn't realised quite how tense I was. It had become almost a normal feeling to me. I learned some relaxation techniques and I found them very helpful. I found it quite difficult at first, but soon enough I could sit myself somewhere quiet and use the techniques to help myself feel more relaxed."

Why Learn to Relax?

Daily use of relaxation techniques can reduce symptoms of anxiety. It can help you sleep, reduce the frequency of panic attacks, and stress related headaches or stomach complaints. They can help you feel more in control and able to cope with work, family responsibilities and relationships.

Later in the programme we will ask you to complete tasks aimed at helping you to face your fears and start coming to terms with the trauma. We will ask you to use relaxation techniques before and after completing various exercises. It is therefore useful to learn and master these techniques now, so that you can use them easily later.

Relaxation Techniques

Different relaxation techniques work for different people. Try all of these techniques and continue using those that work for you.

1. Controlled breathing

When we feel anxious, we tend take short, quick, shallow breaths, this is called 'overbreathing'. 'Overbreathing' can actually make you feel more anxious. It increases you heart rate and can cause dizziness. It can also make you feel as though you are losing control.

Controlled breathing is a technique that can help you slow down your breathing when you're feeling anxious. This can help calm you down. Your therapist will be happy to teach you the technique using the steps below.

How to do it

1. **Sit in an upright position looking straight ahead. Drop your shoulders to release the tension.**
2. **Take a slow deep breath through your nose, breathing in for about 4 seconds**
3. **Hold this breath for 2 seconds.**
4. **Breathe out slowly through your mouth for about 4 seconds. As you breathe out, try and relax the muscles in your face and shoulders to release any built up tension.**
5. **Wait a few seconds before taking another deep breath through the nose.**

Practice this technique for 5-10 minutes at least once a day until you feel comfortable doing it. The technique can then be used in difficult situations where you feel yourself becoming anxious.

2. Progressive muscle relaxation

Progressive muscle relaxation is a technique for relaxing your body when muscles are tense. A group of muscles is tensed as tight as possible, held, and then relaxed. The muscles are then consciously relaxed as much as possible.

To begin the progressive muscle relaxation exercise, find a quiet place where you will not be disturbed. Get into a comfortable sitting position. Don't lie down as this is likely to put you to sleep.

Follow the instructions for *progressive muscle relaxation* that can be played or downloaded from the website or provided on CD.

3. Guided imagery

Guided imagery is a simple relaxation technique that can help reduce bodily tension and manage stress. Guided imagery is a two-part process. The first part involves reaching a state of deep relaxation through breathing and muscle relaxation techniques. The second part of the exercise is the imagery itself. Imagery involves conjuring up pleasant, relaxing images in your mind. These may be experiences that have already happened, or new situations.

To begin the *guided imagery* exercise, find a quiet place where you will not be disturbed. Get into a comfortable sitting position. Don't lie down as this is likely to put you to sleep.

Follow the instructions for *guided imagery* that can be played or downloaded from the website or provided on CD.

Ten tips to help you learn to relax

1. It is difficult for people with PTSD to unwind - learning to relax can help you feel less tense and on-edge.

2. It is useful to learn and master some techniques now - so that you can use them later in the programme.

3. Learning to relax can help you cope with your symptoms – and help you feel better.

4. It is important to practise relaxation techniques on a regular basis - the more you practise, the easier they will become. You will get maximum benefit from practising relaxation techniques EVERY DAY. We recommend that you take half an hour daily to relax. Try as many of the exercises above as you can and continue using those you find effective.

5. Being able to use a relaxation technique can be very useful in a time of crisis – you will know what to do to help yourself calm down.

6. Using a relaxation technique is a healthy way of coping with your symptoms - some people try to relax by drinking, smoking or taking drugs. These can seem like useful ways to cope in the short term, but are not helpful ways to relax. Drinking and taking drugs can in fact make your traumatic stress symptoms worse.

7. Some people prefer to find their own healthy ways to relax - such as taking a bath, listening to music, or going for a walk. The idea is that you take some time out daily to relax in a healthy way. Discuss what you choose to do with your therapist.

8. Learning to relax can help you get a better night's sleep – especially when used alongside the advice given in Module 9. You can use relaxation techniques after a nightmare, or if you wake during the night.

9. Whilst relaxation techniques are usually helpful, they can sometimes increase distress - by focusing attention on disturbing physical sensations or feelings of being detached from your surroundings. Should you experience any adverse effects, simply try something different.

10. Don't give up! - if relaxation is difficult at first, keep trying. It takes time to master the techniques.

It is now time to try the 'Quick Quiz'! Don't worry if you can't answer correctly first time, the aim is to help you understand more about learning to relax. Feel free to come back and read this information again.

Learning to Relax – *Quick Quiz*

1. People with PTSD find it easy to relax

True ☐ **False** ☐

2. It is important to practise relaxation

True ☐ **False** ☐

3. Drinking and taking drugs are good ways to relax

True ☐ **False** ☐

4. Any form of healthy relaxation is beneficial

True ☐ **False** ☐

5. Taking time out to relax can help you get a better night's sleep

True ☐ **False** ☐

Learning to Relax – *Quick Quiz Answers*

1. ***People with PTSD find it easy to relax***

Answer – False - people with PTSD find it very difficult to relax. They feel constantly anxious and on edge. Switching these feelings off and allowing a feeling of calm is a challenge.

2. ***It is important to practise relaxation***

Answer – True – it is important to practise relaxation techniques on a regular basis. The more you practise, the easier it will become. You will get maximum benefit from practising relaxation techniques daily.

3. ***Drinking and taking drugs are good ways to relax***

Answer – False – some people try to relax by drinking or taking drugs. These are not helpful ways to relax. Drinking and taking drugs can in fact make your traumatic stress symptoms worse.

4. ***Any form of healthy relaxation is beneficial***

Answer – True - some people prefer to find their own ways to relax such as taking a bath, listening to music or going for a walk. The idea is that you take some time out daily to relax in a healthy way.

5. ***Taking time out to relax can help you get a better night's sleep***

Answer – True – taking time out to relax can help reduce your feelings of anxiety and help you get a better night's sleep

Learning to Relax - *Exercise*

Complete the following exercises to finish the module

Exercise 1 - Try each of the relaxation techniques on the information sheet. Describe how you found each below. Feel free to continue on a separate page:

Controlled Breathing

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Progressive Muscular Relaxation

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Guided Imagery

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Exercise 2 - Carry on using the techniques you find useful. Remember to write about your practice in your Diary. Describe how it made you feel. We recommend that you take time out to relax EVERY DAY. You will need to use these techniques later in the programme, so it is important to practice and master them now.

Congratulations! You have completed the 'Learning to Relax' module. We recommend that you come back and re-read this module at a later date to refresh your memory and improve your learning. Feel free to refer back to this module whenever you feel it would be helpful.

Coming to Terms with What Happened to You

It is common for people with PTSD to try and cope by *attempting not to think about the trauma*. Although this is understandable, it will not help you come to terms with what happened and move on with your life.

The best way to come to terms with what happened is to 'expose' yourself to memories of the trauma. Research suggests that exposure to these memories helps the mind process what happened, and store it as a memory you have better control over. This module will help you do just this.

Here's what Chloe had to say about her experiences of what happened to her:

"When my therapist told me that I should go back over what happened to me, I was terrified! I tried my best never to think about what happened. It was too painful. I started by writing the story of what happened that day. I won't say it was easy, but I understood that it was something I needed to do. I wrote the story, and I read it aloud every day. It got easier. Every time I read it, it became less painful. Looking back, I think it was the most helpful part of my therapy."

The importance of coming to terms with what happened to you

- We generally believe that nothing bad can happen to us. We see traumatic events as things that happen to other people. A trauma changes these beliefs. Suddenly the world seems like a more dangerous place.

- A traumatic event is usually very sudden and unexpected. There is no time to mentally prepare for what is about to happen. During a trauma, the mind is unable to take in what is happening properly. As a result, thoughts and feelings can't be processed in the normal way. These thoughts and feelings go on to cause problems.

- At the time of the trauma, you may have believed that you were going to die or that others were going to die. The mind holds on to these vivid memories, possibly to stop the same thing from happening again. These memories are very upsetting.

- It is common that the trauma memory is not updated properly to include the fact that you (or others) survived. Thinking back to the traumatic event is very painful as a result.

Ten tips to help you come to terms with what happened to you

1. It is common for people with PTSD to try and cope by attempting not to think about the trauma - this will not however help you come to terms with what happened and move on with your life.

2. It is important to come to terms with what happened to you - remember that this is a major step in moving on with your life.

3. The best way to come to terms with what happened is to 'expose' yourself to the trauma memory - this allows the mind to reprocess what happened.

4. 'Exposing' yourself to the trauma memory will prove that you can safely think about what happened - you will learn that you can cope with your feelings and that the trauma memory is not 'dangerous'.

5. 'Exposing' yourself to the trauma memory will eventually make it less upsetting - it will also reduce intrusive thoughts, flashbacks and nightmares.

6. We recommend that you expose yourself to the trauma memory by writing about it and re-reading your story - instructions are given in the 'Exercise' section.

7. Write about what happened to you in as much detail as you possibly can - this is the best way of re-processing what happened. Go back to what you wrote and add to it when you remember more details.

8. You might like to tell your loved ones about what you are doing - their encouragement and support can be very helpful.

9. Reward yourself for any progress you make - rewards can include things like watching a film, having a long bath or going for a walk.

10. Don't give up! - 'exposing' yourself to the trauma memory is difficult and upsetting. It will get easier. Stick with it. This is a very important step in your recovery.

It is now time to try the 'Quick Quiz'! Don't worry if you can't answer correctly first time, the aim is to help you understand more about the importance of coming to terms with what happened. Feel free to come back and read this information again.

Coming to Terms with What Happened to You – *Quick Quiz*

1. People with PTSD often try to cope with what happened to them by attempting not to think about it

True ☐ **False** ☐

2. The world can seem like a dangerous place after a traumatic event

True ☐ **False** ☐

3. The best way to come to terms with what happened is to 'expose' yourself to your memories of the trauma

True ☐ **False** ☐

4. During a trauma, the mind is able to process information in the normal way

True ☐ **False** ☐

5. 'Exposing' yourself to the trauma memory will eventually make it less upsetting

True ☐ **False** ☐

Coming to Terms with What Happened to You – *Quick Quiz Answers*

1. People with PTSD often try to cope with what happened to them by attempting not to think about it

Answer – True – it is common for people with PTSD to try to cope with what happened to them by trying not to think about it. This is understandable, but it will not help a person come to terms with what happened.

2. The world can seem like a dangerous place after a traumatic event

Answer – True - we generally believe that nothing bad can happen to us. We see traumatic events as things which happen to other people. A trauma changes these beliefs. Suddenly the world seems like a more dangerous place. 'Exposure' to the trauma memory can make a person see the world as less dangerous.

3. The best way to come to terms with what happened is to 'expose' yourself to your memories of the trauma

Answer – True – 'exposing' yourself to your trauma memories will help you come to terms with what happened. This module will help you do this.

4. During a trauma, the mind is able to process information in the normal way

Answer – False – during a trauma, the mind is unable to take in what is happening properly. As a result, thoughts and feelings can't be processed in the normal way. These thoughts and feelings go on to cause problems in the future.

5. 'Exposing' yourself to the trauma memory will eventually make it less upsetting

Answer – True - the trauma memory will eventually become less upsetting. 'Exposing' yourself to the trauma memory will also reduce intrusive thoughts, flashbacks and nightmares.

Coming to Terms with What Happened
– *Exercise*

Complete the following exercises to finish the module.

Exercise 1 - Write about what happened to you. Tell your story in as much detail as possible. This will seem like an unpleasant task, but it will help you come to terms with what happened.

1. Write about EVERYTHING you remember. This should be **as though it is happening to you again** i.e. "I'm walking down the road and I can see a car ahead of me". Include what you see, hear, smell, touch, feel and think. It is very important that the story is as complete and detailed as possible.

*Remember...If this exercise causes you any distress, try using the **grounding and relaxation** techniques you learned at the beginning of the programme. These can be used before and after the exercise.*

Example - Chloe

I'm leaving work, feeling happy that I have a day off tomorrow. It's still light even though it's about 7pm. I'm walking my usual route, I've walked it hundreds of times before. It's a warm evening. There's a smell of barbeques in the air. I'm walking past the park and I cross the road to a housing estate. My mobile phone rings and I'm fumbling around in my bag trying to find it. I'm still walking. I answer the phone. It's my Mum, I tell her that I'll be home in ten minutes. I'm still holding my mobile phone in my hand as I walk around the corner. I can't see anyone In the street up ahead of me. Suddenly a man jumps out from behind a parked van. I jump. He's not very big, slim build, scruffy looking. He yells "give me your bag". Stunned I stand staring at him. I don't know how long for, it feels like a long time. Suddenly I notice he's holding a knife. The knife is moving towards my throat. I want to scream. I can't. I'm frozen. I feel the knife against my neck. It's cold. He isn't holding it very firmly against my neck but I'm very aware it's there. I'm scared. I'm feeling terrified. I'm going to die. I'm handing him my bag. I'm pushing it against him. He smells of alcohol. I feel sick. He grabs the bag from my hand. "And the phone". He's gesturing towards my hand. I feel confused. I don't want to give it to him, I want to dial 999, but he still has the knife at my throat. I give him my phone. His hands brush against mine. They're hard and rough. He pulls the knife away from my throat. I still think I'm going to die. He turns from me quickly. He's running down the street. I watch him disappear round the corner. I'm wondering if he'll come back. I don't know what to do. I look around. There's still no one in the street. I start to run. I'm running towards my house. I'm breaking down into tears as I get through the door. I tell my mum what happened, she's calling the police.

2. To come to terms with what happened to you, you will need to **read your story every day.** You will need to read it aloud (if possible) **REPEATEDLY** for **half an hour**.

At first, this will be very upsetting. But as the days go on, it should get easier each time you read it. If this does not happen, please contact your therapist to discuss what is happening.

Feel free to add things to your story. It is likely that you will remember more details as you read it back to yourself. It is important that you include **as much detail as possible**. Even if the details seem trivial.

Your story:

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Exercise 2 - Expressive writing

****Your therapist will suggest you do this task if you are struggling with specific parts of your story. We recommend you initially concentrate on writing a detailed narrative and reading this EVERY DAY****

Are there any parts of your story that you find particularly upsetting? Why is this? It is common for this to be the case. They are often called "hot-spots". It might help to write about these in more detail and try to work out why these are causing you problems. Discuss the parts you find very upsetting with your therapist. Alternatively you can try doing some 'expressive writing'. This can be very therapeutic.

Expressive writing involves writing about a particular thought, memory or worry. It is a way of expressing and exploring your feelings in a safe environment.

Make sure you are in a quiet room and that you are not going to be disturbed. Pick something to write about. This can be a part of your story that causes you distress (a 'hot spot') or any worries or feelings related to your story which are on your mind. You will need to write for a minimum of 15 minutes a day for at least 3 or 4 consecutive days. Once you begin writing, write continuously. Don't worry about spelling or grammar. If you run out of things to write about, just repeat what you have already written.

Get yourself a notepad or if you prefer, type on a computer. Explore your innermost feelings. Be honest and open with yourself.

Congratulations! You have completed the 'Coming to Terms with What Happened' module. We recommend that you come back and re-read this module at a later date to refresh your memory and improve your learning.
Feel free to refer back to this module whenever you feel it would be helpful.

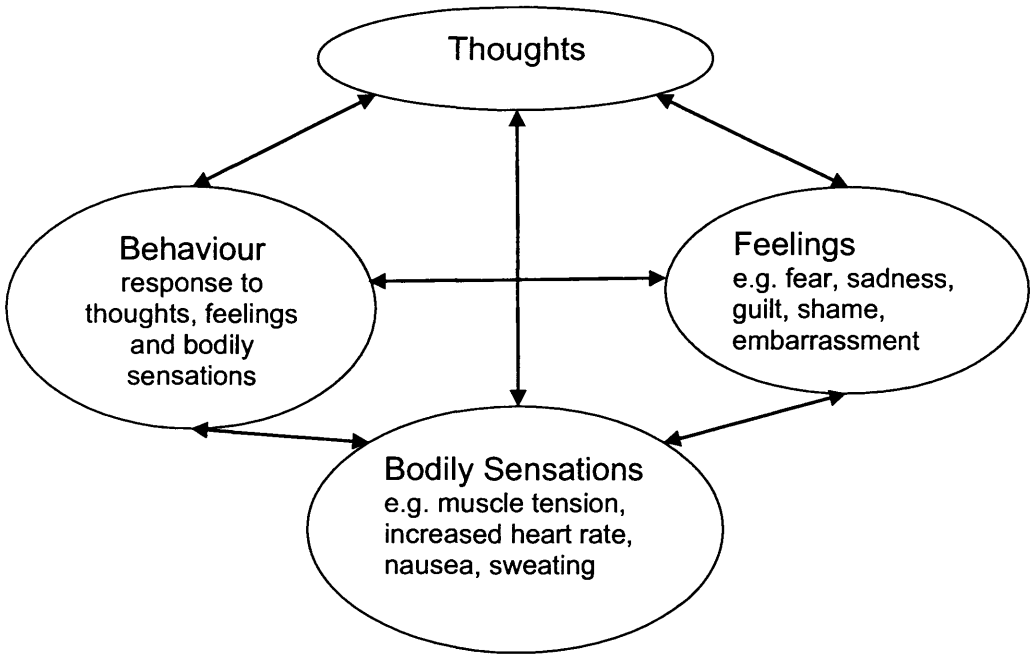
Changing the Way You Think

It is common for a persons ideas about things to change after a traumatic event. These changes may relate to how you see yourself, other people, and the world around you.

Here's what Michael had to say about his experiences of changing the way he thought:

"I hadn't realised that I thought in such a negative way until it came up in therapy. I was feeling really anxious, depressed and worthless. I'd started to think as if the glass was always half empty rather than half full. It turned out that a lot of these feelings were linked to the way I was thinking. Learning to change the way I thought helped me a great deal. It still helps me to try and recognise when my feelings are 'faulty'."

PTSD can lead to a lot of unhelpful thoughts. These thoughts in turn affect how you feel (e.g. creating feelings of guilt and shame), how you behave (e.g. avoiding situations) and are linked to bodily sensations (e.g. muscle tension and increased heart rate).



With a little effort, you can identify these unhelpful thoughts and train yourself to change the way you think making yourself happier and less anxious.

Unhelpful thoughts in PTSD

People with PTSD often have unhelpful thoughts stemming from their traumatic event. It is important to identify these unhelpful thoughts and consider whether they are backed by evidence. In particular, individuals with PTSD tend to blame themselves or other people for what happened and see the world as a more dangerous place:

1. Self blame – People often blame themselves for the traumatic event or their actions at the time of the trauma. This leads to feelings of guilt. Many people with PTSD think that they are responsible for what happened in some way, that they could have prevented it, or that others would blame them if they knew "the whole story".

2. Losing trust in others – Often people with PTSD feel unable to trust or rely on other people. The individual may feel let down, betrayed or shocked by the behaviour of others. These feelings may seem hard to change.

3. Seeing the world as a dangerous place – We generally believe that nothing bad can happen to us. We assume traumatic events happen to other people. A trauma changes these beliefs. Suddenly the world seems like a dangerous place. People with PTSD are constantly on-edge and alert for danger. Nothing seems as safe as it used to. The person assumes that it's only a matter of time before the same thing happens again. These unhelpful thoughts are rarely backed by evidence. The world is a no more dangerous than before. Changing these negative beliefs can help you re-establish a sense of safety and feel less vulnerable.

10 types of unhelpful thinking

Thinking unhelpful thoughts is common and not unique to PTSD. Here we list some common types of unhelpful thinking. Ask yourself if you sometimes think in these ways? These unhelpful thoughts might be specific to your trauma or about the world in general.

1. Personalizing - is when you blame yourself for events that were out of your control.

An example from Michael: *"My son was in the car at the time of the accident. I put his life in danger. I'm a bad father".*

2. Catastrophizing - is when you turn everything into a catastrophe. You always expect the worst-case scenario.

An example from Chloe: *"I can't go out. I'll get too anxious. I'll lose control. I'll make a complete fool of myself".*

3. Over-Generalization - is when you think something happening once means it will always happen.

An example from Michael: *"If I drive again, I'll have another accident".*

4. Emotional Reasoning - is when you assume everything you feel must be true.

An example from Chloe: *"I feel guilty; I must be to blame for what happened".*

5. Labelling - is when you put a negative label on yourself after something happens. This can affect your self-image and confidence.

An example from Michael: *"I should have prevented the accident. I'm a dangerous driver".*

6. All or Nothing Thinking - is when you think in extremes. This type of thinking can make things seem much worse than they really are.

An example from Chloe: *"Things have been tough recently. I'm always going to feel unhappy. I'm never going to get my life back".*

7. Jumping to Conclusions – is when you jump to a conclusion rather than think about things sensibly. These conclusions are often negative.

Example: "I heard my wife telling a friend that she wants things back to normal. She obviously thinks I should just pull myself together".

8. Mind reading – is when you decide with little evidence what another person is thinking.

An example from Chloe: *"My mum and dad blame me for what happened. They've never said it. But I know".*

9. Negative Bias - is when you focus on negative aspects of a situation or event and don't think about the positive parts.

An example from Michael: "Someone at work told me I shouldn't have been driving on that particular road in the dark. Everyone else has said that it wasn't my fault. But that one comment is the one I focus on".

10. Should statements – is when you tell yourself that things should have turned out better.

An example from Chloe: *"I should have walked home a different way that day. I shouldn't have walked through the park".*

It is now time to try the 'Quick Quiz'! Don't worry if you can't answer correctly first time, the aim is to help you understand more about changing the way you think. Feel free to come back and read this information again.

Changing the Way You Think– *Quick Quiz*

1. It is impossible to change the way you feel by changing the way you think

True ☐ **False** ☐

2. It is important to try and recognise unhelpful thoughts

True ☐ **False** ☐

3. 'All or nothing thinking' is the name for a type of faulty thinking when you always think in extremes

True ☐ **False** ☐

4. 'Catastrophizing' is the name for a type of faulty thinking when a person always expects the worst-case scenario

True ☐ **False** ☐

5. It is common for people with PTSD to blame themselves in some way for the traumatic event

True ☐ **False** ☐

Changing the Way You Think– *Quick Quiz Answers*

1. *It is impossible to change the way you feel by changing the way you think*

Answer – False - the way you think affects how you feel and how you act. With a little effort, you can train yourself to change the way you think making yourself much happier and less anxious.

2. *It is important to try and recognise unhelpful thoughts*

Answer – True – 'faulty' thoughts can make you feel anxious, depressed, guilty and generally negative. Recognising these faulty thoughts is the first step in putting them right.

3. *'All or nothing thinking' is the name for a type of faulty thinking when you always think in extremes*

Answer – True – 'all or nothing thinking' is when you think in extremes. This type of thinking can make things seem much worse than they really are.

4. *'Catastrophizing' is the name for a type of faulty thinking when a person always expects the worst-case scenario*

Answer – True – 'catastrophizing' is when you turn everything into a catastrophe. You always expect the worst-case scenario. This is common in people with PTSD.

5. *It is common for people with PTSD to blame themselves in some way for the traumatic event*

Answer – true - people often blame themselves for the traumatic event or their actions at the time of the trauma. This leads to feelings of guilt. Many people with PTSD think that they are either responsible for what happened in some way, that they could have prevented it, or that others would blame them if they knew "the whole story".

Changing the Way You Think - *Exercise*

Exercise 1 and 2 are to be completed by everyone.

Complete exercise 3 if you feel guilty about anything to do with the trauma.

*Remember...If this exercise causes you any distress, try using the **grounding and relaxation** techniques you learned at the beginning of the programme. These can be used before, during and after the exercises.*

Exercise 1 - Identifying Unhelpful Thinking

Read through the examples of 'faulty thinking' below. Do you think in any of these ways? Give an example of any thoughts you tend to have that fit these descriptions. You may want to refer back to Michael and Chloe's examples to help you. Bring the completed exercise to your next guidance session.

1. Personalizing (when you blame yourself for events outside your control)
Your Example
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2. Catastrophizing – (when you turn everything into a catastrophe)
Your Example
.....
.....
.....

3. Over-Generalization – (when you think something happening once means it will always happen)
Your Example
.....
.....
.....

4. Emotional Reasoning-(when you assume everything you feel is true)
Your Example
.....
.....
.....

5.Labelling- (when you put a negative label on yourself after an incident)
Your Example
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6. All or Nothing Thinking – (when you think in extremes)
Your Example
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.....

7. Jumping to Conclusions – (when you jump to a conclusion)
Your Example
.....
.....
.....

8. Mind reading – (when you decide what another person is thinking)
Your Example
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9. Negative Bias – (when you focus on negative aspects of a situation)
Your Example
.....
.....
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10. Should statements – (when you tell yourself that things should have turned out better)
Your Example
.....
.....
.....

<u>Exercise 2</u> - Thought Diary

A thought diary can help you identify the thoughts that cause feelings of anxiety and distress.

Your mind has a variety of thoughts passing through it at any given time. These automatic thoughts are called 'self-talk'. This dialogue is largely automatic. Stop for a moment and try thinking about nothing... you will find it is very difficult.

Patterns of positive or negative self-talk often start in childhood and continue to effect how you feel and act throughout your life. Self-talk

can however be altered. The first step towards change is to become more aware of the problem. You probably don't realise how often you think in a negative way.

Keeping a Thought Diary can help you become more conscious of your internal dialogue and what you can do to gradually alter it. You'll find your thought diary at the back of the programme in the Diary section.

Follow the steps below to complete the exercise. Your therapist will ask to see your Thought Diary during your next guidance session.

- Keep the Thought Diary with you throughout the day. Whenever you experience an unpleasant or distressing thought or feeling, take it out and fill it in.

- First, write down the date and time. This will help you monitor when you have particular thoughts.

- Describe the situation you were in. Include information about where you were, what you were doing, who you were with and what was going on around you. What were you thinking about before the distressing thought?

- The next task is to describe the thought(s) which cause you distress. How firmly do you believe in the thought? Rate your belief in the thought from 0–10 (0=I don't believe the thought at all; 10=I believe the thought to be completely true).

- Write down the emotions you felt and the bodily sensations you experienced. Rate how much distress the emotions and bodily sensations arising from the thought(s) caused from 0-10 (0=no distress; 10=overwhelming distress)

- What is the evidence to support the distressing thought? Record this in your Thought Diary. Then examine the evidence against the thought – write this in too.

- Finally think of an alternate, more positive thought to replace the one that caused distress. Rate your belief in the alternate thought from 0–10 (0=I don't believe the thought at all; 10=I believe the thought to be completely true).

<u>Exercise 3</u> - Overcoming Feelings of Guilt - **Complete this exercise if you feel guilty about any aspects of the trauma you went through**

Use the space below to describe your guilty feelings. What exactly do you feel guilty about?

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.....CONTINUED

Look at the choices you had at the time. What else could you have done?

.....
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..... **CONTINUED**

Why didn't you do this? Looking back it is easy to think that you should have acted differently. In a traumatic situation, our minds do not work as they usually do. A traumatic event is normally sudden and unexpected. There is no time to mentally prepare for what is about to happen. It is common for a person to freeze, and not be able to act in a way they later wish they had. This is caused by the shock of the situation and is a natural response that no one can blame you for. You might have been taken over by a survival instinct and acted in a way aimed at saving your own life or minimising injury. Again this is a natural response.

If a friend told you <u>they</u> were having these guilty feelings, what would you say to them? Would you blame them for what happened?

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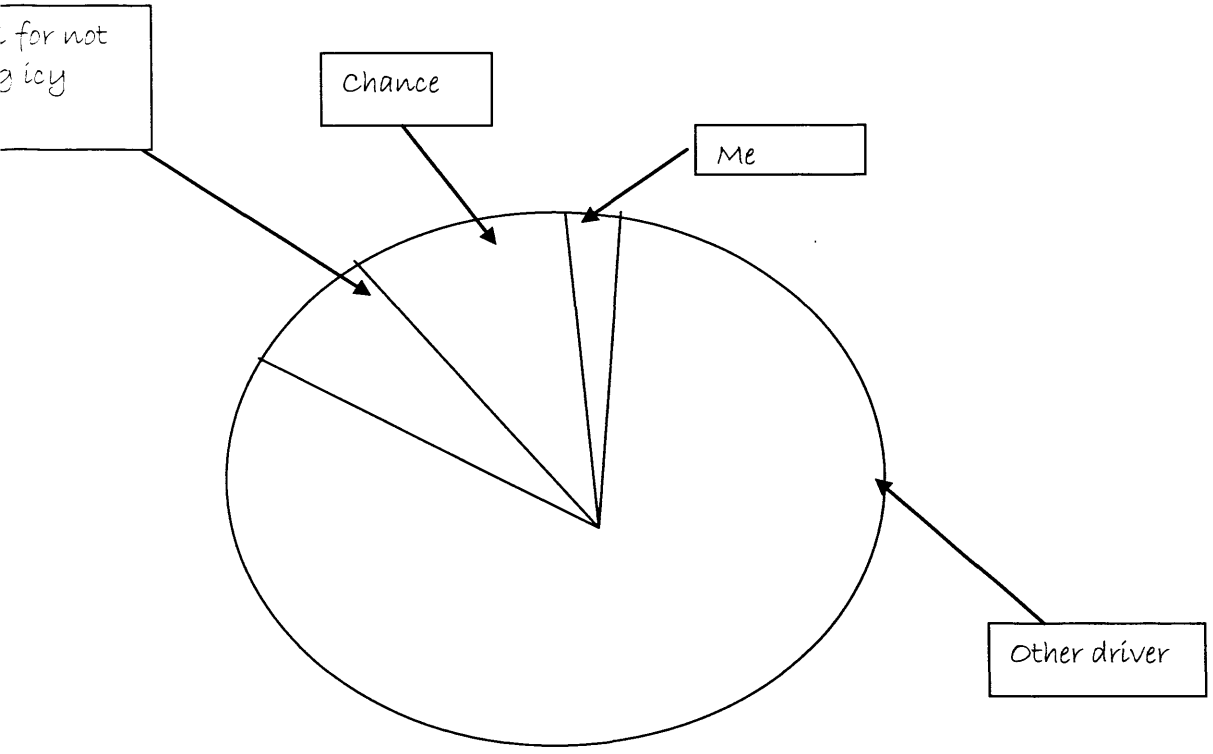
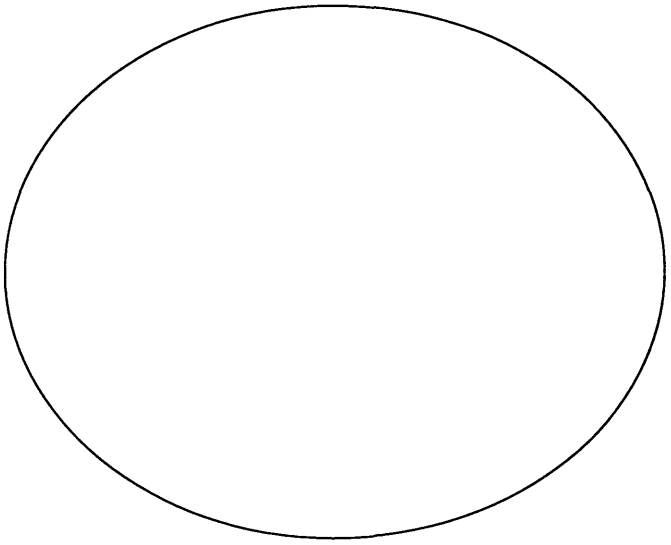
..... CONTINUED

Create a 'responsibility pie chart' of EVERYTHING responsible for what happened. Look at:
1. How much were other people or organisations responsible for what happened?
2. To what extent was it a chance event?
3. How much were factors such as the weather or the situation to blame?
4. How much were you to blame?

Here's Michael's 'responsibility pie chart'. Creating it made him realise that he wasn't as responsible for what happened as he'd assumed he was



Use the circle below to create your own 'responsibility pie chart'



Congratulations! You have completed the 'Changing the Way you Think' module. We recommend that you come back and re-read this module at a later date to refresh your memory and improve your learning. Feel free to refer back to this module whenever you feel it would be helpful.

Overcoming Avoidance – Facing your Fears

It is common for people with PTSD to avoid people, places or things that remind them of their trauma. This avoidance is understandable. Being reminded of what happened is very upsetting. But avoidance has been shown to maintain the symptoms of PTSD

An important part of treatment for PTSD involves facing up to your fears and overcoming avoidance. This is achieved by slowly '**exposing**' yourself to the situations you've been avoiding.

Here's what Chloe had to say about overcoming avoidance:

"After the attack I was avoiding a lot of things that reminded me of what happened. I avoided thinking about what happened or talking about it. I also went out of my way to avoid the neighbourhood where I was attacked, programmes about crime on TV, and anything to do with knives. As part of my treatment I started slowly facing up to my fears. Just one small step at a time, I confronted the things I was avoiding. It wasn't easy, but it was worth it... worth it not to be living in fear".

Avoidance and PTSD

- Avoiding thoughts, conversations, people, places or things that remind you of the trauma is understandable.
- Avoidance is a strategy to protect yourself from things you now think of as dangerous. It can be seen as a way of protecting yourself from feelings that are upsetting or worrying. It is a natural reaction, but one that can stop you from coming to terms with what happened.
- It is very difficult to avoid your own thoughts and feelings. They keep coming back. Trying to avoid them actually makes them more frequent.
- In the long term, avoidance will make traumatic stress symptoms worse. If you allow your avoidance to continue, it can stop you getting on with your life in a normal way.
- Use the instructions and materials in the Exercise section to start slowly '**exposing**' yourself to the things you've been avoiding.

Ten tips to help you overcome avoidance and face your fears

1. In most cases the feared situations you now connect to the trauma are safe and will not cause you any harm - facing these fears will confirm that they are not dangerous.

2. Avoidance will make traumatic stress symptoms worse - if you allow your avoidance to continue, it can stop you getting on with your life in a normal way.

3. The process of facing your fears is called 'exposure' - it involves slowly facing up to things that you fear until you feel less anxious.

4. Over time, exposure will help you feel less scared - by the things you have been avoiding.

5. Have a good think about what exactly you've been avoiding - this can include people, places, objects, situations, television programmes or anything else you can think of. Your loved ones might be able to help you by telling you about things they have noticed you avoiding or being scared of.

6. It is important to expose yourself GRADUALLY - one step at a time. Follow the instructions given in the 'exercise' section carefully.

7. Reward yourself - for any progress you make. Rewards can include things like watching a film, having a long bath, getting a take-away or going out for a meal.

8. Tell your loved ones that you are trying to overcome your avoidance - and share your goals with them. Their encouragement and support can be very helpful.

9. Don't give up! - overcoming avoidance may seem difficult at first, but keep trying.

10. Don't be afraid to contact your therapist - if you have any difficulties. He or she will be keen to discuss these with you between arranged contact times.

It is now time to try the 'Quick Quiz'! Don't worry if you can't answer correctly first time, the aim is to help you understand more about overcoming avoidance. Feel free to come back and read this information again.

Overcoming Avoidance – *Quick Quiz*

1. Avoiding things which remind a person about a traumatic event is common.

True ☐ **False** ☐

2. Avoiding thoughts about a traumatic event is a good way to cope with what happened.

True ☐ **False** ☐

3. Avoiding thoughts about a traumatic event can make them pop into your mind more often.

True ☐ **False** ☐

4. Often the things feared after a traumatic event are safe and don't pose any real threat.

True ☐ **False** ☐

5. You should not try to face your fears, this will make PTSD symptoms worse.

True ☐ **False** ☐

Overcoming Avoidance – *Quick Quiz Answers*

1. Avoiding things which remind a person about a traumatic event is common

Answer – True - avoiding thoughts, conversations, people, places or things that remind a person of a traumatic event is common.

2. Avoiding thoughts about a traumatic event is a good way to cope with what happened.

Answer – False – by avoiding thoughts about the trauma, you will not come to terms with what happened. It can make your symptoms worse. Avoidance can also get in the way of leading a normal life.

3. Avoiding thoughts about a traumatic event can make them pop into your mind more often.

Answer – True - it is very difficult to avoid your own thoughts and feelings. Trying to avoid them actually makes them more frequent.

4. Often the things feared after a traumatic event are safe and don't pose any real threat.

Answer – True – in most cases the situations you connect to the trauma are safe and will not cause you any harm. Facing these fears will confirm that they are not dangerous.

5. You should not try to face your fears, this will make PTSD symptoms worse. ☐ ☐

Answer – False – the process of facing your fears is called 'exposure'. Exposure involves slowly facing up to things that you fear until you feel less anxious. Over time, exposure will help you feel less scared by the things you have been avoiding.

Overcoming Avoidance – Exercise

This exercise will carry on over the coming weeks. It will involve 4 steps.

Step 1: Identifying all the things you have been avoiding since your trauma.

Step 2: Deciding which cause you most fear.

Step 3: Putting the situations you fear in a list starting with the one you fear least up to the one you fear most.

Step 4: Start facing the things you fear one by one starting with the one which causes you least fear.

Read through the examples below and carry out the 4 steps yourself:

*Remember...If this exercise causes you any distress, try using the **grounding and relaxation** techniques you learned at the beginning of the programme. These can be used before, during and after the exercises.*

STEP 1 - Write a list of everything you have been avoiding since your traumatic event. This can include TV programmes, people, places, activities or objects.

Example
Chloe:

Going back to where the attack happened, Watching the news, Looking at a knife, Watching a violent film, Holding a knife, Walking around the neighbourhood the attack happened

Your list

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STEP 2 - Decide how much fear each item causes you. You can do this by giving each a rating from 0 (no fear) to 10 (extreme fear). Try to think of things that cause you only a little bit of fear and some that cause you a lot. It is important that you have a good range of different scores like Chloe's example below.

Example
Chloe:

Going back to where the attack happened - 10
Looking at a picture of a knife - 3
Watching the news – 2
Reading a newspaper article about a mugging - 7
Reading newspaper cuttings from local paper about my attack - 8
Looking at a knife – 6
Reading a newspaper - 1
Watching a violent film - 4
Holding a knife - 6
Walking around the neighbourhood the attack happened - 9

Your list

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STEP 3 - Put each item into a list beginning with the one that causes you least fear (the lowest number). This is sometimes called a 'fear ladder'.

Example
Chloe:

1. Reading a newspaper
2. Watching the news
3. Looking at a picture of a knife
4. Watching a violent film
5. Looking at a knife
6. Holding a knife
7. Reading a newspaper article about a mugging
8. Reading newspaper cuttings from local paper about my own attack
9. Walking around the neighbourhood the attack happened
10. Going back to the exact spot where the attack happened

Your List

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STEP 4 - You now have an ordered list of feared situations or a 'fear ladder'.

The next task is to think about **facing your fears**. This will be gradual.

Confront the situation on the top of your list (the situation which causes you least fear) first.

You will probably feel anxious at first, but this will get better if you stay in the feared situation. The aim is to prove to yourself that you can cope with the fear and to prove to yourself that there is no real danger. You may like to share your list with your partner, a family member or friend and explain the

tasks you have ahead of you. Having the support and encouragement of someone you trust can be very helpful.

When you face the situation, rate how much fear you feel from 0 (no fear) to 10 (extreme fear). We hope that this will reduce as you get used to the situation.

Example

When Chloe tackled her first task (reading a newspaper) she rated her fear as a 10 as she picked up the paper. As she sat and read, she was surprised that her fear steadily fell. After a few minutes she rated her fear as a 7. After 30 minutes it had fallen to 4. When she tried the task again the next day, she was thrilled to be able to rate her fear as a 6 when she started reading. Her score again fell steadily as she read. She proved to herself that she could cope with her anxiety and that reading a newspaper wasn't really dangerous. When she felt completely comfortable reading newspapers, she ticked this task off her list.

Work down the list, moving on to a new task when you feel comfortable with the one before.

Decide when you will confront each task and reward yourself when you successfully manage to face-up to each situation.

Aim to complete each task within a week, but do not rush if you are finding it difficult. Record your progress in your Diary to discuss with your Guide.

Congratulations! You have completed the 'Overcoming Avoidance' module. We recommend that you come back and re-read this module at a later date to refresh your memory and improve your learning. Feel free to refer back to this module whenever you feel it would be helpful.

Staying Well

Congratulations! You have done the hard work and reduced your traumatic stress symptoms. You've proven that you can make a difference to how you feel. Using the skills you have already learned you can help yourself stay well.

There may be times in the future when your symptoms return. This is called relapse. If relapse occurs, it is important to identify the returning symptoms as early as possible. Many people worry about relapse. By following the tips below, you can learn to cope with difficulties and be ready to deal with a possible relapse.

10 tips for staying well

1. Practice your new skills – the end of the programme should not mean you stop using the skills you learned. You should now have a good idea what works for you. Keep using the techniques you found useful. This includes:

- Taking time to relax in whatever way you found worked for you
- Using any grounding techniques you found useful when needed
- Using techniques to change the way you think when you notice yourself thinking unhelpful thoughts
- Keeping active
- Continue exposing yourself to the situations you once avoided
- Continue following any advice you took for managing anger, sleep and drinking moderately.

2. Look out for relapse triggers – certain events can act as triggers for traumatic stress symptoms. These triggers will be different for everyone. Become aware of your own triggers and be ready to cope with them.

Triggers can include:

- The anniversary of the traumatic event
- Stressful life events (divorce, losing a job, losing a loved one)
- Stress at work
- Arguments with loved ones

- Changes in medication

3. Look out for relapse warning signs – a relapse will not usually happen without warning. Warning signs such as changes in how you feel or act may let you know that you are in danger of a relapse. These warning signs are different for everyone. Knowing your own warning signs will help you predict and cope with a relapse.

- Changes in your mood - feeling more anxious, stressed or depressed.
- Changes in your behaviour – such as avoiding people or places, drinking more or becoming withdrawn from activities.
- Changes in your thoughts – such as thinking more negatively, or having angry thoughts.
- Changes in your sleeping pattern – such as difficulties falling or staying asleep.
- Lack of concentration.

4. Let loved ones know your triggers and warning signs – so that they can also be watchful.

5. Monitor how you're feeling – some find it useful to continue keeping a diary. Others find that rating their anxiety levels daily helps them predict when their symptoms might return.

6. Manage everyday stress - if you're feeling stressed by daily life, there are steps you can take to feel better:

- Know your limits and say no to any extra demands made of you.
- Take one step at a time. If you feel like you have too much to do, make a list and work on it one task at a time.
- Try to work out what makes you feel stressed and change these things.
- Talk to someone when you feel stressed. Let others know that things are getting too much.

7. Live a healthy lifestyle – eat a healthy diet, sleep well and exercise regularly. If you have cut down on alcohol or other drugs as part of the programme, stick to this. Keeping a healthy lifestyle will keep you feeling well and able to cope with any obstacles.

8. Continue taking any medication – *as you are instructed to.*

9. Connect with others - spending positive time with loved ones can help your mood, confidence and self esteem.

10. Know what to do in the case of relapse – so you can act to control your symptoms. Refer back to the self help materials. You have managed to improve your symptoms once. You can do so again by following the same techniques.

- Refer back to the relaxation module and use the methods you found worked for you.
- Use the grounding techniques you learned when you feel the need.
- Try using techniques to change the way you think if you find that you are experiencing unhelpful thoughts.
- If you find you have become inactive, use the techniques you learned to become more active.
- If you start avoiding things, create another 'fear ladder' and work through it as before.
- Continue following any advice you took for managing anger, sleep, drinking moderately, solving problems or exercising.

It is now time to try the 'Quick Quiz'! Don't worry if you can't answer correctly first time, the aim is to help you understand more about staying well. Feel free to come back and read this information again.

Staying Well – *Quick Quiz*

1. You should not use your new skills after the programme ends

True ☐ **False** ☐

2. Certain events can act as triggers for traumatic stress symptoms.

True ☐ **False** ☐

3. A relapse will usually happen without warning

True ☐ **False** ☐

4. It can be useful to continue writing a diary after the programme ends.

True ☐ **False** ☐

5. It is helpful to know what to do in the case of relapse

True ☐ **False** ☐

Staying Well – *Quick Quiz Answers*

1. You should not use your new skills after the programme ends

Answer – False - the end of the programme should not mean you stop using the skills you learned. You should now have a good idea what works for you. We recommend you keep using techniques you found useful.

2. Certain events can act as triggers for traumatic stress symptoms.

Answer – True - certain events can act as triggers for traumatic stress symptoms. These triggers will be different for everyone. We recommend you become aware of your own triggers and be ready to cope with them.

3. A relapse will usually happen without warning

Answer – False - a relapse will not usually happen without warning. Warning signs such as changes in how you feel or act may let you know that you are in danger of a relapse. These warning signs are different for everyone. We recommend knowing your own warning signs will help you predict and cope with a relapse.

4. It can be useful to continue writing a diary after the programme ends.

Answer – True – we recommend you monitor how you're feeling after the programme ends. Some find it useful to continue keeping a diary. Others find that rating their anxiety levels daily helps them predict when their symptoms might return.

5. It is helpful to know what to do in the case of relapse

Answer – True – It is helpful to know what to do in the case of relapse so that you can act to control your symptoms.

Staying Well – *Exercise*

Exercise 1

- **What parts of the programme did you find most useful?**

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- **How have you changed since you started the programme?**

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- **What skills/techniques will you continue using?**

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CONGRATULATIONS!! You have finished the *Tackling* Traumatic Stress programme.

Becoming More Active – *recovering your hobbies and interests*

You may have noticed that you no longer take part in activities you used to enjoy. Symptoms like avoidance and loss of enjoyment make becoming less active common in PTSD. Being less active can result in social isolation. It can also lead to feelings of guilt, worthlessness and depression.

Research shows that becoming more active can help you feel better. Taking part in pleasurable or meaningful activities will help you feel more positive and in control of your life.

Here's what Chole had to say about becoming more active:

"After the attack I pretty much stopped doing all the things I used to enjoy. I used to like going to the cinema, spending time with friends, going swimming. This all stopped. I'd spend a lot of time at home alone. I felt I couldn't do the things I used to. I thought I'd feel too anxious, that I wouldn't enjoy being out and about. As part of my treatment, I followed instructions from my therapist to become more active. Every week I'd set goals for myself. I took it one step at a time, and found it much easier than I'd thought. Now I'm back to doing and enjoying most of the things I used to"

Why become more active?

Becoming more active has many benefits. It can:

- improve your mood
- help you feel more relaxed
- give you more confidence
- boost self esteem
- help you get a better night's sleep
- help you feel less socially isolated

Think carefully about what activities you'd like to get back to or take up. Try and include a variety of different activities. These can be:

- hobbies
- social activities
- work related activities
- family activities
- trips
- sport
- physical exercise

The Exercise section of this module provides instructions and materials to help you become more active.

Getting more physical exercise

Physical exercise is helpful for managing stress. People with PTSD often find that doing some regular exercise helps them cope with their symptoms.

A survey by the charity Mind found that 83% of people with mental health problems used exercise to help their symptoms. More than half said it helped to ease feelings of stress and anxiety. Two-thirds said exercise helped them feel less depressed.

Here's what Michael had to say about how exercise helped him:

"My therapist suggested I started doing some exercise. So I took up playing squash with a friend. It really did help me unwind. I felt more relaxed and in control straight away. Doing regular exercise improved my health, helped me sleep and feel good about myself again".

- Exercise releases chemicals in our brains which make us feel good.
- Exercise distracts us from feeling worried and relaxes tense muscles.
- Exercise can help you get a better night's sleep (but it is best not to exercise within 2 hours of bedtime). It can also reduce angry feelings and increase self-esteem.
- Exercise keeps us fit and healthy. This helps us cope with whatever life throws at us. Fitter people better able to handle the long-term physical effects of stress without suffering ill health.
- Exercise is a productive use of time. It can help you feel active and in control. It is satisfying and creates a sense of achievement.
- Try to tackle what's stopping you from doing exercise (e.g. if you feel intimidated by exercising in public, choose to do something at home) and choose something you enjoy - don't think of exercise as one more thing on your to-do list. You might like to start exercising with a friend or relative, this way you can encourage each other to keep going with it.
- You might like to talk to your GP about the **'Exercise on Prescription'** scheme. These supervised group exercise programmes are designed to be a gradual introduction to living a healthy and active lifestyle.

Ten tips to help you become more active

1. **Remind yourself of all the benefits of becoming more active** - it can:
   - *improve your mood*
   - *help you feel more relaxed*
   - *give you more confidence*
   - *boost self esteem*
   - *help you get a better night's sleep*

- *help you feel less socially isolated*

2. Think carefully about what activities you'd like to get back to - try and include a variety of different activities.

3. Getting more physical exercise can be very good for your mental health - have a think about what sort of exercise you might like to do. Set realistic goals and think about what you're be able to do in reality. Start at a realistic level and build up. Share your goals with other people. You might like to set yourself a target - e.g. entering a fun run. Start slowly if you haven't done any physical exercise for a while. You might consider joining a fitness class -this can be very motivating. It will also allow you to meet new people.

4. Think about what exactly is stopping you from doing these activities - be honest with yourself about the reasons you have become less active.

5. It is important to become more active GRADUALLY - don't take on too much too soon. The exercise section provides materials to help you become more active. Use these and bring them to your guidance sessions.

6. The best way to become more active is to set yourself realistic weekly goals - make a list of these and tick each goal off your list as you complete it.

7. Reward yourself for any progress you make - rewards can include things like watching a film, having a long bath or going for a walk.

8. Don't be afraid to contact your therapist if you have any difficulties becoming more active - he or she will be keen to discuss these with you between arranged contact times.

9. Tell your loved ones that you are trying to become more active - share your goals with them. There may be activities that you can engage in together. Their support and motivation can be helpful.

10. Don't give up! - becoming more active may seem difficult at first. Keep trying.

It is now time to try the 'Quick Quiz'! Don't worry if you can't answer correctly first time, the aim is to help you understand more about becoming more active. Feel free to come back and read this information again.

Becoming More Active – *Quick Quiz*

1. Being less active is common after a traumatic event

True ☐ **False** ☐

2. People with PTSD should avoid becoming more active

True ☐ **False** ☐

3. People with PTSD should try and become as active as possible as quickly as possible

True ☐ **False** ☐

4. Some activities can help you feel less tense and stressed out

True ☐ **False** ☐

5. Physical exercise can make you feel good – instantly!

True ☐ **False** ☐

Becoming More Active – *Quick Quiz Answers*

1. ***Being less active is common after a traumatic event***

Answer – True – PTSD symptoms like avoidance and loss of enjoyment make becoming less active common in PTSD.

2. ***People with PTSD should avoid becoming more active***

Answer – False – research shows that becoming more active can help people with PTSD feel better.

3. People with PTSD should try and become as active as possible as quickly as possible

Answer – False – becoming more active takes time. It is best to start slowly and set realistic goals.

4. Some activities can help you feel less tense and stressed out

Answer – True - many activities (such as sport and exercise) can help a person feel less stressed.

5. Physical exercise can make you feel good – instantly!

Answer –True - exercise releases chemicals in our brains which make us feel good – instantly!

Becoming More Active – *Exercise*

This exercise will carry on over the coming weeks.
You will become more active in 4 gradual steps:

STEP 1 – Decide what activities you want to get back to or you would like to try. These can be hobbies, work related activities, spending time with family and friends, sport, exercise or anything else you can think of. Think about what exactly is stopping you doing these activities.
STEP 2 – Set small weekly goals. Have a list of activities to tackle each week and tick each off once you've done it. Remember to start slowly. Be realistic!
STEP 3 – Any incomplete goals are added to the list for the next week. New activities can also be added. Activities you wish to do weekly are put on the list every week.
STEP 4 – Enjoy your new active lifestyle!!

STEP 1 - What activities would you like to become involved in? Write these down.

Example
Chloe: *Swimming , Seeing my friends, Cinema, Getting back on track with college work, Spending quality time with family*

What is stopping you from doing these activities?

Example
Chloe: *I'm worried that I'll get really anxious and make a fool of myself*

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STEP 2 - Decide on small activities that you can complete each week. Decide how many times you want to do the activity and for how long. Remember to start slowly and set realistic goals! Check your goals against the SMART criteria to ensure they are realistic.

S = Specific – A goal should be clearly defined. How when and where will the goal be attained?

M = Measurable – A goal needs to be measurable. How will you know when a goal has been achieved?

A = Attainable – A goal should be something you know you can do. Do you have the ability and resources required to attain the goal?

R = Realistic – A goal needs to be realistic. Are you willing and able to work towards the goal? Be honest with yourself.

T = Timely – A goal must have a timeframe. We recommend one week.

You might like to review your goals with your therapist.

Example
Chloe: week 1

1. *Go to swimming pool (once) at a quiet time of day. Swim for at least 20 minutes.*
2. *Invite best friend round for a coffee.*
3. *Go to the cinema and see a film with my sister.*
4. *Organise college notes.*

Write your own list for week 1:

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Each week you then aim to complete the tasks on your list. When you have completed a goal, tick it off your list.

Example
Chloe: week 1

1. *Go to swimming pool (once) at a quiet time of day. Swim for at least 20 minutes.* ✔
2. *Invite best friend round for a coffee.* ✔
3. *Go to the cinema and see a film with my sister.* ✔
4. *Organise college notes.*

If you complete all your goals for a certain week, feel free to reward yourself. If you don't complete your goals, try to work out why this was. Were your goals SMART?

Example

Chloe: week 1
I didn't organise my college notes.

Why not?
It was a bigger task than I thought. I will ask for a friend's assistance and try again next week.

STEP 3 - Transfer any tasks that weren't completed to the next week.

Chloe: week 2

1. *Organise college notes.*

STEP 4 - If there are activities you want to do every week, add them to your list each week.

Chloe: week 2

1. *Organise college notes.*
2. *Go to the cinema and see a film with my sister.*

Build on your activities each week.

Chloe: week 2

3. *Organise college notes.*
4. *Go to the cinema and see a film with my sister.*
5. *Go out for coffee with my best friend at a quiet time of day.*
6. *Go to the swimming pool (once) at a busier time of day. Swim for 20 minutes*

STEP 5 - Enjoy your active lifestyle!

Use the weekly 'Becoming More Active' sheets to follow the steps above. Discuss your lists and your progress with your therapist.

Week 1 - Activities

1.

2.

3.

4.

5.

Describe any problems you had completing this week's tasks.

Coming tGetting a Better Night's Sleep

Problems falling and staying asleep are common in PTSD. Feeling anxious and on edge makes it very difficult to get a restful night's sleep. Following some simple tips known as **"sleep hygiene"** can help you develop a better sleeping pattern, and feel more rested and awake during the day.

Here's what Michael had to say about his experiences of sleeping difficulties:

"After the accident I found it so very difficult to sleep, I'd lie awake for hours! I was so tired during the day and would often find myself taking naps. My therapist gave me some guidelines for better sleep, and after a while I found that following them did help improve my sleeping pattern. It took time, but little by little things started getting back to normal..."

We recommend that you follow the 10 tips below to help you get a better night's sleep. We strongly believe that you will see some improvement in your sleep if you follow this advice.

Keep a record of the tips you try in your **Diary**. Note whether or not the tips you try help.

Ten tips to help you get a better night's sleep

1. Get up and go to bed at the same time every day – even at weekends! If you feel you haven't slept well, resist the urge to get up later. It is important to keep a routine.

2. Don't take naps during the day – or you won't feel tired at night. If you must nap, do so for less than 20 minutes before 3pm.

3. Practise relaxation techniques before bed (see Learning to Relax module for more details). This can help you feel less anxious and make you more ready for sleep. Some people find that lavender oil helps send them to sleep. **It may also be helpful to practise relaxation techniques if you wake during the night and can't return to sleep or if you have a nightmare.**

4. Exercise regularly - in the earlier half of the day. This can help deepen sleep. Exercise within 2 hours of bed time can have the opposite effect of keeping you awake.

5. Have a light snack before bed - an empty stomach can keep you awake. A light snack like some warm milk, cereal or a banana may help you sleep. Avoid fatty, sugary or spicy foods.

6. Avoid drinking too much alcohol before bedtime – although alcohol before bed can help you drop off to sleep, it can also wake you as it starts to wear off. Limit yourself to drinking only one or two alcoholic drinks.

7. Avoid caffeine and nicotine before bedtime – caffeine and nicotine are stimulants which can stay in your system for many hours. They interfere with falling asleep and prevent deep sleep. Avoiding nicotine and all sources of caffeine such as tea, coffee, chocolate and cola will help.

8. Create a calm bedroom environment – avoid watching television or working in your bedroom, reserve it for sleep. Ensure it is the right temperature, that your bed is comfortable and that it is as free from noise and light as possible.

9. Write down any worries you have before going to bed – this can sometimes help stop you lying in bed feeling anxious. You may like to do this in your Diary.

10. If you can't sleep, get up - don't lie there getting frustrated. Do something relaxing until you feel tired enough to go back to bed.

It is now time to try the 'Quick Quiz'! Don't worry if you can't answer correctly first time, the aim is to help you understand more about getting a better night's sleep. Feel free to come back and read this information again.

Getting a Better Night's Sleep – *Quick Quiz*

1. If you have a bad night's sleep, you should have a long lie-in in the morning to catch up on your sleep.

True ☐ **False** ☐

2. Taking time to relax before going to bed can help you get a better night's sleep

True ☐ **False** ☐

3. Alcohol before bed can help you get a better night's sleep

True ☐ **False** ☐

4. You should avoid caffeine and nicotine for 4-6 hours before you go to bed

True ☐ **False** ☐

5. If you can't sleep, stay in bed until you fall asleep

True ☐ **False** ☐

Getting a Better Night's Sleep – *Quick Quiz Answers*

1. If you have a bad night's sleep, you should have a long lie-in in the morning to catch up on your sleep.

Answer – False – it is important to keep a good sleep routine. Having a lie-in in the morning will only make it more difficult to sleep at night.

2. Taking time to relax before going to bed can help you get a better night's sleep.

Answer – True – taking time to relax before bed will help you feel calm and ready for sleep.

3.Alcohol before bed can help you get a better night's sleep

Answer – False - alcohol before bed can help you drop off to sleep, it can also wake you as it starts to wear off.

4. You should avoid caffeine and nicotine for 4-6 hours before you go to bed

Answer – True – caffeine and nicotine are stimulants which can stay in your system for many hours. They can stop you getting a good night's sleep.

5. If you can't sleep, stay in bed until you fall asleep

Answer – False - if you can't sleep, get up, don't just lie there getting frustrated.

Getting a Better Night's Sleep – *Exercise*

Complete the following exercises to finish the module.

Exercise 1 - Print out or write down the 10 rules to help you get a better night's sleep.

Exercise 2 - Read the 10 rules again and decide which you can try. We recommend that you follow as many as possible. Which do you think would make a difference to you?

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Exercise 3 - Start following these simple rules tonight. Write about how you get on in your Diary. Your therapist will talk to you about what you have tried and how it went in your next session.

Exercise 4 - Continue following the rules every night and writing how it went in your Diary.

Congratulations! You have completed the 'Getting a Better Night's Sleep' module. We recommend that you come back and re-read this module at a later date to refresh your memory and improve your learning.
Feel free to refer back to this module whenever you feel it would be helpful.

Managing Your Anger

We get angry when we feel threatened, frustrated, rejected, criticised or annoyed. When anger isn't properly controlled it can cause problems. Uncontrolled anger can be very difficult and upsetting for those around you. It may be for their sake that you try to do something about the problem.

People with PTSD often become angry more quickly and over smaller things than before. It is also common for people with PTSD to feel very angry about the ways in which their lives have been damaged by the trauma. This is especially true when others have been to blame.

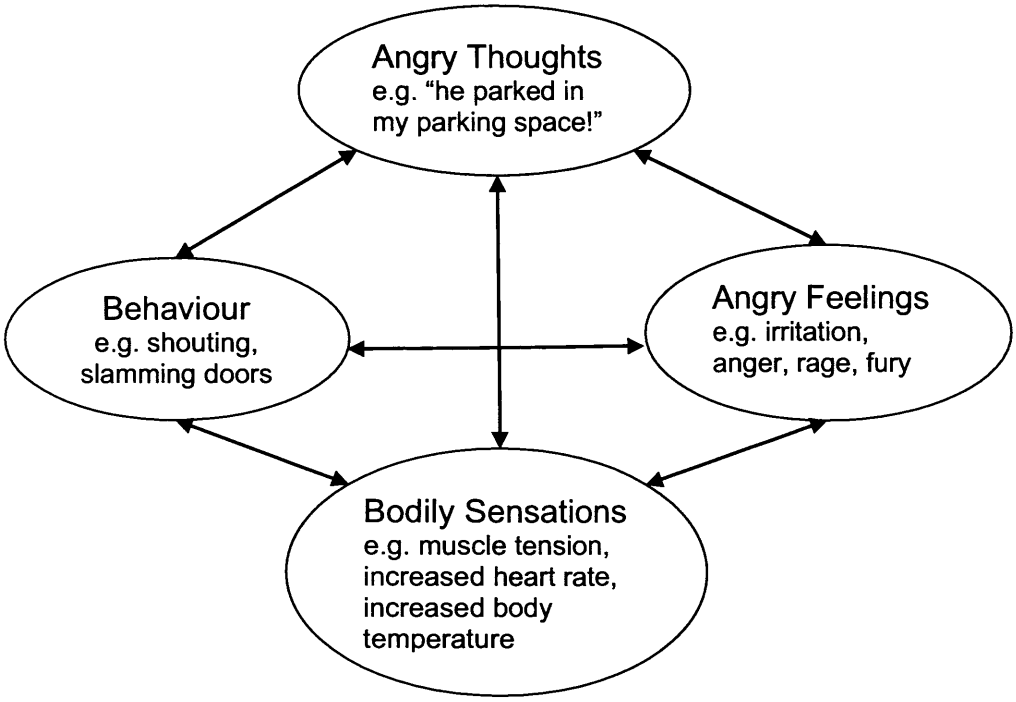
Here's what Chloe had to say about her angry feelings:

"I felt so angry after the attack. Angry with my attacker for what he did to me; angry about how he'd made me feel; angry with myself for letting it affect me. I was on such a short fuse. I would fly into a rage at the slightest thing. I couldn't help it. To the relief of my family, I learned to control my temper with some techniques my therapist taught me. I feel a lot less irritable these days"

This module will help you understand and learn to control your anger.

Understanding Anger

- Anger creates a rush of energy through our bodies. This is caused by the release of hormones such as adrenaline.
- We deal with situations in different ways. Angry reactions range from feeling mildly annoyed to exploding into a violent rage.
- People with PTSD often become angry more quickly and over smaller things than before.
- People with PTSD might feel especially angry about what happened or how the trauma has affected them.
- Anger is composed of thoughts, feelings, bodily sensations and behaviour. It can be helpful to break down your experience of anger to better understand it.



- Anger isn't a bad thing in itself. It can help us survive or protect other people in dangerous situations. Anger is our body's way of telling us that something is wrong and that we need to take action to make it better.

- If not controlled, anger can cause problems. It can cloud our thinking and result in us acting in ways we later regret. Anger can cause difficulties at work and in relationships.

- It is helpful to realise that the surge of energy created by anger can feel pleasurable. Taking your anger out on another person can create a feeling of power. For these reasons, anger can become almost addictive.

- Anger can be bad for health. A long-term anger problem can cause physical as well as mental problems.

Managing anger

Managing your anger involves two important processes:

1. Understanding what makes you angry

2. Learning to control your anger so that you don't lose control

1. Understanding what makes you angry - The best way to understand what makes you angry is to keep an **Anger Diary**. Discovering patterns to your anger will help you learn to manage it. The exercise section provides detailed instructions on keeping an Anger Diary.

2. Controlling your anger – below we present ten tips to help you control your anger. We recommend you use these when you feel your anger rising.

Ten tips to help you control your anger

1. Count to ten before you react allowing time for the initial rush of anger to settle. This can help you to calm down and act in a more sensible way.

2. Pause momentarily to think about the **consequences** of exploding into a rage. Thinking about your options might stop you behaving in a way you will later regret.

3. Take some deep breaths to relieve angry feelings. Breathe from your diaphragm (under your lungs) so that your stomach moves in and out with each breath.

4. Imagine what your calmest friend would say to you and give yourself the same advice.

5. Remove yourself from the situation and write down why you're feeling angry. This can calm you and help you see things differently without upsetting others.

6. Vent your anger away from others if you feel you have to vent your anger, do so away from others. Punch a pillow or a cardboard box, or go to a quiet secluded place and scream.

7. Try exercising this will help release anger in a less destructive way.

8. Practise relaxation – to create a feeling of calm and reduce anger. The "relaxation" section teaches some good techniques. Having a relaxing bath or listening to calming music may also help you unwind.

9. Record your angry feelings – in your Diary. Describe what made you angry and why. This should bring clarity to the situation and help you understand what makes you cross.

10. Sleep and eat well – feeling tired or hungry can make you irritable.

It is now time to try the 'Quick Quiz'! Don't worry if you can't answer correctly first time, the aim is to help you understand more about managing your anger. Feel free to come back and read this information again.

Managing Your Anger – *Quick Quiz*

1. Anger causes only emotional changes

True ☐ **False** ☐

2. Uncontrolled anger can cause you problems

True ☐ **False** ☐

3. Long-term anger can be bad for a person's physical health

True ☐ **False** ☐

4. Counting to ten before you react to something that makes you angry can stop you from exploding into a rage

True ☐ **False** ☐

5. Regular physical exercise will make you feel more angry.

True ☐ **False** ☐

Managing Your Anger – *Quick Quiz Answers*

1. Anger causes only emotional changes

Answer – False - anger causes the release of hormones such as adrenaline. This causes physical changes as well as emotional ones. Our hearts start beating faster and our blood pressure and body temperature rise.

2. Uncontrolled anger can cause you problems

Answer – True – uncontrolled anger can cause numerous problems. It can cloud our thinking. It can result in someone acting in ways they later regret. It can cause difficulties at work and in relationships.

3. Long-term anger can be bad for a person's physical health

Answer – True - a long-term anger problem can cause high blood pressure, heart problems, headaches and digestive problems.

4. Counting to ten before you react to something that makes you angry can stop you from exploding into a rage

Answer – True – this will allow time for the initial rush of anger to settle. This can help you to calm down and act in a more sensible way.

5. Regular physical exercise will make you feel more angry.

5. Answer – False – lots of people find regular exercise helps manage their anger. It will help release angry feelings in a less destructive way.

Managing Your Anger - *Exercise*

Exercises 1 and 2 are to be completed by everyone. Complete exercise 3 if you feel angry about any specific event(s) from your past.

Exercise 1 – Anger Diary - Use the Anger Diary provided (in the Diary section of the programme) to record your angry thoughts, feelings, bodily sensations and behaviour. In the last column record what the outcome would have been if you had not become angry (if you'd thought about the situation differently) or if you'd behaved differently. Discovering whether or not there is a pattern to your anger will help when developing strategies to manage it. After you have filled in the Anger Diary for a few days, answer the following questions:

Do you get angry at the same time of day? Why do you think this is? Can you do anything to change it?

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Do the same people or situations make you angry? Why do you think this is? Can you do anything to change it?

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Do you always behave in the same way when you get angry? Do you think this is the best way to behave?

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Exercise 2 - Print out or write down the 10 techniques for Managing Your Anger in a notepad or on some cards. Which do you think might be useful to you?

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Use the techniques when you feel your anger rising. Make a note of when you use the technique in your Diary. Note whether or not the technique helped.

Exercise 3 - If you feel anger about something that happened in your past, we recommend you try writing an ANGRY LETTER.

Take a piece of paper and think about the event or events that anger you. Is there a particular person, group of people or organisation you hold to blame? Imagine you were to write to this person, group of people or organisation, telling them exactly how they have made you feel. This letter will not be sent. The aim is for you to express your feelings and reduce your anger.

Write your angry letter now. You may wish to go back and re-read and add to it over the coming days. When you have finished writing the letter, keep it with your Diary to discuss with your therapist during your next session.

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Cutting Down on Substance Use

This module looks at cutting down on substance use. We will look at problems which arise from drinking too much alcohol, caffeine and taking illegal drugs. Advice will be given for cutting down on use of these substances.

Use only the sections of this module appropriate to you. Work through the Information, Quick Quiz and Exercise for each relevant section.

Cutting Down on Alcohol

People with PTSD often drink to try and block out reminders of their trauma. It can be difficult to realise that you are drinking too much. If you or other people are worried that you have started drinking too much alcohol, it might be helpful to stop and think about how much you're drinking each week and why.

It is easy to start drinking too much alcohol without realising it during times of stress. It is useful to be aware of this and to monitor your drinking habits. You might believe that alcohol helps with blocking reminders of trauma. But alcohol will only make things more difficult in the long run.

Here's what Michael had to say about his experiences of cutting down on his drinking

"I always enjoyed a glass or two of wine with a meal on a Friday night. But after the accident, having a drink was one of the few things that seemed to take the edge off how I was feeling. I'd start drinking earlier and earlier in the evening. Before I knew it, I was drinking a bottle of wine every night. I didn't think much of this. It was my wife who started to worry. When I started therapy I realised that drinking was making my problems worse not better. I started to cut down. I still enjoy that glass of wine on a Friday night, but that's all. I feel much better for it. I feel in control again."

Alcohol and PTSD

- Being diagnosed with PTSD increases the risk of developing an alcohol problem.

- Alcohol can make many of your symptoms and problems worse. For example, alcohol can make it more difficult for you to get a good night's sleep and can make any anger problems worse. Alcohol can also increase feelings of depression, emotional numbness and hyperarousal.

- Drinking too much alcohol can reduce the effectiveness of PTSD treatment. It can make the hard work you are doing trying to get better less effective.

- Keeping a normal routine helps you recover from PTSD. Alcohol is something else which stops you living the life you did before the trauma.

- Drinking too much alcohol is often worrying for your family and friends. If you are drinking more than you should, it might be for them that you choose to cut down. Alcohol can cloud your judgement. It can make you act in ways you would not normally act. You might later regret things you said or did.

Alcohol Self Test

The simple questionnaire below was developed by the World Health Organisation. It is used to spot drinking habits that are bad for your health.

Answer each question honestly and add up your score. The score for each is given in brackets after your choice of answer.

1. How often do you have a drink containing alcohol?

Never (score 0)

Monthly or Less (score 1)

2-4 times a month (score 2)

2-3 times a week (score 3)

4 or more times a week (score 4)

2. How many alcoholic drinks do you have on a typical day when you are drinking?

1 or 2 (0)

3 or 4 (1)

5 or 6 (2)

7-9 (3)

10 or more (4)

3. How often do you have 6 or more drinks on one occasion?

Never (0)

Less than monthly (1)

Monthly (2)

Weekly (3)

Daily or almost daily (4)

4. How often during the past year have you found that you drank more or for a longer time than you intended?
Never (0)
Less than monthly (1)
Monthly (2)
Weekly (3)
Daily or almost daily (4)

5. How often during the past year have you failed to do what was normally expected of you because of your drinking?
Never (0)
Less than monthly (1)
Monthly (2)
Weekly (3)
Daily or almost daily (4)

6. How often during the past year have you had a drink in the morning to get yourself going after a heavy drinking session?
Never (0)
Less than monthly (1)
Monthly (2)
Weekly (3)
Daily or almost daily (4)

7. How often during the past year have you felt guilty or remorseful after drinking?
Never (0)
Less than monthly (1)
Monthly (2)
Weekly (3)
Daily or almost daily (4)

8. How often during the past year have you been unable to remember what happened the night before because of your drinking?
Never (0)
Less than monthly (1)
Monthly (2)
Weekly (3)
Daily or almost daily (4)

9. Have you or anyone else been injured as a result of your drinking?

No (0)

Yes, but not in the past year (2)

Yes, during the past year (4)

10. Has a relative, friend, doctor, or health care worker been concerned about your drinking, or suggested that you cut down?

No (0)

Yes, but not in the past year (2)

Yes, during the past year (4)

Add up your score. A total of 8 or more indicates possible harmful drinking behaviour.

Whether or not you drink is your choice. If you have scored 8 or more you are likely to be risking your health and should think about cutting down as soon as possible. Even if your score is lower than 8, drinking more than you did before the trauma is an unhelpful way of trying to deal with your problems.

Please read through the information below to understand more about using alcohol and trying to cut down the amount you drink.

Sensible drinking

'Sensible drinking' is defined as a drinking at a level that has a low risk of causing problems for you or other people. It is difficult to say how much exactly someone can safely drink. The effect of alcohol is different depending on age, sex, size and health. It is also different depending on when and how you drink.

Government guidelines suggest a limit for sensible drinking of 3-4 units per day for men and 2-3 units per day for women. You might want to cut down so that what you're drinking falls in these limits. The following is given as a rough guide to what this means:

- 1 pint of strong lager = 3 units
- 1 pint of ordinary lager, bitter or cider = 2 units
- 175ml glass of wine = 2 units
- 1 alcopop = 1.5 units
- 1 measure of spirits = 1 unit
- Small glass of wine = 1.5 units

Cutting down on how much you drink can have lots of positive effects. We recommend that you follow these tips to take control of how much you're drinking.

Ten tips to help you cut down on alcohol

1. Monitor your drinking – keep a record of how many drinks you have each day. Add it to the bottom of your Diary. It will help you to monitor how much you're drinking each week and whether or not you are drinking an unsafe amount.

2. Give your body a rest - have at least three alcohol free days a week to give your body a break. If you find this hard, you may be developing an alcohol problem.

3. Tell others you are cutting down - and ask them to support this choice.

4. Break the habit - recognise when you drink. Sometimes you might just be thirsty rather than really wanting an alcoholic drink. Drink a soft drink first, and see if you still want an alcoholic one after. If you drink to unwind, think about doing something else instead (see the Learning to Relax module for some alternatives). Get out of the habit of drinking when you've had a bad day. Do not drink when you're angry or upset.

5. Don't drink to help you sleep - it will only wake you up as it starts to wear off.

6. Buy smaller glasses to use at home or buy a drinks measure – it can be surprising how small a unit is. Consider buying small bottles of beer instead of cans or buying miniature bottles of wine rather than opening a whole bottle.

7. Notice any changes in the effects of your drinking – such as arguments about alcohol with family, more hangovers or time off work. These could be signs of a problem.

8. Slow down your drinking - sip slowly. Alternate alcoholic drinks with non-alcoholic drinks such as water or fruit juice.

9. Don't drink on an empty stomach — have something to eat to limit how quickly alcohol gets into your bloodstream.

10. Don't give up - cutting down or giving up drinking isn't always easy. Get support from people who care about you and keep trying.

It is now time to try the 'Quick Quiz'! Don't worry if you can't answer correctly first time, the aim is to help you understand more about cutting down on alcohol. Feel free to come back and read this information again.

Cutting down on alcohol – *Quick Quiz*

1. Being diagnosed with PTSD increases the risk of developing an alcohol problem

True ☐ **False** ☐

2. Drinking alcohol improves the symptoms of PTSD

True ☐ **False** ☐

3. Alcohol before bed can help you get a better night's sleep

True ☐ **False** ☐

4. Drinking alcohol can help with the treatment of PTSD

True ☐ **False** ☐

5. It is useful to try and break drinking habits

True ☐ **False** ☐

Cutting down on alcohol – *Quick Quiz Answers*

1. Being diagnosed with PTSD increases the risk of developing an alcohol problem

Answer – True – many people with PTSD develop problems with alcohol use. PTSD does not however automatically cause alcohol problems. Not everyone with PTSD has issues with alcohol.

2. Drinking alcohol improves the symptoms of PTSD

Answer – False - drinking can make your symptoms worse. It can increase feelings of numbness, social isolation, anger and irritability. It can make you feel more depressed, or feel more 'on guard'.

3. Alcohol before bed can help you get a better night's sleep

Answer – False - alcohol before bed can help you drop off to sleep, it can also wake you as it starts to wear off.

4. Drinking alcohol can help with the treatment of PTSD

Answer – False – alcohol use can reduce the effectiveness of PTSD treatment. It can make the hard work you are doing trying to get better less effective.

5. It is useful to try and break drinking habits

Answer – True – it is useful to try and work out what drinking habits you have and try to break them e.g. if you drink to unwind, think about doing something else instead (see the 'relaxation' section for some alternatives).

Cutting down on alcohol - *Exercise*

Complete the following exercises to finish the module

Exercise 1 - Now that you've read about alcohol and PTSD, write a list of the reasons you think you should cut down on your drinking. This will be discussed with your therapist in your next session.

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Exercise 2 - List some of the things you might miss if you cut down on drinking alcohol? How will you manage this?

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Exercise 3 - Monitor your drinking. Keep a record of how many drinks you have each day. Add it to the bottom of your Diary.

Exercise 4 - Print out or write out the tips for cutting down on alcohol. Start trying to cut down by following these tips. Keep monitoring your drinking in your Diary. Write down the total number of drinks you've had that week every Sunday. Try to reduce the number of drinks you have each week until you reach a level of drinking you are happy with. Discuss how you're getting on with your therapist.

Congratulations! You have completed the 'Cutting down on alcohol' module. We recommend that you come back and re-read this module at a later date to refresh your memory and improve your learning.
Feel free to refer back to this module whenever you feel it would be helpful.

Cutting Down on Caffeine

Caffeine is mildly addictive and can cause a number of health problems and concerns. Whilst drinking 3-5 caffeine based drinks a day is considered acceptable, drinking in the region of 10 cups a day is considered far too much.

Caffeine and PTSD

Caffeine is a stimulant. People with PTSD are already over stimulated. Use of stimulants can for this reason make your symptoms feel worse.

- Caffeine can make your heart beat rapidly or irregularly. This can cause feelings of anxiety or panic.
- Caffeine can cause restlessness and make it even more difficult for you to relax. It can make you feel even more jumpy and 'on guard'.
- Caffeine can cause or worsen insomnia. If you suffer sleep difficulties it is very important to limit your caffeine intake.
- Caffeine can make you feel more angry and irritable.

Caffeine can cause other unpleasant bodily sensations:

- Stomach irritation
- Headaches
- Nausea
- Light-headedness
- Flushed face
- Twitching or trembling
- Mood swings

You should think about cutting down on caffeine if you drink more than five caffeine-based drinks a day. Although caffeine usually makes us think of think of coffee, it is found in many hot and cold drinks:

Drink	Caffeine content (mg)
Instant Coffee (cup)	61 to 70
Percolated Ground Coffee (cup)	97 to 125
Tea (cup)	15 to 75
Cocoa (cup)	10 to 17
Cola (12oz can)	43 to 65

Caffeine is also found in chocolate.

Chocolate	Caffeine content (mg)
Typical chocolate bar	60 to 70

Ten tips to help you cut down on caffeine

1. Cutting down on caffeine will stop it from making your PTSD symptoms feel worse – use this guidance to help reduce your intake.

2. Cutting down on caffeine will help you get a better night's sleep – using this guidance alongside the Getting a Better Night's Sleep module will help you overcome any sleep difficulties you might have.

3. Cutting down on caffeine will reduce unpleasant bodily sensations – including stomach irritation, headaches, nausea, light-headedness, flushed face, twitching or trembling and mood swings.

4. Monitor your caffeine intake – keep a record of how many caffeine based drinks you have each day. Record how big each drink is (e.g. was it a cup or a mug of coffee?). Add it to the bottom of your Diary.

5. Start the day with a herbal tea or fruit juice – this is a good start to a day without too much caffeine.

6. Substitute every other cup of coffee or tea with a glass of water, herbal tea or fruit juice - this will help you gradually cut down. Make sure you don't substitute with other hot or fizzy drinks which contain caffeine.

7. If you have difficulty sleeping, don't drink caffeine after 4pm - it takes about 6 hours for caffeine to leave your system.

8. If you miss the taste of coffee, try decaffeinated – it is however worth noting that even decaffeinated coffee contains a small and variable amount of caffeine.

9. Drink cups rather than mugs of coffee – this can help you gradually cut down if you're finding it difficult.

10. Don't give up - cutting down on your caffeine intake isn't always easy. Keep trying.

It is now time to try the 'Quick Quiz'! Don't worry if you can't answer correctly first time, the aim is to help you understand more about cutting down on caffeine. Feel free to come back and read this information again.

Cutting Down on Caffeine – *Quick Quiz*

1. Caffeine can help you relax

True ☐ **False** ☐

2. Caffeine can cause or worsen insomnia

True ☐ **False** ☐

3. Cutting down on your caffeine intake will reduce unpleasant bodily sensations sometimes associated with drinking caffeine-based drinks

True ☐ **False** ☐

4. Decaffeinated coffee contains some caffeine

True ☐ **False** ☐

5. It is helpful to substitute every other cup of coffee or tea with a glass of water, herbal tea or fruit juice

True ☐ **False** ☐

Cutting Down on Caffeine – *Quick Quiz Answers*

1. Caffeine can help you relax

Answer – False – caffeine is a stimulant. It can cause restlessness and make it even more difficult for you to relax.

2. Caffeine can cause or worsen insomnia

Answer – True - caffeine can cause or worsen insomnia. If you suffer sleep difficulties we strongly recommend you try to limit your caffeine intake.

3. Cutting down on your caffeine intake will reduce unpleasant bodily sensations sometimes associated with drinking caffeine-based drinks

Answer – True - cutting down on your caffeine will reduce unpleasant bodily sensations sometimes associated with drinking caffeine-based drinks. This includes stomach irritation, headaches, nausea, light-headedness, flushed face, twitching or trembling and mood swings.

4. Decaffeinated coffee contains some caffeine

Answer – True - even decaffeinated coffee contains a small and variable amount of caffeine.

5.Decaffeinated coffee contains some caffeine

Answer – True – it is helpful to substitute every other cup of coffee or tea with a glass of water, herbal tea or fruit juice. This will help you gradually cut down.

Cutting Down on Caffeine - *Exercise*

Complete the following exercises to finish the module

Exercise 1 - Now that you've read about caffeine and PTSD, write a list of the reasons you think you should cut down on your caffeine intake. How might it help you?

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Exercise 2 - Monitor your caffeine intake. Keep a record how many caffeine based drinks you have and how big these are (e.g. a cup or a mug?). Add it to the bottom of your Diary.

Exercise 3 - Print out or write down the tips for cutting down your caffeine intake. Start trying to cut down by following these tips. Keep monitoring your caffeine intake in your Diary. Write down the total number of caffeine base drinks you've had each day. Try to reduce this number to a level you are happy with.

Congratulations! You have completed the 'Cutting Down on Caffeine' module. We recommend that you come back and re-read this module at a later date to refresh your memory and improve your learning. Feel free to refer back to this module whenever you feel it would be helpful.

Giving Up Illegal Drugs

People with PTSD sometimes take illegal drugs to try and escape reminders of their trauma. If you have been taking illegal drugs to help cope with your symptoms, it might be helpful to consider giving up. You might believe that illegal drugs help you escape your feelings. But it will only make things more difficult in the long run.

Admitting that you have a problem is an important first step in solving the problem.

Drug classification

Illegal drugs can be classified into three groups based on their effects:

1. Depressant drugs – slow down your reactions. They initially make you feel more relaxed. Taken in larger amounts they can cause nausea, vomiting and unconsciousness.

Depressant drugs include cannabis, heroin, morphine, valium and rohypnol.

2. Stimulant drugs - make you feel alert. They initially give you energy, create euphoria, decrease your appetite and dilate your pupils. They increase your heart rate, body temperature and blood pressure. Larger amounts can cause anxiety, panic attacks, paranoia and aggression.

Stimulant drugs include cocaine, ecstasy and speed.

3. Hallucinogenic drugs - change your perception of reality. They can cause visual or auditory hallucinations which can sometimes be unpleasant. It is common to experience anxiety, panic attacks or paranoia.

Hallucinogenic drugs include LSD, PCP, mescaline and magic mushrooms. Certain depressant and stimulant drugs (such as cannabis and ecstasy) can also have hallucinogenic effects.

Illegal drugs and PTSD

- Being diagnosed with PTSD increases the risk of using illegal drugs.

- Illegal drugs can however make many of your symptoms and problems worse. For example, illegal drugs can increase feelings of depression, anxiety, panic, emotional numbness and create interpersonal problems.

- Taking illegal drugs can reduce the effectiveness of PTSD treatment. It can make the hard work you are doing trying to get better less effective.

- Keeping a normal routine helps you recover from PTSD. Taking illegal drugs is something else which stops you living the life you did before the trauma.

- Taking illegal drugs is often worrying for your family and friends. It might be for them that you choose to give it up.

- Using illegal drugs can be financially draining.

Ten tips to help give up illegal drugs

1. Giving up illegal drugs will minimise aggravation of PTSD symptoms and other mental health problems - use this guidance to help you.

2. Cutting down on illegal drug use will reduce associated problems – including depression, anxiety and mood swings.

3. Monitor your use of illegal drugs – record what you're taking, when and in what quantities. Add this information to the bottom of your diary.

4. Stop and think before you take the drug – refer back to this module and the reason's you're trying to give up.

5. Make it difficult for yourself to access drugs – don't keep a supply of drugs at home.

6. Avoid spending time with people who use drugs – this will make it easier to stop.

7. Distract yourself when you feel like taking the drug – go for a walk, use some relaxation techniques or spend time with people who don't use drugs.

8. Trying to cut down or stop too quickly may cause unpleasant withdrawal symptoms including aches and pains, difficulty sleeping, agitation and depression – if this is an issue, we recommend you cut down gradually.

9. Tell others you are trying to give up - and ask them to support and encourage this choice.

10. Don't give up - giving up illegal drug use isn't easy. Get support from people who care about you and keep trying.

It is now time to try the 'Quick Quiz'! Don't worry if you can't answer correctly first time, the aim is to help you understand more about cutting down on illegal drugs. Feel free to come back and read this information again.

Giving Up Illegal Drugs– *Quick Quiz*

1. Being diagnosed with PTSD increases the risk of using illegal drugs.

True ☐ **False** ☐

2. Illegal drug use improves the symptoms of PTSD.

True ☐ **False** ☐

3. Depressant drugs slow down your reactions

True ☐ **False** ☐

4. Taking illegal drugs can help with the treatment of PTSD.

True ☐ **False** ☐

5. Trying to cut down or stop too quickly can cause *w*ithdrawal symptoms

True ☐ **False** ☐

Giving Up Illegal Drugs– *Quick Quiz Answers*

1. Being diagnosed with PTSD increases the risk of using illegal drugs.

Answer – True – many people with PTSD develop problems with illegal drug use.

2. Illegal drug use improves the symptoms of PTSD.

Answer – False - drinking can make your symptoms worse. It can increase feelings of numbness, social isolation, anger and irritability. It can make you feel more depressed and cause relationship problems.

3. Depressant drugs slow down your reactions

Answer – True – depressant drugs slow down your reactions. They initially make you feel more relaxed. Taken in larger amounts they can cause nausea, vomiting and unconsciousness.

4. Taking illegal drugs can help with the treatment of PTSD.

Answer – alcohol use can reduce the effectiveness of PTSD treatment. It can make the hard work you are doing trying to get better less effective.

5. Trying to cut down or stop too quickly can cause *w*ithdrawal symptoms

Answer – True - Trying to cut down or stop too quickly may cause unpleasant *w*ithdrawal symptoms including aches and pains, difficulty sleeping, agitation and depression. If this is an issue, we recommend you cut down gradually.

Giving Up Illegal Drugs - *Exercise*

Complete the following exercises to finish the module

Exercise 1 - Now that you've read about illegal drugs and PTSD, write a list of the reasons you think you should give up. How might it help you?

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Exercise 2 - Monitor your use of illegal drugs. Record what you're taking, when and in what quantities. Add it to the bottom of your Diary.

Exercise 3 - Print out or write down the tips for cutting down on illegal drugs. Start trying to cut down by following these tips. Keep monitoring your drug use in your Diary. Work towards giving up.

Congratulations! You have completed the 'Giving Up Illegal Drugs' module. We recommend that you come back and re-read this module at a later date to refresh your memory and improve your learning. Feel free to refer back to this module whenever you feel it would be helpful.

Appendix E

- **Therapist manual for use with the Tackling Traumatic Stress Guided Self Help (GSH) programme for the treatment of mild to moderate Post Traumatic Stress Disorder (PTSD)**

Tackling Traumatic Stress – Guided Self Help for the treatment of mild to moderate Post Traumatic Stress Disorder

Therapist Manual

Role of the therapist

The therapist's role is to:

1) Help the individual identify specific issues and difficulties
2) Guide the individual to relevant modules
3) Assist the individual in pacing their progress through the programme
4) Provide support, encouragement and motivation
5) Briefly review completed exercises and diaries during every guidance session
6) To record the duration and nature of all contact with the individual using the programme in the CRF

The programme

The programme will run for 8 weeks.

There are 11 modules. Modules 1-7 are essential core modules. The remainder are optional and will be followed where you and the individual using the programme agree this would be beneficial.

Each module has 3 sections:

Information and Education – This section aims to teach the individual about their symptoms and address problems people with PTSD often face. It gives simple advice and summarises the important points with 10 easy tips.

Quick Quiz – Each module includes a 'Quick Quiz' posing 5 multiple choice questions. It should be emphasised that it is not important whether the individual gets these questions right or wrong. They are simply to aid learning.

Exercise - At the end of each module, there will be a simple exercise to complete. **This exercise will be discussed during guidance sessions. It is important that these exercises are completed.**

Core Modules (to be completed by everyone)	**Optional lifestyle modules** (these can be completed alongside the Core Modules)
1. What is post traumatic stress disorder? 2. Grounding yourself 3. Learning to relax 4. Coming to terms with what happened 5. Changing the way you think 6. Overcoming avoidance – facing your fears 7. Staying well	8. Becoming more active 9. Getting a better night's sleep 10. Managing your anger 11. Cutting down on substances (alcohol / caffeine / illegal drugs)

Guidance sessions

The programme will commence with a 1 HOUR long face to face introductory guidance session. The individual will be encouraged to bring their partner, a close family member or friend along to the session to enlist their support.
Three brief guidance sessions will be scheduled at 2 weeks, 4 weeks, 6 weeks and 8 weeks after the initial session. The individual will be able to select whether they would rather receive guidance face to face at the Traumatic Stress Service or over the phone.
These sessions will have a MAXIMUM duration of 30 minutes. Recording the exact duration of these sessions and the nature of what was discussed will be of importance to inform refinement of the programme.
Therapists are also asked to PHONE the individual for a BRIEF check in between scheduled guidance sessions. We recommend that you diarise the call for 1 week after each scheduled session.

Guidance session objectives
Session 1

- Provide some basic psychoeducation and answer any questions the individual has with respect to the disorder and how they are feeling
- Provide a rationale for psychological treatment
- Describe the GSH programme and present the hard copy and website. Explain use of activities diary and draw their attention to the information for family and friends.
- Discuss optional modules and decide which would be appropriate
- Explain that completed exercises will be reviewed at the next guidance session.
- Teach controlled breathing
- Set modules to be completed over the first two weeks. This will include: What is PTSD?; Grounding Yourself; Learning to Relax; 1 or more optional "lifestyle" module (Getting a Better Night's Sleep, Managing Your Anger, Cutting Down on Substances)

**** we recommend that you introduce as many modules as possible, as early as possible, without over-loading the individual ***

- Arrange a 30 min guidance appointment for 2 weeks time. This can be provided face to face or over the phone
- Diarise a phone call for 1 week's time (this will be a brief check in only, not a guidance session). If the individual is doing well weekly phone calls can be used to suggest progression to new modules.

Session 2

- Review diary and briefly acknowledge and consider all completed exercises/ homework
- Assess whether individual has mastered relaxation/ grounding techniques
- Set modules to be completed over the next two weeks. This will include: any relevant optional "lifestyle" module that was not introduced in session; Becoming more active; Coming to terms with what happened; If the individual is getting on well, 1 or more of the modules Changing the Way You Think / Overcoming Avoidance

**** we recommend that you introduce as many modules as possible, as early as possible, without over-loading the individual ***

- Arrange a 30 min guidance appointment for 2 weeks time. This can be provided face to face or over the phone
- Diarise a phone call/email for 1 week's time (this will be a brief check in only, not a guidance session). If the individual is doing well weekly phone calls can be used to suggest progression to new modules.

Session 3

- Review diary and briefly acknowledge and consider all completed exercises/ homework
- Set modules to be completed over the first two weeks. This will include: any relevant optional "lifestyle" module that was not introduced in sessions 1 or 2; changing the Way You Think (if not already introduced); overcoming Avoidance (if not already introduced)
- Arrange a 30 min guidance appointment for 2 weeks time. This can be provided face to face or over the phone
- Diarise a phone call/email for 1 week's time (this will be a brief check in only, not a guidance session)

Session 4

- Review diary and briefly acknowledge and consider all completed exercises/ homework
- Ask the individual to complete the module Staying Well to finish the programme. Emphasise that this is IMPORTANT.

Any further questions

Please don't hesitate to contact Catrin Lewis:**LewisCE7@cf.ac.uk**; **029 20743752**