The development of an intervention to support doctors and medical students in their decision whether to disclose their mental ill health

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Declaration

This work has not been submitted in substance for any other degree or award at this or any other university or place of learning, nor is it being submitted concurrently in candidature for any degree or other award.

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This thesis is being submitted in partial fulfilment of the requirements for the degree of PhD.

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This thesis is the result of my own independent work/investigation, except where otherwise stated. Other sources are acknowledged by explicit references. The views expressed are my own.

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Summary

This thesis sought to understand the attitudes and experiences of doctors and medical students in their decision-making about disclosing their mental ill health, and to develop an intervention to aid doctors and medical students in their decision-making about whether to disclose their mental ill health.

The idea for this thesis developed from a previous study on which I worked. A nationwide online anonymous surveyed UK doctors regarding disclosure of their own mental ill health to the workplace. Findings highlighted that doctors struggle with disclosure decision-making. My interest in behaviour change interventions led to the idea of this PhD: could an intervention based on behaviour change principles support doctors and medical students in their decision-making about whether to disclose their mental ill health?

Doctors and medical students under-disclose their mental ill health. Delaying treatment for mental ill health is associated with negative outcomes. Non-disclosure to the workplace or medical school is an obstacle to doctors and medical students receiving appropriate support and workplace adjustments.

This thesis comprises several studies. A literature review sought to clarify existing understanding about disclosure of mental ill health in doctors and medical students. How doctors and medical students experience disclosure decision-making was examined in a qualitative interview study. These two studies formed part of the evidence base for the development of an intervention to aid doctors and medical students in their decision-making about disclosing their mental ill health. The qualitative interview findings confirmed that motivational interviewing (MI) was a feasible method to inform the intervention. Led by MRC guidelines for developing a complex intervention, a web-based intervention was developed collaboratively with expert participants. The intervention appeared acceptable and feasible through testing.

Beyond this thesis, funding was secured to develop the intervention into an app for mobile devices. Named 'Arbour', the app is undergoing further evaluation.

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To my supervisors, Debbie Cohen and Mike Robling, thank you for your support and guidance throughout my PhD. I am very grateful for the advice, ideas, and encouragement, which enabled me to keep up momentum and reach the finish line. I feel very lucky to have had this opportunity.

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The encouragement of my friends and family has kept me going. Thank you to my parents, for their belief in my 'stickability'. Finally, I am forever thankful to my husband Chris, for giving me the time and space to complete this thesis, and for not mentioning the 'P' word too often.

Summary of others' contributions to this work

Michael Robling (MR) and Debbie Cohen (DC) contributed to the study design at all stages of the intervention development. They reviewed draft versions of this thesis.

DC also assisted in the process of discussion and revision during the thematic analysis of the qualitative interviews. She contributed to the literature review by independently comparing 100 citations against the exclusion criteria. For the focus group with expert participants, she was the co-facilitator of the focus group with expert participants. She contributed to the development of the tool contents, providing particular guidance on the MI components with her expertise as an MI practitioner.

Naomi Marfell (NM) independently coded 10% of the transcripts from the qualitative interviews, and assisted in the process of discussion and revision to further refine the coding frame. She contributed to the literature review by independently comparing 100 citations against the exclusion criteria. She also reviewed the draft tool contents.

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Abbreviations

Organisations	
BMA	British Medical Association
DSN	Doctors' Support Network
GMC	General Medical Council
NHS	National Health Service
PHP	Practitioner Health Programme, London
RMBF	Royal Medical Benevolent Fund
Doctor grades/specialties	
GP	General practitioner
SAS	Specialty and associate specialist
SHO	Senior House Officer
Other terms	
BDI	Brief disclosure intervention
DD-MM	Disclosure decision-making model
FTP	Fitness to practise
MI	Motivational Interviewing
OH	Occupational health
PHPs	Physician Health Programmes
SDT	Self-determination theory
TTM	Transtheoretical model

Introduction

Work preceding this thesis

Prior to beginning this thesis, I was employed on a study funded by the Wales Deanery that surveyed UK doctors anonymously about disclosure of their own mental ill health to the workplace (Cohen, Winstanley, & Greene, 2016). The online survey of 1% of UK doctors found a discrepancy. Those doctors with a history of mental ill health behaved differently to how doctors with no such history expected they would behave if faced with mental ill health in the future. It was clear from this work that a full understanding of how disclosure decisions are made by doctors was lacking. Intention to disclose mental ill health did not translate into actual disclosures. Qualitative comments highlighted how doctors struggle with disclosure decision-making.

My background is in Health Psychology, designing and delivering brief psychoeducation interventions to NHS patients with common mental health problems. In thinking about how to progress this work, it seemed that there was potential to develop an intervention.

Thesis overview

The wellbeing of doctors and medical students has been subject to much scrutiny and debate over the past few decades. The implications of poor doctor wellbeing includes a considerable impact on patient care, economics and the healthcare system within which doctors work (Royal College of Physicians, 2015). The wellbeing of medical students is just as pertinent. Behaviours that impact doctors' health are established during medical school (Chew-Graham, Rogers, & Yassin, 2003). An important illness behaviour is late, or non-disclosure of mental ill health (Adams, Lee, Pritchard, & White, 2010; Feeney et al., 2016). In addition to help-seeking, disclosure is important for reasons relating to a regulated profession such as fitness to practise, and insurance indemnity.

Mental ill health continues to be heavily stigmatised, and within the workplace especially there are perceived negative repercussions from disclosing it (Brohan et al., 2012). However, disclosure can facilitate access to a range of appropriate adjustments and other measures to fully support an individual. Disclosure of mental ill health is therefore a complex issue for anyone, but perhaps even more so within the healthcare professions. To date, the disclosure of mental ill health by doctors and medical students has not received due attention. No studies to date have examined the disclosure decision-making process in this population in depth. Interventions to improve doctor and medical student wellbeing have focussed on service

provision and access, tackling stigma, and raising mental health awareness. None have sought to support the decision-making process itself.

This thesis seeks to address this gap by exploring decision-making among doctors and medical students about disclosing their own mental ill health. It then uses those findings to inform the development of an intervention.

There are six chapters to this thesis. Chapter one provides the background and context. It examines the importance of doctor and medical student wellbeing. Disclosure is discussed, and how theory might inform an intervention to support doctors and medical students to disclose their mental ill health. The thesis aims are then presented. Chapter two reports a structured review of the literature on disclosure of mental ill health by doctors and medical students. Chapter three describes a qualitative study of doctors' and medical students' disclosure experiences. In chapters four and five the development and evaluation of a web-based intervention is described. Chapter six provides an overall discussion.

A more detailed outline of this thesis now follows.

Thesis outline

This thesis examines doctors' and medical students' decision-making about disclosing their own mental ill health. It explores the factors that impact on decisions, and uses those findings to develop a novel intervention informed by motivational interviewing (MI). It then seeks to understand whether that intervention could potentially be effective in guiding disclosure decision-making.

Chapter one: background

This sets out the aims of the study and describes its context. A broad understanding was required of several areas. Firstly, the wellbeing of doctors and medical students is discussed, within its wider policy and medical curriculum context. This is followed by an exploration of disclosure, how it has been conceptualised, and its importance for doctors and medical students. An overview of behaviour change interventions is then presented, with a summary of current interventions. The principles of MI are then summarised, and how these have been used to inform interventions. The chapter ends with the aims of the thesis, and the research questions that it attempts to answer.

Chapter two: a structured literature review

A structured review of the current literature on the disclosure of mental ill health by doctors and medical students is described. The strengths and limitations of this review are highlighted, and its implications discussed.

Chapter three: a qualitative study

A qualitative study with doctors and medical students explores their experiences of mental health disclosure decision-making. The chapter describes the methods and findings. The strengths and limitations of the study are then discussed, along with the implications of the findings for policy, practice and future research.

Chapter four: tool development

The framework used to guide the intervention development process is described. I then explain how further research activities informed that process. I describe how the findings from the studies in chapters two and three informed the intervention. A discussion of the key findings from the development process follows. The chapter finishes with a discussion of the implications of the intervention development, and the strengths and limitations.

Chapter five: tool evaluation

The evaluation study is described, its methods and findings. The chapter ends with a discussion of the study's key findings, its implications, and the strengths and limitations.

Chapter six: overall discussion

Chapter six provides an overall discussion of the thesis. The thesis aims are revisited and discussed. The findings from the studies within this thesis are summarised and discussed in terms of their implications for policy and practice within the current context of physician health. Directions for future research highlighted, so that the work from this thesis may be progressed.

Chapter 1: Background

1.1. Introduction

This chapter provides the background context to this thesis. First, the systems within which doctors work and study are outlined. A description of physician health policy follows. Doctor and medical student health is then examined, including susceptibility to mental illness, illness behaviours, and why doctor and medical student health is of concern. Existing strategies to improve doctor and medical student mental health are then discussed.

The chapter continues with an introduction to disclosure; what it is, how it has been conceptualised, what interventions to support it have been implemented, and its relevance to doctors and medical student mental health. Behaviour change theory is introduced, focussing on motivational interviewing (MI).

This chapter concludes with the rationale for this thesis, its aims and research questions.

1.2. Doctor and medical student health

To understand the issue of doctor and medical student disclosure of mental ill health, an overview of the medical working environment, medical curriculum and the wider policy context is important.

1.2.1 The context

Medical delivery systems differ in their execution worldwide. In the United Kingdom (UK), most doctors work within the government-funded National Health Service (NHS). This has become the largest publicly-funded health service in the world. Healthcare systems in other developed countries such as Canada, Australia, Belgium and France provide public insurance for basic healthcare coverage. Individuals may purchase additional private insurance (Dixit & Sambasivan, 2018). Within the European Union (EU), healthcare systems are diverse but all aim to spread medical care costs among the population, acknowledging that what individuals can afford to pay varies (Jakubowski & Busse, 1998). In some countries, enrolling in healthcare insurance programmes is voluntary. In low to middle income countries, 50% of healthcare is funded on average by "out of pocket" payments (Mills, 2014). The United States (US) is a notable exception among developed countries; it does not have a universal healthcare system where individuals are required to purchase insurance.

Medical education varies worldwide. Undergraduate training lasts for 5 years in the UK, with 2 years post-qualification training. Undergraduate training lasts for 6 years in the mainland Europe countries of Germany, the Netherlands, France and Denmark (Wijnen-Meijer, Burdick,

Alofs, Burgers, & Cate, 2013). The year of study in which clinical placements are undertaken varies by course. A different model is used in the US, where students first complete a Bachelor's degree, before undertaking 4 years of medical training (2 years pre-clinical and 2 years clinical) (Zavlin, Jubbal, Noé, & Gansbacher, 2017). Undergraduate training worldwide varies significantly in its structure and quality (van Zanten, Norcini, Boulet, & Simon, 2008).

Recognition has increased over several decades of how doctors and medical students are impacted by their jobs, training, and by the systems within which they work and study. A comprehensive overview of stress in health professionals published in the late 1980s included research findings on stressors for both doctors and medical students (Payne & Firth-Cozens, 1987). More recently, reports by UK government and the UK doctor trade union the British Medical Association (BMA) have drawn attention to the issue of doctors' health (BMA, 2007; Department of Health, 2010). This followed the findings of an inquiry into the mental health care and treatment of psychiatrist Daksha Emson who died by suicide (North East London Strategic Health Authority, 2003). The issue of doctors' health has received global attention. In the US, the publication of "The Sick Physician" (Council on Mental Health, 1973) by the American Medical Association (AMA) led to the creation of programmes to support impaired physicians, primarily focusing on addictions (Baldisseri, 2007). The Canadian Medical Association (CMA) produced a policy on physician health and wellbeing in 1998 (Puddester, 2001). In 2009, this was followed by publication of the CanMEDS Physician Health Guide, which detailed resources such as the ePhysician Health website (2009). Dedicated physician health, advisory and support services are well-established in the UK; the London-based and NHS-funded Practitioner Health Programme (PHP) was established in 2008. Services have also emerged in countries such as Australia, Norway, and Spain (Braquehais, Valero, Matali, et al., 2014; Ro et al., 2010; Warhaft, 2004). The International Conference on Physician Health (ICPH) runs biennially, supported by the respective medical associations of the US, Canada and the UK. In Europe, the European Association for Physician Health (EAPH) has run conferences since 2009. The importance of addressing health and wellbeing during medical education has been recognised. BMA members passed a motion in 2018 calling for more research into mental health in medical students and improved service provision (BMA, 2018).

In the UK, recent concerns have been raised about the NHS financial deficit of £4.3 billion, staff shortages of doctors and nurses (Campbell, 2018), as well as changes to junior doctors' contracts (Rimmer, 2017), and potential recruitment crises after the UK leaves the European Union (GMC, 2017). The UK regulatory body the General Medical Council (GMC) has expressed concern for the morale and wellbeing of doctors (GMC, 2017). Other countries have their own financial,

social and political issues that impact their healthcare systems. These all add to the challenges that doctors face, impacting on themselves, their working environments, and their patients.

1.2.2 How healthy are doctors and medical students?

Doctors are more likely to develop work-related ill health than other professionals (BMA, 2007), but have physical health at least as good as the general population (Crawford, Shafrir, Graveling, Dixon, & Cowie, 2009). Rates of mental illness are higher in doctors than in the general population (Department of Health, 2008). Suicide rates are elevated in doctors (Hawton, Clements, Sakarovitch, Simkin, & Deeks, 2001), and among other professionals such as veterinary surgeons and pharmacists (Bartram, Yadegarfar, & Baldwin, 2009)

Evidence suggests high levels of mental illness among students generally. A UK government report found that 27% of students surveyed reported having a mental health problem (YouGov, 2016). The number of students disclosing a mental health condition to their higher education institution has increased substantially in the past decade (Thorley, 2017). For medical students, levels of both specific mental health diagnoses and psychological distress have been found to be consistently higher than in the general population (Beyond Blue, 2013; Dyrbye, Thomas, & Shanafelt, 2006), and are thought to develop during medical school (Thompson, McBride, Hosford, & Halaas, 2016). A systematic review estimated the prevalence of suicide ideation among medical students to be 11% (Rotenstein et al., 2016).

Accordingly, there is now a large literature focussed on the mental health of doctors and medical students. Within this, key domains of interest include physician impairment, burnout, wellness, compassion fatigue and resilience.

Physician impairment is a physical, mental, or substance-related disorder that interferes with the ability to practice medicine competently and safely (Council on Ethical and Judicial Affairs, 2000). Research in this area has primarily focussed on substance abuse. A review of studies in the US and Switzerland found that doctors have similar rates of drug dependency to the general public, of 1% to 2% (Carinci & Christo, 2009). In the UK, up to 1 in 15 doctors may experience drug or alcohol dependence (BMA, 1998: cited in Marshall, 2008). Substance abuse in doctors typically begins during or even before medical training (Carinci & Christo, 2009).

Burnout has been defined as a syndrome involving emotional exhaustion (EE), depersonalization (DP), and a diminished sense of personal accomplishment (PA) (Maslach, Jackson, & Leiter, 1986). Doulougeri notes that the prevalence of burnout in health professionals reported has ranged from 25% to 75%, due to issues in how it is measured (Doulougeri, Georganta, & Montgomery, 2016). Specifically, there is a lack of consensus on how the most commonly used

measure, the Maslach Burnout Inventory (MBI), is implemented and interpreted. There is therefore a lack of robust data on the prevalence of burnout in doctors and medical students.

Wellness was introduced as a specific area of interest due to recognition that the mere absence of symptoms of mental ill health does not equate to mental wellbeing (Wallace, Lemaire, & Ghali, 2009). Figures on physician wellness vary widely due to the many ways in which it can be measured. Some studies report similar wellness among doctors to the general population (Wallace & Lemaire, 2007).

Compassion fatigue comprises both burnout and secondary traumatic stress (Huggard, Hudnall Stamm, & Pearlman, 2013). Research has tended to focus on all healthcare professionals within single specialties e.g. oncology, intensive care. A related area of interest is empathy, as the most empathetic doctors report the lowest rates of stress and burnout (Gleichgerrcht & Decety, 2013).

Resilience is a relatively newly developed area. It is described as a 'process' or response to adversity and stress. It is of importance in doctors as loss of resilience is thought to lead to burnout (Eley, Cloninger, Laurence, Synnott, & Wilkinson, 2013). There are some concerns with the inconsistency with which resilience is defined and measured (Balme, Gerada, & Page, 2015).

The above domains encompass a broader range of impacts on physician mental health and wellbeing than looking solely at mental illness. This is important because symptoms may be associated with significant functional impairment or suffering despite not meeting diagnostic criteria for a mental disorder (Harvey, Laird, Henderson, & Hotopf, 2009). It is also important to note that the diagnosis of an illness alone does not equal functional impairment e.g. a long-term condition may be well-controlled by medication.

The exact prevalence of doctor and medical student mental ill health is difficult to determine because of the wide variation in how it has been studied. Measures vary between studies, as have study populations. Studies have been undertaken in vastly different education and healthcare systems worldwide. However, there is global evidence that the mental health of doctors and medical students is of concern (Brooks, Gerada, & Chalder, 2011).

1.2.3 Why are doctors and medical students at risk of mental ill health?

A range of stressors can impact on the mental health of those working in medicine, making a medical career a demanding one.

Doctors experience high workloads globally. This has been documented by studies in countries such as Canada (Wallace et al., 2009). In the UK, staffing levels have not met increasing demands

in specialties such as accident and emergency (A&E) and general practice (GMC, 2017). An increasing number of doctors in training posts are choosing to take a break from working after training, with 51% surveyed citing burnout as a reason (GMC, 2017). A survey of general practitioners (GPs) found more than half suffer from stress as a result of their work, with one in ten taking time off due to work-related stress (BMA, 2017). Work-related stress has been found to be associated with mental ill health (Ramirez, Graham, Richards, Cull, & Gregory, 1996; Virtanen et al., 2008). Indeed, rates of work-related mental illness have increased for doctors (Zhou, Carder, & Gittins, 2017). Aside from workload, other workplace factors include an overall medical culture that can be macho and workaholic (Miller, Mcgowen, & Quillen, 2000), workplace bullying, and poor relationships with colleagues (Brooks et al., 2011). Other stressors include patient expectations (Brooks et al., 2011), relationships with senior doctors, making mistakes, and fears of litigation (Firth-Cozens, 2001). Complaints procedures against doctors have been shown to significantly affect doctors' mental health (Bourne et al., 2015).

Doctor training is physically demanding, with issues such as sleep-deprivation (GMC, 2017). Fatigue is associated with an increased risk of burnout (Wallace & Lemaire, 2007). Medicine can be emotionally demanding (Brooks et al., 2011), with frequent contact with illness and death (Bennett & O'Donovan, 2001). "Emotional labour" has been studied since the 1980s, particularly in healthcare workers, where managing emotions is a job requirement (Erickson & Grove, 2008). A major stressor is the conflict between personal and work lives (Firth-Cozens, 2001). This can be particularly difficult for doctors in training, who undertake a series of placements, or 'rotations'. Moving frequently geographically can mean long commutes, negative impacts on social networks (Feeney et al., 2016), and difficulties in planning their lives e.g. moving house, starting a family (Rich, Viney, Needleman, Griffin, & Woolf, 2016).

Many stressors begin for doctors when they are students. Some stressors apply to all students. The transition to university is a stressor, and may involve moving away from home, in addition to adapting to new learning styles, having to make new friendships, and handling finances (Macaskill, 2013). Studying medicine brings a range of other stressors, some at specific stages of training (Dahlin, Joneborg, & Runeson, 2005). Transitions, e.g. between pre-clinical and clinical training, can be particularly stressful (Radcliffe & Lester, 2003). Training can be demanding physically and emotionally (Weiss Roberts, Warner, Rogers, Horwitz, & Redgrave, 2005). Medical students face long hours, ethical issues (e.g. abortion, confidentiality) and exposure to death, disease and suffering (Firth-Cozens, 1987). Students may have placements away from their peer support group (Dyrbye, Thomas, & Shanafelt, 2005). Academically, medical students must absorb large volumes of information and adapt to being among high-achieving peers (Dunn, Green Hammond, & Weiss Roberts, 2009; Dyrbye et al., 2005).

Interactions with patients can be stressful, as can those with consultants (Firth, 1986), particularly where teaching methods use humiliation and embarrassment (Radcliffe & Lester, 2003). The effect of studying medicine on students' private lives is another stressor (Firth, 1986). Student debt from medical education is considerable in North American countries (Dyrbye et al., 2005). In the UK, finances were found to have a major impact on medical student wellbeing (Cohen et al., 2013). There is little time for exercise or socialising (Dunn et al., 2009). Stress as a medical student may result in impairment later in a doctor's career (Radcliffe & Lester, 2003).

Issues relating to the medical school or workplace are compounded by individual factors. Personality factors can add to the risk of poor mental health among doctors and medical students. While perfectionism is a desirable characteristic in a medical career, it can be maladaptive (Enns, Cozx, Sareen, & Freeman, 2001). Certain personality types (high neuroticism and high conscientiousness) were predictive of stress in a national longitudinal survey of Norwegian medical students (Tyssen et al., 2007). Among GPs in the UK, early experiences were important, and being self-critical was predictive of depression (Firth-Cozens, 1998). In a cohort study of UK doctors, personality traits were correlated with stress, burnout and job satisfaction (McManus, Keeling, & Paice, 2004).

1.2.4 Doctor and medical student illness behaviours

Doctor and medical student illness behaviours also impact on mental ill health. The illness behaviours that doctors exhibit are well-documented (Firth-Cozens, 2001). These include coping strategies of denial and avoidance, poor attention to own health and wellbeing, self-prescribing, and "working through" illness instead of taking sickness absence (presenteeism) (Aronsson & Gustafsson, 2005; Baldwin, Dodd, & Wrate, 1997; Campbell & Delva, 2003; McKevitt, Morgan, Dundas, & Holland, 1997; Wallace & Lemaire, 2007). Help-seeking is often informal e.g. "corridor consultations" (Kay, Mitchell, Clavarino, & Doust, 2008). Many of these behaviours are learnt as a medical student (Chew-Graham et al., 2003). One UK study of medical students found that self-care was common, with students taking advantage of their increasing clinical access (Hooper, Meakin, & Jones, 2005).

Delaying help-seeking is also seen in the general population. In an Australian study, patients referred to a specialist anxiety treatment service had delayed help-seeking for 8 years on average (Thompson, Issakidis, & Hunt, 2008). A national UK survey found that 22% of individuals surveyed who had experienced mental health problems had waited more than a year to talk to their GP about it. 28% waited for the same length of time to tell their families (Time to Change, 2014). Doctors also delay help-seeking. Evidence suggests that doctors behave differently to how they think they will when confronted with mental ill health (Cohen et al., 2016). In a study

in the Republic of Ireland, over a fifth of doctors surveyed would wait until feeling hopeless, helpless or suicidal before seeking help (Feeney et al., 2016). This is further suggested by studies that have found the rate of attempted suicide to be greater for doctors attending specialist services than that of the general population (Garelick et al., 2007; Ro, Gude, & Aasland, 2007).

Several factors impact on doctors' and medical students' illness behaviours. Doctors and medical students with mental ill health experience a range of emotions, including shame and embarrassment (Chew-Graham et al., 2003; Davidson & Shattner, 2003). Image and identity are key issues for doctors becoming ill. Doctors feel the need to portray a healthy image to others (Thompson, Cupples, Sibbett, Skan, & Bradley, 2001). The transition from being a 'healer' to becoming a patient was associated with a "fundamental change in identity" in a qualitative study of doctors who had been away from work for at least 6 months with health or addiction problems (Henderson et al., 2012b). The study also found that general feelings of 'failure' at being unwell became self-stigmatisation that represented an obstacle in the doctors' return to work. Illness behaviours are also shaped by perceptions of stigma. This includes fear of negative repercussions. One study found that medical students were reluctant to seek help due to concerns about how others' mental health stigma may impact their career progression (Chew-Graham et al., 2003). Self-diagnosis, self-treatment and presenteeism are illness behaviours exhibited by medical students as well as doctors (Gold, Johnson, Leydon, Rohrbaugh, & Wilkins, 2015).

1.2.5 Why doctor and medical student mental health matters

There are considerable impacts from poor doctor and medical student mental health from both the illness itself, and from illness behaviours. GMC figures showed that there were 236,732 doctors in the UK with a licence to practise in 2017, and 39,185 medical students at UK universities in 2016. It has been estimated that over their career, 10 to 20% of doctors develop depression (Firth-Cozens, 2006). In the UK, a systematic review found common mental disorders affected between 17% and 52% of UK doctors (Imo, 2017). Between 30 and 40% of UK doctors are estimated to have burnout, and work-related stress (Kinman & Teoh, 2018). Using even the most conservative estimates of what proportion of doctors and medical students experience mental ill health, this still equates to considerable numbers.

The importance of preventive action to prioritise the health and wellbeing of NHS staff was recognised in the Boorman Review (Department of Health, 2009), which set out 20 recommendations. These included providing preventive staff health and wellbeing services, and integrating health and wellbeing training into management training. A report by the Royal College of Physicians noted that good staff health, wellbeing and engagement impacts positively

on patient safety, patient experience of care, costs, and job satisfaction (Royal College of Physicians, 2015). Among healthcare professionals, staff health "has the potential to affect the health of the wider population" (Harvey et al., 2009).

Sickness absence is a key issue, in terms of both economics, and the strain on the remaining workforce. NHS figures showed that the latest average staff sickness absence rate in England was 4%, with a lower rate of just over 1% among medical and dental staff (Health and Social Care Information Centre, 2018). In the general population, more sickness absence is taken for mental or behavioural disorders than for any other diagnosed disorders. The length of sickness absence spells are also more likely to be longer (NHS Digital, 2017). Evidence suggests that official sickness absence figures for doctors for mental health are underreported (Lalloo, Ghafur, & Macdonald, 2013). A further issue is that some doctors may take sickness absence for mental ill health, but give a physical health reason, due to concerns about stigma (Adams et al., 2010). The importance of monitoring sickness absence figures relating to mental ill health specifically has been recognised. The cost of doctors' sickness absence specifically is not known, but across the whole NHS workforce reducing sickness absence could save £555 million per year (Department of Health, 2009).

The impact of doctors' ill health on patient outcomes is important. A strong association between major medical errors and burnout has been reported in surgeons (Shanafelt et al., 2010), and between burnout and poor patient outcomes such as lower satisfaction and longer recovery time (Halbesleben & Rathert, 2008a). Other evidence is conflicting. One systematic review found moderate evidence that burnout is associated with aspects of quality of care relating to safety, but was less conclusive about those relating to patient acceptability (Dewa, Loong, Bonato, & Trojanowski, 2017). Another systematic review found that physician wellbeing was related to patient satisfaction and interpersonal aspects of care, but the evidence linking technical ability and medical errors to physician wellbeing was contrary (Scheepers, Boerebach, Arha, Jan Heineman, & Lombarts, 2015). This is congruent with a description from a study on the UK's MedNet psychotherapy service for doctors (now closed) of doctors as "high-functioning individuals who tend to keep working very well, at the expense of their personal relationships and despite significant mental distress" (Meerten, Bland, Gross, & Garelick, 2011).

Looking at students, there is global concern about student mental health (Macaskill, 2013). In the UK, suicide is a leading cause of death for young adults (Rodway et al., 2016). Universities are under pressure from government to address student mental health (Busby, 2018). Various recommendations and strategies have been proposed, including guidance on how universities should address suicide (Universities UK, 2018). Academically, the implications of poor student

mental health include lower achievement, or students withdrawing entirely from their course (Hughes, Panjwani, Tulcidas, & Byrom, 2018). For universities, low levels of disclosure of mental health by students to their institution creates challenges in provision of support and adjustments (Brill, 2015).

For medical students, psychological distress can have professional impacts, including effects on empathy and ethical conduct. Personal impacts include suicidal ideation and relationship issues (Dyrbye & Shanafelt, 2011). Medical students with burnout in one US study were more likely to withdraw from their studies (Dyrbye et al., 2010). There are wider impacts within medical schools. Professional staff in student-facing roles have been found to play an important role in supporting students. For some, this results in an emotional impact that affects their day-to-day work (Hu, Flynn, Mann, & Woodward-Kron, 2016). The GMC has recognised the importance of supporting medical students with mental health conditions, and published guidance on this for medical schools (GMC, 2013c). The guidance encourages promotion of good mental health and wellbeing, as well as stipulating how to support those students with mental ill health.

1.2.6 What is already being done to support the mental health of doctors and medical students?

Measures to help support doctors and medical students with mental ill health have been created on both individual and organisational levels. Some are preventive, others have adopted a remedial approach.

Legislation and regulation have been examined. In the UK, a report into suicide among doctors undergoing GMC fitness to practise procedures highlighted the vulnerability of some doctors and led to a reform of processes (Dyer, 2015; Horsfall, 2014). The law surrounding professional regulation has been under consultation. It is hoped that reforms to the law will help support workforce development and maximise public protection (GMC, 2017). The medical bodies of individual countries have produced guidance for doctors on maintaining their own wellbeing. Recommendations include measures such as ensuring doctors have their own doctor, and discouraging self-treatment and self-prescribing (Canadian Medical Association, 2003). In the UK, GMC guidance states that doctors should be registered with a GP outside their own family, and that “Wherever possible you must avoid prescribing for yourself or anyone with whom you have a close personal relationship”. If self-prescribing, doctors must keep a record, and inform their GP (GMC, 2013b).

Specialist mental health services for doctors have been established globally. These include the Practitioner Health Programme (PHP) in London (Gerada, 2018), the Health for Health Practitioners (HHP) service in Wales (https://www.hhpwales.co.uk), the Practitioner Health

Matters programme in Ireland (https://practitionerhealth.ie), the Villa Sana centre in Norway (Ro et al., 2010), and the Caring Program for Sick Physicians in Spain (Braquehais, Valero, Matali, et al., 2014). Between 2008 and 2018, over 5,000 doctors attended the London PHP (Gerada, 2018). There are numerous PHPs in North America, including state-run ones. Balint groups are another supportive measure, and began in the 1950s (Van Roy, Vanheule, & Inslegers, 2015). They allow space for reflection on problematic patient cases (Miller et al., 2000). In the US, Schwartz Center Rounds were developed in the late 1990s as a forum for discussing psychosocial and emotional aspects of patient care (Lown & Manning, 2010). The longest-running service in the UK is the BMA's 24 hour helpline for medical student and doctor members. In January 2017, a nationwide telephone help service for GPs was launched by NHS England. The scheme provides confidential health advice to GPs (including trainees) (NHS England, 2017). The DocHealth service created in 2016 is also UK-based, supported by the BMA and the Royal Medical Benevolent Fund (RMBF). The UK charity Doctors' Support Network (DSN) currently offers support to both doctors and medical students through social media and an anonymous online forum. Some medical specialties provide specific support for their doctors (Kinman & Teoh, 2018).

Some medical schools and universities offer dedicated support services for medical students (e.g. Medic Support at Cardiff University, Wales). Interventions have been trialled, such as suicide prevention programmes in the US (Moutier et al., 2012). It has been suggested that strategies directed at the undergraduate curriculum, e.g. challenging the 'invincible' doctor myth, might facilitate sick doctors returning to work (Henderson et al., 2012a). Other measures have focussed on small changes to improve how doctors and medical students feel valued and respected, such as free breakfasts for doctors in training after night-shifts (BMJ, 2018). Charity campaigns have included the DSN's anti-stigma campaign, &Me. Launched in January 2017, the campaign encourages senior healthcare professionals who are in recovery from mental illness to informally self-identify as having experienced a mental health condition. It is hoped that this will help normalise mental ill health among healthcare professionals, and reduce stigma (Bower, 2017).

Despite the range of support services available, many doctors and medical students remain unsure of where to seek help. Recognised pathways for support such as Occupational Health and deanery support units are under-used (Cohen et al., 2016). Available support does not always meet needs. A survey of UK medical students found that of those who had received mental health treatment, 80% thought the level of support available to them was either poor or only moderately adequate (Billingsley, 2015).

1.3. Disclosure

1.3.1. What is disclosure?

To disclose is to "reveal new or secret information", or to "allow something hidden to be seen" (Oxford Living Dictionaries, 2018). Early literature within social psychology defined self-disclosure as an individual's decision about "whether to reveal one's thoughts, feelings or past experiences to another person" (Chaikin & Derlega, 1974). Today, 'disclosure' is a term used in fields as diverse as economics, law and politics. Within the health field, the literature encompasses disclosure of physical health diagnoses (e.g. human immunodeficiency virus (HIV), cancer), risky health behaviours (e.g. alcohol or tobacco use) and psychologically related disclosures (e.g. past trauma, psychiatric status).

1.3.2. A definition of disclosure for this thesis

This thesis examines doctors' and medical students' disclosure of their own mental ill health. "Disclosure" in this context is defined as *intentionally* revealing information. This thesis primarily considers the importance of disclosing for help-seeking but does not limit the focus solely to that purpose. Preliminary examination of the literature indicates that doctors and medical students might disclose for other reasons e.g. regulator responsibilities.

1.3.3. Conceptualising disclosure decision-making

Some models have attempted to conceptualise disclosure decision-making. This includes models of disclosing invisible social or stigmatised identities (e.g. religion, chronic illness) to the workplace (Clair, Beatty, & MacLean, 2005; Ragins, 2008). A few models are relevant to a health context. Disclosure models have mainly involved a simple weighing up of risks and benefits (Greene, 2009). The Disclosure Decision-Making Model (DD-MM) attempts to address the gap in understanding about the decision process itself (Greene et al., 2012). Within the model, a diagnosis or information pertaining to a health issue is assessed, before the potential 'receiver' of that information is evaluated. Perceived disclosure efficacy (the discloser's belief in their ability to disclose) is then evaluated. This model was designed with individuals who have already received a health diagnosis in mind; it was acknowledged that the model was not best suited for other situations, such as considering disclosure of symptoms to a medical professional (Greene, 2009). The model also does not address the ongoing nature of disclosure alongside changes in health status, nor consider the level of disclosures beyond a simple conceal/disclose choice (Greene et al., 2012). A further model, the Disclosure Processes Model (DPM), was developed in an attempt to theorise how successive parts of the disclosure process may interrelate, and why outcomes of disclosure may be beneficial (Chaudoir & Fisher, 2010). The model outlines how outcomes are mediated through alleviation of inhibition, social support, and changes in

social information. The model again focusses on a 'concealable stigmatised identity', implying a current diagnosis or history of mental ill health, rather than concern over symptoms.

1.3.4. Disclosure of mental ill health in an employment context

The specific difficulties relating to disclosure of mental ill health in a general employment context have been recognised. The mental health charity Mind has broached the topic as part of their leaflet 'Discrimination at work' (Mind, 2018). A survey by another charity showed that of UK employees surveyed, only 28% of those with a mental health issue "involved someone at work", fearing a negative impact. Fewer (13%) felt able to disclose a mental health issue to their manager. Fears of negative repercussions are not unfounded. Of those disclosing, 15% were subject to disciplinary procedures, demotion or dismissal (Business in the Community, 2017).

A London-based UK qualitative study focussed specifically on disclosure of mental ill health in employment (Brohan et al., 2014). The study examined the beliefs and experiences of mental health service users who had already received a diagnosis. The findings informed a four-dimensional framework for understanding disclosure beliefs and experiences. It incorporates societal, employment and interpersonal contexts, in addition to individual disclosure needs. In terms of understanding the logistics of how disclosures themselves were made, participants discussed the timing of disclosure, disclosing a little at a time, and the purpose of disclosing to obtain workplace adjustments, or for honesty. The study also highlighted that some employees saw clear benefits to disclosing, when most studies have focused on the potential negative consequences of disclosing. Overall the study covered new ground in looking at disclosure in an employment context specifically rather than general help-seeking. The limitations of the study are that the views of men and of the unemployed were over-emphasised.

1.3.5. Disclosure interventions

There are some interventions to support health disclosure decisions. Brohan et al. (Brohan, Henderson, Slade, & Thornicroft, 2013) developed a paper-based decision-aid, 'CORAL', to support individuals in reaching a decision about disclosing an existing mental health diagnosis to potential or current employers. An exploratory randomised controlled trial (RCT) of CORAL with participants referred to a vocational service for clients with mental health problems found that decisional conflict was significantly reduced in the intervention group. More of the intervention group were in full-time employment at 3-month follow-up (Henderson et al., 2014). Qualitative findings suggested that the decision-aid impacts on numerous dimensions of decisional conflict: clarifying advantages and disadvantages, increasing knowledge, structuring decision-making, and clarifying needs and values (Lassman et al., 2015). The authors noted that their model may not generalise to those not receiving mental health services.

Another intervention used the DD-MM to guide development of a Brief Disclosure Intervention (BDI). It was applied in one study to assist African Americans to disclose their HIV status (Greene, Carpenter, Catona, & Magsamen-Conrad, 2013). The intervention developed was based on Brief Motivational Interviewing (BMI), and was designed to be delivered by a trained facilitator in a brief face-to-face session. The study interviewed participants at two time points, collecting quantitative and qualitative data, alongside implementing the BDI. A control group took part in the interviews, but did not receive the BDI. Findings showed that those in the intervention group reported increased disclosure efficacy and decreased disclosure anxiety and worry.

1.4. Mental health and disclosure in doctors and medical students

This chapter so far has described the issues surrounding doctor and medical student mental health, and those surrounding health disclosure. I now bring these two topics together.

1.4.1. When should doctors and medical students disclose?

The importance of timely disclosure of mental ill health is clear. In the general population, studies show that poorer treatment outcomes follow longer durations of untreated mental illness (Jorm, 2011). Disclosing is a necessary step in obtaining access to treatment and support. There may also be circumstances in which disclosing is a regulatory requirement for doctors and medical students i.e. as part of fitness to practise. This is now examined in more depth.

For most employees, the decision whether to disclose mental ill health is a choice, not an obligation. There are exceptions in professions that have medical requirements, notably aviation and the armed forces. For health professionals, including doctors, working within a regulated profession means that there is a duty to disclose any health condition, physical or mental, that may impact on their ability to safely carry out their job. The GMC regulates the medical profession in the UK, setting standards for doctors and overseeing undergraduate medical education and postgraduate training. The GMC investigates when there are concerns over a doctor's ability to practice safely (i.e. 'fitness to practise' (FTP) investigations). For medical students, their fitness to practise is considered by their medical school (GMC, 2016).

The overall number of FTP investigations by the GMC due to health reasons last reported was low. Most investigations were due to substance misuse and mental health rather than due to physical health complaints (GMC, 2012). The GMC states in their guidance that ill health alone is not automatically considered to be an impairment to practise. To clarify, the guidelines on 'Good Medical Practice' (GMC, 2013a), include the following statement:

"If your judgement or performance could be affected by a condition or its treatment, you must consult a suitably qualified colleague. You must follow their advice about any changes to your

practice they consider necessary. You must not rely on your own assessment of the risk to patients."

As part of adhering to fitness to practise guidelines, doctors are required to disclose mental ill health during revalidation. Revalidation involves annual appraisals, and either a five-yearly recommendation from a 'responsible officer' or an assessment. As part of the annual appraisal, doctors are required to make a health declaration (GMC, 2018). In the US, some states mandate reporting of mental ill health by doctors to state licensing boards. State requirements vary substantially, with some boards requesting information solely on health conditions that may impair work performance, and others requiring information on all diagnoses and treatment ever received Gold, Andrew, Goldman, and Schwenk (2016).

Outside of the context of fitness to practise, disclosing is necessary to workplaces or medical schools to access support or adjustments. In the UK this is guided by the Equality Act of 2010, which defines a disability "as a physical or mental impairment that has a substantial and long-term adverse (negative) effect" on a person's ability to carry out normal day-to-day activities". For those workers whose mental illness meets this criteria, the Act stipulates that employers are obligated to make "reasonable adjustments". In a general population study, disclosing to the workplace was seen as unavoidable for some individuals with mental ill health (Brohan et al., 2014). To access adjustments, disclosure was a pre-requisite.

1.4.2. What happens after disclosure?

First-hand accounts of 'the dangers' for doctors of disclosing mental ill health are readily available (BMJ, 1997). Consequences reported often include investigations by licencing bodies or arduous occupational health (OH) processes (BMJ, 1997; Student Doctor online forum, 2007). The impact that female doctors experienced after disclosing to their state licensing boards was explored in one US study. This ranged from supplying dates of treatments to extensive medical records, independent monitoring, or enrolment in PHPs (Gold et al., 2016).

Doctors who are mentally unwell are more likely to have good outcomes if they engage with services. Doctors attending the London PHP service for mental ill health or substance abuse reported less distress and less functional impairment at follow-up (Brooks, Gerada, & Chalder, 2013). A five-year review on the service indicated that 76% of doctors attending remained in or returned to work (Practitioner Health Programme, 2013). In a Norwegian cohort study of doctors attending a counselling intervention for burnout, levels of emotional exhaustion and job stress were significantly reduced at three-year follow-up (Ro et al., 2010). This was in addition to a substantial decrease in the proportion of participants on sick-leave.

A UK study reporting on MedNet, showed that doctors had a good engagement rate and that the service was effective (Meerten et al., 2011). A later study (Davies, Meerton, Rost, & Garelick, 2016) went some way to dispelling myths about doctors' careers being at risk at ending for seeking treatment for psychological distress. 124 doctors treated at MedNet between 2002 and 2007 were followed up in 2010. The majority (95.6%) of doctors had continued to work in medicine, with 50% having changed the professional grade they were working at since discharge. The largest change here was an increase in the number of consultants, evidencing career progression. Psychological distress and the amount of sickness absence taken were significantly reduced. 58.3% of doctors remained engaged with professional support services of some description. 10% stated that they were now working part-time due to health reasons. There was also a shift from addressing somatic concerns to psychological ones.

An audit of all 700 pre-employment questionnaires completed by doctors starting work at one UK NHS trust between July 1993 and June 1996 detailed outcomes for those declaring a history of mental health problems. All 16 doctors with such history were assessed as medically fit to work in the job that they had applied for. For nine doctors who indicated that their problems were work-related, appropriate strategies were discussed. In the longer term, one doctor had a month's sickness absence due to a relapse of their condition. Two doctors made referrals back to OH, resulting in further referrals to counselling and careers advice (Madan, 1998).

There are few studies overall that detail long-term outcomes for doctors and medical students after mental ill health disclosures. Much of the evidence on outcomes for doctors accessing treatment relates to addictions and substance abuse. A US study examining 5-year outcomes for practitioners across 16 PHPs (McLellan, Skipper, Campbell, & DuPont, 2008) found that those who failed the programme (19.3%) usually did so early on. Of those who did complete treatment, over 80% did not test positive for drugs or alcohol at the 5-year follow-up. Around 78.7% of the doctors were working after 5 years, and 95% were still licensed. It was concluded that approximately three quarters of the professionals in the study had favourable outcomes after 5 years, and that positive outcomes relate to the long-term nature of treatment and monitoring (Brooks et al., 2011).

1.4.3. The potential for intervention development

It is clear that disclosing mental ill health may be beneficial to doctors and medical students, for both earlier treatment, and the implementation of adjustments. Despite the efforts that have attempted to improve doctor and medical student mental health, the literature indicates that the issue of late and non-disclosure of mental ill health prevails. I now discuss behaviour change

interventions and how theory might be applied to developing an intervention to support doctors and medical students in decision-making about disclosing their mental ill health.

1.4.4. Behaviour change interventions

An intervention to support disclosure decision-making would be categorised as a behaviour change intervention. Behaviour change relates to "behaviour patterns, actions and habits that relate to health maintenance, to health restoration and to health improvement" (Gochman, 1997). Interventions seek to help individuals cease unhealthy behaviours (e.g. smoking) and adopt healthy behaviours (e.g. exercise). They may be implemented on individual, community or population levels.

Behaviour change interventions have historically been delivered in-person, in face-to-face settings of a client and health practitioner. Early computer-based interventions replicated a series of therapeutic sessions (Michie, Yardley, West, Patrick, & Greaves, 2017). Technology has evolved to facilitate delivery via multiple alternative modes, including personal digital assistants (PDAs) (Helbostad et al., 2017), wearable sensors and interactive websites (Michie et al., 2017). Some technology-based interventions are still "translated" from existing interventions (Antonio, Courtney, Lingler, & Matthews, 2017). Others are developed for a specific technology-based format. The popularity of mobile technologies has provided an opportunity for health behaviour change interventions to be delivered via mobile devices. This includes text-messaging (SMS), multiple media (e.g. SMS and photos), and software applications (apps) (Free et al., 2013; Helbostad et al., 2017). Interventions have been applied to diverse issues, aiming to either increase healthy behaviours or target disease management (Free et al., 2013). For example, interventions for weight loss, smoking cessation or improving sexually transmitted disease (STD) awareness (Bert, Giacometti, Gualano, & Siliquini, 2014).

Health behaviour change interventions are generally complex, i.e. they have several interacting components (Craig et al., 2008). Current best practice in developing a complex intervention is considered to be outlined in guidelines by the Medical Research Council (MRC). The guidelines specify four stages: development, feasibility and piloting, evaluation and implementation (Medical Research Council, 2008). This thesis focusses on the development stage.

A theoretical understanding of the behaviour change involved in any intervention is required to comprehend how its mechanisms result in better outcomes. Using a theoretical model can help to clarify such mechanisms and highlight the 'active' components, thereby explaining why an intervention is successful or not (Sylvia Kauer, Kerrie Buhagiar, & Lena Sanci, 2017). Theoretically-based behaviour change interventions are more effective than those lacking a theoretical basis (Glanz & Bishop, 2010). There are a wide range of models and methods for

health behaviour change in current usage. These include the Theory of Planned Behaviour, the Health Belief Model (HBM), and the Transtheoretical Model (TTM). Earlier in this chapter I described two studies that implemented interventions for health disclosure decisions, one using a decision-aid (Henderson et al., 2014), and one using BMI (Greene et al., 2013). Decision-aids and motivational interviewing are now discussed in turn.

1.4.5. Decision-aids

Decision-aids are commonly used by healthcare professionals with patients in a 'shared decision-making' context regarding treatment options (Drug and Therapeutics Bulletin, 2013). Shared decision-making evolved to make care more patient-centred. The King's Fund provided this definition of shared-decision-making: "Shared decision-making is a process in which clinicians and patients work together to select tests, treatments, management or support packages, based on clinical evidence and the patient's informed preferences. It involves the provision of evidence-based information about options, outcomes and uncertainties, together with decision support counselling and a system for recording and implementing patients' informed preferences" (Coulter & Collins, 2011). Patients are involved as experts in their own care, bringing expertise in their own life, experiences and values (Godolphin, 2009). The decision also involves a health professional who can ensure that the decision is an informed one by presenting information e.g. treatment alternatives and their potential consequences (Charles, Gafni, & Whelan, 1997). Crucially, as well as providing information on options, shared decision-making helps people to think about their own values.

Decision-aids are tools that can aid shared decision-making. They have been defined as "an educational intervention designed to help an individual make a specific and deliberate choice between two or more options" (Brohan et al., 2013). They differ from patient educational materials in that they help people choose between options, and do not just tell people what they must do (Coulter & Collins, 2011). They may be used by a patient alone (before or after a clinical encounter) as well as within a clinical encounter used jointly with a health professional (Elwyn et al., 2013). Technology has enabled clinical encounters to be mediated (e.g. by telephone) and not just take place face-to-face (Elwyn, Frosch, Volandes, Edwards, & Montori, 2010). Applications of decision-aids are wide-ranging, from physical conditions such as cancer and arthritis, to mental health conditions such as depression (Drug and Therapeutics Bulletin, 2013). Decision-aids have been presented in forms such as booklets, videos, websites, decision boards, bar charts, issues cards and options grids (Elwyn et al., 2013).

Decision-aids can help people to feel better informed, increase knowledge about options, reduce decisional-conflict and make decisions that are more consistent with their values (Stacey

et al., 2014). Decision-aids are increasingly being provided electronically. An Australian study of an online decision-aid for young adults with depression had favourable results. Young people using the decision-aid were more able to make a decision, were more likely to make a decision in line with guideline recommendations and to feel satisfied with that decision (Simmons, Elmes, McKenzie, Trevena, & Hetrick, 2017).

1.4.6. Motivational Interviewing (MI)

MI is a counselling approach to promote behaviour change. It has been defined as aiming "to strengthen personal motivation for and commitment to a specific goal by eliciting and exploring the person's own reasons for change within an atmosphere of acceptance and compassion" (Miller & Rollnick, 2012). It is a client-centred and directive method that explores and resolves ambivalence (i.e. wanting to change yet also wanting things to stay the same). A concept integral to MI is that motivation is a 'state of readiness to change', not denial, resistance or a personality trait (Britt, Hudson, & Blampied, 2004). MI was developed with problem drinkers by William Miller (Miller, 1983, 1994)

The MI practitioner helps to create conditions conducive to change, by implementing key MI skills, and working within the 'spirit' of MI. The key principles that an MI practitioner follows are: express empathy, develop discrepancy, avoid argumentation, roll with resistance, and support self-efficacy (Swartz et al., 2007). There are four main processes that an MI practitioner takes a client through: engaging, evoking, focusing and planning. Miller and Rollnick (2013) define these as follows. Engaging is "the process of establishing a mutually trusting and respectful helping relationship". Evoking is "eliciting the person's own motivation for a particular change". Focusing "involves clarifying a particular goal or direction for change". Planning is "developing a specific change plan that the client is willing to implement".

How MI works has been investigated in terms of both the broad theory that might support it, and the individual mechanisms of change that might be contained within the method. MI is consistent with several theories of health behaviour change. It is not a theory itself, but a *method* for behaviour change. Examination of congruent theories and models has helped to conceptualise how MI works. These include self-determination theory (SDT), and the transtheoretical model of change (TTM). SDT is a broad theory of human motivation. SDT distinguishes between autonomous and controlled motivation, where autonomous motivation results in greater commitment and long-term behaviour maintenance. The strategies of MI are seen to enable the psychological needs of competence, autonomy and relatedness required for autonomous motivation (Friederichs et al., 2013). The TTM or the 'stages of change' model has been described as having a "natural fit" with MI. The method of MI can help people move

through the TTM stages of precontemplation, contemplation, and preparation to action (Miller & Rollnick, 2009). Research has sought to identify the specific mechanisms of change within MI that affect health behaviour outcomes. A systematic review identified MI spirit and motivation as two such key mechanisms of change (Copeland, McNamara, Kelson, & Simpson, 2015). MI spirit is collaborative, respects a client's autonomy and evokes their intrinsic motivation for change (Miller & Rollnick, 2012). Motivation is a process whereby goal-oriented behaviours are initiated, guided, and maintained (Copeland et al., 2015).

MI has been found to be effective in many contexts of health behaviour change (Lundahl et al., 2003), with statistically significant effects on health outcomes (McKenzie, Pierce, & Gunn, 2015). Applications include alcohol dependence, substance abuse, chronic illness management, obesity and poor dietary health (Britt et al., 2004; Copeland et al., 2015). This range shows how MI applies to health outcomes where modification or addition of a behaviour is required (e.g. taking up exercise) as well as stopping an undesirable behaviour (e.g. giving up smoking).

MI was developed as a counselling style for face-to-face settings between an individual client and practitioner. It has since been implemented by telephone, and in group settings (with more than one client) (Britt et al., 2004). MI principles have since been applied in many interventions that lack a traditional client-practitioner interaction. One study used a three-session computerised intervention based on MI approaches in an attempt to improve diabetes self-management among US adolescents (Rajkumar et al., 2015). The computer programme used an avatar consistent with MI principles (e.g. optimism, empathy) to communicate reflections on users' responses, affirmations, and statements emphasising autonomy. This took place after an initial psychoeducation component. Feasibility of the intervention was assessed using rates of participation and satisfaction; both were high, and users found the intervention helpful. A further study used a computerised intervention based on MI, this time to increase physical activity among adults in the Netherlands (Friederichs, Bolman, Oenema, Guyaux, & Lechner, 2014). The intervention again fed back reflections and summaries, through either avatars or full text in the two different study arms. Both methods significantly increased physical activity.

MI has been used to inform a self-help book (Zuckoff, 2015). The book moves away from attempts at mimicking the client-practitioner interaction seen in computerised interventions. The premise of the book is that readers can use some practical ideas by themselves, to support changes that are important to them. The book is in the format of a step-by-step workbook that explains key principles of MI before presenting exercises for the reader to complete, such as identifying their values and rating their readiness to change.

In summary, MI has been applied to a wide range of health behaviours. Many of these interventions have taken place in traditional client-centred face-to-face interactions. More recently, there has been a shift towards alternative modes of delivery.

1.5. Summary and rationale

In this chapter I have described the broad context to the work described in this thesis. I have provided an overview of the environments in which doctors and medical students work and study, and looked at doctor and medical student health. I then broadly explored the strategies that have been employed to improve doctor and medical student mental health. I provided a definition of the term disclosure for this thesis, outlined how it has been conceptualised, and described some disclosure interventions that have been implemented. I then looked at the importance of disclosure for doctors and medical students. Finally, I provided an overview of behaviour change interventions and what theories and models might be applied to this area.

Preliminary exploration of the literature suggested that doctors and medical students may benefit from support in making disclosure decisions about their own mental ill health and that there is potential to apply the model of MI in developing an intervention. The suitability of applying MI to the development of this intervention is further explored in a qualitative study with doctors and medical students (chapter 3) and with an expert group (chapter 4). This chapter concludes with the aims of the thesis, and the research questions that it attempts to answer.

1.5.1. Aims

1. To understand the attitudes and experiences of doctors and medical students in decision-making about disclosing their mental ill health.
2. To develop a theory-based intervention to support doctors and medical students in their decision-making about whether to disclose their own mental ill health to others.

1.5.2. The research questions

To address the aims detailed above, the following research questions are posed:

1. What is known about disclosure of mental ill health in doctors and medical students?
2. How do doctors and medical students make disclosure decisions about their own mental ill health?
3. What does the evidence suggest the key features of an intervention to support disclosure decision-making among doctors and medical students should be?
4. Can an intervention informed by MI support disclosure decision-making among doctors and medical students?

Chapter 2: Structured Literature Review

2.1 Introduction and rationale

This chapter describes a structured review of published studies relating to disclosure of mental ill health by doctors and medical students. Preliminary exploration of this topic in the literature had highlighted an emergent and poorly defined area.

The review sought to identify the evidence base for the development of an intervention to support disclosure decision-making about mental ill health in doctors and medical students. It aimed to further our understanding of disclosure behaviours and attitudes among doctors and medical students with mental ill health and identify gaps in existing knowledge.

This was a narrative structured review that allowed a comprehensive review of both quantitative and qualitative papers. The review used the replicable steps followed in systematic reviews.

2.2 Aim

The literature review aimed to summarise the current state of knowledge of disclosure of mental ill health in doctors and medical students. The key question to be answered was 'What is known about disclosure of mental ill health by doctors and medical students?'

The following sub-questions were explored to answer the above question:

1. How has the disclosure/concealment of mental ill health by doctors and medical students been conceptualised?
2. How many doctors and medical students disclose/conceal their mental ill health?
3. What are the demographics of doctors and medical students that disclose/conceal their mental ill health?
4. What types of mental ill health do doctors and medical students disclose/conceal?
5. When do doctors and medical students disclose/conceal their mental ill health?
6. Whom do doctors and medical students disclose their mental ill health to/conceal their mental ill health from?
7. Why do doctors and medical students disclose/conceal their mental ill health?
8. How do doctors and medical students approach disclosing/concealing their mental ill health?
9. What strategies for improving disclosure have been suggested or implemented?

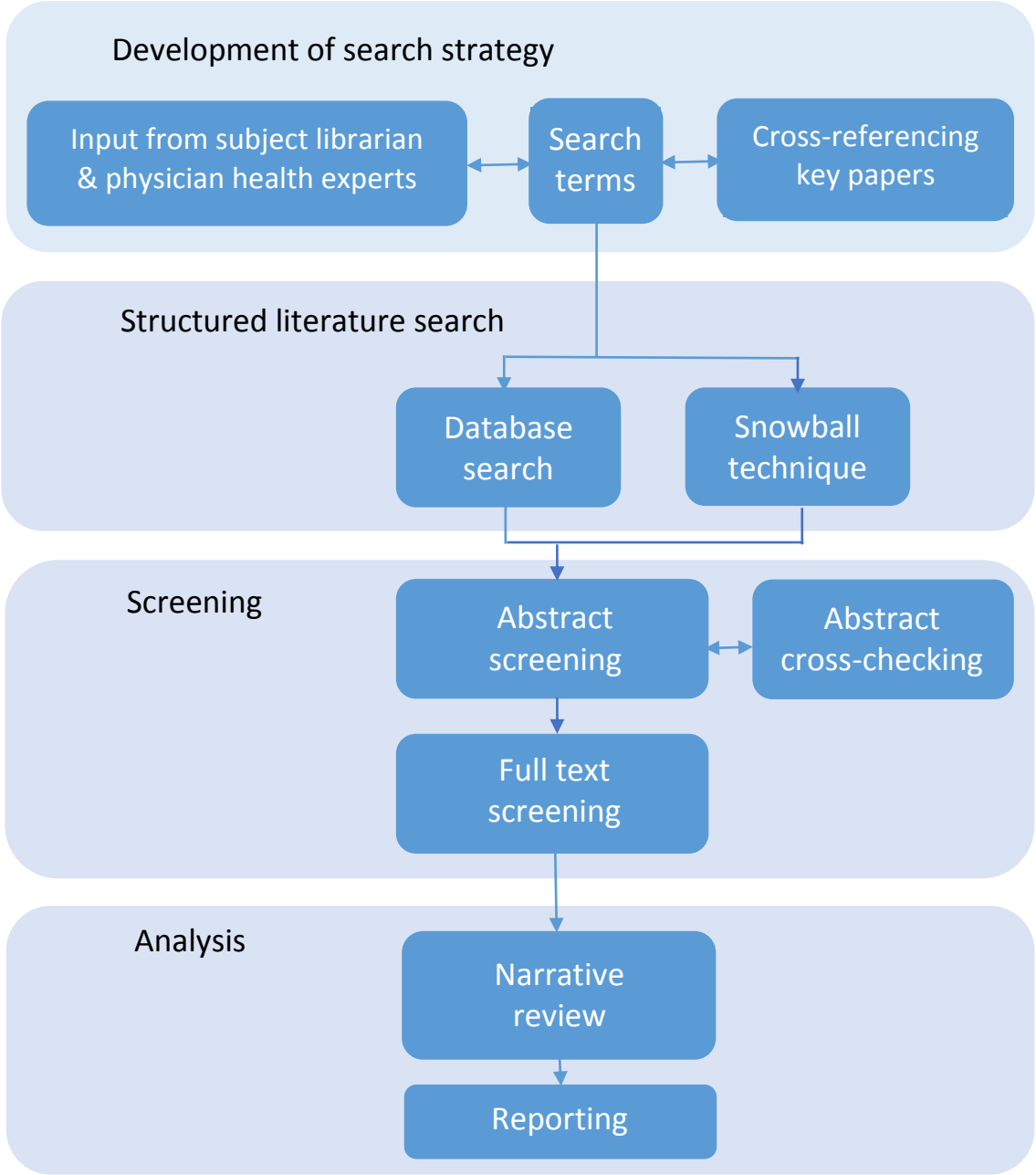
This broad approach was taken as disclosure is an emerging area of interest. This up-to-date review of the literature aims to help clarify our understanding of disclosure and provide evidence to inform the development of an intervention.

2.3 Method

A structured literature search was undertaken across three databases. In addition, a snowball technique was used from prior knowledge of key papers. "Snowballing" includes electronic citation tracking and investigating references of references. This technique can be powerful at identifying sources in obscure locations (Greenhalgh & Peacock, 2005). The review process is shown in figure 2.1. The Cochrane Collaboration defines systematic reviews as those that "collate all evidence that fits pre-specified eligibility criteria in order to address a specific research question" and "aim to minimize bias by using explicit, systematic methods" (Higgins & Green, 2011).

While this literature review followed structured steps, described transparently in the method, study outcomes were not combined, nor was the quality of studies assessed. This was not a synthesis of treatment approaches. Therefore, this literature review is described as 'structured' and not 'systematic'.

Figure 2.1: Overview of the literature review process



2.3.1 Search strategy

The search strategy was developed iteratively, with refinements over time. This process included cross-referencing key papers already identified with the search results. The search terms were reviewed and revised through discussion with a specialist subject librarian, project supervisors, and international colleagues in physician health.

The final search strategy is shown in figure 2.2. It was anticipated that the broad strategy would yield a high number of irrelevant citations, but it was decided that due to the inconsistency in terminology in this field, the search terms should remain as wide as possible.

Figure 2.2: Final search strategy

Population		**Mental health issues**		**Disclosure and help-seeking**
Physician* Physician role Doctor* Medical student* Medical school* Trainee doctor* Medical profession Healthcare workers Healthcare professional* Medical staff	AND	Depressive disorders Medical student impairment Mental disorder* Physician health Personality disorder* Psychiatric disorder* Suicide Suicidal ideation Mental ill health Mental illness Mental health Burnout Depression Anxiety Mentally ill Stress Wellbeing Well being Well-being Psychological distress Psychological ill health Psychiatric disabilities Resilience	AND	Self-referral Self referral Illness behavio*r Self-disclose Self disclose Disclose Disclosure Specialist services Help-seeking Help seeking Seek help Self-care Self care Health behavio*r

The search strategy was initially developed on Medline, and subsequently run on Embase and Psycinfo. These three databases all contain pertinent health literature. No time limit was placed on the searches. The final searches on the three databases were made between October and December 2015.

2.3.2 Study Selection

The database searches yielded 8,983 citations in total; 2,818 on Medline, 4,749 on Embase and 1,414 on Psycinfo.

Three levels of selection were applied to the publications retrieved in the database searches. Firstly, each abstract was compared against the following exclusion criteria:

1. Not about doctors or medical students.
2. Not about mental ill health in defined population.
3. Not about disclosure of mental ill health, illness behaviours or help-seeking.
4. Not a research study (e.g. conference proceedings, letters, editorials, commentaries).
5. Not in the English language.

Studies using a broad definition of mental ill health incorporating addictions were included. Those focused purely on addictions were excluded. Extensive literature on addictions and physician impairment exists. This was outside the specific issues relating to mental health that this study aimed to address.

At this stage, 100 citations were compared against the exclusion criteria by two additional researchers (NM and DC). No citations marked by the candidate (SR) as 'include' were excluded by the other researchers; however, the researchers did not exclude a small number of citations that SR excluded at this stage. The inclusion/exclusion criteria were discussed, but no amendments were made to them; it was agreed that SR had accurately made inclusions/exclusions and to continue to adhere to the same criteria. Secondly, the full texts accompanying the remaining abstracts were obtained. These were again compared against the exclusion criteria.

Thirdly, the remaining full texts were screened against the inclusion criteria:

1. Discusses some aspect of disclosure of mental ill health by doctors/medical students.

2.3.3 Data extraction

The full text of each article identified for inclusion was read. Pertinent information was highlighted and labelled with the study sub-question to which it related. Study characteristics (e.g. sample size, study design, country) were entered in an Excel spreadsheet. All extracted data were double-checked by SR by referencing each piece of information back to the original article.

2.3.4 Analysis

A narrative review approach was taken towards the analysis of the studies identified in the review process. A narrative review is defined as a method that summarizes, explains and interprets evidence on a particular topic or question, without converting findings into any kind of metric (Mays, Pope, & Popay, 2005). Each of the sub-questions listed earlier in this chapter were addressed in the analysis, contributing to the overall objective of answering 'what is known about disclosure of mental ill health in doctors and medical students?'

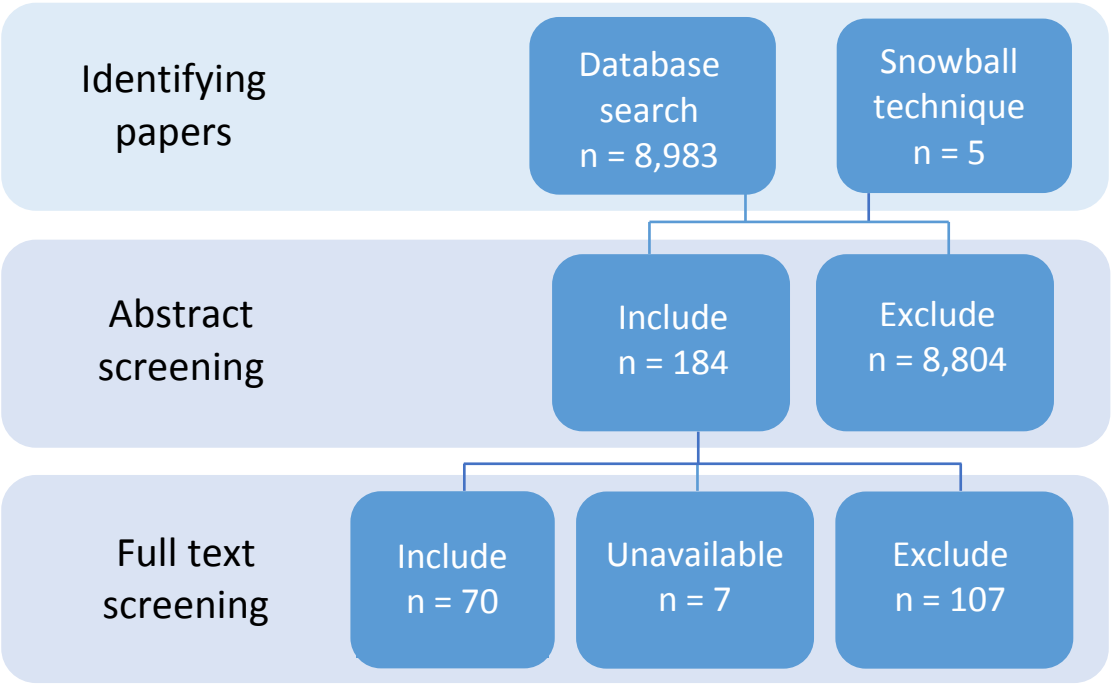
As this was not a systematic review, no assessment of quality was made and thus no papers were excluded for quality. Caution must therefore be applied in interpreting findings.

2.4 Results

70 papers were included in the final selection.

Figure 2.3 illustrates the selection process. Searching the three databases yielded 8,983 possible references. The snowball technique yielded 5 papers. Examining the abstracts against the exclusion criteria excluded 8,804, including 71 duplicates. Of the remaining 184, 7 were unavailable. The unavailable references included chapters from out of print books and unpublished dissertations. The full texts of the remaining 177 references were then checked. A further 107 were excluded for not matching the inclusion criteria.

Figure 2.3: Results selection



2.4.1 Study characteristics

Few studies explicitly studied the issue of disclosure of mental ill health among doctors and/or medical students. Attitudes towards disclosing mental ill health tended to be part of studies looking more widely at the health, beliefs, and wellness or illness behaviours of doctors and medical students.

Disclosure of mental ill health was primarily examined within the context of help-seeking. A small number of studies looked at disclosing mental ill health from other perspectives e.g. regulatory. Just 5 studies looked at general disclosure i.e. whether doctors or medical students would disclose to anyone, regardless of the reason. An overview of the study characteristics of included papers is shown in figure 2.4.

Figure 2.4: Overview of study characteristics

Study reference	Methods/setting	Country	Participants	Study aim
Adams et al. (2010)	Postal survey across 2 counties	UK	GPs and psychiatrists	Assess stigmatising attitudes to depression; help-seeking behaviour and barriers to help-seeking.
Amarasuriya et al. (2015)	Survey at 1 university	Sri Lanka	Medical students	Examine depression literacy.
Aminazadeh et al. (2012)	Nationwide online survey	Canada	Surgeons	Determine stress levels, major causes of stress and coping mechanisms used.
Baldwin et al. (1997)	Cohort study at 1 university	UK	Medical students/SHOs	Describe health and health behaviours.
Balon (2007)	Survey of society members	US	Psychiatrists	Study attitudes towards self-treatment.
Bianchi et al. (2016)	Qualitative study at 1 hospital	UK	Hospital consultants and academic GPs	Exploring beliefs and attitudes about mental illness within the medical profession
Braquehais et al. (2015)	Retrospective analysis of PHP data	Spain	Psychiatrists	Compare the profile of psychiatrists admitted to the programme with other doctors.
Braquehais et al. (2014a)	Retrospective analysis of PHP data	Spain	Doctors	To explore if the programme enhanced early voluntary help-seeking.
Braquehais et al. (2014b)	Retrospective analysis of PHP data	Spain	Doctors	Compare the profile of doctors admitted to the programme by referral type.
Brimstone et al. (2007)	Survey at 1 university	Australia	Medical students	Compare healthcare seeking behaviour of medical students with psychology students.
Brooks et al. (2017)	Qualitative study of PHP attendees	UK	Doctors	Gain views on treatment received through the programme.
Campbell and Delva (2003)	Survey at 1 university	Canada	Residents (junior docs)	Assess personal health practices.
Chambers (1992)	Regional survey	UK	GPs	Compare general health of doctors with teachers.

Chan et al. (2014)	Survey at 2 universities	Australia	Medical students (final year undergraduate, and postgraduate)	Measure suicide literacy and stigma.
Chew-Graham et al. (2003)	Qualitative study at 1 university	UK	Medical students (years 3 to 5)	Explore attitudes on causes of stress, and views on help-seeking.
Cohen et al. (2016)	Nationwide online survey	UK	Doctors	Investigate doctors' attitudes to disclosing mental illness.
Davidson et al. (2003)	Nationwide survey	Australia	Doctors	Explore perceptions of self-treatment and barriers to healthcare.
Dickstein et al. (1990)	Retrospective analysis of student counselling service data	US	Medical students	Examine demographics of students attending psychiatric consultation, and their treatment outcomes.
Dunn et al. (2009)	Survey at 1 university	US	Doctors (residents)	Understand attitudes towards obtaining personal healthcare.
Dyrbye et al. (2015)	Survey at 6 medical schools	US	Students (2nd to 4th years)	Assess the frequency of suicidal ideation and explore its relationship with burnout.
Feeney et al. (2016)	Nationwide survey at 58 hospitals	Ireland	Non-consultant hospital doctors	Understand response to stress and barriers to accessing support.
Forsythe et al. (1999)	Regional survey	UK	GPs and consultants	Examine adherence to BMA guidelines.
Fox et al. (2011)	Qualitative study at 1 deanery	UK	Junior doctors	Understand personal illness experiences.
Fox et al. (2009)	Qualitative regional study	UK	GPs	Investigate experiences of significant illness.
Fridner et al. (2012)	Survey at 2 university hospitals	Sweden and Italy	Hospital doctors	Identify factors that help and hinder help-seeking.
Fridner et al. (2009)	Survey at 2 university hospitals	Sweden and Italy	Female hospital doctors	Examine association of suicidal ideation with work stressors.

Gardner and Ogden (2005)	Regional survey	UK	GPs	Assess treatment options GPs would recommend for themselves versus for their patients.
Garelick et al. (2007)	Retrospective analysis of PHP data	UK	Doctors	Profile doctors attending the programme.
George et al. (2014)	Qualitative study at 1 medical centre and 1 medical college	US	Doctors	Understand how doctors perceive their own health and barriers to healthcare.
Gold et al. (2015)	Survey at 1 medical school	US	Medical students	Explore help-seeking behaviours.
Gold et al. (2016)	Nationwide online survey	US	Female doctors	Explore mental health diagnosis, treatment and reporting.
Haskins et al. (2016)	Intervention evaluation at 1 university	US	Residents and faculty	Conduct a preliminary evaluation of a suicide prevention programme.
Hassan et al. (2009)	Regional survey	UK	Hospital doctors and GPs	Assess attitudes to becoming mentally ill.
Hassan et al. (2013)	Regional survey	Canada	Psychiatrists	Assess attitudes to disclosure and treatment preferences.
Holmes et al. (2017)	Survey at 1 hospital	US	Doctors (residents)	Measure burnout, and describe contributors and interventions.
Leao et al. (2011)	Survey at 1 medical school	Brazil	Medical students (final year)	Investigate the relationship between wellbeing, perceived needs and help-seeking.
Lindo et al. (2009)	Survey at 2 hospitals	Jamaica	Hospital doctors/nurses	Assess health status and health maintenance practices.
Matheson et al. (2016)	Survey at 1 university	Canada	Medical students, junior doctors	Examine the prevalence of psychological distress, stressors experienced and supports used.
McKevitt et al. (1997)	Regional survey with qualitative methods	UK	GPs	Investigate rates of sickness absence and factors influencing sick leave between doctors and other professionals.

Meerten et al. (2011)	Retrospective analysis of PHP data	UK	Doctors	Investigate clinical outcomes of those attending a PHP programme.
Meerten et al. (2014)	Retrospective analysis of PHP data	UK	Doctors	Investigate self-referral rates over time.
Menon et al. (2015)	Survey at 1 medical college	India	Medical students	Determine barriers to seeking help for mental illness compared with physical illness.
Miller et al. (2009)	Survey at 1 university	Scotland	Medical students	Explore attitudes towards disability and support for disability in medicine
Moutier et al. (2012)	Intervention evaluation at 1 medical school	US	Students, house staff and faculty	Description of intervention development and implementation.
Moutier et al. (2009)	Survey at 1 medical school	US	Residents (junior docs)	Explore attitudes to personal healthcare.
Pullen et al. (1995)	Regional survey	Australia	Doctors	Describe doctors' attitudes towards their own medical care.
Reinhardt et al. (2005)	Survey at 1 medical centre	US	Doctors (attending and house staff)	Ascertain the prevalence of and risk factors for psychiatric disorders and personal health behaviours.
Ro et al. (2007)	Survey and retrospective analysis of PHP data	Norway	Doctors	Determine if a self-referral programme reaches doctors in need of help.
Rong et al. (2009)	Survey at 2 universities	China and Australia	Medical students	Compare depression awareness between Chinese and Australian medical students.
Rosvold et al. (2002)	Nationwide survey	Norway	Doctors	Study self-treatment and help-seeking behaviour.
Sanfey et al. (2015)	Survey of society members	US	Surgeons	Explore differences in assistance-seeking behaviours between male and female surgeons.

Schneider et al. (2007)	Nationwide survey	Switzerland	Primary care physicians	Measure personal use of medical care and drugs.
Shanafelt et al. (2008)	Survey of society members	US	Surgeons	Assess prevalence of suicidal ideation and use of mental health resources.
Sidana et al. (2012)	Survey at 1 medical college	India	Medical students	Assess prevalence of depression.
Smith et al. (2002)	Survey at 1 medical school	US	Medical students (1st and 2nd years), faculty, and primary care physicians	Compare attitudes towards psychological help-seeking.
Sved Williams (2004)	Retrospective analysis of data at private practice	Australia	Doctors	Explore diagnoses, treatment methods, compliance and outcomes in doctors and their families.
Thistlethwaite et al. (2010)	Qualitative study at 1 university	Australia	Medical students	Explore the factors influencing students to seek medical help.
Thompson et al. (2001)	Regional qualitative study	Northern Ireland	GPs	Explore GP's perceptions of the effects of their profession and training on their attitudes to illness in themselves and colleagues.
Töyry et al. (2000)	Nationwide survey	Finland	Doctors	Understand the impact of demographics on health status, sick leave, and the use of health services.
Tyssen et al. (2004)	Cohort study at 4 medical schools	Norway	Medical students (final year)	Assess the prevalence of self-reported mental health problems and help-seeking.
van der Bijl and Oosthuizen (2007)	Survey at 1 hospital	South Africa	Physicians	Investigate symptoms of anxiety and depression, and assess health care behaviour.
Warhaft (2004)	Retrospective analysis of PHP data	Australia	Doctors and medical students	Describe participants of the first 3 years of the programme.
Weiss Roberts et al. (2001)	Survey at 9 medical schools	US	Medical students (pre-clinical and clinical)	Examine students' physical and mental health concerns.

Weiss Roberts et al. (2000)	Cohort study at 1 medical school	US	Medical students (pre-clinical)	Understand perspectives on personal healthcare.
Weiss Roberts et al. (2005)	Survey at 5 medical schools	US	Medical students	Explore attitudes of medical students toward recognising and acting upon signs of potentially impairing illnesses in peers.
White et al. (2006)	Regional survey	UK	Psychiatrists	Canvas opinion on mental illness among psychiatrists and their colleagues.
Wimsatt et al. (2015)	Survey at 1 medical school	US	Medical students	Identify early career indications of stigma.
Wong et al. (2005)	Survey at 1 university	Hong Kong	Medical students (years 1, 3 and 5)	Determine sources of stress and psychological morbidity, help-seeking behaviour, and coping skills.
Yates et al. (2008)	Cohort study at 1 medical school	UK	Medical students (1st years)	Assess whether a group of students with mental health problems were more likely to have a pre-admission history of similar problems.
Zaman (1996)	Retrospective analysis of medical college support service data	Pakistan	Medical students	Assess prevalence of psychological problems among students.

The results are now detailed and a summary is presented at the end of the section.

2.4.2 What is known about disclosure of mental ill health in doctors and medical students?

Findings are presented here for sub-questions 1 to 9, listed earlier in this chapter. Any proportion/percentage figures suggest general trends. However, the large variation in study populations and study designs does not enable direct comparisons.

2.4.2.1 How has the disclosure/concealment of mental ill health by doctors and medical students been conceptualised?

Perspectives of disclosure of mental ill health by doctors and medical students were largely dependent on the type of journal in which studies were published. The issue was respectively seen as an occupational health concern, a public health issue, or an issue to be addressed within medical education.

Only one study adopted a well-defined theoretical stance, using principles of both social learning theory and attribution theory to attempt to explain why medical students do not reveal their depression (Wimsatt, Schwenk, & Sen, 2015). The authors note that a tendency not to reveal depression is based on negative experiences from previous disclosures, either experienced personally or observed. Negative attitudes are further compounded if individuals believe that mental health conditions are within their control.

Studies tended to discuss common barriers to help-seeking instead of introducing specific theory, highlighting obstacles such as perceived stigma and lack of access to mental health care. Some studies discussed how the "hidden curriculum" of medical culture might magnify those obstacles (Adams et al., 2010; Dyrbye et al., 2015; Pullen, Lonie, Lyle, Cam, & Doughty, 1995). This refers to the implicit 'rules' by which individuals within medical education institutions operate, leading to a medical culture "which pressurises doctors into believing that they should never be sick, or at least that they should never complain or seek help" (Pullen et al., 1995).

In summary, studies focussed primarily on obstacles to help-seeking and not on theoretical conceptualisations.

2.4.2.2 How many doctors and medical students disclose/conceal their mental ill health?

Four studies included figures on how many doctors and medical students would or did disclose, for any reason. These studies used figures on past disclosures or gauged responses to hypothetical scenarios. Looking first at actual behaviour, a study at a Canadian university found that 20% of residents (doctors in training) and 17% of medical students surveyed agreed that they had to "conceal mental or emotional problems a lot/always" (Matheson et al., 2016). Furthermore, while 42% of those surveyed exhibited clinical psychological distress, fewer (9% of

students, 12% of residents) were receiving mental health treatment. Levels of non-disclosure appeared low in studies using hypothetical scenarios. In a large UK postal survey, hospital doctors and GPs were asked who they would most likely disclose to if they were to become mentally ill; 7% said "no-one" (Hassan, Ahmed, White, & Galbraith, 2009). Two studies looked at psychiatrists specifically. 9% of UK psychiatrists surveyed in one study said that they would disclose mental illness to no-one (White, Shiralkar, Hassan, Galbraith, & Callaghan, 2006). In a study of Canadian psychiatrists, 3% of those surveyed would disclose to no-one (Hassan et al., 2013). A single study examined disclosure of mental ill health to a regulator. Of female physicians surveyed across the US with formal diagnosis or treatment of mental illness, just 6% had disclosed to their state (Gold et al., 2016).

Studies mainly examined help-seeking for mental illness and included figures on disclosing solely for that reason. Disclosing is of course a necessary step in help-seeking. Of psychologically-distressed hospital doctors surveyed in Sweden and Italy, 78% had never sought help for depression or burnout (Fridner, Belkic, Marini, Gustafsson-Senden, & Schenk-Gustafsson, 2012). In students surveyed at one US medical school, a third agreed with the statement "I have mental health needs for which I don't seek care" (Gold et al., 2015).

The hypothesised response of avoiding help-seeking and treatment for mental ill health was examined in several studies. In some, the proportion of doctors who would not seek treatment appears relatively low; 2% of Canadian psychiatrists surveyed would prefer no treatment if suffering a mental illness requiring outpatient treatment (Hassan et al., 2013), and 5% of UK psychiatrists surveyed would choose no treatment for moderate depression (White et al., 2006). In a South African hospital survey, doctors' responses were more ambiguous. 17% stated that they would "wait and see" first for possible depression or emotional problems in themselves (van der Bijl & Oosthuizen, 2007). A postal survey of psychiatrists in a US study found that if respondents were to face mild/moderate depression, 8% would avoid treatment altogether. 1% would even avoid treatment for severe, suicidal depression (Balon, 2007). In a regional UK study, 8% of GPs and psychiatrists surveyed would not seek help at all if they felt their "health might be suffering due to strain or stress" (Adams et al., 2010). In another hypothetical study, 12% of non-consultant doctors across 59 hospitals in the Republic of Ireland, said that they would not seek help for anxiety or depression (Feeney et al., 2016). A Canadian study at one university asked junior doctors how they would respond to feeling "down and stressed out" (Campbell & Delva, 2003); a quarter (25%) of respondents stated that they would "suffer through it" and over half would simply ignore it. For students, a study at one Australian medical school asking how students would respond to a mental health scenario found that over a fifth (23%) would take no action (Brimstone, Thistlethwaite, & Quirk, 2007). In a US study across six medical schools, 2nd

through 4th year students were asked whether they would seek professional help for a serious emotional problem. 26% would "probably not go" or "not go" (Dyrbye et al., 2015). The same study also looked at whether students would disclose that they were having treatment for mental ill health. 62% agreed that "If I were to receive treatment for an emotional/mental health problem, I would hide it from people".

Figures reported on actively help-seeking varied. Some studies reported numbers of doctors/medical students seeking support but lacked the context of how many needed support. In a regional Jamaican study, 46% of hospital doctors expressed willingness to seek counselling, but just 7% had done so (Lindo, McCaw-Binns, & Eldemire-Shearer, 2009). PHPs routinely collect data on the number of patients attending, ranging from 73 to 110 a year (Meerten, Rost, Bland, & Garelick, 2014; Ro et al., 2007; Warhaft, 2004). While useful in evidencing demand for such support services, there is no indication of the proportion of those in need that do not seek support. Some medical schools have reported figures on enrolled medical students who access mental health support. This includes 9% of students over 2 academic years at a Pakistan university (Zaman, 1996), and 20% of students over an 8 year period at a US medical school (Dickstein, Stephenson, & Hinz, 1990). This again offers no data on how many students needed support.

Another approach to obtaining figures on doctors/medical students help-seeking has compared the number of doctors/medical students accessing support services with the number of those with mental illness. Data was gathered commonly via surveys. In a national US study, 7% of surgeons surveyed had sought care from a mental health provider; however only 26% of those who'd experienced suicidal ideation in the previous year had sought care during that time (Shanafelt et al., 2011). In another US study, 11% of doctors at one academic medical centre had seen a mental health professional in the last 12 months, despite 24% experiencing significant depressive symptoms in that period (Reinhardt, Chavez, Jackson, & Mathews, 2005). Elsewhere, of Australian doctors surveyed reporting "emotional disturbances" in one state, 59% had discussed them with their doctor (Pullen et al., 1995). A European study found that of female academic physicians surveyed in Sweden, 20% had received professional help for burnout/depression despite 33% having had suicidal ideation. The figures in Italy were 13% and 21% respectively (Fridner et al., 2009). A US study of female doctors found that nearly half surveyed believed that they had met the criteria for mental illness, but had not sought treatment (Gold et al., 2016).

For medical students, there is international evidence that fewer individuals seek help than require it. In a nationwide cohort of Norwegian medical students followed over time, mental

health problems requiring treatment signigicantly increased, but help-seeking did not. Overall, 34% of respondents had needed treatment on at least one occasion, but only 64% of those identifying a need for treatment sought help (Tyssen, Rovik, Vaglum, Gronvold, & Ekeberg, 2004). In a nationwide US study, 43% of medical students surveyed had sought help for an emotional/mental health problem in the last year, but those with burnout were less likely to have done so (34%) (Dyrbye et al., 2015). In another US study, 49% of pre-clinical students surveyed at one medical school reported mental health concerns. However, 56% of those didn't seek healthcare at all (Weiss Roberts, Warner, & Trumpower, 2000). Low levels of help-seeking were found at an Indian medical school, where 5% of students surveyed had sought counselling despite 15% reporting depressive symptoms (Sidana et al., 2012). At a Brazilian medical school, 26% of final year medical students had used university mental health services, but only 33% of those with anxiety, 27% of those with depression and 20% of those with poor quality of life had done so (Leão, Martins, Menezes, & Bellodi, 2011).

Overall there is great variation in how rates of disclosure of mental ill health in doctors and medical students have attempted to have been measured.

2.4.2.3 What are the demographics of doctors and medical students who disclose/conceal their mental ill health?

Studies identified indicated some differences in help-seeking between genders, nationalities, ethnicities, age groups, specialties and career grades. Data focussed primarily on the demographics of those help-seeking, rather than those disclosing generally.

2.4.2.3.1 Gender

Some studies suggest that female doctors/medical students are more likely than male to seek help for mental illness. Self-referrals to a Barcelona PHP were less likely to be from male doctors than female (Braquehais, Valero, Bel, et al., 2014). Male doctors were less likely than female to have sought professional help in a European sample of hospital doctors with depression/burnout (Fridner et al., 2012).

In other studies, help-seeking was more common among female surgical residents (Aminazadeh et al., 2012), and female doctors expressed greater willingness to seek counselling than male colleagues (Lindo et al., 2009). Among trainee doctors in a UK cohort study, women were more likely than men to seek advice from a medical friend or colleague if experiencing persistent anxiety (Baldwin et al., 1997). Studies based on MedNet suggest an increase over time in the proportion of female doctors help-seeking. A study of doctors self-referring to the service showed equal numbers of males and females (Garelick et al., 2007), however a more recent study on the same service found more self-referrals from females (Meerten et al., 2014). In

terms of likelihood of disclosing to the workplace, for any reason, female doctors were more likely to do so among UK doctors surveyed (Cohen et al., 2016).

For medical students, gender again appears to be important in help-seeking. An early retrospective study at a US medical school found that a higher proportion of female students than male (34% vs 15%) had sought psychiatric consultation (Dickstein et al., 1990). This was echoed in a Brazilian study of final year medical students, where being female was significantly associated with help-seeking from the school Mental Health Service (Leão et al., 2011).

There were some exceptions to female doctors and medical students being more likely to seek help for mental ill health. A study at one Pakistan medical school found no significant difference in the numbers of male and female students help-seeking (Zaman, 1996). Other studies reported female residents being more likely to avoid care at their medical school for panic attacks than men (Moutier et al., 2009) and being more likely to avoid seeking healthcare for both physical and mental concerns (Dunn et al., 2009).

2.4.2.3.2 Ethnicity/nationality

Few studies collected ethnicity data. Of doctors self-referring to UK service MedNet, 54% were Caucasian and 20% Asian (Meerten et al., 2014). At a US medical school over an 8 year period, a higher proportion of black students (27% of total black student population) than students from other ethnic groups sought psychiatric consultation (Dickstein et al., 1990).

Two international comparison studies were found. The first looked at how students would respond hypothetically to developing depression. 41% of Chinese medical students surveyed compared with 34% of Australian medical students would not seek professional help at all (Rong et al., 2009). The second study showed that Italian doctors studied were less likely than Swedish peers to have sought help (Fridner et al., 2012).

2.4.2.3.3 Age

Data on the association of age with help-seeking is limited. Some PHPs collected data on the age of doctors attending. The mean age of doctors self-referring to UK service MedNet was 35 years (Meerten et al., 2014), with 47% of doctors aged between 30 and 39 years (Garelick et al., 2007). At the Barcelona PHP, the mean age of doctors self-referring was 50 years (Braquehais et al., 2015). Over time, the mean age of doctors decreased; the authors suggested that older doctors were becoming less likely to self-refer (Braquehais, Valero, Matali, et al., 2014). Conversely, a UK doctor survey found that willingness to disclose to the workplace (for any reason) was associated with increasing age (Cohen et al., 2016). Elsewhere, a US study of female

doctors found that age did not impact seeking treatment when other factors were controlled for (Gold et al., 2016).

2.4.2.3.4 Career grade, year of study and specialty

Related to age are doctors' career grades and medical students' year of study. Looking firstly at career grades, 59% of MedNet self-referrals were from trainee doctors (Meerten et al., 2014). A UK survey of doctors found that trainees were among the least likely to disclose mental ill health to the workplace (Cohen et al., 2016).

Some differences in help-seeking between medical students' year of study were found. In a retrospective study at a Pakistan medical college, a higher proportion of 2nd year students than other years sought help (Zaman, 1996). At a US medical school, students sought help more often in their 1st or 2nd year (Dickstein et al., 1990). A Norwegian study found that help-seeking of medical students decreased between the 1st and 4th years of study (Tyssen et al., 2004). At a US medical school, attitudes towards help-seeking were surveyed. Students held less positive attitudes towards help-seeking than faculty and primary care providers. But all three groups were more positive when compared to the general population (Smith, Peck, & McGovern, 2002).

The specialty of doctors also appears to be important. At a Norwegian PHP, the proportion of GPs attending was significantly higher than the proportion of GPs in the general doctor population (Ro et al., 2007). In a regional study of UK doctors, a higher proportion of GPs than hospital doctors surveyed had consulted a counsellor (McKevitt et al., 1997). A private practice study in Australia also showed that a proportion of patients attending were GPs (42%) (Sved Williams, 2004).

Looking at other specialties, a review of the Barcelona PHP found that self-referral rates from psychiatrists were lower than from other specialties, leading the authors to suggest that psychiatrists may have greater difficulty in asking for help for mental illness (Braquehais et al., 2015). Elsewhere, two studies identified doctors working in a surgical specialty as being less likely than those in other specialties to seek help; one in Sweden and Italy (Fridner et al., 2012), and the other in the US (Gold et al., 2016). One of the studies also found medical researchers and paediatric residents less likely to seek help (Fridner et al., 2012). Being a staff grade, associate specialist or specialty doctor (SAS) or locum doctor was related to reduced likelihood of disclosing mental ill health to the workplace in a UK study (Cohen et al., 2016).

2.4.2.3.5 Other factors

Multiple other factors seem to be associated with likelihood of disclosing.

Perceived mental health

Perceived level of mental health problem was significantly related to help-seeking in a cohort study of Norwegian medical students/trainee doctors, where those experiencing worse mental health do appear to seek help (Tyssen et al., 2004). In a regional US study of residents, more frequent avoidance of seeking healthcare was associated with poorer self-rated mental health and greater personal concern with depression, anxiety and personal counselling issues (Dunn et al., 2009). In a Brazilian medical student study, acknowledging psychological needs was found to be significantly associated with help-seeking from the university mental health service (Leão et al., 2011).

Mental health history

In a regional US medical school study, attitudes towards help-seeking were more positive where students, faculty and primary care physicians surveyed reported having received mental health services in the past (Smith et al., 2002). For general disclosure, a regional UK survey found those psychiatrists with a history of mental illness were more likely to say that they would disclose to no-one in future (White et al., 2006).

Suicide exposure/normalisation

In an Australian study, both final year undergraduate and postgraduate medical students at two universities were less likely to seek help for suicidal ideation informally if they'd had previous exposure to suicide. Students were less likely to seek any help at all for suicidal ideation if they normalised or glorified suicide (Chan, Batterham, Christensen, & Galletly, 2014).

Social support

A Norwegian study of medical students found that perceived social support was not significantly related to help-seeking (Tyssen et al., 2004). Social support seemed to be positively related to help-seeking in a US study; 69% of medical students who had sought psychiatric consultation reported feeling emotional support from their families (Dickstein et al., 1990). The latter study also found that students help-seeking were more likely to be single. In a retrospective study at a Pakistan medical college, more students from out of town living on-campus sought help than local off-campus students (Zaman, 1996), which suggests that lacking immediate family support increased likelihood of help-seeking.

Help-seeking for other issues

General help-seeking behaviour was related to help-seeking for mental ill health at a US medical school; students who were uncomfortable asking for academic help were more likely to have mental health needs for which they did not seek treatment (Gold et al., 2015).

Coping style

In a qualitative study of 8 foundation trainees (year 1 and 2 doctors in training) in one deanery with experience of significant illness (2 with mental illness), individual coping style affected willingness to disclose (Fox et al., 2011).

Mental health training

In a UK wide survey, whether doctors had ever received any information or training on taking care of their own mental health and wellbeing showed no association with likelihood of disclosing mental ill health to the workplace (Cohen et al., 2016).

Overall, the influence of demographic factors on disclosure behaviour appears to be complex and wide-ranging.

2.4.2.4 What types of mental ill health do doctors and medical students disclose/conceal?

A retrospective data analysis of MedNet found that doctors most commonly presented with depression (81% of doctors attending). Diagnoses were often multiple, and included other issues such as anxiety (58% of doctors attending), interpersonal difficulties (46%), self-esteem issues (38%), work/academic issues (32%), personality disorders (24%), bereavement (15%), and trauma (10%) (Garelick et al., 2007).

Some studies reported general trends and presenting issues rather than prevalence of diagnosable conditions. At the Barcelona PHP, doctors' attendance for mental disorders (rather than substance disorders) increased over time (Braquehais, Valero, Matali, et al., 2014). At an Australian PHP, doctors most commonly sought help for psychiatric problems (37%) and stress-related or emotional problems such as burnout (18%) (Warhaft, 2004). Looking at disclosing mental ill health to the workplace, for any reason, a UK study found that doctors surveyed were more likely to disclose depression, anxiety, or bipolar disorder than addictions (Cohen et al., 2016). In a qualitative study of 8 foundation trainees in one deanery with experience of significant illness (2 with mental illness), the theme of disclosure included how trainees felt less able to discuss some health conditions than others (Fox et al., 2011). Doctors in another study were asked what their "weighty reasons" for attending Norwegian PHP Villa Sana were. The primary reason was health and life quality, followed by exhaustion/burnout, private relations, work-related conditions, and professional identity (Ro et al., 2007).

The type of mental illness medical students seek help for varied. A Brazilian study found that of final year students surveyed, 33% with anxiety used the service, 27% of those with depression, and 20% with poor quality of life (Leão et al., 2011). In a US study, help was sought more often by medical students for anxiety (17%) than depression (6%) (Dickstein et al., 1990). Students at one Pakistan medical school had sought help for interpersonal issues, academic problems, adjustment issues and family problems (Zaman, 1996).

In summary, doctors and medical students disclose a range of mental health conditions and symptoms. No clear data is available to determine if any conditions are less likely to be disclosed.

2.4.2.5 When do doctors and medical students disclose/conceal their mental ill health?

A few studies have found that doctors delay help-seeking until the impact of their mental illness has greatly increased, or until an extended period of time has passed.

A survey of non-consultant hospital doctors across Irish hospitals examined attitudes towards health behaviours. One question asked at what stage of anxiety or depression respondents would seek help. 5% said that they would seek help for mild symptoms. 34% responded that they would seek help if their symptoms were impacting on other people, and 25% if symptoms were impacting on work. 23% would wait until feeling hopeless, helpless, or suicidal before help-seeking (Feeney et al., 2016).

Doctors presenting at the Norwegian PHP service exhibited severe symptoms. 21% had seriously considered suicide, compared with 10% in the general Norwegian doctor population (Ro et al., 2007). The rate of attempted suicide was also found to be greater for doctors attending a specialist doctors' service in the UK than that of the general population (Garelick et al., 2007). In a UK survey of doctors, those with personal experience of mental ill health would wait until their mental ill health was having a greater impact on their work before disclosing to their workplace than their peers with no mental health history would (Cohen et al., 2016).

Overall, limited data suggests that doctors and medical students delay help-seeking and disclosing.

2.4.2.6 Whom do doctors and medical students disclose their mental ill health to or conceal their mental ill health from?

Many studies use data from support services to report who doctors and medical students disclose to. Fewer studies have asked doctors and medical students themselves who they would or did disclose their mental ill health to. The focus is again primarily on help-seeking, with few studies looking at hypothetical disclosure of mental ill health in general, or disclosure on official documentation. Specific concerns regarding who doctors and medical students did or would

disclose to are discussed here, but general concerns about disclosing are highlighted in the next section 'why do doctors and medical students disclose or conceal their mental ill health?'

2.4.2.6.1 General disclosure

Studies in both the UK and Canada found that doctors expressed greater willingness to disclose to family/friends than to others, both in the first instance (Hassan et al., 2013) and at some point (Hassan et al., 2009; White et al., 2006). A spouse or partner was chosen by the majority of doctors in a UK study as the person they would disclose to first (Cohen et al., 2016). Disclosing first to a GP was the next most likely option after family and friends in a study of Canadian psychiatrists, but few would first approach a mental health professional or clergy member (Hassan et al., 2013). In a UK study, doctors were most likely to disclose to professional/governmental institutions after family and friends (Hassan et al., 2009). Generally, doctors were less likely to say that they would disclose to colleagues or to institutions (Hassan et al., 2009; Hassan et al., 2013; White et al., 2006) than to friends or family. SHOs (doctors in training) were less likely than other doctors to say that they would disclose mental illness to colleagues or to professional/governmental institutions (Hassan et al., 2009). They were more likely to tell family or friends compared with consultants and GPs. The UK study also attempted to answer the question of why doctors would tell some individuals and not others - over three-quarters of doctors citing stigma as an influencing factor would disclose to family/friends rather than a professional.

Within the workplace generally, one UK survey found that doctors with no personal experience of mental ill health felt that they would hypothetically tell colleagues, followed by "a friend who is a healthcare professional", and their line manager. Those doctors who had experienced mental ill health had in reality disclosed mainly to Occupational Health (OH) departments, and then colleagues and line managers, and cited the necessity of disclosing to senior members of staff (Cohen et al., 2016). Free text comments clarified that adhering to sickness absence management or human resources procedures necessitated telling OH. Among students, those attending a US medical school were asked how far they agreed with some statements relating to depression stigma. For the statement "If I were depressed, I would tell my medical student friends", 30% agreed/strongly agreed (Wimsatt et al., 2015).

One UK qualitative study of GPs with "significant illness" (4 with mental illness) explored disclosure to patients as a consultation tool. Participants felt it required careful assessment of both the potential costs and benefits, including the needs and potential reaction of the patient (Fox et al., 2009).

2.4.2.6.2 Informal help-seeking

As well as being likely to disclose mental ill health to family and friends, doctors are likely to seek help informally from them. One study looking at the help-seeking attitudes of UK GPs and psychiatrists found 90% of those surveyed would or did turn to friends and family if they felt their "health was suffering due to strain or stress" (Adams et al., 2010).

Medical students especially rely on informal help from family and friends for mental health issues. In hypothetical scenarios posed in several studies, medical students were more likely to seek non-professional help than professional. Firstly, in a Sri Lankan questionnaire study, only a low proportion of medical undergraduates indicated their personal intentions to seek professional help if affected by hypothetical depression. Instead, they were more likely to indicate that they would seek help informally from their parents and family (Amarasuriya, Jorm, & Reavley, 2015a). At a UK medical school, students took part in qualitative interviews about causes of stress, and help-seeking. All students expressed a preference to speak to family and friends should stress or distress arise in the future, rather than use university services (Chew-Graham et al., 2003). In a study at one Australian medical school, students responding to a mental health scenario were more likely to say that they would consult family and friends, rather than professionals (Brimstone et al., 2007). A qualitative study of medical students at an Australian university found a marked difference in concerns about help-seeking for mental health problems rather than physical. Some students expressed a preference to speak to their mother or a university counsellor rather than a doctor (Thistlethwaite, Quirk, & Evans, 2010).

A preference for non-professional help was found in studies reporting actual help sought. In a US study, medical students listed the sources of help they'd accessed for a mental health or emotional problem in the last 12 months; 71% had turned to family, and 63% to friends (Dyrbye et al., 2015). In another study, Hong Kong medical students were asked to rate how often they'd accessed various sources of support over the last six months in trying to help them deal with stress. Between 62% and 82% of each year group used friends, and 53% to 65% used family support (Wong et al., 2005).

In a study comparing help-seeking intentions between Chinese and Australian medical students, Chinese students were more likely than their Australian counterparts to express intention to seek help from both family and friends if experiencing depression (Rong et al., 2009). The study also found that Chinese students were more likely to say they would solely seek non-professional help, e.g. natural and traditional healers or religious figures.

Informal help-seeking from colleagues or peers has also been explored. Informal consultations were found to be common among GPs in a UK qualitative study (McKevitt et al., 1997). A

regional survey of US psychiatrists found that if respondents were to hypothetically face mild/moderate depression, a fifth would choose to seek treatment from a friend or peer. This figure rose to just under a third if facing severe, suicidal depression (Balon, 2007). In a UK study, a quarter of doctors surveyed expressed a preference to consult someone informally, whether facing severe anxiety or low mood (Forsythe, Calnan, & Wall, 1999). A Canadian study found a fifth of doctors in training surveyed would confide in a colleague if they were "down and stressed out" (Campbell & Delva, 2003). In a UK study that looked at help-seeking among GPs and psychiatrists, the proportion was higher; 56% of respondents said they had or would turn to work colleagues if their health was suffering due to strain or stress (Adams et al., 2010). In another UK study, junior doctors showed a slightly greater preference for informal consultation for low mood than for severe anxiety (Baldwin et al., 1997). In a UK study, 14% of GPs stated their last medical consultation was an informal consultation with a colleague, rising to 23% of hospital doctors (McKevitt et al., 1997).

A survey of Indian medical students found that for mental health they preferred self-diagnosis and informal consultations over formal documented care (Menon, Sarkar, & Kumar, 2015). One study among US medical students identified three reasons why informal help may be preferable. Nearly three-fifths (58%) of preclinical students surveyed had asked a colleague for informal personal healthcare, with 50% stating this was for accessibility or convenience, 44% saying that it takes less time, and 18% stating that it is less expensive (Weiss Roberts et al., 2000). For clinical students surveyed, importance of it taking less time decreased significantly and the importance of confidentiality significantly increased. Some studies suggest that a low proportion of medical students informally consult peers about mental health; at an Australian medical school 11% of students surveyed said they would do so (Brimstone et al., 2007). At an Indian medical school, 13% of students surveyed had informally consulted seniors or peers (Menon et al., 2015). Aside from peers and colleagues, other sources of informal help-seeking for medical students included senior medical students, teachers, and web-based forums or chat support services (Wong et al., 2005).

2.4.2.6.3 Disclosing to the workplace or medical school

One study examined what proportion of doctors in a UK-wide survey would or did disclose mental ill health to the workplace, for any reason. 73% of those with no history of mental ill health would disclose to the workplace. 41% of those with experience of mental ill health had actually disclosed to their workplace (Cohen et al., 2016).

Two studies explored disclosure of mental ill health to medical schools on pre-admission OH questionnaires. At a Scottish medical school, 6% of students responding to a survey said that

they had a disability, including mental health problems, yet only 4% had disclosed it on admission. After briefing on the definition of disability as defined in the Disability Discrimination Act (now replaced by the Equality Act, 2010), a number of students revised their view on whether they had a disability, giving a new overall disability rate of 13%, 2% of which was mental health specific (Miller, Ross, & Cleland, 2009). At another UK university, just 1% of medical students disclosed depression/anxiety on a pre-admission occupational health questionnaire, and less than 1% disclosed an eating disorder. However, 13% of students went on to be classed as 'strugglers' by their institution, with 30% of these disclosing mental distress to Pastoral Support Staff (Yates, James, & Aston, 2009).

Looking at applications to doctor training posts, a US study at a medical school asked students how far they agreed with the statement "If I were depressed, it would be risky to reveal my depression on my residency application". Students overwhelmingly agreed (86%), but the reasons for this attitude were not explored (Wimsatt et al., 2015).

2.4.2.6.4 Formal help-seeking

Formal help-seeking was examined in a range of studies. Mental health care can be provided by various professional individuals and organisations, from private psychiatrists and health service counsellors, to specialist PHPs.

In a UK study, doctors were asked whether they would consult formally or informally for a range of problems. For both severe anxiety and low mood, nearly half surveyed would consult formally (Forsythe et al., 1999). In a Canadian study, only a fifth of residents surveyed would consult formally (Campbell & Delva, 2003). In another Canadian study, psychiatrists expressed a preference for formal professional advice for a mental illness requiring outpatient treatment over informal professional advice (75% versus 17%) (Hassan et al., 2013). Other specialty doctors surveyed in a UK regional study did not show such a strong treatment preference for formal advice over informal advice for mental illness requiring outpatient treatment (Hassan et al., 2009).

In four studies, the most popular source of formal help for doctors was the GP (Adams et al., 2010; Bianchi, Bhattacharyya, & Meakin, 2016; Campbell & Delva, 2003; Matheson et al., 2016). Another study showed doctors' preference for consulting a psychiatrist (van der Bijl & Oosthuizen, 2007), though this was not a popular source of support in a separate study of doctors in training (Matheson et al., 2016). One study of psychiatrists also highlighted a preference for formal treatment by another psychiatrist not known to the doctor personally (Balon, 2007).

Professionals working in disciplines allied to psychiatry, such as counsellors, mental health therapists and psychologists, were also sources of formal support for doctors. In a survey of Swiss primary care physicians, 8% had sought help from a mental health specialist in the last 12 months (Schneider, Gallacchi, Goehring, Kunzi, & Bovier, 2007). In a UK study, just over a third of doctors surveyed would turn to a counsellor (Adams et al., 2010). A Canadian study found that residents surveyed had accessed support from private psychologists (12%), psychiatrists (6%), university based services (6%) and mental health therapists (1%) (Matheson et al., 2016). One study of London GPs showed that those surveyed favoured the support of a psychiatrist over that of a counsellor for depression (Gardner & Ogden, 2005).

OH and helplines were less popular sources of support that GPs and psychiatrists would use in a UK study, though both of these options were still selected by over a fifth of respondents (Adams et al., 2010). A UK qualitative study found that doctors have reservations about help-seeking from OH due to confidentiality concerns (Bianchi et al., 2016). In Canada, a telephone crisis line was only chosen by 3% of doctors in training surveyed as a source of help they would potentially use (Campbell & Delva, 2003). One other less popular source of support in another Canadian study was an 'Employee and Family Assistance Plan', which 2% of residents surveyed had used (Matheson et al., 2016). One study highlighted a possible concern for doctors seeking formal help from either a GP or OH service. In a qualitative UK study of doctors accessing the London PHP service, several participants remarked that they had been wary of help-seeking from their GPs or OH services, as they were unsure about boundary issues. They were also concerned that they would not be getting expert advice due to lack of understanding of doctors' specific needs (Brooks, Gerada, & Chalder, 2017).

For students at one Hong Kong medical school, professional help was rarely sought. This was despite a large proportion of respondents surveyed (between 53% and 79% in each year group) saying that they felt they needed extra support in coping with stress (Wong et al., 2005). Other studies highlighted the range of professional help that medical students would or did seek. A GP was the most popular source of support among Australian students in one study (Rong et al., 2009), and among Canadian students in another (Matheson et al., 2016), though came behind the choice of a mental health specialist in a US study (Dyrbye et al., 2015). An Australian study showed students' preference for an independent GP over a university based one (Brimstone et al., 2007). Residents at a regional US medical school were asked "How likely is it that you would avoid seeking necessary care for this health issue at your training institution because of your role as a trainee?" using a scale where 1 = "no chance", and 9 = "certain". The mean score of 5.71 suggests that respondents are more likely to avoid health care than seek it out (Moutier et al., 2009).

The help of professionals in disciplines allied to psychiatry was sought by medical students. In a US study of 2nd to 4th year students at multiple medical schools, an on-site mental health specialist had been consulted by over two-thirds of those surveyed, and an independent mental health specialist by a quarter (Dyrbye et al., 2015). In a Canadian study at a medical school, students surveyed had consulted private psychologists, university counselling services, university student services and mental health therapists (Matheson et al., 2016).

Some students thought that they would consult mental health professionals in future if faced with mental ill health. A study at one Australian medical school asking how students would respond to a mental health scenario found that 22% surveyed would see a university counsellor, and 18% would see a non-university counsellor (Brimstone et al., 2007). Both Chinese and Australian students in one study listed counsellors and psychologists among those they would hypothetically consult, in addition to psychiatrists, welfare officers and social workers (Rong et al., 2009). Consulting mental health professionals was not without its issues. A US medical school study found that 20% of students surveyed agreed that telling a counsellor they were depressed would be "risky" (Wimsatt et al., 2015).

Location is another factor associated with who doctors and medical students disclose to. Some studies have noted a preference for doctors or medical students to seek help outside of their local area. In a survey of Norwegian doctors, 50% of respondents agreed that "If I had problems of anxiety or depression, I would seek help elsewhere than in the mental health care facilities located where I live." (Rosvold & Bjertness, 2002). This is congruent with the observation earlier in this section that some students may wish to access support independent of their university, and some psychiatrists wish to consult other psychiatrists not known to them (Balon, 2007; Brimstone et al., 2007).

2.4.2.7 Why do doctors and medical students disclose/conceal their mental ill health?

In chapter 1 it was noted that obstacles to help-seeking (and within that, to disclosing) have been extensively examined in the wider physician health literature. This literature review aimed to also identify the factors that influence doctors/medical students to make disclosures. However, data are limited.

This section mainly focusses on why doctors and medical students don't disclose sooner, and why they don't disclose at all. Approximately 40 reasons why doctors and medical students avoid disclosing were identified in this review. These are grouped into eight main categories.

2.4.2.7.1 Internal barriers

Doctors and medical students cited a number of internal feelings that were obstacles to disclosing for help-seeking and other reasons. A qualitative study of doctors who had received

support through the London PHP found that shame and embarrassment played a role in delaying help-seeking (Brooks et al., 2017). Among female doctors in a US study, one of the key reasons given for avoiding care included the belief that diagnosis was embarrassing or shameful (Gold et al., 2016). In a medical student population, shame and embarrassment was also a barrier to help-seeking (Chew-Graham et al., 2003).

A further internal obstacle to help-seeking was denial. A qualitative UK study of recently ill doctors (including those with psychiatric illness) found help-seeking was delayed because of reluctance to acknowledge an illness, where illness was equated with an inability to cope (McKevitt et al., 1997). Denial was also recognised as an issue in another qualitative study of senior hospital doctors and GPs (Bianchi et al., 2016). In a US study, nearly a quarter of residents reported "ambivalence, avoidance, and/or denial of the problem" when asked about the greatest barrier to receiving care for stress and burnout (Holmes et al., 2017). A national study across Northern Ireland used qualitative methods to understand GPs' attitudes to their own health. The interviews did not specifically focus on mental ill health, but one theme looking at acknowledgement of personal illness included the observation that GPs found acknowledging psychological illness extremely difficult (Thompson et al., 2001).

Lack of insight is another internal obstacle. A US study asked female doctors who felt they met the criteria for a mental health disorder (or were unsure if they did) their reasons for not seeking treatment. 16% of respondents gave the reason "I didn't recognise the problem at the time" (Gold et al., 2016). Lack of insight was also given as a reason for not disclosing to the workplace in a survey of UK doctors (Cohen et al., 2016). Connected to insight is doctors' and medical students' belief in being able to cope. Just over two-thirds of female US doctors surveyed avoiding care for a mental health disorder, believed that they could manage independently (Gold et al., 2016). This was seen elsewhere; UK doctors felt they could deal with mental ill health alone, viewed their symptoms as mild, and had not seen any reason to inform their workplace (Cohen et al., 2016). For students, one Sri Lankan study found that half of those medical students with major depression (and three-fifths of those without) did not consider trying to deal with their problem alone to be unhelpful (Amarasuriya et al., 2015a). This was despite medical undergraduates being more likely than other undergraduate students to appraise professional help positively. This self-belief extended to confidence in self-diagnosing being a barrier to health care for medical students in an Australian study (Brimstone et al., 2007). A further study observed that self-diagnosis is unreliable, and medical students may struggle to identify the right time to seek help for their ill health (Thistlethwaite et al., 2010).

The final internal obstacle reported is helplessness. A UK qualitative study of foundation trainees with experience of significant illness (2 with mental illness) identified that being incapable physically or emotionally of asking for help was a barrier to disclosing (Fox et al., 2011).

2.4.2.7.2 Issues relating to support and treatment

Many obstacles to disclosing are related to the mental health support available to doctors and medical students. Accessibilty is one such issue. For Canadian doctors, not having a family physician (GP) was identified as a potential barrier to accessing health care (Campbell & Delva, 2003). Not knowing where to go was identified as an obstacle for doctors; in a US study of female doctors, 12% of those who hadn't sought treatment for a mental health disorder gave not knowing where to go to get help as a reason (Gold et al., 2016). A study of US surgeons identified many barriers to seeking assistance, also including not knowing where to go for help (Sanfey et al., 2015). Not knowing where to go was also an obstacle to help-seeking for medical students. Two student studies, one in Hong Kong and one in India, found that half of those surveyed did not know how to get help, or where to seek help respectively (Menon et al., 2015; Wong et al., 2005).

Lacking the time to be able to access support is another obstacle. When asked about the greatest barrier to receiving care for stress and burnout, a US study found 42% of residents surveyed reported "inability to take time off from work to seek treatment" (Holmes et al., 2017). Residents in a Canadian study also claimed time was an issue, stating that they would not have the time to find or consult a family physician, in response to a hypothetical health scenario (Campbell & Delva, 2003). Looking at actual avoidance of seeking treatment, just over half of female US doctors surveyed who had not sought treatment for a mental health disorder said that they didn't have the time (Gold et al., 2016). For medical students, lack of time also appears to be an obstacle to help-seeking. At a US medical school, over a quarter (28%) of students surveyed stated time or inconvenience as a barrier to care-seeking (Gold et al., 2015). Students surveyed at an Indian medical college also perceived a lack of time for health care, with two-fifths (40%) reporting this as a barrier to help-seeking (Menon et al., 2015).

Issues with existing service provision are evident. In a survey of Hong Kong medical students, dissatisfaction with generic student support services was expressed. 73% of students surveyed agreed that "support resources in the main campus for all university students are irrelevant to medical students". 81% believed that support resources specifically for medical students are required, and 79% believed such support is best provided by those who are medically trained themselves (Wong et al., 2005). Treatment waiting time was also an issue. Among US medical students studied, a fifth of those not help-seeking cited an excessive wait to be seen as an obstacle (Weiss Roberts et al., 2000).

The potential financial cost of treatment may also prevent doctors and medical students from help-seeking. A small proportion (6%) of US female doctors surveyed said that they did not seek treatment for a mental health disorder because they didn't have the money or insurance cover for mental health care (Gold et al., 2016). A US medical student study found that a fifth of respondents cited cost worries as a reason for not having sought help for their problems (Weiss Roberts et al., 2000). This concern was evident in other countries. The cost of treatment was perceived to be an obstacle by students surveyed at an Indian medical college (Menon et al., 2015), and by Australian medical students when thinking about treatment at non-university health centres (Brimstone et al., 2007).

A further issue relating to support is whether it is warranted or desired. Looking at the former, doctors who had accessed help from the London PHP mentioned not wanting to waste the time of healthcare providers (Brooks et al., 2017). For students at a US medical school, one barrier to care-seeking included not being sick enough (Gold et al., 2015). The literature also mentioned 'first year syndrome'. In an Australian study, medical students said that a barrier to health care was feeling that they were simply over-identifying with symptoms from textbooks (Brimstone et al., 2007). Concern over whether symptoms warrant treatment overlaps with the issue of insight.

Looking at the issue of mandatory support, a quarter of female US doctors surveyed said that they didn't disclose to their state licencing board because they didn't want to be forced into attending a PHP (Gold et al., 2016). Fear of unwanted intervention was expressed by students at a medical college in India, with over half surveyed stating that this was a barrier to help-seeking (Menon et al., 2015).

2.4.2.7.3 Obstacles relating to official reporting

Some obstacles relate to disclosing to official bodies such as insurance companies, or regulatory bodies (e.g. US state licencing boards, and the UK's GMC). Looking at insurance firstly, in a postal survey of psychiatrists in a regional US study asking about self-treatment of depression, 40% surveyed said that the presence of a permanent insurance record would affect their decision to self-treat (Balon, 2007). In terms of licensing, a study found that of US surgeons surveyed, two-fifths (and three-fifths of those with recent suicidal ideation) said that they would be reluctant to seek help for depression, addictions or mental health problems due to concern that it could affect their licence to practice medicine (Shanafelt et al., 2011). Similarly, one of the key reasons given by female doctors in the US for avoiding care included fear of reporting to a medical licensing board, and not wanting to ever have to report to a medical board or hospital (Gold et al., 2016). Indeed, over half of those doctors surveyed had not disclosed to their state medical board as they were fearful that they could not get an unrestricted licence to practice. Some

respondents queried whether reporting to the state medical board was warranted i.e. they did not think their condition posed a safety risk to patients, was relevant to their clinical care, or was "the business of the medical board".

2.4.2.7.4 Confidentiality

Many studies have explored the issue of confidentiality in relation to doctors and medical students' intention to seek help. Some studies looked at broad confidentiality concerns, whilst others explored specific concerns about individuals or organisations (e.g. patients, medical schools) becoming aware of doctors'/medical students' mental health issues.

For US surgeons in a national survey, a breach of confidentiality was one of the barriers identified to hypothetically seeking assistance (Sanfey et al., 2015). Two further doctor studies in other countries had similar findings. In an Australian national study of doctors, concern over confidentiality was a significant predictor of not choosing appropriate treatment in response to an anxiety vignette (Davidson & Shattner, 2003). Similarly, half of doctors surveyed in a UK study asked why they might not seek help for strain or stress cited concerns over confidentiality (Adams et al., 2010). Qualitative research has confirmed the findings around confidentiality as an obstacle to help-seeking among UK doctors (Brooks et al., 2017).

Two studies noted some of the difficulties in maintaining confidentiality. Doctors in training interviewed in a UK study noted that their duty to health and safety had conflicted with their preference for privacy about their mental ill health. Wanting to tell as few people as possible proved particularly difficult in rotations (Fox et al., 2011). Patients are another group that doctors are concerned about knowing about their mental ill health. This was a concern of accessing treatment for GPs in Northern Ireland, with one GP commenting that "You don't want to go and see your local psychiatrist in case one of your patients is sitting beside you." (Thompson et al., 2001).

Concerns about confidentiality are also present among medical students. A US study of medical students found that over a third (35%) agreed that "If I were depressed, I would worry that my medical student friends who knew would tell other students or faculty" (Wimsatt et al., 2015). Respondents to a US medical student survey seemed as uncertain about the confidentiality of their medical records from academic staff/records as they did about the confidentiality of any mental health care provided by their institution (Dyrbye et al., 2015). A fifth of students disagreed that "mental health care provided by my school/affiliated institution to medical students is truly confidential". A further fifth were under the impression that their medical records could be made available to their residency program directors or included in their academic record respectively. A quarter believed their medical records could be accessed by

the Dean. This pattern of distrust was present in medical student studies in other countries. Confidentiality fears were identified as a barrier to help-seeking in a UK study of medical students (Chew-Graham et al., 2003). In an Indian study, three-fifths of students surveyed said that confidentiality issues would be a barrier to help-seeking (Menon et al., 2015). This was also the case in an Australian study, where students expressed confidentiality concerns as a potential barrier to accessing mental health care. Students also worried that they may personally know the doctor working at the university health centre, or encounter them in their future training (Brimstone et al., 2007).

These concerns regarding whether confidentiality will be maintained have been demonstrated to have a real impact on help-seeking behaviour amongst both doctors and medical students. 39% of female doctors surveyed in a US study said that one of the reasons for not seeking treatment despite feeling they met the criteria for a mental health disorder was that they had been afraid that colleagues, staff or other professionals would find out. Nearly a quarter of those who hadn't disclosed to their state medical board said that they were fearful that others outside of the medical board would find out (Gold et al., 2016). Confidentiality concerns also impact on self-prescribing; almost half of respondents cited lack of confidentiality as to why doctors tend to self-prescribe (Adams et al., 2010). Finally, one US medical student study showed that 7% of those surveyed not help-seeking were worried about confidentiality (Weiss Roberts et al., 2000).

2.4.2.7.5 Stigma and discrimination

Mental health stigma refers to how individuals with mental ill health might be viewed negatively by others. Looking at stigmatising beliefs held by respondents to a US medical school survey, over half of students felt that their supervisors and their fellow students would see them "in a less favourable way" if they perceived that they had an emotional/mental health problem (Dyrbye et al., 2015). UK doctors surveyed who would or did not disclose mental ill health to the workplace gave "not wanting to be labelled" as the primary reason (Cohen et al., 2016). Another aspect of stigma is blame. Senior doctors interviewed in a UK study mentioned that because of the common view that mental health is something that can be controlled, there was a fear of being blamed for mental illness should it develop, and being judged as a failure (Bianchi et al., 2016).

Stigma has been found to impact considerably on help-seeking. Perceived stigma has been identified as a barrier to help-seeking amongst many different groups of doctors and medical students. These include female US doctors (Gold et al., 2016), UK doctors (Adams et al., 2010) UK foundation trainees (Fox et al., 2011), and medical students in India (Menon et al., 2015) and

the UK (Chew-Graham et al., 2003). In a study of students at a US medical school (Wimsatt et al., 2015), holding stigmatising views about mental ill health was associated with viewing medication and counselling as less efficacious, suggesting that perceived stigma may not just encompass fear of repercussions and beliefs about self-worth, but extend to individuals seeing little point in accessing help.

In terms of the impact of stigma on disclosing for any reason, stigma was rated by a fifth (20%) of doctors surveyed in a UK study as the most important factor that would affect their decision to disclose their mental illness (Hassan et al., 2009). Another UK study found that over a fifth (22%) of psychiatrists surveyed felt stigma would be a reason for not disclosing a mental illness in future. Those psychiatrists with a personal history of mental illness were more likely to give stigma as a reason (White et al., 2006). Perceiving higher levels of stigma may shape disclosure behaviours in other ways. This includes increasing the likelihood of disclosing to friends/family first rather than colleagues among Canadian psychiatrists (Hassan et al., 2013), and affecting the decision to self-treat among US psychiatrists (Balon, 2007).

The literature indicates a degree of self-stigma. This in part is due to the image that a physician 'should' portray of being healthy and strong. The majority of doctors (96%) surveyed in a UK study agreed that doctors should portray a healthy image (Adams et al., 2010). The idea that help-seeking is related to weakness or vulnerability was held by medical students in studies in both the UK and US (Chew-Graham et al., 2003; Dyrbye et al., 2015) and doctors in a UK qualitative study (Bianchi et al., 2016). Paradoxically this does not seem to extend to how doctors see patients with mental illness, but only in how doctors see themselves. A qualitative study in Northern Ireland found that doctors held non-stigmatising views of patients with mental illness, reassuring them that "it's just another illness", yet viewed it as a weakness in themselves (Thompson et al., 2001). One study suggests that beliefs about a physician's image perhaps have a limited impact on behaviour. In a US study of female doctors, a small percentage of those surveyed (3%) mentioned that believing physicians shouldn't need mental health treatment had actually prevented them from help-seeking (Gold et al., 2016).

In addition to concerns about stigma (how one is perceived) doctors and medical students expressed fears about discrimination (how one is treated). Some doctors believe their career is at stake by disclosing mental ill health. A third of doctors in a UK study cited career implications as the most important factor that would affect their decision to disclose their mental illness, with SHOs being more likely than consultants or GPs to say this (Hassan et al., 2009). Similarly, a third (34%) of Canadian psychiatrists said that the most important factor that would affect their decision *not* to disclose was career implications (Hassan et al., 2013). Among psychiatrists

in a regional UK study, career implications were again cited by a third (35%) as a reason for not disclosing a mental illness (White et al., 2006). In a further UK study 14% of doctors cited career progression as a reason not to get help (Adams et al., 2010). The study showed that most respondents felt that doctors with a history of depression were discriminated against in some ways, with 87% of respondents agreeing that a doctor with depression would be less likely to be appointed. A fear of a negative impact on training was also expressed by US residents, who had moderately high concern that their training status would be jeopardised if their training director or supervisor were to learn of their current depression, anxiety or personal counselling (Dunn et al., 2009). US surgeons included a 'fear of retaliation' among the barriers they identified to seeking assistance (Sanfey et al., 2015). As well as fear of long-term negative career implications, senior doctors in a UK study expressed concern about how colleagues would respond to them in their everyday work, such as distrusting their clinical decisions (Bianchi et al., 2016). Interestingly, fear of regulatory involvement (e.g. GMC) was shown in a study of UK doctors to be less of a concern to those who had experienced mental ill health than to those who had not (Cohen et al., 2016).

Medical students also hold fears regarding the impact of disclosing mental ill health on their careers (Wimsatt et al., 2015). In one US study, medical students expressed moderate concern that their academic status in medical school would be jeopardised and that they would be graded more harshly by a clinical supervisor if the Dean of Students' Office learned that they currently had depression or anxiety (Weiss Roberts et al., 2001). This fear of negative impact on studies held by medical students was also evident in an Indian medical college, where nearly two-fifths of those surveyed cited fear of impact on academic performance as a barrier to help-seeking (Menon et al., 2015). In another medical school study in the US, half of students surveyed expressed fear that their application to doctor training posts would be unsuccessful if it was known that they had an emotional or mental health problem (Dyrbye et al., 2015). The study also found that nearly half of students feared that patients would not want to be treated by them if they became aware that they'd received treatment for an emotional or mental health problem. Two further studies, one in the UK and one in Hong Kong, showed that medical students held concerns about their future career prospects and that this was a barrier to help-seeking (Chew-Graham et al., 2003; Wong et al., 2005). However, in an Australian study looking at the attitudes of medical students towards help-seeking for mental ill health, students notably did not report any concerns about career or academic progression (Brimstone et al., 2007).

Stigmatising beliefs and discriminatory behaviour may contribute to an overall negative impression of the culture within medicine. A qualitative study of foundation trainees in one deanery with experience of significant illness (2 with mental illness) found that medical culture

was a barrier to disclosure (Fox et al., 2011). The culture of the surgical specialty rather than the broader culture of medicine was identified as one of the many barriers to seeking assistance in a study of US surgeons (Sanfey et al., 2015).

2.4.2.7.6 Impact on others

Doctors' wish to put others first also may impact on help-seeking. GP and psychiatrist respondents to a UK survey asking "If you felt your health might be suffering due to strain or stress, would any of the following concerns be a reason for you not to seek help?" cited not wanting to let colleagues (71%) or patients down (52%) (Adams et al., 2010). Lack of locum cover is a related issue. In the same study, 44% of respondents cited lack of locum cover as a reason for not help-seeking.

The potential impact on others was found to be an issue not just in accessing support but in taking sick leave. Half of GPs in a UK study said they wouldn't want to 'burden' partners with extra work by taking sick leave (McKevitt et al., 1997). This issue was also raised by senior doctors in a UK qualitative study (Bianchi et al., 2016).

2.4.2.7.7 Professionalism

Various professionalism issues form obstacles to doctors and medical students seeking help. Appearing competent was of concern to female doctors surveyed in a US study. Over a third (36%) of those surveyed that had not sought treatment for a mental health disorder felt that a diagnosis would makes them appear less competent or able to do their work (Gold et al., 2016). Of Canadian psychiatrists surveyed, 16% said that the most important factor that would affect their decision *not* to disclose was "professional standing" (Hassan et al., 2013). For psychiatrists participating in a regional UK study, over a quarter (27%) cited "professional integrity" as a reason for not disclosing a mental illness (White et al., 2006). Of hospital doctors and GPs in another UK study, 30% cited "professional integrity" as influencing their disclosure decision (Hassan et al., 2009). In that study, consultants were more likely than any other group to say "professional integrity" was the most important factor influencing disclosure. However, the study did not say in which direction it would influence their decision to disclose. It is not clear from these studies what specific aspects of professionalism are being referred to.

2.4.2.7.8 Why do doctors disclose?

A single study in this review explored why doctors *do* disclose their mental ill health to the workplace. The main reasons given for both doctors with and without personal history of mental ill health were professional responsibility, to gain advice on managing work alongside mental ill health, and for emotional support. However, those with personal history of mental ill health placed more importance on obtaining treatment as a reason for having disclosed to the workplace (Cohen et al., 2016).

2.4.2.8 How do doctors and medical students approach disclosing/concealing their mental ill health?

2.4.2.8.1 Approaches to disclosure

Only one study reported findings relating to disclosure decisions, as part of a study looking at personal illness experiences. A qualitative study of foundation trainees (doctors in training) with experience of significant illness (2 with mental illness) highlighted the difficulty that doctors face in making decisions about disclosing their ill health, with uncertainty of when to disclose, and whom to disclose to (Fox et al., 2011). Medical students may discuss symptoms with peers (Thistlethwaite et al., 2010) (though this was for health in general, not mental health specifically) due to their lack of confidence in self-diagnosis. Previous illness and health care experiences, and role models (e.g. a doctor parent) were found to be important factors in students' decision-making.

Prompts from other people may influence doctors' help-seeking. A study reporting on the MedNet PHP cited that whilst the service is a self-referral one, "many doctors report being prompted to make contact by others (colleagues, occupational health, general practitioners etc.)" (Meerten et al., 2011). A previous study on the service found that while all respondents to MedNet self-referred, 72% stated that they were encouraged to do so by another person, including GPs, senior colleagues, OH, postgraduate deanery, psychology professional, or friends/family. 50% had previously consulted a psychiatrist (Garelick et al., 2007).

Other people seem to influence the pathways doctors take to support. In a retrospective data analysis of patients at a private psychiatric practice in Australia, 20% of doctors attending had self-referred to the practice, 8% were referred by a GP, 6% by another psychiatrist, 6% by another specialist, 2% by a medicolegal organisation, and 3% by a friend (Sved Williams, 2004). In another study, relating to attendance at a Norwegian PHP, 45% of doctors reported coming "on their own initiative", 37% were prompted by a colleague, 10% were referred, 6% were asked to come by their partner, and 2% came "for other reasons" (Ro et al., 2007). In a study of a regional Australian PHP, some of the 17 doctors with a personality difficulty or disorder attending had been referred by their employers as "disruptive" (Warhaft, 2004). For medical students accessing support at a Pakistan medical college, a proportion had been encouraged to seek support or referred to support - 59% of students help-seeking self-referred, 28% were referred by faculty members, and 13% were referred by other students (Zaman, 1996).

A novel approach at a US medical school offered students and staff the option to disclose symptoms of mental health anonymously online. A computer facilitated assessment was found to assist access to a counsellor. An email invitation to take the assessment was completed by 374 students, house staff and faculty. As a result, out of 101 'high risk' individuals, 48 accepted

a referral into mental health treatment after completing the assessment. Of 17 respondents who completed an initial evaluation report after the first face-to-face meeting with the counsellor, 12 (71%) stated that they would not have made an appointment to meet with a mental health professional without the online screening program (Moutier et al., 2012). The study was repeated at another US institution. After completing a wellness survey at a regional US institution, faculty and residents deemed at 'high risk' of depression/suicide received a tailored message from a counsellor inviting them to access help. Out of 54 participants in the high risk category, 43% engaged in online dialogue with a counsellor (anonymously), 17% came in for an in-person evaluation, and 20% accepted a referral to other services (Haskins et al., 2016).

2.4.2.8.2 Behaviours that perpetuate non-disclosure

Some illness behaviours perpetuate non-disclosure. It is not always clear whether that is the main intention of the behaviour. What doctors/medical students would or did do when faced with mental ill health has been studied, but the reasons why have not been fully explored. With that caveat, four different types of behaviours were highlighted in this review which facilitate non-disclosure. These were avoiding treatment/self-treatment, paying cash for prescriptions, obtaining out of area treatment, and certain sickness absence behaviours.

1. Avoiding treatment/self-treatment

Self-diagnosing and self-treatment appears to be another prevalent response to mental ill health among doctors (George, Hanson, & Jackson, 2014). In a large national Finnish study, the proportion of doctors surveyed self-treating for a mental disorder was two-thirds (Töyry et al., 2000). A fifth (22%) of psychiatrists surveyed in a US study believed that they should self-treat for depression, and 16% had actually self-treated depression in the past (Balon, 2007). Some doctors would self-treat alongside seeking treatment elsewhere. Among South African doctors surveyed at one hospital, 6% would speak to colleagues but still treat themselves, and 10% would see a psychiatrist but still treat themselves. 13% would solely treat themselves and not consult other doctors (van der Bijl & Oosthuizen, 2007). Some doctors did recognise retrospectively that their mental ill health had warranted consultation by another doctor. In one Norwegian study, 13% of doctors surveyed said that they had self-treated for an illness that retrospectively, they would have consulted another doctor for (this included conditions such as depression). Women were more likely to report this (16% vs 11%) (Rosvold & Bjertness, 2002). As well as self-treatment, self-referrals to specialists are common (McKevitt et al., 1997), bypassing the need to make some disclosures. In a qualitative study of GPs with "significant illness" (4 with mental illness), participants highlighted some of the issues in referring themselves directly to secondary care. This included contributing to the perception that doctors

are demanding or difficult patients by self-referring, and whether accessing the best care is achieved by going through or circumventing "the system" (Fox et al., 2009).

Among doctors, a further issue within self-treatment is self-prescribing for mental ill health. Some figures seem particularly high, such as in a survey of Swiss primary care physicians where 70% of those using anti-depressants in the last week had self-prescribed (Schneider et al., 2007). One early study found that more doctors self-prescribed anti-depressants than took anti-depressants prescribed by another doctor (Chambers, 1992). A postal survey of psychiatrists in a regional US study found that over a quarter (28%) of respondents would "consider" self-medicating for mild to moderate depression, and 14% would "definitely" self-medicate. For severe depression with suicidal symptoms, only 3% would consider self-medicating and just 4% would definitely self-medicate (Balon, 2007).

In a US study of female doctors who had received a diagnosis or treatment for a mental health condition since medical school (or believed that they had met the criteria for mental illness but did not seek treatment), nearly a fifth (18%) reported writing their own prescription, asking a friend for the prescription or doing both (Gold et al., 2016). Looking at hypothetical responses, 20% of psychiatrists surveyed in a UK regional study said that their treatment preference for moderate depression would be self-medication (White et al., 2006). Only 5% of Canadian psychiatrists surveyed in a regional study would self-medicate for mental illness (Hassan et al., 2013). 9% of Australian doctors surveyed nationally believed that it was acceptable to self-prescribe psychotropic medication (Davidson & Shattner, 2003).

Some studies showed low rates of actual self-prescribing. Of doctors surveyed in a South African study, only 1 in 10 had self-prescribed an anti-depressant in the past 5 years (van der Bijl & Oosthuizen, 2007). A further study showed rates of self-prescribing anti-depressants at 9% among US surgeons surveyed, with 7% informally receiving a prescription from a colleague (Sanfey et al., 2015). A cohort study of SHOs who had studied at a Scottish medical school found 4% would self-medicate for severe anxiety and 2% would do so for low mood (Baldwin et al., 1997). A further study reported that doctors may be reluctant to use anti-depressants, whether self-prescribed or not. A postal survey completed by London GPs found they were less likely to advise themselves to use antidepressants than to advise patients with the same depressive symptoms (Gardner & Ogden, 2005).

One national Norwegian study examined the perceived negative consequences of self-treatment among doctors. Those surveyed identified problems such as delayed diagnosis, delayed medication, worsening of the illness, delayed examination and delayed hospitalisation. Still, almost two-fifths (37%) claimed no adverse effects of self-treatment (Rosvold & Bjertness,

2002). Another study revealed a possible positive consequence of self-treatment, where doctors were more likely to have sought help if they had self-diagnosed and self-treated, the authors noting this perhaps indicates 'insight' (Fridner et al., 2012). Self-diagnosis and self-treatment are issues for medical students as well as doctors, being cited as a barrier to care-seeking by nearly a third of students surveyed at a US medical school (Gold et al., 2015).

Some doctors and medical students would avoid treatment completely for mental ill health. This was discussed in more depth under, 'How many doctors and medical students disclose/conceal their mental ill health?'

2. Paying cash for prescriptions

Among female physicians who reported seeking treatment for mental illness since medical school, over a tenth (12%) reported paying cash for a prescription related to mental health to avoid insurance company knowledge of the medication (Gold et al., 2016).

3. Out of area/private treatment

Another behaviour by doctors that facilitates non-disclosure to certain individuals and organisations is accessing treatment privately, or 'out of area' (Hassan et al., 2013; White et al., 2006). For medical students, this equates to choosing independent support services over those based at their medical school (Weiss Roberts et al., 2000). This suggests confidentiality concerns. In countries with insurance-based healthcare systems, seeking healthcare has implications not just for general confidentiality but for insurance premiums. Among female US physicians who reported seeking treatment for mental illness since medical school, over a third (35%) deliberately sought treatment from a provider in a different city or health system so as to avoid disclosure to their health insurance provider (Gold et al., 2016).

4. Sick leave

Presenteeism is an issue for medical students and doctors. Among students surveyed at one US medical school, 15% reported that they always attend obligations when sick (Gold et al., 2015). In a South African doctor study at one hospital, levels of sick leave were low. Although over half (53%) of doctors surveyed scored at least mildly for anxiety/depression (rising to 67% among female doctors), 64% of doctors had taken not a single sick day in the last year (van der Bijl & Oosthuizen, 2007). In a Scottish study of doctors in training, only 12% surveyed said they would take time off work for low mood, and 14% for severe anxiety (Baldwin et al., 1997). This pattern of low levels of sick leave has been reported elsewhere. Among Finnish physicians surveyed, only 4% of doctors reporting a mental disorder had taken sick leave for it (Töyry et al., 2000). In the qualitative component of a UK study, 4 of 24 doctors clinically diagnosed as having a psychiatric disorder took no sick leave at all during their illness. A further 3 worked through

depressive symptoms, and some returned from sick leave earlier than they would advise a patient to do (McKevitt et al., 1997). In the quantitative part of the study, the majority of doctors surveyed (86% of GPs and 85% of hospital doctors) recognised that they had continued to work when it might have been better to take sick leave. One of the factors found to influence doctors in working through illness was again confidentiality. An Irish study of non-consultant hospital doctors found over two-thirds (69%) cited not wanting anyone to know about their illness as a factor influencing them to work through it (Feeney et al., 2016).

One UK study found a link between sick leave for physical health and experiencing mental ill health. Less than a quarter of doctors surveyed who had been depressed had taken time off at all for stress or strain. However, this group were more than twice as likely to have had time off for physical health reasons. One interpretation offered is that doctors are hoping to avoid discrimination by citing physical health reasons instead of mental health reasons for their sickness absence (Adams et al., 2010).

2.4.2.9 What strategies for improving disclosure have been suggested or implemented?

Proposed solutions aimed towards improving the mental health of doctors and medical students in general. No studies focussed on improving disclosure conversations or assisting disclosure decision-making. Suggestions ranged from vague statements on needing to improve help-seeking behaviour to making specific recommendations.

2.4.2.9.1 Culture

One broad suggested approach was tackling aspects of the culture around doctors and mental illness. This included decreasing stigma (Adams et al., 2010; Balon, 2007; Bianchi et al., 2016; Hassan et al., 2009; Lindo et al., 2009) and tackling stoicism (Baldwin et al., 1997). Some studies noted that the culture around healthcare for physicians needs reshaping (George et al., 2014), and specifically needs addressing within training in medical schools (Holmes et al., 2017; Moutier et al., 2009; Weiss Roberts et al., 2001; White et al., 2006; Wimsatt et al., 2015). This includes recognising the importance of senior role models (Bianchi et al., 2016) and adopting a preventive stance (Wimsatt et al., 2015). Anti-stigma initiatives have been implemented, with disclosure forming one component.

The “hidden curriculum” was referenced by some studies when discussing the need to combat stigma (Adams et al., 2010; Dyrbye et al., 2015; Pullen et al., 1995). Measures to address this within medical education included actively discouraging students and residents from working through illness (Dunn et al., 2009) and training in compassion and kindness (Brooks et al., 2017). Overcoming cultural obstacles could be focussed in specific specialties, such as surgery, which has higher rates of suicidal ideation (Shanafelt et al., 2011).

2.4.2.9.2 Training

The need for training for medical students and doctors was stressed by many studies, with recognition of the opportunity that is afforded within the medical curriculum to tackle many of the barriers to help-seeking. Suggested specific coping strategies that could be taught included stress-management (Feeney et al., 2016; Lindo et al., 2009; Pullen et al., 1995), mind-body skills (Wimsatt et al., 2015) and reflective practice (Gold et al., 2015), as well as general educational campaigns designed to enhance psychological wellbeing (Wong et al., 2005).

Many studies have proposed that for doctors and medical students to normalise themselves and their peers as patients, training should be put into place addressing issues that arise from this. Broad approaches included training on psychosocial dimensions of medicine (Adams et al., 2010; Schneider et al., 2007). Specific suggestions included education about physician impairment (Sanfey et al., 2015), perhaps using personal testimonials (Wimsatt et al., 2015). Focus could be given to doctors' vulnerability to mental health concerns such as burnout and depression (Fox et al., 2009; Matheson et al., 2016; Meerten et al., 2014; Rong et al., 2009; Weiss Roberts et al., 2005; Weiss Roberts et al., 2000) and role strain (Dickstein et al., 1990). Raising levels of mental health literacy is considered integral to this (Chan et al., 2014), including encouraging self-identification of mental disorders (Braquehais, Valero, Bel, et al., 2014).

The importance of teaching self-care has been highlighted (Brimstone et al., 2007; Matheson et al., 2016; Thompson et al., 2001; Weiss Roberts et al., 2005; Weiss Roberts et al., 2000) but with discouragement of self-reliance and self-treatment (Davidson & Shattner, 2003). Seeking support has also been emphasised as an important training issue (Meerten et al., 2014), within which are subtopics such as assurances about not being penalised for help-seeking (Hassan et al., 2013). It has been suggested that training in this area might be best achieved through open discussions about personal health issues in the formal curriculum (Weiss Roberts et al., 2000) or by modelling seeking support and self-care (Dunn et al., 2009; Gold et al., 2015). Given the informal support sometimes accessed by medical students, including mental health first aid in the undergraduate curriculum is another suggested training area (Amarasuriya, Jorm, & Reavley, 2015b).

Training doctors and students in how to be a patient has been proposed (Fox et al., 2009; Rosvold & Bjertness, 2002), including what to avoid when being a doctor-patient, such as corridor consultations and self-medication (Lindo et al., 2009). Training can play an important role in helping to normalise doctors as patients, but some studies highlighted the need for additional training in treating a doctor-patient (Balon, 2007; Davidson & Shattner, 2003; Fox et al., 2009; Hassan et al., 2009; Hassan et al., 2013; Pullen et al., 1995; Tyssen et al., 2004; van der Bijl & Oosthuizen, 2007; White et al., 2006). Although the career stages of medical student and

junior doctor were identified as particularly important time points to address pertinent issues, one study identified opportunities for training beyond medical school, such as CPD groups and GP refresher courses (Adams et al., 2010)

2.4.2.9.3 Support services

There were two main ideas pertaining to improving mental health support services for doctors/medical students: improving how existing services are used; and providing additional support services.

Underuse of existing services is an issue; ensuring they are well-publicised and signposted to is key (Amarasuriya et al., 2015a; Brimstone et al., 2007; Menon et al., 2015), perhaps via mentors (Chew-Graham et al., 2003). Services could also provide information to assist students with ill peers (Weiss Roberts et al., 2005). Raising awareness of OH services for doctors (Baldwin et al., 1997), providing resource lists (Gold et al., 2016) and encouraging help-seeking on an individual level (Fox et al., 2011) were also mentioned. Earlier detection and intervention is needed by existing services (Braquehais, Valero, Matali, et al., 2014). More understanding of pathways to support and boundaries of confidentiality may also help (Cohen et al., 2016).

Findings from a regional UK qualitative study suggested that support at an organisational level can lack cohesion (Fox et al., 2011). Improving support at an organisation level has been suggested in many other studies. This could incorporate both institutional and peer support to disclose, and interventions to help engage physicians in primary care relationships (Reinhardt et al., 2005). It has also been suggested for the capacity of general medical practitioners, not just specialists, to respond effectively to be increased (Rong et al., 2009).

Making services easily accessible aids those in need (Ro et al., 2007) and should be facilitated (Baldwin et al., 1997)(Feeney, 2016), for example with extended hours, walk-in services etc. (Dunn et al., 2009). Access needs improvement for medical students (Weiss Roberts et al., 2001). Confidentiality is key; clinics for medical students might be positioned away from busy areas (Menon et al., 2015).

In terms of further service provision, recommendations ranged from a consultant led OH service available for all NHS staff (Forsythe et al., 1999) to increasing the number of counselling services available at medical schools (Zaman, 1996) or introducing specific interventions for burnout and stress (Gold et al., 2015). Looking at geographical location, the importance of well-advertised and fully funded psychiatric sessions available regionally was stressed (Hassan et al., 2009) as was the need for support services available in rural locations (Pullen et al., 1995). Out-of-area specialist psychiatric care or treatment at institutions other than a doctor's workplace were proposed as potentially helpful (George et al., 2014; White et al., 2006).

The independence and affiliation of future support services was raised. For medical students, suggestions included subsidised non-university counselling (Brimstone et al., 2007). The provision of support services outside of training institutions was echoed in suggestions for junior doctors (Moutier et al., 2009).

Some studies recommended further establishment and development of specialist physician services, both in-patient and out-patient, and on regional and national levels (Meerten et al., 2014; White et al., 2006)(Forsythe et al, 1999). There have been calls to ensure that treatment providers follow guidance from psychiatrists (Holmes et al., 2017), are trained in treating doctors (Rosvold & Bjertness, 2002), tailor services to the complex needs of doctors (Bianchi et al., 2016) or apply learning from specialist doctor services e.g. the importance of compassion (Brooks et al., 2017). For GPs, encouraging registration with a GP themselves (Chambers, 1992) or having dedicated service provision was proposed (Forsythe et al., 1999). Some suggest that physicians may benefit from the same kind of supervision that those in the psychology profession are afforded, where opportunity is given not only to discuss clinical cases but to discuss the emotional impact of work (Bianchi et al., 2016).

Suggestions were also made about the importance of identifying and supporting at-risk groups (Aminazadeh et al., 2012; Braquehais et al., 2015; Pullen et al., 1995; Wong et al., 2005). Programmes could be developed specifically to support at-risk students (Matheson et al., 2016) or provide outreach to vulnerable groups (Fridner et al., 2012). One more suggestion included implementing monitoring programmes, such as annual medical check-ups or wellness surveys (Haskins et al., 2016; Lindo et al., 2009; Reinhardt et al., 2005). Enhancing existing pastoral support at medical schools may help to identify and support vulnerable students (Yates et al., 2009).

Studies at medical shools where support interventions have been implemented and preliminary evaluations conducted, suggested further evaluation and roll out of the interventions to other settings (Haskins et al., 2016; Moutier et al., 2012; Rehman, Usmani, Omaeer, & Gul, 2015).

2.4.2.9.4 Confidentiality

Addressing confidentiality issues is another area for future work (Balon, 2007). There have been calls for organisations to make assurances about confidentiality to their doctors and medical students (Baldwin et al., 1997; Brimstone et al., 2007; Dunn et al., 2009; Moutier et al., 2009). Suggested measures have included ensuring that organisations develop clear protocols for the records of healthcare professionals, and restrict or monitor access to electronic medical records (George et al., 2014; Hassan et al., 2009; Hassan et al., 2013). In medical schools it has been suggested that medical records need to be kept separately from academic files (Weiss Roberts

et al., 2005). It has also been suggested that doctors are given the option to refer themselves confidentially to mental health teams (Hassan et al., 2009).

2.4.2.9.5 Raise awareness

One study stressed raising awareness of the importance of disclosing significant illness as early as possible (Fox et al., 2011). Studies suggested that raising awareness of mental health issues in general also must be addressed. This has included the suggestion that doctors with personal experience of depression speak openly about their experiences (Adams et al., 2010), that mental health service users are employed as trainers or teachers (Brooks et al., 2017), and that mental health professionals must play a role in dispelling mental health myths (Menon et al., 2015). Raising awareness of the dangers of self-treatment has also received focus (Balon, 2007), and stressing the importance of personal mental health care (Campbell & Delva, 2003) including treating stigmatised illnesses (Gardner & Ogden, 2005).

2.4.2.9.6 Legislation, regulation and guidelines

An older study identified that BMA guidelines on doctors treating themselves and their families were not being followed at the time, and that they should be promoted widely and monitored (Forsythe et al., 1999). A need for such guidelines has been identified in other countries such as South Africa (van der Bijl & Oosthuizen, 2007). Further legislation that could potentially impact doctors' avoidance of help-seeking would be to place limits on self-prescribing (Feeney, 2016).

In terms of the issues that licencing in the US brings, one study has recommended that how physicians are assessed for fitness to practise with respect to mental health be re-examined (Gold et al., 2016).

Another helpful approach may be the development of clear protocols for evaluating illness and for determining whether impairment exists or is likely to develop as a result of the illness (Weiss Roberts et al., 2005).

2.4.2.9.7 Working practices

Another area identified on which to focus improvements is that of working practices. This includes general organisation and team work (Bianchi et al., 2016), but suggestions also included case-based discussion groups or Schwartz rounds (structured forums for discussion) for junior doctors (Meerten et al., 2014), and meetings to discuss stressful work situations for academic physicians (Fridner et al., 2009). Recent suggestions have included addressing scheduling, where the impact of training (e.g. rotations) on support networks is examined (Feeney, 2016). This could include building time into schedules for self-care or wellness (George et al., 2014; Gold et al., 2016) as well as social activities and physical fitness (Aminazadeh et al., 2012).

The need to overcome obstacles to taking sick leave has also received attention (McKevitt et al., 1997). Arranging 'cover' is particularly an issue for GPs; suggestions include developing strategic guidelines for primary care organisations (Fox et al., 2009) and using salaried GPs to ease the difficulties of locum arrangements (Thompson et al., 2001).

2.4.2.10 What happens after disclosure?

A minority of studies examined what happened after mental ill health was disclosed; these findings are included here as an additional observation.

Of women doctors who did disclose to their state board in a US study, 34% were required to submit documentation from their treating physician and 16% from multiple physicians, 16% were required to appear before the board or be examined by a board-appointed physician, 18% were required to attend a PHP, and 2% had license limitations. For some doctors, the consequences of reporting were minimal, however, others found the impact of reporting to be stressful e.g. delayed start of residency, retraining or supervision, or left medical practice (Gold et al., 2016).

Of 217 medical students who disclosed mental ill health to their medical school in a US study, 13% took a medical leave of absence, 11% were dismissed or resigned, and 12% repeated their year/course (Dickstein et al., 1990).

One qualitative UK study of junior doctors with ill health (2 with mental illness) highlighted the benefits of disclosing. For some doctors, disclosing ill health was followed by a sense of relief, and wishing that disclosing had not been delayed. These doctors reported learning that proactive disclosure is necessary to manage their health alongside their training (Fox et al., 2011). In one further UK study, 68% of doctors surveyed thought a previous episode of depression can be beneficial to clinical practice (Adams et al., 2010), though this reflects a benefit of experiencing depression, rather than of disclosing.

2.4.3 Results summary

This review aimed to further our understanding of doctors' and medical students' disclosure of their own mental ill health. It addressed 10 questions. The findings are now summarised.

1. **How has the disclosure/concealment of mental ill health by doctors and medical students been conceptualised?**

   The issue of doctors' and medical students' disclosure of mental ill health has been approached from medical education, occupational health and public health perspectives. Only one study used a clearly defined theoretical approach; of social learning theory and attribution theory. No studies used models of health behaviour change. Studies primarily focussed on common obstacles to help-seeking.

2. **How many doctors and medical students disclose/conceal their mental ill health?**

   There is a great variability in how studies have looked at the numbers of doctors and medical students disclosing and help-seeking. Comparability is therefore limited. Avoiding help-seeking is common. Although direct comparisons are not possible, studies have shown that as low as 20% of medical students and 26% of doctors with mental health concerns seek help. Therefore, among both doctors and medical students, fewer individuals seek help than require it, indicating a 'treatment gap'. Looking at likelihood of disclosing for any reason, studies reported a small proportion of doctors that said that they would not hypothetically disclose their mental ill health to anyone at all. Most doctors (93-97%) felt hypothetically they would disclose mental illness to someone.

3. **What are the demographics of doctors and medical students that disclose/conceal their mental ill health?**

   Being less likely to seek help seems to be associated with doctors who are male, older, and working in specific specialties (psychiatry, surgery, paediatrics, medical research). There is no data on how gender relates to disclosing mental ill health for regulatory purposes. Few studies have collected ethnicity data on doctors/medical students seeking help. Among medical students, there was a suggestion for help-seeking to decrease as year of study increased. Studies have identified great complexity in how demographic factors interact. Other factors that may be associated with disclosure include: perceptions of own mental health, exposure to mental illness, and personal history of mental illness, social support and individual coping style.

4. **What types of mental ill health do doctors and medical students disclose/conceal?**

   Students were more likely to seek help for anxiety than other conditions, but doctors mainly sought help for depression. Doctors and medical students had sought help for a very wide range of emotional and mental health problems, including burnout, professional identity, interpersonal issues, and academic problems. Trainees felt less able to discuss some health conditions than others.

5. **When do doctors and medical students disclose/conceal their mental ill health?**

   Doctors may delay help-seeking, waiting until the impact of their mental ill health is severe or until extended time has passed. Many adopt a 'wait and see' approach.

6. **Whom do doctors and medical students disclose their mental ill health to/conceal their mental ill health from?**

   Doctors would most commonly hypothetically disclose to friends/family (both in the first instance, and at some point). Doctors/medical students also used family or friends for informal help-seeking. There is reluctance among medical students to disclose on application forms to medical school or training posts. Doctors are reluctant to disclose to OH, but many do. Doctors access informal as well as formal help. Formal help is perhaps even less often sought by medical students. Doctors have a formal help preference for the GP. One study suggested female doctors under-disclose to regulatory bodies. Some doctors prefer to seek treatment outside of the area where they work, and students may prefer accessing treatment not connected with their medical school.

7. **Why do doctors and medical students disclose/conceal their mental ill health?**

   Studies tended to focus on why doctors and medical students don't disclose sooner, and why they don't disclose at all. There is very little data on why doctors and medical students *do* disclose. Internal barriers such as denial, shame and lack of insight play a role, as does self-reliance. Many issues relating to support access were identified, including not knowing where to get help, lack of time, cost, and dissatisfaction with existing service provision. The implications of disclosing mental illness to regulators and insurers form another barrier. Confidentiality concerns relate to not only regulators and employers but to peers and colleagues. Higher perceived stigma is related to decreased help-seeking. Fears of discrimination includes not only regulatory involvement (e.g. FTP investigations), but also of workplace progression e.g. being denied opportunities. The potential impact on others and professional integrity are also obstacles to disclosing. Limited data showed that primary reasons for disclosing include professional responsibility, to gain advice on managing work alongside mental ill health, for emotional support and to obtain treatment.

8. **How do doctors and medical students approach disclosing/concealing their mental ill health?**

   A single qualitative study highlighted the uncertainty of doctors in training of when to disclose, and whom to disclose to. Some doctors and medical students report being prompted by other people to seek help from support services. Doctors and medical students adopt various behaviours that facilitate non-disclosure of mental ill health. Many of these strategies involve concealing mental ill health from the workplace or medical school, but also apply to concealing mental ill health from regulatory bodies.

9. **What strategies for improving disclosure have been suggested or implemented?**

   Proposed solutions tended to aim towards general improvement of the mental health of doctors and medical students. Suggestions to overcome specific obstacles (e.g. culture, confidentiality concerns, access to support services, stigma, unhealthy working practices) have been proposed, many of which could be implemented in training. Legislation, regulation and guidelines is another area where efforts could be targeted. Improvement to existing support services has been advocated, as well as development of new specialist services. No studies focussed specifically on improving disclosure conversations or assisting disclosure decision-making.

10. **What happens after disclosure?**

    Female US doctors disclosing to their state licencing board were met with varying requests; for documentation, for examination by a board-appointed physician, to appear before the board or attend a PHP. Some of these requirements were minimal, but others highly disruptive and stressful. Of medical students who disclosed mental ill health to their medical school in a US study, a third reported then taking a medical leave of absence, resigning/dismissal, or repeating their year/course. One study explored how doctors felt about disclosing ill health (including mental ill health) in retrospect. Feelings of relief can follow disclosure, and a wish that it had been done sooner. Benefits include recognition that disclosure is necessary to manage health alongside training.

2.5 Discussion

This section now discusses the implications of the results. Looking at what models or theories underpin current conceptualisations of doctors' and medical students' disclosure of their mental ill health identifies a clear gap. Most studies have not theorised beyond simple recognition of obstacles. Few included studies assessed interventions. Those that did, did not apply models of health behaviour change. Elsewhere in the mental health literature, studies describe the application of theoretical models for increasing help-seeking behaviour. This includes the use of the Theory of Planned Behaviour in creating an online intervention to facilitate help-seeking for young adults with mental ill health (S Kauer, K Buhagiar, & L Sanci, 2017).

There is great variety in how studies have looked at the number and proportion of how many doctors/medical students disclose their mental ill health. Approaches have included how many doctors/medical students disclose in general, how many disclose for regulatory reasons, how many avoid help-seeking, and how many seek help in comparison with how many need help. These nuanced sub-questions have been approached from both hypothetical and actual

standpoints. This wide variation in study approaches places limitations on the comparability of data.

As discussed in Chapter 1, the prevalence of mental ill health among doctors and medical students is thought to be high. Hypothetical rates of help-seeking for mental illness were higher than for how many doctors/medical students with mental health needs or in psychological distress actually sought help. This links with previous research that showed doctors were liable to overestimate how forthcoming they would be in disclosing mental ill health (Cohen et al., 2016). There is likely a substantial proportion of doctors and medical students who are not seeking help when they are in need. This difference between the 'true' prevalence and 'treated' prevalence is known as 'the treatment gap' (Henderson, Evans-Lacko, & Thornicroft, 2013). Using the lowest reported figure of 7% in UK studies of doctors claiming that they wouldn't disclose mental illness to anyone, would still equate to at least 17,000 doctors in the UK.

While it appears that there are some demographic factors (e.g. gender) that are associated with less likelihood of disclosure, there is conflicting data, and a lack of comparability between studies. The increases in female referrals seen in one study poses the question of whether this is due to an increased prevalence of mental ill health among female doctors. The increasingly female workforce within the medical profession is also a consideration, having grown from 37% of UK registered doctors in 2006 to 46% in 2017 (GMC, 2017). Data about factors such as age and ethnicity are limited; no clear picture can be obtained. The authors of a study at the Barcelona PHP found a decline in mean age of referral over time, and suggested that older doctors were becoming less likely to self-refer (Braquehais, Valero, Matali, et al., 2014). An alternative explanation could be that mental health problems have increased among younger doctors.

Limited data suggests that there's an association between decreased likelihood of help-seeking for mental ill health and younger students/doctors (i.e. medical students in earlier years of study and doctors in training). Again it is unclear whether this is because a higher proportion are in need of help. Trainees may also be less likely to disclose to the workplace than more senior doctors. Findings also suggest that those working in certain specialties (e.g. general practice) are more likely to seek help than those in others (e.g. surgery, psychiatry), and that locum and SAS doctors are less likely than other doctors to disclose to the workplace.

The great complexity in how demographic factors interact, interplayed with other factors such as coping style and social support, has implications for how interventions are targeted. There may be some value in targeting certain groups (grades, specialties etc.).

Some studies have specifically asked what doctors and medical students did or would do when faced with a specific mental health problem e.g. anxiety or depression. However, it would perhaps be prudent to encourage individuals to seek help - regardless of whether they feel a clinical threshold has been reached - if they feel their mental wellbeing is impacted in any way. The finding that doctors worry that they're 'not sick enough' to warrant accessing support relates to the finding that help is often delayed, not being sought until symptoms are having considerable impact. "Do nothing" is all too often a medical student's/doctor's first response to mental ill health. Delaying help-seeking for mental illness is associated not only with deterioration of mental health, but for doctors may lead to undesirable outcomes such as poor performance, professional misconduct and inadequate patient care (Brooks et al., 2017). This in turn may lead to significant time off work being taken. For mental ill health there is no equivalent of a 'minor injuries unit' and doctors and medical students perhaps would benefit from further encouragement to seek early support, and interventions that focus on prevention.

Doctors and medical students disclose to a range of different individuals. Doctors mainly would choose to tell family or friends first about any mental health concerns. Perhaps the prevalence of 'medical families', where parents and other close relatives are also doctors, is of influence. This has not been explored. Of concern is that limited data from one study showed a very low (6%) disclosure rate of mental ill health by doctors to their regulatory body. This has implications for how regulatory bodies address the issue of non-disclosure of pertinent mental health issues. The reluctance that doctors and medical students have in disclosing either on application forms or to OH has implications for the timeliness with which support can be put in place. If a medical school or employing organisation is unaware that a student or doctor has mental health issues that may require future support, then measures become responsive rather than preventive.

Although it seems doctors have a formal help preference for their GP, a proportion of doctors do not have a GP (Kay et al., 2008). It is unclear whether this is by choice, or if there are obstacles to registering with a GP (e.g. doctors in training moving frequently geographically, or not having time to register). In terms of informal help-seeking, using colleagues or peers carries concerns about corridor consultations, where responses may be inappropriate and boundaries of confidentiality are not formally managed. Because of the large number of doctors that would informally consult a colleague, there would be some value perhaps in making medical students and doctors aware of how to signpost peers and colleagues to support.

In terms of the obstacles relating to regulatory bodies, reluctance to disclose has also been found when looking at an impairment more broadly, not just mental health - anaesthetists in an

Australian study believed that mandatory reporting laws would deter them from seeking medical help themselves if they were impaired (Griffiths & Burke, 2012).

Obstacles to disclosing mental ill health and/or help-seeking have been extensively studied. It has been noted that the fears that doctors and medical students have can only be compounded by the negative thought patterns present in common mental health problems such as depression (Adams et al., 2010). There are also fears connected to treatment for mental ill health. Just under a third of students at a medical college in Indian mentioned fear of side-effects as a barrier to help-seeking (Menon, Sarkar, & Kumar, 2015).

The most glaring absence in the data is in-depth examination of why doctors *do* disclose. Levels of disclosure seem low, but by looking at the comprehensive obstacles identified in the literature, one would perhaps expect even less individuals to disclose. It is also not clear how individuals navigate from first disclosures to accessing support.

It would be easy to dismiss fears about confidentiality as unfounded, but there is evidence that breaches of confidentiality do occur. Students in a US medical school study reported such breaches as observing both students and supervisors reveal students' emotional problems to others, and seeing supervisors access the medical records of students without their consent (Dyrbye et al., 2015). This does not seem to be consistent, however, with other evidence suggesting that rather than passing on information about colleagues' perceived wellbeing, doctors simply ignore signs that a colleague is unwell. Among doctors, it has been suggested that a 'diffusion of responsibility' may prevent individuals from acting on observations of a colleague being unwell i.e. inaction by surgeons included beliefs that someone else was taking care of the problem (Sanfey et al., 2015).

The role of prompts from other people in help-seeking was not explored. It is unclear whether doctors or medical students referred to support services by other parties had voluntarily disclosed mental ill health to them, or if the third parties had adopted a reporting or regulatory role. It is also unclear whether some individuals may be prompted *not* to seek help by other parties. The role of friends and family in facilitating further disclosures is also of interest. It may be that family and friends give support and advice that increase the likelihood that formal support will then be accessed. If this is the case, then those without social support may be at increased risk of not obtaining support.

Many obstacles to obtaining mental health care are also obstacles to physical health care, such as poor access, long waiting times, and cost (Weiss Roberts et al., 2000). Doctors use some of the same strategies for mental ill health as for physical illness e.g. working through illness has previously been identified as a physical illness behaviour among doctors (Szymczak et al., 2015).

Similarly, self-prescribing in general, not just for mental ill health, has been identified in the literature (Rosvold & Bjertness, 2002; Shadbolt, 2002) and is potentially related to the problems in accessing support that have been identified elsewhere. It would be interesting to examine if rates of self-prescribing were to decrease within medical schools or health boards where access to confidential support services has been improved.

A very comprehensive range of obstacles to help-seeking, ranging from poor accessibility of support services to confidentiality concerns, have been identified. Some initiatives to improve help-seeking have taken an approach that broadly addresses medical culture, e.g. anti-stigma programmes. Nothing has been undertaken to support doctors and medical students in making decisions about disclosing, nor has there been any focus on improving disclosure conversations.

This review provided some observations of what happens after disclosure. It is of course difficult to separate the consequence of disclosing mental ill health from the consequences of having a mental illness. Because disclosing is subject to much fear and speculation about potential negative consequences, it is heartening to see in one study that a very small proportion of medical students left their course afterwards. However, it seems that doctors disclosing to their state board did then face regulatory obligations that may have added additional stress at a period when their mental health was not at its best. This is something that has been echoed in the UK, where GMC investigation procedures were reformed, following an independent review (Dyer, 2015; Horsfall, 2014). Just one study looked at doctors' feelings after disclosing ill health. Further exploration of this to understand how the role that perceived benefits had, if any, during the disclosure decision-making process would be a new direction in this area.

2.5.1 Summary of implications for developing an intervention

The findings discussed above illustrate several points that have implications for the development of an intervention to support disclosure decision-making among doctors and medical students. These are summarised in figure 2.5.

Figure 2.5: Key implications of the literature review findings

- The existing literature uses disparate approaches and inconsistent terminology, resulting in a lack of clarity of many aspects of disclosure.
- No attempts at understanding how disclosure decision-making is made have been undertaken.
- Suggested solutions have not included how disclosure decision-making could be supported.
- Examination of why disclosures are made has been primarily one-directional, looking at obstacles but not enablers.
- Pathways to support are still poorly understood, particularly how disclosures not initially made for the purpose of help-seeking may lead to accessing support.
- A number of studies have referenced the "hidden curriculum" when discussing the need to combat stigma. An intervention integrated into medical education could potentially impact an institution's 'implicit rules' by normalising help-seeking.
- Theoretically the disclosure of mental ill health by doctors and medical students is under-conceptualised.

Whilst the literature on barriers to disclosure is extensive, enablers to disclosure have received scant attention. The question "How do doctors and medical students make decisions about disclosing their mental ill health?" - including how enablers to disclosure are evaluated - is yet to be answered.

These findings strengthen the rationale for this thesis.

2.5.2 Strengths and limitations

The study was conducted as a narrative review, not a systematic review, in that the review was not attempting to answer a single, focused clinical question. Several advantages to a narrative review have been noted (Mays et al., 2005). The approach offers a great degree of flexibility. It allows a wide range of both qualitative and quantitative evidence to be reviewed and provides a very comprehensive summary.

Several limitations to the review must be considered. The literature concerning doctor and medical student mental health is large. A broad scope was chosen because of the little specific focus that disclosure of mental ill health by doctors and medical students had previously received. The search parameters were therefore set widely. It has previously been noted that many papers in this area are 'opinion' or commentaries, not empirical data (Wallace & Lemaire, 2007). As expected therefore, a very large number of studies were excluded in the selection

process. Disclosure articles found often related to disclosure of HIV status, disclosure of prognosis in terminal illness, or mental ill health in specific populations. This did mean however that studies were included that would not have been found using more restricted search terms. Few studies looking broadly at disclosure (not just for help-seeking) were found. Studies tended to focus on help-seeking primarily, with a minority of studies examining disclosures to a regulator or on official documentation.

Both MI and measures to address physician health evolved within an addictions context. However, addictions were not included in the search strategy. Addictions among physicians and medical students have received much prior attention. This study aimed to specifically address the underdeveloped area of disclosure of mental ill health.

Much ambiguity remains on many aspects of disclosure behaviours because of the subtle shifts in semantics created by different wording. Many studies in the existing literature have used the terms 'help-seeking' and 'disclosure' interchangeably e.g. stating that the study was investigating help-seeking yet phrasing questions to participants about disclosure specifically.

Further ambiguity in question wording led to limited value of some figures reported about how many doctors and medical students disclose their mental ill health. For example, asking respondents to self-report mental health problems along with whether they'd received a mental health diagnosis. On the surface this may suggest that a certain proportion of respondents left their mental ill health untreated, but the vagueness in wording may mean this is not the case e.g. respondents could have sought informal help or self-treated, thereby avoiding a diagnosis, or had symptoms that fell beneath a diagnostic threshold despite approaching a mental health professional. Similarly, some studies further cloud the issue of how many doctors and medical students seek help for mental ill health by using measures to identify the prevalence of specific mental health conditions, but asking questions pertaining to different conditions. For example, measuring *burnout* and depression but asking about treatment for *anxiety* and depression. Studies use different meanings of 'stigma'. One definition is a 'mark of shame or disgrace' (Oxford Living Dictionaries, 2018), but it is sometimes used in the literature to describe the *consequences* of stigma, i.e. discrimination, such as being denied career progression.

Despite the broad search terms used, there may be relevant articles that were not identified in the search. Three databases were searched in this review; there may be relevant articles that do not appear in these databases. The inconsistency in terminology also means that even though very broad and comprehensive search terms were used, there may be additional terms relating to relevant literature that have not yet been identified. Only published literature was included in the review; it is recognised that there may be a degree of publication bias present.

The search was not a systematic review of the literature (Higgins & Green, 2011). Study outcomes were not combined, nor was any assessment of quality was made. Some disadvantages to the analysis method chosen of a narrative review have been noted (Mays et al., 2005). A narrative review may be less systematic and explicit than other approaches such as thematic analysis, narrative synthesis or realist synthesis. However, rigour was still applied, and the steps outlined in undertaking a systematic review were followed to make the review process as transparent as possible. In the selection of papers and their analysis, there was of course a level of subjective interpretation as I was the sole reviewer. This means that another researcher may not be able to exactly replicate the study selection and analysis. However, a sample of citations was tested against the inclusion criteria by two additional researchers to minimise the likelihood of this. Although the research question was not as focussed as a clinical question in a systematic review, the questions were defined as clearly as possible and where data was included in the analysis that did not obviously fall under one of these questions this was clearly explained.

For this review, specific research sub-questions were chosen to provide structure to the findings. The findings that could be 'merged' were limited. The large variation in study populations, terminology, and study design did not enable direct comparisons. For example, many different countries worldwide feature, each with vastly different educational and healthcare systems. This includes whether healthcare systems are publicly funded, length of medical degrees, how students are recruited, type of curriculum, etc. Looking across studies does not control for this range of factors. Where findings are grouped together then, caution must be applied.

The quality of studies was not rated. This review explored the wide range of factors that may be associated with disclosure of mental ill health by doctors and medical students. It was not a summary of clinical evidence, as in a systematic review. Not assessing quality may have influenced the findings, which may be subject to bias and should be interpreted with caution. Finally, the findings reported are selective. As discussed earlier, findings relating to disclosure were often a small part of studies with a wider focus on other related issues. Not all findings from all papers were relevant to the research questions and were omitted from analysis.

2.5.3 Conclusion

This literature review aimed to summarise current understanding of disclosure of mental ill health by doctors and medical students. It attempted to answer a number of sub-questions. Each has been discussed in depth. The findings strengthen the rationale for this thesis and have implications that can be applied to guide further research with the aim of developing an intervention.

Chapter 3: Qualitative Interview Study

3.1 Introduction & rationale

Chapter 2 described a structured review of the literature. It highlighted a need for further understanding of how doctors and medical students experience decision-making about disclosing their mental ill health. This chapter reports a qualitative study that attempts to address that gap. It also explores doctor and medical student views on the potential of an intervention to support disclosure decision-making.

The literature review showed that studies have predominantly focused on the obstacles to help-seeking for mental ill health encountered by doctors and medical students. A small number of studies identified reasons that doctors and medical students have for both withholding and revealing information concerning their own mental ill health (Cohen et al., 2016; Hassan et al., 2009). This is suggestive of ambivalence about such a decision. This study seeks to explore that ambivalence by understanding the factors that doctors and medical students evaluate in their disclosure decision-making.

The purpose of this qualitative study was to understand in depth a range of experiences and perspectives of doctors and medical students who have experienced mental ill health, and who have faced disclosure decisions about their mental health. A qualitative approach was chosen due to its suitability in exploring a topic, particularly for understanding attitudes and experiences. The methodology of individual interviews was considered appropriate. Individual interviews offer greater anonymity than focus groups, which is a consideration when investigating a sensitive topic area.

3.2 Aim

This study aimed to explore how doctors and medical students evaluate various influencing factors in their decision of whether to speak to others about their own mental ill health. The aim was to reveal a more clearly defined picture of doctors' decision-making that could enhance the development of a simple intervention to support disclosure decisions. This study was also an opportunity to explore what the key features of such an intervention might be.

The objectives were:

1. To explore the factors that influence doctors' and medical students' disclosure decision-making about their own mental ill health. (This seeks to understand the *motivations* for disclosing and how they initiate decision-making).

2. To understand how doctors and medical students make decisions about disclosing their own mental ill health. (This seeks to understand the *processes* by which disclosure decision-making occurs).
3. To understand what features doctors and medical students might want in an intervention to support their decision-making about disclosing their own mental ill health.

The research questions were:

1. How do doctors and medical students make decisions about disclosing their own mental ill health?
2. What are the key features that doctors and medical students would want in an intervention to support their decision-making about disclosing their own mental ill health?

3.3 Method

This study used semi-structured qualitative interviews with doctors and medical students with personal experience of mental ill health.

3.3.1 Participant Selection

3.3.1.1 Sampling

There were three participant inclusion criteria (figure 3.1). It was not necessary for participants to have had a formal diagnosis or to have disclosed their mental ill health to their workplace. The aim was to speak to those who may have concealed a mental illness, as well as those who had revealed it.

Figure 3.1: Inclusion criteria

Participant inclusion criteria (all three of the below):
• Doctor or medical student • Resident in the UK • Personal history of mental ill health

A purposive sampling strategy was used, with a minimum target of 20 interviews. The literature review (chapter 2) had suggested that factors such as career grade, specialty, age, and gender, may be important in disclosing mental ill health. The sample aimed to maximise variation of these relevant factors. 20 interviews appeared feasible in the time available, and would allow sufficient interviews within sub-groups. Flexibility was retained to adjust this target as interviewing progressed.

The aim was to recruit from the following categories:

- Medical students
- Doctors in training
- Consultant grade doctors
- GPs

Recruiting GPs ensured primary care settings were included. Recruiting consultant grade doctors facilitated access to those working in hospital settings (in various specialties). Recruiting medical students and doctors in training ensured those at earlier stages of medical training were included.

Purposive sampling is a non-probability method, selecting participants "based on a specific purpose rather than randomly" (Tashakkori & Teddlie, 2003, p. 713). This results in cases that are "information rich" in relation to the research questions (Teddlie & Tashakkori, 2009, p. 173). One sub-type of purposive sampling this study utilised was maximum variation sampling, which aims to capture central themes that bisect a great deal of variation (Patton, 2015). This was in addition to snowball sampling, whereby recruited participants refer others with the characteristic of interest (personal experience of mental ill health in this case), or where a 'source' uses their social networks to recruit others (Sadler, Lee, Rod, & Fullerton, 2010). This technique is quick, and can be helpful in identifying potential participants where the characteristic of interest might be considered to be very private (Sadler et al., 2010).

3.3.1.2 Recruitment

Multiple routes of recruitment were employed. Both Wales-based and UK nationwide strategies were included. These are described next.

1. Through relevant organisations

A range of doctor and medical student organisations in the UK were approached (figure 3.2). Many were Wales-based, due to existing links with those organisations. UK-wide organisations were also included. Other strategies (discussed next) also had a UK-wide focus. Each organisation was asked to disseminate the study information sheet and invitation (appendix 3.1) on behalf of Cardiff University to their members. This included using electronic and print newsletters, emails, and social media (blogs, Facebook and Twitter).

Figure 3.2: Organisations that disseminated the study invitation

The British Medical Association Wales (BMA Wales)
The Royal College of General Practitioners Wales (RCGP Wales)
The Wales Deanery (educational body for trainee doctors)
Doctors' Support Network (DSN) (charity)
The UK Association for Physician Health (UKAPH) (network)
Health for Health Professionals Wales (counselling service for doctors)

2. Through Medic Support at Cardiff University

Medic Support is a support service for medical students with performance or health related issues at Cardiff University. Attendees sign a consent form asking permission to be contacted in future to consider taking part in research. This information is recorded on the Medic Support database and the consent form is filed. Only those who gave written consent to be contacted were approached. They received an email from Medic Support with the invitation and information sheet.

3. Through existing research contacts

Participants from a preceding UK-wide online survey (Cohen et al., 2016) had emailed SR and given written consent to be approached about taking part in further research relating to doctor wellbeing. This group was sent an email with the invitation and information sheet.

4. Snowball sampling

Participants and contacts were encouraged to pass on details of the study through email, social media or word of mouth to colleagues and peers. Those expressing interest were sent an invitation and information sheet. Social media contacts especially afforded access to large numbers of doctors across the UK.

The invitation signposted individuals interested in taking part to contact the candidate (SR). After confirmation that individuals wished to take part, a convenient time was agreed for the interview.

3.3.2 Interview schedule

A semi-structured interview schedule was developed (appendix 3.2), informed by prior research (Cohen et al., 2016) and topic knowledge. The first part aimed to elicit participants' personal experiences. A funnelling approach was used, with general questions about participants' experiences of mental illness at work or medical school leading to focused questions on disclosure decisions. The interviews began with an open question asking about personal experiences of working as a doctor or studying medicine with mental ill health. The emphasis

of the interviews was therefore around disclosure decisions within this work context rather than within personal lives. Questions then asked specifically what factors contributed to decision-making about disclosure. Questions explored:

- What participants consider are the most important issues relating to disclosing
- Experiences of working/studying with mental ill health
- Experiences of deciding to disclose to the workplace/medical school (advantages and disadvantages, what most influenced the decision, whether someone outside of work/medical school was talked to first)
- Why certain individuals were chosen to disclose to
- Satisfaction with decisions made
- Impact of mental health on work/studies, and personal life

The second part of the schedule explored the idea of an intervention, or 'tool'. Questions explored:

- Where participants would look for help in disclosure decisions
- Whether an intervention would be valuable
- What would make a difference to those facing disclosure decisions
- What features of an intervention might be helpful (including format, ways of accessing it)
- How an intervention might be signposted to

The interview schedule was piloted on two Cardiff University colleagues face-to-face (with and without experience of mental ill health). The pilot tested participants' understanding of the interview questions (Patton, 2015), and used verbal feedback from participants. Such testing can enhance the reliability and quality of the interview questions (Castillo-Montoya, 2016). The pilot suggested that each interview would last approximately 30 minutes. The wording of the interview questions appeared to be clearly understood. One addition was made. The question asking 'what do you think might be the most important issues to consider?' was added at the beginning of the section on personal experiences. This was to capture any unanticipated issues.

In advance of each interview, participants were asked to complete a brief questionnaire (appendix 3.3) to capture demographic data such as career stage, gender and age. The questionnaire also captured details of whether the participant's mental illness was ongoing, its impact on their work, and whether they had disclosed to their workplace. This advance information enabled the interviews to be further tailored to the participant's unique experiences. This helped focus the interviews to enable effective time-management. Interviews were semi-structured to prioritise focus on the research questions. Scope was left to reorder questions and pose additional questions to follow up participants' responses. This aided the

exploration of peripheral topics deemed important by the participants, as it was possible that new issues not previously considered would be highlighted.

3.3.3 Data collection

Due to constraints of time, budget and geography, interviews were offered by telephone as well as face-to-face. This option allowed doctors and medical students across the UK to participate. A 3 month timeframe was allowed for conducting the interviews. Each interview was audio-recorded on an Olympus DS-30 digital voice recorder. SR carried out all interviews. There was no prior relationship with any of the participants.

3.3.4 Consent

Before the interview the participant was asked to confirm that they had read the information sheet. They were then given the opportunity to ask any questions. Participants were asked to read and sign a consent form. Those being interviewed by telephone returned the form by email in advance of the interview. Those interviewed in person (at Cardiff University) completed the consent form before beginning the interview. A debrief sheet (appendix 3.4) was given to participants after the interview. This contained contact details for support services.

3.3.5 Ethical approval

Ethical approval was granted by the Cardiff University School of Medicine Research Ethics Committee (reference number: SMREC 13/43).

3.3.6 Data Analysis

3.3.6.1 Dataset

The audio files were transcribed, anonymised and imported into NVivo (version 10) qualitative software package for analysis. The dataset was comprised entirely of transcriptions; no field notes were made.

3.3.6.2 Transcription

SR transcribed all interviews. The transcripts were typed verbatim, including hesitation words, repetitions and laughter. The transcription conventions followed are detailed in appendix 3.5.

3.3.6.3 Analysis method

A broadly inductive six-stage thematic analysis approach as described by Braun and Clarke (2008) was used. The data analysis was conducted by SR. Throughout the analysis, both the process and the coding was subject to discussion and revision with two additional researchers (NM and DC). Although the analysis was guided by the six stages, the analysis was recursive rather than linear (Braun & Clarke, 2008); stages were returned to as needed throughout the analysis process.

The data analysis was separated into two sections; firstly the data relating to participants' personal experiences of making disclosure decisions and secondly, the data relating to the development of a tool. These analyses were conducted separately, but followed the same procedure.

The first stage of the analysis was to become familiar with the data. SR was solely responsible for conducting and transcribing the interviews, and familiarisation with the data occurred during those periods. An a priori coding frame was not established, but coding was influenced by prior knowledge of the subject area, and the pre-determined interview schedule questions. The coding process therefore could not be said to be truly inductive.

In the second stage, provisional codes were noted against the data. Particular attention was given to sections of text on the thought processes surrounding disclosure decisions, being most pertinent to the research questions. The semi-structured nature of the interviews however meant that codes outside that area were also made. This is because this was an exploratory study seeking a deeper understanding of individual experiences. This was followed by systematically collating sections of text under the provisional codes, and then reviewing the names and definitions of the codes, ensuring that all data was coded. Some data extracts were coded with multiple codes. At this early stage, a second researcher (NM) coded 10% of the data. This generated a process of discussion and resulted in further refinement of the coding frame. The process therefore was not used for 'inter-rater reliability', but to stimulate differing perspectives and ensure thoroughness in interrogating the data (Barbour, 2001).

The third stage involved looking at the coded and collated dataset to begin sorting it into initial themes. The analytic process became more deductive at this stage. This was a theoretical approach, where the focus of interest was on decision-making regarding disclosure of mental ill health. This resulted in several themes centred on disclosure. Numerous versions of a thematic map were drafted to guide the process. The fourth stage of analysis refined themes. In the fifth stage, the names and definitions of each theme were further refined to ensure that they were coherent and that the titles of each theme accurately reflected the content and meaning. The importance of a particular theme was not judged by its prevalence. The sixth stage refers to reporting.

3.3.6.4 Data management

Each audio file was labelled with a unique identifier on transfer from the audio-recorder to a Cardiff University computer. This identifier was also applied to the transcriptions. The audio-recorder's 'format' function was used after data transfer to ensure that data could not be retrieved. Data were handled and stored securely in line with Cardiff University data protection

policies. Any personal participant information, such as contact details needed to arrange the interviews, was stored on a password protected database for the duration of the study and for three months afterwards. Data were coded by role of respondent (e.g. GP, consultant) before being stored securely. For those working in multiple roles (e.g. part-time GP and part-time consultant) the main role (where the most hours were worked) was chosen as the role for coding purposes.

Only anonymised data were used in the analysis. Because of the depth and complexity of the data, steps were taken to avoid deductive disclosure i.e. where respondents can be identified from the data reported. The 'dominant approach' to ensuring respondent confidentiality was taken, as described by Kaiser (2009). There were three stages to this. First, at the point of data collection, respondents were made aware that anonymous quotes might be used and presented in the study report, presented at conferences or referenced in a peer reviewed journal. Second, major identifiers were removed from the dataset (figure 3.3). Finally, the selection of quotations presented was considered for whether combined details from each respondent would allow deductive disclosure to be made. Only quotes that provided full anonymity were used in reporting.

Figure 3.3: Anonymisation protocol

- Person's names
- Place-names (e.g. towns, UK regions)
- Less common medical specialties
- Names of hospitals, trusts and employers
- Less common job titles
- Less common types of mental illness
- Names of regional mental health support services
- Slogans that could identify a trust/hospital
- Previous occupations
- Specific life events precipitating mental ill health

3.4 Results

46 interviews were conducted. Interviews lasted between 20 and 50 minutes in length, and took place between April and July 2015. Most interviews were conducted over the phone. 4 interviews took place face-to-face.

3.4.1 Sample

It was decided after reaching 20 interviews to continue recruiting, in keeping with the reappraisal required in using an information power approach (Malterud, Siersma, & Guassora, 2016). Theoretical saturation, where no new insights are gained from additional interviews, had also not been reached (Carter & Henderson, 2005). There was also a shortfall of medical student and consultant participants, and those who hadn't disclosed. Recruitment continued with the aim of increasing the numbers in these categories.

In addition to the 46 participants interviewed, a further 44 individuals contacted the researcher expressing interest in taking part in the study. A large proportion of these did not respond further when sent full details via email and asked for their availability. A small number who did respond and were subsequently booked in for interviews were then unable to make their appointment, and did not respond to requests to book an alternative time. 7 individuals contacted the researcher after recruitment had closed.

3.4.2 Demographics

Participants were aged between 19 and 73 years. 35 were female and 11 male. The specialty, grade and age breakdown achieved was:

- 4 medical students (aged 19 to 28 years old)
- 20 doctors in training (aged 28 to 41 years old)
- 5 consultant grade doctors (one of which also worked in another role) (aged 38 to 57 years old)
- 15 General Practitioners (GPs) (two of which also worked in other roles, and one of which was retired) (aged 31 to 73 years old)
- 2 Specialty and Associate Specialty (SAS) doctors (aged 32 to 35 years old)

3.4.3 Mental health history

Data gathered from the brief pre-interview questionnaire (appendix 3.3) gave an overview of participants' mental health history (figure 3.4).

Figure 3.4: Mental health history

Type of mental illness experienced	**N**
Long-term condition with recurrent episodes	32
Fully recovered from isolated episode	9
Presently unwell with mental illness	5
When mental illness was first experienced	**N**
Before medical school	12
At medical school	20
As a trainee	10
As a consultant/locum/SAS	4
Impact of mental ill health on studies/work	**N**
Significantly impacted, had to take time off	27
Partially impacted, was able to stay studying/working	19

3.4.4 Overview

Some participants gave a chronological account of how their mental ill health had affected their work or studies over their lifetimes. Others focused on recent events. Participants spoke in varying depth about their past disclosure decisions. Some participants focused on decisions that were particularly difficult to make or that had resulted in negative outcomes. Other participants spoke about decisions that they had arrived at easily, or that had resulted in positive outcomes. Some participants that had not disclosed to their workplace or medical school talked about the circumstances in which they hypothetically would disclose.

Some participants made explicit statements about their reason for disclosing (e.g. "I disclosed because…" or "I realised that…"). Many participants went on to describe additional factors that impacted on their decision-making; for the purpose of analysis, their first answer was taken as the primary reason.

3.4.5 Disclosure history

Participants' disclosure history was obtained through the interviews. All participants had made a disclosure of mental ill health to someone. 42 participants stated that someone in their workplace or medical school knew about their mental ill health. 2 had not disclosed to their workplace themselves, but their workplace had knowledge of their mental ill health via third parties. 4 participants had confided solely to friends, family, or providers of external support such as GPs/counsellors.

Over half (25) of participants talked about the very first time they disclosed their mental ill health to anyone outside of their friends/family. Of these, 15 disclosed to their workplace or medical school (e.g. to OH, Human Resources (HR), colleagues or senior staff, or on an application form). The remaining 10 first disclosed to a GP. Of those who talked about their first disclosure outside

of friends/family, 6 were at medical school/applying for medical school when the disclosure was made. 12 were doctors in training and 7 were working as a consultant or GP.

After those first disclosures, further disclosures were made to a variety of people within and outside the workplace/medical school. Disclosures were often multiple. They included disclosures to charities and other sources of mental health support, and health professionals such as psychiatrists, counsellors, and GPs. There were also further disclosures to family and friends. Within the workplace/medical school, disclosures were made to colleagues or peers, and to senior staff such as line managers, supervising consultants, trainers, Head of Year or Clinical Director. Disclosures were also made in the form of health declarations to OH, on fit-notes and on medical school or job application forms. Some further disclosures were made to the GMC.

3.4.6 Thematic analysis section 1: Personal experiences of disclosure decision-making

Five themes were identified relating to participants' personal experiences of disclosure decision-making:

1. First disclosure decisions
2. Further disclosure decisions
3. Additional factors influencing disclosure decisions
4. Reflections on disclosure decisions
5. Approaches to disclosure

The first theme encompasses participants' very first decisions and experiences about disclosing to someone outside of friends and family. The second theme describes further disclosure decisions that followed those first decisions.

The third theme looks at additional factors that informed participants' decision-making, in addition to the primary reason participants gave for disclosing or not (for both first and further disclosure decisions).

The fourth theme explores participants' feelings about decision-making through reflection on past decisions. The fifth and final theme focuses on how participants approached decision-making.

For ease of reference throughout, quotes are presented with the participant ID following in brackets. Each theme is now discussed in depth.

3.4.6.1 Theme 1: first disclosure decisions

This theme looks at participants' very first disclosure decisions and experiences. In the course of recounting their personal history, many participants mentioned when they first developed symptoms of mental ill health in their lifetime. Within this they referred to their first experiences of diagnosis, treatment, support, and the decision-making accompanying those experiences. Participants were not specifically probed about the very first time they disclosed their mental ill health to anyone outside their friends and family. Over half of participants spontaneously talked about these first disclosures. Many were not talked about in any great depth, with participants choosing to focus on more recent disclosure decisions instead. This was more so if those disclosures had happened some time ago.

For some participants, it was apparent that their early personal experiences of mental ill health were important in understanding the context in how they approached disclosure decisions. Early experiences often shaped participants' beliefs and attitudes and were sometimes very different to experiences later on in their careers.

Participants cited a range of motivations to first disclose to someone outside of friends and family. These included help-seeking, a sense of responsibility, and to avoid more serious circumstances. For others, it was circumstances that prompted a disclosure.

The motivation of help-seeking included seeking treatment, diagnosis, support or workplace adjustments. A number of participants talked about their realisation that their symptoms warranted a professional opinion. Others recognised a need to access treatment such as psychological or pharmacological therapies.

"I went undiagnosed for a very long time, and untreated, so I just managed those episodes by myself… things really came to a head about two and a half years ago when I had quite a serious episode of depression and so I went to see my GP." (Consultant 3)

"When I was a house officer, within six weeks of starting the job, I had a really um almost life-threatening um depressive episode, precipitated by just being thrown in at the deep end, not having a team, not having support, and I went to Human Resources every single day saying that I couldn't cope and I needed somebody to help." (GP 6)

"The first I told people I worked with, it was like my first FY1 (foundation year 1) job in surgery, where I'd had to tell folk because I was off for a week." (Trainee 15)

Other motivations were based on a sense of responsibility; formally addressing mental ill health, or duty to patient care.

"I wanted to make sure that the way I was feeling wasn't affecting patient care." (Consultant 2)

Another motivation came from recognition that concealing mental ill health was not a long-term solution.

"I applied to med school ten years ago… there was obviously like the OH bit on the application form… you just think 'well actually, if I don't say anything and it comes out at a later date, I will be in a worse situation'." (Trainee 18)

Some first disclosures were prompted by specific events and interactions. This included colleagues commenting on a perceived change in participants' behaviour, or participants having to take time off due to symptoms. It also included disclosures made to participants' workplaces on their behalf by third parties e.g. after an unplanned hospital admission. In one instance a concerned friend contacted a participant's workplace without permission.

"The first time I was diagnosed as having anything wrong with me at all I was actually a psychiatric inpatient following a failed suicide attempt… They (workplace) got a phone call to say I wouldn't be in at work because I'd been admitted to a psychiatric unit (laughs), there wasn't really any getting away from it!" (GP 1)

"It was really strange in that um I told a friend about what was going on… he sent an email to the deanery. I still don't understand why… It was out of the blue. I came to work um you know after a particularly bad weekend, just thinking 'I'm going to put all this behind me, I'll focus on work' and then my supervisor was like 'we need to talk'." (Trainee 4)

Some participants spoke about their early experiences of not disclosing their mental ill health. Reasons for not disclosing included lack of insight, fear of repercussions, and finding it difficult to talk about.

"I think in the earlier years I didn't really realise that I was depressed, I just thought I wasn't coping, you know, and I was a bit useless." (GP 10)

"I'd learnt during my time as a student that I find it hard to talk about when I'm struggling… when I'm high I don't really know what's going on." (Consultant 4 & Other)

In summary, first disclosure decisions outside of friends/family were motivated by help-seeking, a sense of responsibility, to avoid more serious circumstances, and being prompted by events. Motivations to not disclose included lack of insight, fear of repercussions, and difficulty in talking about mental health.

3.4.6.2 Theme 2: further disclosure decisions

Participants went on to describe further disclosure decisions that they faced after their initial disclosure. Participants described differences and similarities between them. Many participants

had different factors to consider in their decision-making about further disclosures than in their first experiences. Their working environment, home life and the impact of their mental health all had potentially changed since their earlier experiences. Some participants disclosed on several further occasions, and cited different primary reasons for their decision in each instance. This theme also includes the timeframe of further disclosures, reasons for those disclosure decisions, and the unhelpful responses received to further disclosures.

Some further disclosures were made in quick succession. For others, an unhelpful response to their first disclosure resulted in no further disclosures for some considerable time. In some cases this delayed access to treatment or support. Some participants hoped that their symptoms would dissipate. Two participants did not make any further disclosures until severe symptoms led them to be hospitalised.

"I had in mind to get help um and talk to one of my consultants who used to be a supervisor, and he basically said 'don't go and see your GP, because if you go and you have a record of mental illness you will never have a career as a doctor'… It was obviously totally off-putting which made me really hesitant in whether I go and get help or not." (Consultant 1)

"I did disclose it to a GP but I didn't really get much of a um much help back and so I kept it to myself for a couple of years and dealt with the symptoms, um, alone." (Trainee 19)

"I didn't really get anywhere at all, I just remember them (GP) printing off some like leaflets on depression and that was about it, so I never went back. 'Cause I remember them asking me what hobbies do you do, and I was still running, so they were like 'Oh you're not depressed then' and that was it!" (Trainee 12)

As with first disclosures, help-seeking was a key motivation for further disclosures. This included: needing treatment, needing workplace adjustments, and seeking informal advice.

In some instances, further disclosures occurred when participants realised that they needed treatment, support, or a diagnosis for their mental ill health. Some of these disclosures occurred in quick succession after the first disclosure made, for example with referrals to mental health professionals after disclosing to OH or a GP.

"I was really poorly and I self-referred to a private psychiatrist and who a friend recommended." (Trainee 14)

"After I failed my exams I was quite down, but not down as in low mood, I was just upset, and I realised that I might have some sort of anxiety issues, like performance anxiety, so I was referred to counselling." (Trainee 3)

"I also got counselling through my GP practice, so I had 6 sessions with a psychologist on site as well." (Trainee 1)

In some instances, participants identified a need to have workplace or medical school based adjustments to enable them to manage their mental ill health alongside their work or studies. This included ensuring cover for on-call rotas, being able to take sick leave, and attending placements close to home.

"Early in the course of my higher training I felt that things were starting to… get too much for me and I needed the time off work… I had to sort of meet with my clinical supervisor to explain why and… got agreed a period of time off work." (SAS 1)

"My father died… I found I didn't want to visit, do home visits on elderly people for a while, er, 'cause it kind of… was too close to what my father had been going through, and so I asked them (partners) if I could er be given different visits, you know, when they shared out the visits, could somebody else take the old people, just for a week or two." (GP 13)

"They (partners) know completely and I have had to have time off while I've been back, um, usually when it's I've just got either too tired or you know, I was very sensitive last year when a patient committed suicide." (GP 3)

"I kind of fell apart very spectacularly so they (work) had to know to cover my on call and things." (GP 7 & Consultant)

"We've got placements next year so they're quite long placements and they've (medical school) sort of placed me away all of next year, so at the moment I'm trying, I'm in the process, I've had to go through my GP and I've asked student support to send a letter as well, because I'd like to stay closer, because I keep needing check-ups with my GP." (Student 1)

Some help-seeking by participants was informal, where advice was sought from friends or family with mental health knowledge.

"I've got a friend who's actually a psychiatry trainee, so like I spoke to her loads, about reservations of going on to medication and stuff like that, and yeah, she was great." (Trainee 12)

The primary reasons aside from help-seeking that participants gave for further disclosures were more diverse than for first disclosures. These included work implications, other people's involvement, and participants' own attitudes to being open and honest about their health.

Further disclosures for work implications included concern about the impact of participants' symptoms on their ability to manage the demands of their work or studies. Others were

concerned about the potential impact of the work or studies on their mental health. Professional responsibility was a specific work implication that was a primary reason for further disclosures. This included adherence to GMC guidance, and an obligation to be honest on official documentation (e.g. appraisal forms, job applications) – somewhat unwillingly undertaken on occasion. Other participants' main reason for disclosing was consideration of how disclosure could be helpful to their employers and colleagues i.e. by forewarning them of a potential mental health relapse.

"I've always been up front with Occupational Health, because you have to be." (Trainee 17)

"I knew that my functioning wasn't good anymore and something had to be done because that's your responsibility." (Consultant 1)

"The guidance as far as I understand it from the General Medical Council is that if you have any disorder which might compromise your judgement then you should tell an appropriate colleague, so that's what I did." (Consultant 3)

"This is the first time I think I've been specifically asked about gaps on my CV and I've actually been open and told them, which is kind of a good thing because this is the first job since I've been qualified that it has affected." (GP 11)

"So every year at my appraisal I have to go 'I have depression. It is well controlled. I do not self-prescribe. I see a psychiatrist.' Which to me is really quite intrusive and I don't know who's getting to see that information." (GP 7 & Consultant)

"I did actually speak to my appraiser about it so although I hadn't told anybody at work I did tell this appraiser woman. Because you have to fill out this thing don't you on appraisal now where it says you know 'Have you got any problems?' (laughs) so I thought 'I can't', I don't know, I suddenly thought 'I have to be honest here'." (GP 8)

Interactions with other people prompted some further disclosures. Participants described how conversations about their wellbeing that felt supportive, perhaps with advice or encouragement about disclosing being offered, led to a decision to actively disclose. Other conversations felt more directive and less helpful, e.g. being 'told' to inform the GMC.

"My friends were like asking me what was wrong and stuff at the time, so it was because they'd been like 'You seem different', that's why I went to my GP as well." (Student 1)

"It was stressful because I was advised by… my regional director, to contact the GMC and let them know that I'd been diagnosed, which I did." (GP 5)

Participants' open attitudes to mental ill health also stimulated further disclosures. This was either in a general spirit of being open and honest, the assumption that everyone already knew about their mental ill health, or wanting to share positive facets of their experiences.

"I've always made the assumption that medical gossip being what it is, that everybody knows. In fact I surprised some people by talking openly about stuff that they didn't know because my assumption was that medical gossip is awful. We do gossip about each other, and so I've always worked with the assumption that anybody that I knew socially had found out." (GP 1)

"I kind of came to the conclusion that this is how things are, and you know I no longer needed to make a big secret of it. I was quite proud of the fact that I'd sort of um, recovered and got back to work and you know, I wanted to tell people about it." (GP 10)

"I am quite open about that because I do think that my coping mechanisms, having experienced mental health problems, is better than those who haven't experienced mental health problems, as is my empathy and my understanding of mental health problems as well… I use that as a positive example about overcoming challenges." (GP 14)

"I feel I've always been more of an open book person." (Trainee 5)

A desire to help others was also a motivating factor. This included disclosing to support colleagues going through similar experiences, or disclosing to patients nervous about mental health treatments.

"I do talk to like my peers about it because actually, um, er, just if they're having problems because I think people don't realise and um you know, if you say to them "This is what happened to me" …it's helpful for them." (Trainee 8)

Some further disclosure decisions were influenced by how understanding participants felt individuals in their workplace would be about their mental ill health. This motivation was facilitative of a disclosure, rather than being the desired outcome of disclosure.

"I realised that the people there now were not um in this sort of medical social group… when it reached the stage where there was no one in the partnership who was a member I felt much more relaxed about coming clean with it." (GP 15)

"I was basically moved from the hospital job to being a registrar in a GP practice. After a few weeks there I did actually tell the manager and I told my clinical supervisor who was a GP, just mainly because they were nicer, more understanding people and I felt comfortable to tell them." (GP 9)

Responses to further disclosures in some instances were perceived negatively. They were sometimes inappropriate, unhelpful, or didn't address participants' concerns. Responses deemed negative occurred mainly within a workplace or medical school setting. This included arduous workplace or medical school processes that participants had to comply with, unhelpful advice, inappropriate adjustments, or a lack of any support. Some participants described having to find someone else to disclose to, or were left with no option but to go on sick leave. Others continued working or studying without any support, or became embroiled in difficult negotiations regarding working conditions. These outcomes compounded participants' mental distress. Some were left feeling angry, let down, or that they had wasted people's time.

"I was aware that my mood was slipping again and I went to my consultant and explained what had happened when I was a house officer and the response was 'Well we all get a bit sad sometimes, dear'." (GP 6)

"I'd said that I could keep going in the daytime but I couldn't… handle doing on call and um they sort of said 'Well we're not prepared to do that' and I kind of went 'Well sod you, I'm going off sick then'." (GP 7 & consultant)

"Everything kind of went out of control very quickly… it was just a mess, they didn't really know what to do with me, and even when I got better they said it might be a professionalism issue, a fitness to practise issue, which is nonsense." (Student 4)

In summary, many participants considered different factors in their decision-making about further disclosures than in their first experiences. An unhelpful response to a first disclosure sometimes resulted in no further disclosures for a considerable time. Help-seeking was a key motivation for further disclosures. The primary reasons aside from help-seeking that participants gave for further disclosures were more diverse than for first disclosures. Responses to further disclosures in some instances were perceived negatively.

3.4.6.3 Theme 3: additional factors influencing disclosure decisions

The third theme details factors that influenced disclosure decisions that were secondary to participants' primary reasons for disclosing or concealing, whether for first or further disclosures. Participants talked about factors that were consciously considered in their own personal decision-making about whether to disclose. Some participants felt that it was only on reflection of past-decisions that they recognised some of these additional factors that had in some cases subconsciously influenced their decision-making. These additional influencing factors included advice from others, considering the impact of disclosing on others, expectations about how a disclosure would be received, and participants' own attitudes and perceptions. Finally, in some instances, it was circumstances that forced a decision.

Factors that influence disclosure are very individual. What one participant considered a primary reason in their decision may have played a very minor role for another participant. Some factors were enablers to disclosure for some participants, e.g. the impact of disclosing on other people, yet obstacles to disclosure for others. For example, the first quote illustrates how a participant delayed disclosing due to concern about letting colleagues down. The second quote shows concern about the impact on others by *not* disclosing.

"I think if I was just very much the kind of person that just thinks about me and sod everyone else, then I think it wouldn't really have mattered whether I'd talked to them (colleagues) or not." (GP 2)

"I think I have a responsibility not only to me but to other people to make sure I'm getting the proper help." (GP 6)

Participants often cited multiple additional factors for each disclosure decision they had made. This is illustrated in the following quote. The participant had previously stated that their primary reason for disclosing was for work implications, before going on to describe two additional factors – their understanding of their symptoms and seeking advice from a therapist - that they had considered in their decision.

"I genuinely felt that my capacity to decide whether I am fit to work has always been good so I always thought, hmm, 'I think it's quite safe for me to practice the way I am', you know, I don't feel that my depression or elevated mood have ever been of the severity where I've lost insight, plus I suppose the other factor was that I've been seeing a psychoanalyst since 2006, er and still do, and so I've had lots of discussions with her about you know whether that would be a concern and we both felt that it wasn't at a level where it made it essential to tell someone" (Consultant 3)

Advice from others was a key additional factor. Some participants had spoken to their employer or someone supporting their mental health about who else to disclose to. Advice given influenced participants' decision, but was not their primary motivation.

"It (disclosing) was something I'd talked to my psychiatrist about when I was a student. I was told it was something I would have to do, and of course, it wasn't." (Consultant 4 & Other)

"I remember mentioning it in student support as well, 'cause I wasn't sure who exactly to tell and I did ask them at the time, did I need to disclose it, was it a thing I had to? And they said as long as I didn't think it was affecting your [sic] work." (Student 1)

Another 'additional factor' was the potential impact on others of disclosing their mental ill health. In some instances participants felt that they owed colleagues an explanation of how

their illness might impact on their work. Some felt that they would be letting colleagues down if after disclosing their mental ill health, they took time off or requested workplace adjustments. Others feared disclosing would worry other people. Some participants cited their responsibility to patient safety, colleagues, or family as a reason *to* disclose.

"I wouldn't want to worry my current practice partners… I'm one of the older partners there and I wouldn't want them to think that I'm falling to bits or you know, or that they have to worry about me." (GP 8)

"I work on my own quite a lot and the ah possibility for things going wrong if you're significantly distracted by outside factors is significant, so there was also a realisation that I needed to do something so that I wouldn't be put in that situation." (Trainee 16)

"I thought if I don't tell them, um, and, you know, I have a massive panic attack at work or something, they'll wonder what's going on!" (GP 9)

Participants spoke about their expectations of the responses they might receive when disclosing or concealing their mental ill health. Expectations focussed around three main areas; support, the impact on career or studies, and other people's perceptions.

Looking firstly at expectations of support, some participant views were negative and felt that support would be poor or not offered if they disclosed. Others were more optimistic, and felt that their disclosures would be responded to with understanding; some citing their specialty or environment at the time as being well-placed to provide this e.g. general practice or psychiatry. Others recognised that informing the workplace about what support would be most helpful was an important step.

"I've come across very supportive, understanding people and been able to be quite open" (GP 9)

"It's thinking about what I could gain from telling them… at the moment I don't feel like they could maybe help me much I suppose, I'm doing everything I can." (Student 3)

The possible negative repercussions that a disclosure may have on participants' careers was an additional factor for some. Fears included being expelled from medical school, having their career progression hampered, or being referred to the GMC. Some participants assumed that after disclosing they would be forced into taking time away from their work or studies. Others had no such concerns; instead they spoke about the negative consequences they expected if they *didn't* disclose, citing a moral obligation to do so.

"I was really scared that it might finish off my career." (Consultant 1)

"I suppose at the time I learnt that having certain things on your medical record bears no impact on what the GMC knows about you and your fitness to practise." (Trainee 19)

"I know I have a recurrent condition, and I know I will get ill again in the future, and there's no point lying about that up front, it's just going to cause resentment further down the line." (GP 1)

"I felt like it would potentially um, discriminated against me? I didn't know if that meant I wouldn't get the job because I'd had 4 weeks off work and the candidate next to me hadn't had any time off work." (Trainee 1)

"If I was to say, you know, 'I'm feeling really suicidal', I'd be scared to say something like that, if I was, because I'd worry again about the repercussions if my GP knew I was a doctor." (Trainee 4)

"What I didn't want was for somebody else's perception perhaps not knowing me very well or whatever, thinking 'Maybe they shouldn't be working' and then making something out of that, and it being in the records and everything else… I just didn't want there to be, um, any room for sort of over-reaction if you like, such that it could go you know in my record or whatever and cause a problem further down the line." (Trainee 9)

Participants' perceptions of other peoples' attitudes to mental ill health also influenced decisions both for and against disclosure. Perceptions that hindered disclosure included the assumption that once they had disclosed, participants would be perceived differently by others, perhaps as "weak". Some participants were concerned about 'gossip' about them, or breaches of confidentiality. For others, the assumption that people already suspected they had mental illness was an added factor in deciding to disclose.

"People would be overly critical if something went wrong, it would be 'Ah, that's because he's got depression or a mental health problem', rather than simply because, you know, you made a mistake and everybody does that." (GP 14)

"It can be a really aggressive place to work in hospital and I think if you show any weakness then you can get bitten to bits by everybody else!" (Trainee 10)

"I think judgement of you as a person, it depends, some people even if they judge you as a person, respect you in a professional way, and some people if they judge that you have a mental illness will just make a blanket assumption about you." (Trainee 4)

"I know how much people gossip, I wouldn't necessarily want people to be gossiping about me and the fact I'm unwell, because well I've seen staff talking about other staff with mental health problems so I wouldn't want that to happen to me." (Student 4)

"You always worry that like maybe people just think you're attention seeking." (Trainee 12)

"I knew what an amazing job (Trainer's name) had done as senior partner and trainer in terms of educating people and making mental health something that was on everybody's agenda." (GP 12)

"I wonder if there might be a degree of loss of respect or loss of you know, what they think of me and you know, my capacity to do good work or, yeah, so there's that fear that you know, yeah, it might be kind of, their opinion of me might lower… I want to, you know, make a good impression and show that I work hard, that I'm a good doctor, you know, that I don't do my patients a disservice, that kind of thing, so you know, I'm reliable and all the rest." (Trainee 6)

Participants felt that certain disclosure decisions were forced by their situation, with no option but to disclose – or in some cases to conceal – their mental ill health. This included GMC imposed 'undertakings' which meant the doctor was obliged to inform their workplace of their mental ill health. Others required a period of sick-leave or adjustments to remain in, or return to work. Some participants felt that they had no option but to conceal their mental ill health, to be able to continue their job or studies.

"Every time I'd go to a different rotation I'd have to give the consultant my undertakings, so the very first thing I have to say is 'Hello, I'm your new foundation doctor, um, and by the way I've got undertakings'." (Trainee 13)

"When I was at my lowest, I couldn't see any other way that meant I couldn't hide it." (Trainee 15)

"I didn't have a choice really. You know, 'cause if I'd been able to conceal that I was unwell, I've no doubt that I would have." (Consultant 5)

An additional factor influencing disclosure decisions was participants' own attitudes towards and understanding of mental illness. Some equated mental health to strength of character, some paradoxically noting that they would not judge other people in this way. Participants discussed that understanding or managing their own symptoms could be difficult. Some admitted that they had found it difficult to judge when normal responses to high job demands became ill health. The general acceptability and stigma of mental illness both within and outside medicine was also mentioned as influencing their own attitudes. Some wanted to disclose in

order to help create a culture that was more accepting of mental illness in general, whilst others mentioned that some causes of mental ill health were more 'acceptable' than others.

"Well nobody really wants to admit they might have a health issue. And certainly not a mental health issue… It would be really, perceived weakness." (Consultant 2)

"I think everyone needs to understand that people with mental health problems can do any job they want as long as they're well and kept well… I feel it would be hypocritical aspiring to those ideals whilst at the same time hiding my diagnosis." (GP 6)

In summary, additional influencing factors included advice from others, considering the impact of disclosing on others, expectations about how a disclosure would be received, and participants' own attitudes and perceptions, as well as circumstances forcing a decision. Factors that influence disclosure are very individual.

3.4.6.4 Theme 4: reflections on disclosure decisions

Decision-making about disclosing mental ill health clearly had a considerable impact on participants. Theme 4 looks at participants' feelings about disclosure decisions.

Participants described various emotional responses to the actual act of disclosing. Positive feelings included finding it 'good' or 'therapeutic' to disclose. Negative or mixed feelings included embarrassment, anxiety and fear.

"It was good to formally address that and say you know, I am now going to do something about this and for her (practice manager) to put on record that I'd decided I was going to seek some counselling… I didn't feel threatened at all which was really nice to know." (GP 12)

"It was very embarrassing being a professional and being in a situation where I was basically saying 'I need help, but I can't tell you what'." (GP 2)

"Having made the decision to go and speak to them (OH), then that was the most difficult bit, explaining to them how I felt was easy after that and actually to some degree was a therapeutic sort of process." (Consultant 2)

Participants were prompted to reflect on how they felt now about past disclosure decisions. Most participants felt that they had made the "right" decision in disclosing, with only 2 participants regretting disclosures that they had made. Some had mixed feelings.

Some participants elaborated on why they felt disclosing had been a good decision. This included; averting serious consequences, assuaging guilt or worry, having increased empathy for patients with mental ill health, and no longer having to worry about being "found out". Some

also experienced an improved work situation due to adjustments and support being put in place following a disclosure.

"I definitely think that my illness affected me significantly enough that I needed to disclose it." (Trainee 7)

"I think just them (workplace) having an awareness of what was going on made me feel a bit more secure and there was some safeguarding in my work." (Trainee 14)

"I'm working full-time, I've got a lot of responsibilities, I've got a young family at home, I've got a lot of need and motivation to be well so I acted really quickly and I'm really glad that I did." (GP 12)

Other participants had mixed feelings about past decisions to disclose. Negative feelings related to the impact that disclosure had on their career, the lack of privacy, and mental health stigma. Positive feelings related to the access to support that disclosure facilitated, and the potential for worse outcomes from not disclosing.

"I think I needed to take sick leave but I wish I had broken my leg or something." (Trainee 20)

"I would rather they didn't know about me and you know, my personal life and the things I struggle with but… if they don't know about it, it just kind of probably makes things worse." (Trainee 18)

Among participants who had on at least one occasion concealed their mental ill health, some acknowledged that they had no regrets about not disclosing. Others had mixed feelings about not disclosing and detailed the disadvantages they saw in that decision. These included; not liking secrecy, finding work harder because of it, and not being able to access the full range of support available.

"I'm glad I did keep it private because it's sort of my information, it's my health, it's my life." (GP 13)

"It was all about sort of muttering in corners and you know, being very secretive, and I didn't really want to be like that." (GP 10)

In summary, disclosure decision-making impacted participants in different ways. Participants described positive, negative and mixed emotional responses to the actual act of disclosing. Most participants felt that they had made the 'right' decision in disclosing. Some participants reported still feeling conflicted about their decisions.

3.4.6.5 Theme 5: approaches to disclosure

Theme 5 encompasses how participants approached disclosure decisions. This includes the level of planning, strategies for future disclosure decisions, and how selective disclosures were.

In terms of how participants approached their disclosure decision at the time, some mentioned the amount of thought and planning that had gone into their decision. A number of decisions were made quickly and spontaneously, with little or no planning. Other decisions were delayed, with participants stating that disclosing was "put off" or "on the back burner". Some decisions were considered very carefully, with participants having to "weigh it up", perhaps consulting others about it and evaluating the amount of information to be divulged to whom and when.

"I had to think about what I was going to do about telling people and who, and how, and in what sort of detail." (Trainee 16)

"I've told a colleague who's a consultant psychiatrist, so she's aware of that. But I have to say it took me quite a long time to get to a place where I felt able to do that, I could have done it after I was formally diagnosed with the bipolar but it was a very difficult thing to do so I have to say that I sort of put it off." (Consultant 3)

Some decisions that were 'weighed up' demonstrated the ambivalence that participants felt, with multiple reasons described both for and against disclosing. This is illustrated in the following two quotes. In the first, the participant mentions their primary motivation to disclose of wanting to stay in work and an additional factor towards disclosing of anticipating a good response. Later, they list some additional factors towards concealing.

"I didn't want to go off sick, so I thought, you know if they'll meet me in the middle and I can make some changes I can stay working…I was fairly convinced that I would get a positive response out of him (line manager)" (SAS 2)

"Hoping to feel better and not needing to have the discussion, and two, I don't know, just hoping I would just cope better, so I would just get used to it." (SAS 2)

This is further demonstrated by another participant who mentions multiple reasons for and against disclosing in the same paragraph.

"I sort of thought to myself you know 'I should be able to snap myself out of this', 'I should be able to sort that out myself', but my wife was very persistent that I needed to go and see the GP, and I had been very insistent that she go and see the GP, and I sort of recognised I think it would've been very hypocritical not to do so. And I think… the fact that I could see that it was having some effect on my work, I knew that there wasn't time to play with." (Trainee 2)

On speculation about future decisions, some participants felt it was clear how they would proceed in future, who they would tell and at what point. Others remained wary that disclosures would be dependent on the working environment, or on the severity of their mental ill health and its impact. In some instances, past experiences had helped participants learn how to recognise the symptoms of mental illness in themselves, and that this would help them to disclose at an earlier stage in future.

"I don't think I'd cogitate over it for quite so long. And I think I'd also probably be better at recognising when I was unwell again." (Consultant 2)

"I don't think it's certainly anything I would launch in with or flag up, but I'm comfortable to say that… I have struggled with the demands of the job but I hope I've learnt a lot of valuable lessons from it and I'm better than I have been and found a balance that is working for me." (GP 2)

"I think it would depend on that specific workplace." (Trainee 4)

The selective nature of disclosure decisions was also highlighted. This included the amount of information disclosed about their mental ill health, and who it was disclosed to. Ongoing disclosure decisions appear to be decided on a case-by-case basis. Very few participants are completely open.

Selective disclosures often took the form of telling some people but not others, revealing only minimal health information (e.g. not revealing the full extent of symptoms), or disclosing in some working environments but not others (e.g. different specialties, hospitals). Some participants disclosed during specific episodes of mental ill health but concealed others (e.g. disclosing depression after a bereavement, but not disclosing other instances of low mood with no obvious trigger). Participants also mentioned that they faced decisions about what health information to share on forms, such as job applications.

Many disclosures were tailored, dependent on the reason for disclosing. For example, being open with management as a safeguarding measure, yet not telling peers because of not wanting to be under surveillance. Within the disclosures that participants described to persons within their workplaces or medical schools, it was apparent that there was sometimes an intention for the disclosure to be 'unofficial'. This was implied by participants who had disclosed to someone at work or medical school where conversations were not officially documented and did not result in processes being enacted by the workplace. Some of these disclosures were intentionally 'off the record' by the participant (e.g. a disclosure to just one trusted colleague). Whether a disclosure was regarded as official or not seemed to be regardless of the seniority of

the person to which a disclosure was made, i.e. disclosures to a line manager were not always intended by the participant to be 'on the record'.

"It's deciding how much you disclose to your new Educational Supervisor when it's the first time you've met them… It's that 60 second kind of rule." (Trainee 19)

"I even tell some of my patients, but I pick who I tell. I tell some of my colleagues, but again I pick who I tell, and there are certain colleagues I would go out of my way to hide it from, even now." (GP 4 & Other)

"I haven't ever told anybody in a hospital post I don't think. So, that's quite different." (Trainee 10)

"Nobody knows the full extent of everything that has gone on."(Trainee 17)

In summary, participants approached disclosure decisions in varied ways. There were differences between participants in the level of planning, strategies for future disclosure decisions, and how selective disclosures were.

3.4.7 Summary of key findings about personal experiences

The study sought to answer the research question "How do doctors and medical students make decisions about disclosing their own mental ill health?" The main findings are now briefly summarised here.

3.4.7.1 Mental health history

Two-thirds of participants said that they had a long-term mental health condition. Participants tended to have first experienced mental ill health whilst at or before medical school. Over half of participants had to take time off work or away from their studies because of the impact of their mental ill health.

3.4.7.2 Disclosure history

All participants had made a disclosure of mental ill health to someone. 42 participants stated that someone in their workplace or medical school knew about their mental ill health. However, 4 participants had confided solely to friends, family, or providers of external support such as GPs/counsellors. 15 out of 25 first disclosures outside of friends and family were to the workplace or medical school.

3.4.7.3 Themes within participants' disclosure experiences

First disclosures

First disclosures were mainly for help-seeking. A sense of responsibility was also a primary reason for disclosing, as were specific events or interactions with others. For some participants, their first disclosure outside of friends and family was to their workplace or medical school. Early experiences of concealing mental ill health were due to lack of insight, fear, and finding it difficult to talk whilst unwell.

Further disclosures

All participants had disclosed their mental ill health to more than one person. Help-seeking was again a main reason for further disclosures. Main reasons were more diverse than for first disclosures, and included work implications, and a desire to be open and honest.

Impact of unhelpful responses to disclosures

Unhelpful responses to both first and further disclosures had considerable negative impact, such as delaying further help-seeking for several years, or forcing participants to take extended sick leave.

Additional factors

Alongside primary reasons for disclosing, participants evaluated a range of minor additional factors when making their decision, including: advice from others, considering the impact of disclosing on others, expectations about how a disclosure would be received, participants' own attitudes and perceptions, and events/circumstances. What one participant considered a primary reason in their decision may have played a very minor role for another participant. Some factors (e.g. considering the impact on others) appear to be obstacles to disclose for some participants, yet enablers for others.

Reflections on disclosure decisions

Making a disclosure decision is an emotive experience for doctors and medical students. Disclosing can be accompanied by positive feelings such as relief, or finding it therapeutic. Most participants felt that disclosing had been a 'good' decision overall. Benefits of disclosing included averting serious consequences, assuaging guilt or worry, having increased empathy for patients with mental ill health, and experiencing an improved work situation. Negative feelings about disclosing related to the impact that disclosure had on their career, feelings of lack of privacy, and the stigma related to mental ill health. Some participants described the disadvantages of concealing their mental ill health. These included; not liking secrecy, work being made harder because of it, and not being able to access the full range of support.

Approaches to disclosure

Participants applied varying amounts of thought and planning to disclosure decisions. Some decisions were made quickly and spontaneously, whilst others were protracted. A number of different factors are 'weighed up' or evaluated when making a disclosure decision, of both advantages and disadvantages to disclosing. Disclosures were made despite perceived obstacles and disadvantages. Some participants sought the advice of others on making further disclosure decisions. Past disclosures do not guarantee future disclosures; some participants would still think carefully about disclosing despite having made previous disclosures. Disclosures are selective; the amount of information disclosed about participants' mental ill health, who is disclosed to, at what time point, and in what circumstances can all vary depending on many other factors, including the reason for disclosing.

3.4.8 Thematic analysis section 2: views on an intervention

The second part of the semi-structured interview explored participants' views on the idea of the development of an intervention. The aim was to answer the research question "What might the key features be of an intervention to support doctors' and medical students' decision-making about disclosing their own mental ill health?" This was addressed through the following sub questions:

1. Could an intervention to support disclosure decisions be valuable?
2. How could an intervention support disclosure decision-making?
3. What could an intervention look like?
4. Where could an intervention be advertised and hosted?
5. What issues should be considered in developing an intervention?

3 participants were not asked this section of questions about the intervention due to the length of the interview already exceeding the time that they had available. The remainder of the participants were given a brief introduction to the section of questions on the intervention. It stated that the intention of the study was to inform the development of an intervention to help support doctors and medical students with mental ill health in their decision of whether to speak to someone, particularly in their workplace or medical school. Some participants requested more information after this introduction, and any questions were answered by the researcher. Other participants had already had any questions answered when they queried the end goal of the research or asked for additional information, either in advance of the interview when a time and date was being arranged, or at the start of the interview.

Participants were asked to think freely about the possible content of an intervention and how it could be used, and were prompted about specific details (e.g. if a participant said that an intervention should be 'online' they were asked to clarify if they meant a website, app etc.)

Not all participants were able to make suggestions about the intervention development. Some participants gave very brief ideas, whilst others were able to provide detailed answers about what they thought an intervention should do, and how it would achieve that.

Numbers are presented in brackets to give an indication of the number of participants responding in a particular way.

3.4.8.1 Could an intervention to support disclosure decision-making be valuable?

Participants were asked whether an intervention to support doctors and medical students in their disclosure decisions would be valuable. 23 reacted positively to the idea. Some participants detailed why they felt favourably towards the idea. This included addressing a need to support doctors with mental ill health, raising awareness of mental illness among doctors, and normalising or validating the experiences of doctors with mental illness.

"If it (a tool) helps make people aware that they might have a problem, if it helps them identify a route or source or resource that may assist them back to health, then yeah, very good idea." (Consultant 2)

"I think there is a need for something, I mean the patients need to be protected, the practice needs to be protected, um and there does need to be a way of trying to detect mental health issues before they get out of control and if you've got a tool then you could probably stop a relapse like I had." (GP 15)

"I think it would be a really useful thing in that a lot of people um are unsure… about you know kind of telling people or kind of even just raising it… they're worried that if they say something the balls going to start rolling and it's never gonna' stop. I think it would be useful." (Trainee 18)

Other participants thought in depth about the difficulties inherent in an intervention, and described their misgivings [11]. This included being able to produce something useful to each user's unique situation, the issue of making an intervention acceptable to potential users, and at what time point or at what level of severity of mental ill health an intervention would best be used at.

"I think you've got to get buy-in from the person- the people who are doing it." (GP 4)

"I think a decision tool is a helpful, I'm not sure exactly where it will pick people up. I think by the time that most people get to a point of crisis, it becomes pretty obvious what you have to do and people will notice. I think the scope for picking up people who probably should report that they've got symptoms and do something about it is limited by insight and realisation to some degree I think." (Trainee 16)

"I feel that there's lots of tools for lots of things, but you know, not just for this, just in general in medical practise, and a lot of it is judging the situation and it's very difficult to break that down into a tool or algorithm." (Trainee 4)

3.4.8.2 How could an intervention support disclosure decision-making?

The mechanism of the intervention was discussed, with participants suggesting aspects that broadly fell under four key elements: to give decision guidance, to provide information, to provide support, and to diagnose. Some participants realised the potential for tapping into more than one of these, for example, giving a diagnosis and then providing information on available support.

To give decision guidance [28] included seeing an intervention as something that enables structured, objective thinking, with prompts of what to consider. Others felt it could guide a decision by enabling or prompting action. Participants also though it could help users to consider all of their disclosure options e.g. who to tell, how much to disclose etc.

"I think that anything that helps you think about it in a more structured way would be invaluable." (Consultant 3)

"You want to help somebody work through the potential, both good and bad impacts on their personal relationships as well as their work life." (GP 14)

"A practical solution that could be put into practice as well… something pretty straight forward." (Trainee 6)

"I think certainly something that kind of says 'These are different options and these are things you might want to consider', is helpful." (GP 7)

Participants who suggested an intervention could provide information [29] gave specific suggestions on what could be provided. This included details of available support, legal issues surrounding equality and disability, and what would be helpful for a workplace to know.

"So information about you know various support organisations available, information about what you are obliged to do as a doctor, information about discrimination and equality act and so on, um, just that all the information is all in one place as well, or at least linked to them." (Consultant 4)

"It signposts you where to go, that might be a lot more helpful because like I said I didn't know who to talk to and there was nothing really definite to show you which way to go, so that would be useful." (Student 1)

"It's not just a case of telling work what your diagnosis is, it's letting them know what you think will help and what they need to do." (Trainee 15)

In terms of providing support [17], it was recognised that an intervention could provide 'moral support' as well as practical. Participants talked about how an intervention could help stop doctors feeling alone, that they could be encouraged, given confidence and have their embarrassment alleviated. As part of raising awareness of mental ill health in doctors an intervention could potentially normalise help-seeking and disclosure, thus giving doctors 'permission' to be unwell.

"The fact that there's a tool to help people make a decision about whether to tell work about their ill health makes having ill health okay, and makes the fact that you're struggling whether to tell work or not okay. So I think there's intrinsic value in the tool whatever it does or doesn't do." (GP 1)

"I think if there was such a tool available it would encourage people to broach the subject and be more upfront because if you are upfront there's certainly more help available." (GP 5)

Some participants felt that an intervention should incorporate a diagnostic component [14], either giving a diagnosis of mental ill health or assessing the impact of it on their work or studies.

"Maybe some kind of way of knowing whether it is affecting your work to a dangerous degree, some way of thinking about whether you're safe to work, as well." (Trainee 10)

"I don't know, like a different sort of tool that would actually say 'Yeah, you do have anxiety or you do have some depression'." (Trainee 12)

3.4.8.3 What could an intervention look like?

Participants were prompted to think about the general attributes that an intervention could have, as well as thinking in more depth about the format it could be presented in and its content.

3.4.8.3.1 Attributes of a decision support tool

Participants described several attributes that they thought a decision support tool should have when thinking about what someone would want in an intervention and what would make them seek it out. The first idea was accessibility [12]. This included the prominence of the intervention, and being able to use it at a time and place to suit the user.

"You can do it in the middle of the night if that suits you." (GP 12)

"Something that would be easily accessible, you're more likely to stumble across it than actually search for it." (Trainee 19)

The second suggested attribute was being able to use the intervention anonymously or confidentially [11]. Some participants voiced the concerns that doctors may have about being personally identified, and the security of their personal health information. An anonymous or confidential intervention would help them to feel 'safe' and preserve their privacy.

"I think it would be very important that it's something you can use anonymously, because if anyone is actually unsure what to do, the last thing they're going to want do is put any identifying information in there." (Consultant 4)

"Something where you know you're safe and confidential." (Trainee 3)

The third attribute that participants mentioned was having an intervention that considers a user's individual circumstances [6]. This included being able to have something 'personal' to them, tailored to their unique situation.

"Somebody would be able to choose the bits that are most relevant to them." (GP 14)

"Tailored in some sort of way." (Trainee 8)

3.4.8.3.2 Tool Format & Content

Participants held varying views about the format and content of an intervention. Some were given spontaneously when answering general questions about what the intervention could be, and at other times the researcher prompted participants with questions about the format and content of the intervention.

Most participants thought that an online format would be best [28]. Specific online forms included websites, blogs, emails, and forums. Other participants suggested an app [5], something paper-based [5], or a helpline [5].

"I think you know most things these days are kind of electronic, internet accessible and I think that that's probably the easiest way to do it and the most- people would probably actually feel most comfortable in doing that." (Trainee 18)

"Either an app kind of thing, or online I think, would be the best, um, yeah, I think most people are quite computer literate these days." (Student 3)

In terms of content, the idea of using question-based content [17] was suggested by some participants.

"I think devising a series of questions for the- for the individual to ask themselves before er before seeking help um would be um would be useful." (SAS doctor 1)

"I mean it might be useful to have a list of questions that makes one, you know, think in a bit more detail about the various parameters that are relevant to making the decision, I think that would help." (Consultant 3)

Further content ideas included using flowcharts [4] or scenarios [2].

"I think um personally and I think a lot of doctors like scenarios, so like the case vignette." (GP 1)

"We do a lot of those e-learning type things with like scenario-based so I suppose that's like a common format, but like, trainees or students would like um be familiar with um, managing or using." (Trainee 8)

3.4.8.4 Where could an intervention be advertised or hosted?

Participants suggested that an intervention could be advertised within workplaces and medical schools, through official organisations and publications, or through external avenues of support such as GP surgeries, charities, or support groups (figure 3.5). Some participants suggested that as well as signposting to the intervention, various organisations and workplaces could host or endorse it.

Figure 3.5: Intervention advertising.

Through workplaces and medical schools	Through official organisations and publications	Through external avenues of support
• Shared spaces (e.g. noticeboards in canteens, toilets, Postgraduate Centre) • At inductions • At appraisals • Through portfolios • OH departments • Line managers • Human Resources • Online communications (Intranet, Blackboard (online classroom software), Facebook groups, Deanery emails) • Student support/welfare	• Royal Colleges • GMC • BMA • BMJ • Journals & magazines • LMCs (local medical councils)	• GP • Doctors Support Network • Mental health charities e.g. Mind, Sane • Doctors.net • Doctors for Doctors

The issue of having 'official' endorsement of an intervention by a recognised organisation was raised, perhaps with the intervention being hosted on the website of such an organisation.

"Something that's valid and you can look at it and say 'That's something from a reliable organisation', or you know, pretty not just something from Google if you see what I mean." (Trainee 6)

Some participants spoke of the importance of having the information about the intervention as early as possible, e.g. when starting a new job or beginning medical school.

"It's (the tool) part of an induction package, whenever you start you get an induction day or induction package, isn't it, and maybe that could be as part of the induction package you've got to get?" (Consultant 1)

"I think the earlier the better… we're all exposed to things at medical school which we then look back on ten years later and think 'Oh that's what that was all about' you know." (GP 12)

3.4.8.5 What issues should be considered in developing an intervention?

In thinking about potential features of an intervention, some participants raised issues that they thought would be important to consider in the development of any intervention. These issues included: how the tool is to be used, potential difficulties in raising awareness of the intervention, how security of the intervention can be ensured, how a generic intervention can address individual needs, whether the GMC should host the intervention, and the possibility of users manipulating the intervention.

Looking firstly at how the intervention is to be used [15], participants talked about multiple different ways. Considerations included at what specific times the intervention could be used, e.g. pre-emptively when someone is relatively well, to prevent relapse, or during crises or first episodes of mental ill health when work is being particularly affected. Others noted that an intervention might be more warranted at certain career stages (e.g. medical student or junior doctor) or at particularly stressful points such as exam time for students. There was also a question of whether the intervention should be used alone or with someone else. Participants also considered whether the intervention could be revisited or used as a one-off.

"I suppose it's always better that they know rather than don't know, even if it's quite a minor issue, so I suppose it's better to err on the side of caution, so at least people are like knowledgeable, so if it does get worse, you have that support already there." (Student 3)

"I suppose the first thing is that someone's got to feel that they have a need to disclose, which must be because they feel it's affecting their work or it's affecting their training or they need some sort of consideration, additionally maybe altered working hours, I think that would probably be the main time that you'd disclose something maybe if you had to have altered or amended duties at work, so work had to be made aware of it." (Trainee 7)

"I think it's during the medical student and junior doctor phases that you probably have the biggest dilemmas." (GP 11)

Some participants talked about potential difficulties in raising awareness of the intervention [7]. Issues raised included how someone would find out about the intervention or know to look for it, as well as considering the different ways in which it could be advertised.

"I think at that time that's probably the last thing you're thinking about is 'Is there a screening tool to help me make a decision?'" (SAS doctor 2)

"As long as it was well-publicised so people knew it was there." (Trainee 10)

Some participants questioned how security of the intervention can be ensured to preserve their confidentiality [4]. Participants wondered how an intervention could be used discretely, without anyone finding out that they were using it.

"I think in a way that people feel that they're not incriminating themselves just by accessing that tool, you know, because it may be that people who are going to do it are extremely anxious and wary about even doing anything that relates to having a mental health difficulty and so um, I think something that makes the process as risk-free as possible, if you like, in terms of other people finding out." (Consultant 3)

"I think if it was an app it would have to be disguised a little bit so it wasn't on your phone as something that made it look like it was what it was (laughs), it would have to look like something else, I don't know. I think people would use it, like at home they'd probably be fine to use it on that, but probably wouldn't want to at work." (Trainee 10)

A potential problem was identified in how a generic intervention can address individual needs [4]. As described earlier, creating an intervention that sufficiently addresses individual needs was raised as a desirable attribute. Some respondents wondered if it would be possible to suit most people with one intervention.

"It's such an individual thing though isn't it? I mean it's um a lot depends on the particular circumstances that people are in and the particular individual people that they're working with." (GP 10)

"I think trying to come up with something that fits everybody might be quite difficult." (GP 7 & Consultant)

An important question for some was whether it would be appropriate for the GMC to host the intervention [3]. Because of the regulatory nature of the GMC, some respondents were concerned that GMC involvement in the intervention would be inappropriate.

"I suppose the thing with the GMC, and I don't know if I speak to everyone when I say this, you know, the GMC's viewed as a pretty high important serious organisation, and there might be some fear that if it's a tool that the GMC are providing, will it be fed back through, if

you see what I mean, some people might think, 'I'm registered with the GMC, are they collecting data on me to see if I'm fit to be a doctor?' And that kind of thing." (Trainee 6)

The final issue raised was the possibility that users may be able to manipulate the intervention by not responding truthfully [2].

"If you're already slightly depressed, and then you are bound to be even more scared about your career, so if you then fill in a tool where you have to open up about it, you might be slightly biased in your answers. Not on purpose, but part of the problem with mental illness is that it affects your thinking." (Consultant 1)

Other issues included how the most vulnerable could be enabled to use the intervention, the importance of user-involvement in the intervention development, and the difference between providing information and providing support.

3.4.9 Summary of key findings about an intervention

This section has described the semi-structured interview results relating to the development of an intervention. The aim was to answer the research question "What might the key features be of an intervention to support doctors' and medical students' decision-making about disclosing their own mental ill health?". The results are now briefly summarised here under the sub-questions.

Would an intervention to support disclosure decisions be valuable?

Most participants viewed the idea of an intervention favourably. An intervention could help address the need to support doctors with mental ill health facing the decision of whether to speak to someone. It could also help to raise awareness of mental illness among doctors, and normalise or validate their experiences. Reservations expressed centred on how an intervention could adapt to the complexities of an individual's situation.

How could an intervention support disclosure decision-making?

Four main ways were given: to help guide a decision, to provide information, to provide support, and to give a diagnosis.

What could an intervention look like?

There was a general consensus towards an intervention being electronic. Additional suggested attributes of the intervention included accessibility, anonymity/confidentiality and accounting for individual differences. Questions and flowcharts were among the format and content suggestions.

Where could an intervention be advertised and hosted?

An intervention should be widely advertised through workplaces, medical schools, official organisations and publications, and through mental health support services (e.g. GP, charities). Official organisations e.g. BMA or the Royal Colleges could host or endorse an intervention. It should be made available at the earliest opportunities (e.g. when attending inductions for medical school or training posts).

What issues should be considered in developing an intervention?

Issues included how the intervention is to be used (e.g. just at certain time points), and the potential difficulties in raising awareness of the intervention. Ensuring the security of any data in the intervention, including whether users could manipulate it, was also of concern. Other issues included how a generic intervention can address individual needs, and affiliation with the regulatory body, GMC.

3.5 Discussion

3.5.1 Overview

This study investigated how doctors and medical students experience decision-making about disclosing mental ill health. The primary aim was to better understand those experiences to inform the development of an intervention. The findings draw attention to the complexity of decision-making that doctors and medical students with mental ill health face, balancing the management of sensitive personal information with professional responsibility and addressing support needs. The results also highlight the ongoing nature of this decision-making, and how further disclosure decisions may differ from first disclosures. The interviews also explored participant views on the potential development of an intervention. This helped to inform the intervention development described in chapter 4.

3.5.2 Implications

The implications of the findings from each of the two thematic analysis sections reported in this study are now discussed in turn. The implications are discussed with reference to the existing literature, the wider context of supporting doctors and medical students with mental ill health, and how findings might inform the development of an intervention.

3.5.2.1 Personal experiences

3.5.2.1.1 Findings in the context of existing literature

Disclosure of mental health was looked at in a general (not medicine specific) employment context in one qualitative study (Brohan et al., 2014). Comparison of the themes from that study shows several areas of congruence with themes in this study, including the issues of honesty,

and disclosing for workplace adjustments. Brohan et al.'s finding that disclosing can be made in 'small increments' is aligned with the idea of 'selective disclosure' found in this study.

Fear of discrimination and stigma has consistently been cited as an obstacle to doctors and medical students accessing mental health help (Adams et al., 2010; Dyrbye et al., 2015; Hassan et al., 2009; Henderson et al., 2012a; Kay et al., 2008). Consistent with this literature, this study found that these factors did influence disclosures decisions. However, a principal finding from this study was that disclosures were made *despite* these and the many other obstacles from the substantial range identified previously in the literature. It also highlighted that what are obstacles for some are enablers for others. The obstacle to disclosing identified in previous research (Adams et al., 2010) of not wanting to let people down, actually was a reason to disclose for some participants in this study. Overall the very complex and individual nature of disclosure decision-making has been emphasised.

Among those disclosing their mental ill health outside of friends and family for the first time, the majority disclosed to the workplace or medical school. This differs from previous research that found that doctors expressed a preference to disclose (after friends and family) to their GP (Hassan et al., 2009). Two studies of psychiatrists showed low levels of preference to disclose to workplace colleagues (Hassan et al., 2013; White et al., 2006). These three studies examined who doctors would hypothetically disclose to. In reality, disclosures to the workplace or medical school are often made – albeit for many, reluctantly – because it is the only way to manage both work and ill health and access workplace adjustments. This is in line with the finding from a previous qualitative study with UK trainee doctors that proactive disclosure to the workplace was necessary to manage their illness when working on rotations (Fox et al., 2011). The disparity between what individuals think they might do and what they actually do when disclosing mental ill health was found in a previous study (Cohen et al., 2016). Lack of insight has been cited in the literature (Gold et al., 2016) as an obstacle to help-seeking. In this study, a number of participants did not disclose until they were severely unwell.

Some of the 'unofficial' disclosures described may be what are more widely known as 'corridor conversations' about health (Pullen et al., 1995). Despite the seemingly informal nature of the unofficial disclosures described in this study it was not always clear whether participants intended them to be completely 'off the record' or not.

The study also found that 'further disclosures' were sometimes prompted by other people. This is similar to other studies that have shown that doctors access support services after being prompted to or referred by others (Meerten et al., 2011).

The notion of selective disclosure also highlighted that at any given time point, a decision is far from a binary 'disclose/conceal' as has been conceptualised in existing disclosure models such as the DD-MM (Greene, 2009). Disclosure decisions take place in various environmental contexts. Due to the nature of doctors' roles, the work environment may consist of several different sub-environments. In each of these sub-environments, a separate disclosure decision may be made. All participants had disclosed their mental ill health to more than one person, and all but four of the participants interviewed had ended up disclosing to their workplace in some way after initially disclosing elsewhere. Some participants spoke about the spontaneous or unplanned way in which they had made disclosures to the workplace, as they found themselves in situations where they felt they *had* to disclose or were simply unable to conceal their symptoms.

Participants approached disclosure decisions in various ways. Some sought advice from others, whilst others struggled alone with their decision. The speed at which decisions were made varied. Some participants considered a potential disclosure for years, whilst others made a prompt disclosure as soon as they realised that they were unwell. For some it seemed that disclosure was a "last resort". The findings show that participants weighed up multiple factors both in favour and against disclosing e.g. wanting to get help because of the severity of symptoms and to ensure they were safe to work, but fearful that it may end their career. For many, there was no clear preferable option, and a decision was delayed.

The language used to describe how it felt being ill included terms such as 'failure' and 'weakness' that have been identified previously in the literature, and tie in with the idea that having mental ill health – and therefore being a 'patient' - is shameful and incompatible with being a doctor (Henderson et al., 2012b).

Few participants regretted disclosing, instead citing many of the benefits that they saw to having disclosed. For example, being better placed to help others with mental ill health. Disclosing can be therapeutic, accompanied by feelings of relief, and can result in experiencing an improved work life if the right support follows. The potential benefits to disclosing cited by participants in this study is an area that has previously received little attention in a literature predominantly focused on obstacles to help-seeking. As described in chapter 2, a single qualitative UK study of junior doctors with ill health (2 with mental illness) highlighted the relief that disclosing brought, and the wish that it had not been delayed (Fox et al., 2011).

3.5.2.1.2 How findings relate to current policy and practice

The 'unofficial' nature of some disclosures reinforces the importance existing studies have identified of having established pathways and procedures to support (Cohen et al., 2016), and addressing role ambiguity between doctor patients and consulting doctors (Fox et al., 2009).

Even when disclosures were made through official channels, participants' experiences highlight the gaps in their desired and actual outcomes of disclosure e.g. disclosing to obtain adjustments to workload, but receiving only empathy and no practical action. Unsupportive or inadequate responses to first disclosures can cause major delays – sometimes of many years – in accessing support. This emphasises the importance of doctors and medical students receiving a positive response to initial attempts at help-seeking. It equally shows the confusion of recipients of disclosures, who may not understand what the doctor or student with mental ill health wants to gain from disclosing, and are unsure as to how they should respond. This reiterates the need for established pathways to support. Organisations could provide a variety of pathways that are transparent, confidential, and easily accessible. Ensuring messages are consistent for doctors and medical students wanting to disclose may be helpful. More widely, this helps us understand how disclosure conversations can be more productive. Staff in a position where they may receive mental health disclosures may benefit from further support and training on how to respond appropriately, maintain confidentiality and signpost to such pathways.

For doctors and medical students with mental ill health, disclosing can mark the beginning of a journey that can last throughout their professional life in medicine. The ongoing nature of disclosure decisions was highlighted, with many participants experiencing long-term mental health conditions rather than isolated episodes. It highlighted that support in making disclosure decisions might be needed throughout a doctor's career, not just in making very first disclosure decisions.

The presence of 'spontaneous disclosures' suggests that if organisations can foster a caring, compassionate working environment for its medical students and doctors, earlier disclosures could be enabled. How policies and processes are implemented is of prime importance.

3.5.2.1.3 Findings that could inform the development of an intervention

Participants in this study disclosed both within and outside the workplace. Signposting to any intervention would perhaps be most effective when made in a range of work and non-work settings. Sources of support such as GPs are perhaps ideally placed to begin conversations with doctors and medical students about speaking to their workplace or medical school about appropriate adjustments. This is pertinent as so many of the participants in this study had to take time off work or away from their studies because of the impact of their symptoms.

The finding that some participants did not disclose until they were severely unwell highlights the potential of an intervention to help support earlier disclosure through increased self-awareness. However, lack of insight may also be an obstacle to individuals seeking out the intervention and this raises a question over how the intervention should be targeted and made available.

The finding that participants weighed up multiple factors in their disclosure decision-making acknowledges that decisions relating to health behaviours are often oversimplified. In many cases, one option is not clearly preferable to another. It was clear that disclosure decisions were emotive. An intervention may help instill a greater sense of autonomy, and enable clearer and well thought-through decision making.

Many strategies for improving doctors' and medical students' help-seeking for mental ill health have focused on overcoming obstacles. A strategy focusing on promoting the potential positive benefits to disclosure would be a novel approach to include in future mental health campaigns.

3.5.2.2 Views on an intervention

Participants gave a varied range of positive and negative perspectives on an intervention, including both its potential, and the challenges that it may bring. It was reassuring that many participants viewed the idea of an intervention favourably, although this cannot of course be generalised to the wider population of doctors and medical students. Participants were asked to think broadly about a potential intervention. Comments on the potential scope and content of an intervention were therefore mainly abstract. Participants tended not to focus on the process of decision-making itself, instead highlighting the general approach, and components that could inform a decision e.g. PHQ9, flowchart.

Participants mainly envisaged an electronic tool. It was considered from the beginning of this study that the intervention might be well-suited to being electronic, for reasons of economy and feasibility of construction within the study timescale. The functions of the intervention that participants recommended (to help guide a decision, to provide information, to provide support) may all feasibly be addressed. Early on in the study, it was decided that the intervention would not be diagnostic, to avoid potential liability issues. This parameter was not presented to participants, and some wish for the intervention to give a diagnosis was expressed. Additional attributes of an intervention that participants said they would like to see, such as accessibility, anonymity and confidentiality, and using flowcharts, were suggestions that could be easily incorporated in an intervention.

In terms of dissemination, participants gave a selection of ideas of how an intervention could be advertised, hosted and incorporated into training curricula. The variety of responses served as

a reminder of how widely it is necessary to advertise, as methods used regularly by some (e.g. Facebook) may not be used at all by others.

Participants raised a number of queries and questions regarding the creation of an intervention. Most of these queries were regarding how the intervention is to be used, e.g. whether it's to be used alone or with someone else, whether it is to be used regularly or just when work or studies are being affected by mental ill health. Participants also raised the issue of how an intervention could be tailored. This is a key challenge to be addressed in the development stage.

How these findings informed the development of the intervention is discussed in chapter 4.

3.5.3 Strengths and limitations of the study

This study was the first to explore doctors' and medical students' decision-making regarding disclosure of their mental ill health in depth. A previous qualitative study of foundation trainees with experience of significant illness highlighted their uncertainty about when to disclose and whom to disclose to, but that study focussed on ill health in general, not mental ill health specifically (Fox et al., 2011). This study contributes to the literature by looking not only at this decision-making, but also at what happened after disclosures were made. The strengths and limitations of the study are now discussed.

3.5.3.1 Interview methodology

The research question aimed to elicit the experiences of doctors and medical students, and qualitative research was therefore an appropriate methodology. Qualitative methods allow for rich data to be generated and for the language that participants use to be studied. Unlike quantitative methods, which provide quantifiable data, the data gathered from qualitative methods helps to articulate and explain the experiences of participants, and the meanings they attach to them (Mays et al., 2005). To ensure clarity of how the study was carried out and reported, specific guidelines as outlined earlier were followed (Braun & Clarke, 2008). A best practice checklist for clarity of reporting qualitative research guided write-up of the results (Tong, Sainsbury, & Craig, 2007). The 32-item checklist for reporting qualitative research aims to improve the transparency of reporting. It includes items relating to the research team and reflexivity, study design, analysis and findings.

Interviews were chosen as the most appropriate method. It was important to keep the data collection as brief as possible, to be able to collect data around doctors' varying work patterns, and to ensure that confidentiality was preserved; interviews fulfilled all of these criteria. The aim of the qualitative interviews was to collect doctors' accounts of their experiences. A limitation is that these experiences are subjective; accounts may have omitted information, or

recalled some details incorrectly. This may have been compounded by the limited time that some participants had to be interviewed.

It has been noted that in health-related qualitative research, large amounts of data are collected, leading to "multiple clues to the person's identity" (Richards & Schwartz, 2002). This increases the possibility of deductive disclosure of participants' identities. Following a standard 'dominant' approach (Kaiser, 2009), major identifiers were removed, to maximise participant anonymity but without losing contextual data essential to analysis. At the third stage in the process the protocol for removing major identifiers was revised to facilitate the removal of additional identifiers, to avoid the risk of some combinations of multiple quotations facilitating deductive disclosure of some participants.

3.5.3.2 Recruitment and sampling

The multiple routes of recruitment across the UK was a strength of the study, as was the number of interviews across varying specialties and grades. This variation in recruitment and sample allowed a diverse range of perceptions and experiences to be explored. A self-selecting sampling approach was used, as this sampling method is the most efficient at targeting suitable candidates; in this case, those people in the medical profession that have experienced mental ill health. A benefit of this approach is that participants are more likely to be committed to taking part in the study and willing to provide more of their own insight. There are some limitations to this approach. The non-probability nature of this type of sampling means that there is perhaps a limited representation of the wider medical population; however, a generalisable sample was not aimed for. It is also possible that there is a self-selection bias, where the decision to participate in the study may reflect some inherent bias in the characteristics of the participants. It may be that those who weren't available for interview or declined to take part had different experiences of disclosure decision-making. There is an inherent problem in gaining access to those individuals who have never disclosed to anyone, as by taking part in an interview they would be disclosing. This study aimed primarily to understand the disclosure decision-making that participants had undertaken; the end outcome of whether a disclosure was made was not the focus. However, the experiences of those who have never disclosed may be different from the experiences of participants in this sample. Gaining the input of those who have never disclosed would therefore be a valuable further step in future work.

A purposive sampling frame was used. It was recognised that there would be great diversity of experience, and that these experiences may vary substantially by age or stage in training. The number of medical students taking part was low. Views of this group are therefore underrepresented. The study was time-limited; running the study over a longer period could

have boosted student recruitment. Snowball sampling raises issues of bias. This is due to individuals associating with each other not only due to a characteristic within the selection criteria of a study – in this case, doctors and medical students with personal history of mental ill health – but with other characteristics (e.g. gender, specialty, geographic location). It has been noted that this "increases the chance of correlations being found in the study that do not apply to the generalized wider population" (Patton, 2015). Snowball sampling in this study was used in conjunction with maximum variability sampling. Through the latter, using multiple recruitment routes enabled access to a wide range of individuals across many characteristics.

More female participants than male were recruited. This gender ratio was reflected in more females expressing interest in the study. This may reflect gender differences in mental ill health among doctors and medical students i.e. female doctors report burnout more often than male doctors (Lemaire, Wallace, & Jovanovic, 2013).

A common approach to sample size in qualitative interviewing is where interviews continue until no new themes emerge from the addition of new participants, i.e. 'saturation' is reached (Mason 2010). This approach is widely-used, in conjunction with guidance that the sample size "should be sufficiently large and varied to elucidate the aims of the study" (Patton, 2015). However, the idea of 'saturation' has been contested. Malterud et al. (2016) proposed a method of 'information power' for choosing sample size in qualitative studies. This takes account of five factors that influence the information power of a sample: a) broadness of study aim, b) sample specificity, c) use of established theory, d) quality of dialogue, e) analysis strategy (Malterud et al., 2016). At the time of the study, SR was employed as Research Assistant and had several years' experience of research with doctors and medical students. The topic area was therefore familiar, and this helped improve the quality of dialogue. However, some interviews were much briefer than others. This can weaken the quality of dialogue. More interviews were therefore done, to increase the information power of the sample.

3.5.3.3 Thematic analysis

Thematic analysis was chosen as being the most suitable for the type of data set in the study. Some of the advantages of thematic analysis, as cited by Braun and Clark (Braun & Clarke, 2008) include that it can help to summarise large data sets, can generate unanticipated insights, and is useful for working with participants as collaborators, in a participatory research paradigm. The latter seemed particularly appropriate in using the interview data to inform the development of the intervention. As previously mentioned, a rigorous thematic approach was adopted in this study, to address potential issues of replication and generalisability. 10% of the data was coded independently by researcher NM, aiding refinement of the coding frame. Researcher NM and supervisor DC assisted in refining themes over the subsequent stages of

analysis. By the end of the analysis process the final thematic map had undergone several iterations.

The interviews broadly explored participants' experiences of mental ill health as a doctor or medical student, but the analysis focused specifically on their experiences of disclosing or concealing their mental ill health. This clear focus helped to overcome one of the disadvantages of thematic analysis, in having an overwhelming number of potential areas of focus within a rich data set. It is debated within the field of qualitative research about whether citing counts when reporting qualitative findings is appropriate. A false impression of the non-occurrence of something can be given (e.g. if the participant was not asked a question), and some find numerical counts and descriptions to distract from the main messages of the findings. As previously stated, the importance of a theme in the analysis of personal experiences was not judged by its prevalence; terms referring to quantities (e.g. 'most') and any numerical counts reported are included purely for transparency and to avoid appearing anecdotal. Numbers were reported for the section on developing an intervention. This helped to provide internal generalisability, identify diversity and patterns, and provide evidence for interpretations (Maxwell, 2010). However, these figures should be interpreted with caution; it was not a representative sample and generalisation to a wider potential user population should not be assumed. In addition, as part of a semi-structured interview schedule the questions were not asked in the same order or word for word. The findings however highlighted some preferences and suggestions to be further explored in subsequent stages of the intervention development.

Participants' first answer was taken when analysing participants' primary motivations for disclosing. Throughout the interviews, participants' responses were summarised and reflected. This gave the opportunity for participants to elaborate and to correct misunderstandings. Prompts, both spontaneous and those included in the interview schedule (e.g. what was your priority at that time?) were also used to further establish primary motivations from additional factors considered.

3.5.3.4 Interview questions

The semi-structured interview guide was developed to elicit participants' personal experiences of having mental ill health as a doctor or medical student. Participants were first asked about their reasons for participating and what they thought the most important issues around disclosure of mental ill health were; this ensured that any new and unanticipated topics were captured. The word 'disclosure' was used in the information sheet and pre-interview questionnaire, but questions in the interview schedule were more general (e.g. "you mentioned you told your workplace…"). This allowed participants to use their own vocabulary to describe their experiences. This study focussed on mental ill health disclosures to the workplace or

medical school, but many participants spoke more generally of disclosures outside of the workplace or medical school, such as mental health professionals or friends and family. In retrospect, it would have been useful to explore participants understanding of the term 'disclosure' and to discuss alternative wording suggestions.

Although in every interview the full breadth of core topics were covered, the depth of the interviews may have been affected by their medium; the majority of interviews were conducted over the telephone, for logistical reasons. (Malterud et al., 2016)

3.5.4 Conclusion

In summary, the study presented in this chapter was the first to explore the views of doctors and medical students in depth on the topic of decision-making about disclosure of their mental ill health. The study has provided a better understanding of how doctors and medical students make decisions about disclosing their mental ill health, clarifying motivations and processes. The study also explored initial ideas about what the key features might be of an intervention. How these findings helped to inform the development of an intervention are discussed next in chapter 4.

Chapter 4: Intervention Development

4.1 Chapter overview

The aim of this thesis was to develop an intervention to support doctors and medical students in their decision of whether to speak to someone about their mental ill health. The key assumption, supported by the evidence-base, is that some doctors and medical students are ambivalent about disclosing.

Chapters 2 and 3 sought to further our understanding of disclosure decision-making about mental ill health by doctors and medical students, through a structured literature search and qualitative interviews. Findings from the interviews supported the idea that doctors and medical students need support in their disclosure decision-making. The interviews also highlighted preliminary ideas about how an intervention could best address this. This chapter builds on those findings and describes the development of an intervention to support doctors and medical students in their decision about whether to speak to someone about their mental ill health.

I will show how I used the framework set out by the Medical Research Council (MRC) (Medical Research Council, 2008) to provide overall guidance for the intervention development. The chapter describes each step involved in the conceptualisation and development of the intervention. The chapter ends with an overall discussion of the intervention development.

4.2 Intervention development overview

The intervention was developed between April 2016 and March 2017. A draft web-based intervention or 'tool' was created in July 2016. A final web version was created in January 2017. Ethical approval for the development was granted by the Cardiff University School of Medicine Research Ethics Committee (Reference number: SMREC 13/43).

The tool development was systematic and evidence-based, using components of a framework set out by the MRC (Medical Research Council, 2008) for the development of complex interventions. The MRC defines a 'complex intervention' as one containing "several interacting components which may act both independently and interdependently" (Medical Research Council, 2000). Key considerations include:

- Number of interacting components within the experimental and control interventions
- Number and difficulty of behaviours required by those delivering or receiving the intervention

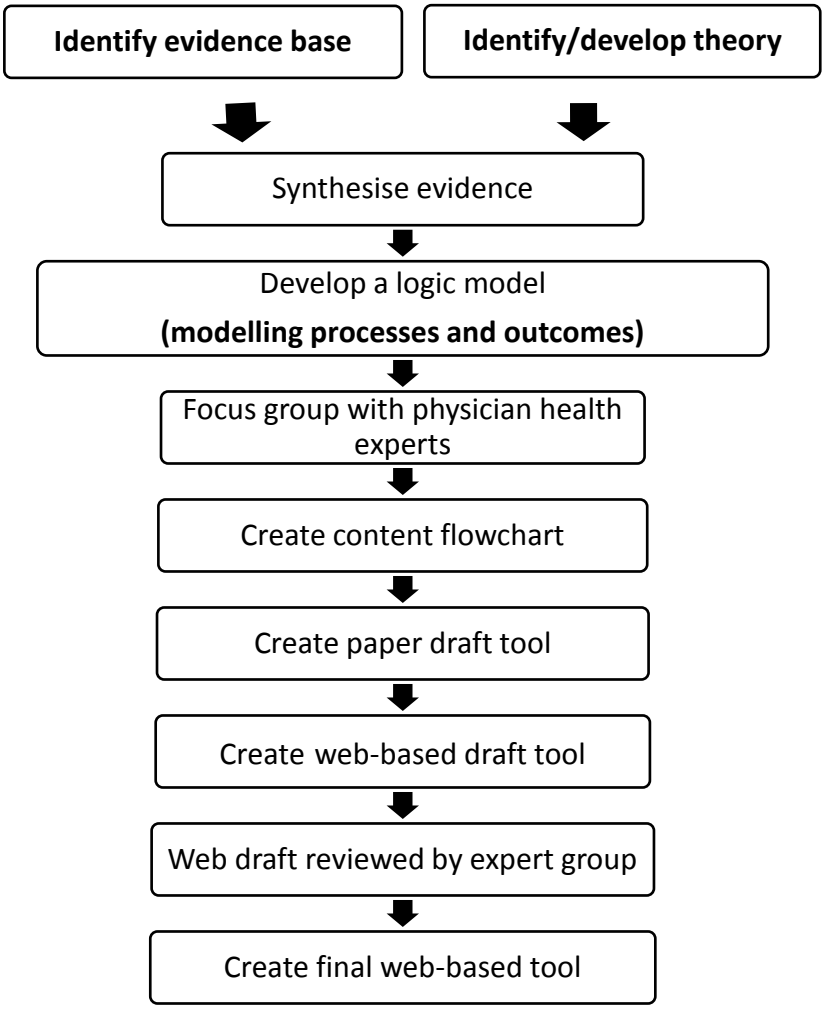
- Number of groups or organisational levels targeted by the intervention
- Number and variability of outcomes
- Degree of flexibility or tailoring of the intervention permitted (Craig et al., 2008)

The framework specifies three stages:

1. Identifying the evidence base
2. Identifying/developing appropriate theory
3. Modelling processes and outcomes

An overview of how the intervention was developed by applying the three stages is shown in figure 4.1.

Figure 4.1: Overview of intervention development process



4.3 Applying the MRC framework

How each stage was applied to the development of this intervention is now discussed in turn.

4.3.1 Identifying the evidence base

A wide evidence base was used at all stages of the intervention development, aiding both the development of theory and for the intervention's potential impact to be modelled. The evidence base comprised:

- A quantitative study preceding the PhD (Cohen et al., 2016)
- A structured review of the literature (chapter 2)
- Findings from potential user interviews (chapter 3)
- Psychological theory (chapter 1, and further discussed in this chapter)

These findings were synthesised, and the aim and key parameters for the intervention development were established (figure 4.2).

Figure 4.2: Key parameters of the intervention

Aim of the intervention: To enable earlier disclosure

Key parameters:

- The intervention should help *guide* a decision
- The intervention should signpost to information and support
- The intervention should be electronic

These parameters were referred to throughout the development process.

4.3.2 Identifying/developing appropriate theory

Chapter 1 discussed the model of MI and its potential application to developing an intervention to support doctors' and medical students' decision-making about whether to speak to someone about their mental health. The findings of the qualitative interviews reported in chapter 3 suggested that MI would be appropriate to apply. Participants weighed up multiple factors both in favour and against disclosing their own mental ill health. This evaluation behaviour is in line with the concept of ambivalence within MI. Ambivalence is a core construct of MI (discussed in chapter 1) and is key in any health behaviour change. Within the Transtheoretical Model (TTM), ambivalence is characteristic of the "contemplation" stage, which precedes the "preparation" and "action" stages (Miller & Rose, 2015). Chapter 3 also reported findings of what potential users would want from an intervention. This highlighted the desire for support and guidance in decision-making about disclosing, but not for a decision to be made on their behalf. This 'guiding' approach fits with MI.

The assumption was that intervention users would be ambivalent about disclosing. The intended outcome of the intervention was defined as helping the user move from indecision to decision when deliberating whether to speak to someone about their mental health. This helped to clarify the start and end points of the MI 'journey' that the intervention would encompass, guiding the user from feeling ambivalent about disclosing their mental ill health, towards making a decision of whether to disclose or not. There are many related decisions, e.g. who to disclose to, or how much information to disclose, but these were deemed outside the scope of the intervention. This remit of the intervention was decided on by reflecting on the evidence-base outlined earlier, and in discussion with supervisor DC over a series of meetings.

Overall guidelines for the intervention development were created, based on an MI approach (figure 4.3).

Fig 4.3: Intervention development guidelines

- Targets doctors and medical students who are ambivalent about disclosing their mental ill health.
- Guides decision-making
- Non-prescriptive approach

The theory was further developed through modelling the tool, which is discussed next.

4.3.3 Modelling processes and outcomes

A logic model helped to conceptualise how the intervention might work. The model was developed using guidance from the Kellogg's Foundation (W.K. Kellogg Foundation, 2004). An initial draft of the model helped to clarify the theory in the early stages of the intervention development. Subsequent revisions were made along the development process. Figure 4.4 outlines the key considerations that the model is based on.

Figure 4.4: Key considerations of the model

Problem Statement: Doctors and medical students delay seeking support and/or treatment for mental ill health.

Intervention Aim: To increase levels of earlier help-seeking by doctors and medical students for mental ill health.

Assumptions:

- Some doctors and medical students are ambivalent about disclosing their mental ill health
- There are low levels of awareness of where to seek mental health support among doctors and medical students

Figure 4.5 illustrates the model. It conceptualises how the intervention is hypothesised to work within the context of healthcare organisations. This model includes non-linear relationships.

In the first part of the model, influencing factors on both individual and organisational levels are shown impacting on an individual's attitude to disclosing their mental health concerns.

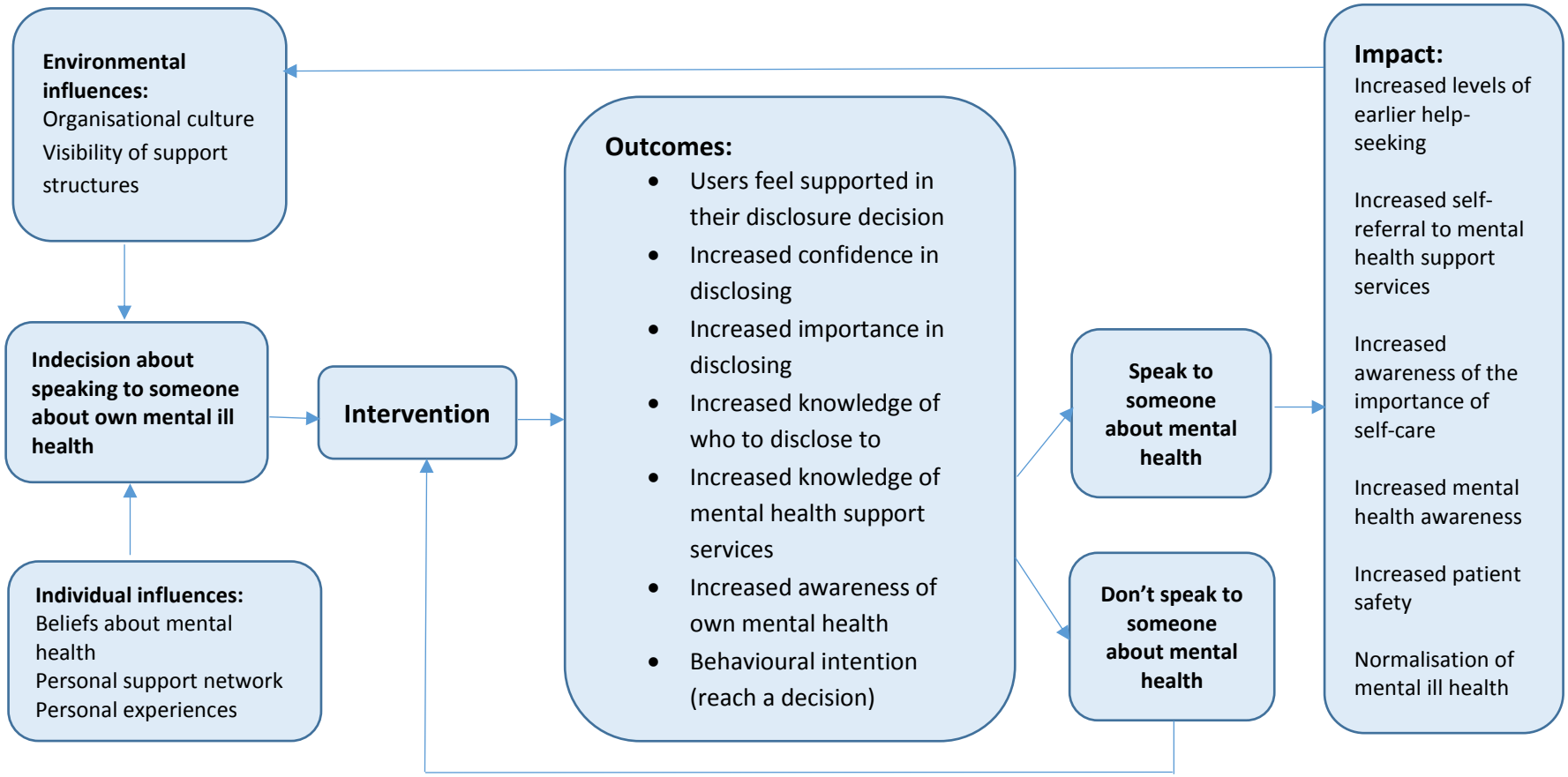
The next part of the model indicates the point at which the intervention would be implemented. The inputs required are the creation of the intervention and its dissemination. Within the intervention, activities include MI-based exercises, and a resources section.

Following user engagement with the intervention (the 'outputs'), the possible outcomes are described. The key outcome is behavioural intention (reaching a decision whether to disclose).

Crucially, the model acknowledges an individuals' right to choose *not* to disclose. To 'force' a decision would not be in keeping with an MI ethos. The model illustrates how someone who decides not to disclose after using the intervention may choose to revisit the intervention later.

The impact of the user disclosing is detailed in the last part of the model. Finally, the model indicates how an individual's beliefs and behaviours could feed back into organisational culture.

Figure 4.5: Logic model describing the context and processes of an intervention to support doctors' and medical students' decision-making about whether to disclose their mental ill health



4.4 The development process

So far, this chapter has described how the evidence base and theory were identified and synthesised, and how processes and outcomes of the intervention were modelled. The remaining stages of development are now discussed in turn. These stages are:

- Focus group with physician health experts
- Creating a draft tool:
    a. Creating a content flowchart
    b. Creating a draft paper-based tool
    c. Creating a draft web-based tool
- Creating a final tool:
    a. Review of the draft web-based tool
    b. Creating a final web-based tool

4.5 Focus group study

4.5.1 Introduction

To develop the intervention, an understanding of how it might be most appropriately designed was necessary. Experts within the field of physician and medical student health, including those with personal experience of mental ill health, were consulted using a focus group and supplementary interviews. Results, in the form of key guidance points, then added to the evidence base and informed the intervention development.

4.5.2 Aim

The focus group aimed to inform the design of the intervention by building on the findings from the qualitative study (chapter 3). It also aimed to explore how face validity could be addressed i.e. the extent to which participants perceived that the intervention addresses its aim of enabling doctors and medical students to make timely disclosures of their own mental ill health.

The objectives were:

1. To explore how an intervention could enable earlier disclosure by guiding disclosure decision-making.
2. To understand what the key features (e.g. messages, content, language and style) might be of an intervention to support doctors and medical students in making decisions about disclosing their own mental ill health.
3. To appraise how an intervention could be disseminated, targeted and linked to other resources for doctor and medical student mental health.

The research questions were:

1. How could an intervention guide doctors and medical students' decision-making about disclosing their mental health to someone?
2. What should the key features of an intervention be to guide doctors and medical students' decision-making about disclosing their mental health?
3. How could an intervention to guide doctors and medical students' decision-making about disclosing their mental health be disseminated and linked to?

4.5.3 Method

Qualitative methodology was selected to allow insight into attitudes and experiences. A focus group expedited data collection. A group format addresses pre-defined issues from a topic guide, yet allows the facilitators to be responsive to the dialogue and explore additional topics as they emerge (Powell & Single, 1996). The group setting also allows members to discuss and debate issues, providing access to consensus and diversity on topics (Kitzinger, 1995).

4.5.3.1 Sampling

Purposive sampling was used to target experts with an interest in doctor or student mental health. This included those working for charities representing doctors/medical students with mental ill health, with personal experience themselves of mental ill health. This maximised the chances of recruiting information-rich participants (Patton, 2002). Organisations with an interest in the mental wellbeing of doctors or medical students were identified through existing contacts and web searching. Types of organisation included:

- Regulatory bodies
- Charities that support doctors/medical students with mental ill health
- Treatment services
- Organisations representing medical schools
- Trade unions/professional associations
- Student health services
- Postgraduate educational bodies
- Bodies representing the NHS
- IT developers with experience in mental health interventions
- Medico-legal organisations

4.5.3.2 Recruitment

It was aimed to have 10 organisations each represented by a participant. This was to ensure a diverse perspective from within the field. An optimum group size is thought to be between 4 and 8 people (Kitzinger, 1995). Aiming for 10 allows for participant drop-out. Invitations were sent to 15 existing contacts from the above types of organisation. Contacts were available from

pre-existing links between Medic Support (where SR was employed) and other organisations relating to doctor/medical student health. Some contacts were identified by supervisor DC. Individuals were emailed a study information sheet and asked for their availability to participate. A central London location was proposed, as many organisations had London offices. The date and time that most participants were able to attend was selected. Individuals who were unavailable were asked if there was an alternative representative from their organisation who would be able to attend in their place.

4.5.3.3 Ethical considerations

The study was given ethical approval by the Cardiff University School of Medicine Ethics Committee (SMREC ref: 16/21).

Each participant received the study information sheet and had the opportunity to ask questions before signing a consent form. All participants agreed to the discussion being audio-recorded. The information sheet and consent form are available in appendix 4.1.

4.5.3.4 Advance information

In advance of the focus group, participants were emailed further information and background documents. These included:

- An outline of the purpose and content of the focus group (appendix 4.2). This included the aims and parameters (figure 4.6). The outline also included a list of organisations represented, and the discussion topics. Participants were invited to suggest additional discussion topics.
- A web link to a journal publication of the quantitative survey work preceding this thesis (Cohen et al., 2016),
- An interim report on the qualitative interviews reported in chapter 3.

Figure 4.6: The aim and parameters of the intervention presented to participants

Aim of the tool: To enable earlier disclosure

Key considerations:

- The tool should help *guide* a decision
- The tool will signpost to information and support
- The tool will be electronic

4.5.3.5 Topic guide

A topic guide (appendix 4.3) was developed to guide the focus group discussion. The questions were informed by the semi-structured interviews (chapter 3) and literature review (chapter 2). The literature review suggested that some doctors (e.g. trainees) may be more vulnerable. The interviews had highlighted that a guiding approach may be feasible, that the tool should signpost

to further information and support, and that an electronic format may be appropriate. Potential issues raised included accessibility, credibility, and raising awareness of the tool. The topic guide covered four key areas (figure 4.7).

Figure 4.7: Discussion topics.

1. **Enabling earlier disclosure**

How could the tool achieve this?
How might we best target vulnerable populations?
What are the most important things that will give credibility to the tool?

2. **How the tool can help *guide* a decision**

How can we achieve this?
What do you think would be most helpful to include in the tool?
Do you have any views on what should not be included within the tool?

3. **How the tool will signpost to information and support**

What resources do you think would be most useful for the tool to signpost to?
How and where do you think the tool would best be signposted to and promoted?

4. **The look and feel of the electronic tool**

How can the tool be made most accessible?
Do you have any suggestions as to how we could pilot the tool?

The topic guide also allowed participants to raise additional issues.

4.5.3.6 Data collection

One focus group was held at a central London location in May 2016. The focus group was facilitated by SR and supervisor DC. As a senior researcher, the latter led the facilitation. SR contributed additional questions, ensured that all questions in the topic guide were covered, brought DC's attention to participants who were waiting to contribute, and kept the meeting to time. At the start of the meeting, a short presentation was given (appendix 4.4). This reiterated the background information given.

The discussion was audio-recorded using an Olympus DS-30 digital voice recorder. No field notes were taken. Taking notes is only vital if participants do not consent to the discussion being audio-recorded (Kitzinger, 1995). At the end of the discussion, participants were informed that they would be contacted by email and asked if they wished to review the first draft of the intervention once it had been developed. Participants were also invited to contact the researchers with any further thoughts or questions.

4 participants were unable to attend the focus group. They were contacted afterwards and invited to be interviewed. 2 interviews were conducted. These followed the focus group format, with information outlining the study presented first. One interviewee chose to answer questions by email. The other was interviewed face-to-face and the interview was audio-recorded. Following the interviews, interviewees were emailed a summary of the focus group responses and asked how far they agreed with the main discussion points. Interview responses were added to the focus group findings.

4.5.3.7 Data analysis

4.5.3.7.1 Dataset

The audio files were transcribed and anonymised. The dataset comprised the transcriptions and one email interview.

4.5.3.7.2 Transcription

SR transcribed the focus group and interviews verbatim, using the transcription conventions detailed in appendix 3.5. The focus group transcript was condensed into a summary where each discussion point was bulleted for ease of review. This was sent to all participants for validation purposes within a week of the focus group. Validation minimises the risk of serious errors, such as when participants have been misheard or what they have said misinterpreted (Mero-Jaffe, 2001). Two amendments were requested; one was where a participant's comment had been accurately transcribed, but the participant had misspoken and wished to clarify their meaning retrospectively. Another amendment was where a participant had thought of something they wished to add. These amendments were made, and a final version of the summary sent to all participants. The individual that participated in a face-to-face interview was also sent a summary of their interview. No amendments were requested.

4.5.3.7.3 Analysis method

Qualitative analysis was carried out manually, without software. Data were analysed deductively using a thematic approach. This top-down approach codes data against specific research questions rather than the research question evolving through the coding process (Braun & Clarke, 2008). The same procedure was used here as for the thematic analysis outlined in chapter 3 for the qualitative interview analysis.

4.5.3.7.4 Data management

Each audio-file was labelled with a unique identifier and transferred to a Cardiff University server. The identifier was also applied to the transcriptions. The audio-recorder's 'format' function was used after data transfer to ensure that data could not be retrieved. Data were handled and stored securely in line Cardiff University data protection policies.

4.5.4 Results

4.5.4.1 Participant demographics

11 individuals participated from the 15 approached at 12 organisations. 9 attended the focus group and 2 were interviewed afterwards. Organisations represented were:

- The GMC (regulatory body)
- The Royal Medical Benevolent Fund (RMBF) (charity)
- The Medical Schools Council (organisation representing medical schools)
- The University of Bristol Students' Health Service (student health service)
- NHS England (leads the NHS in England)
- The Medical Defence Union (MDU) (medico-legal organisation)
- Doctors' Support Network (charity)
- The Wales Deanery (postgraduate educational body)
- BMA Medical Students' Committee (professional association)

3 individuals from 3 further organisations had expressed interest in participating but could not attend the focus group and were not able to send an alternative representative. Doctor treatment services and the BMA were not represented.

Participants worked in a variety of roles. Many participants were doctors, and one was a medical student. Roles included:

- Clinician at a student support service
- Board members of doctors' charities
- Medicolegal adviser
- Medical education policy adviser
- Regulatory body case examiner
- NHS commissioner
- Chief executive of medical school representative body
- Dean of postgraduate medical education
- Welfare officer of a Medical Students Committee

No participants were personally known to SR prior to the focus group, but many were known by the facilitator DC. 6 of the organisations represented operate on a UK-wide basis, and 3 organisations operate regionally in Wales, Bristol, and England respectively.

The focus group lasted two hours. All topic guide items were addressed in turn. Participants were very engaged with the topic, providing thoughtful responses that sparked debate and discussion.

4.5.4.2 Main findings

The aim of the focus group (and supplementary interviews) was to further inform the design of the intervention. To provide practical guidance points for the intervention development, the data were organised into seven themes:

1. Messages the intervention could convey
2. Content
3. Language and style
4. Dissemination
5. Technical considerations
6. Signposting to resources
7. Other issues

These are now discussed. Participants and facilitators are numbered. 'P' denotes a participant, 'F' denotes a facilitator.

4.5.4.2.1 Messages the intervention could convey

Participants suggested key messages that could be incorporated into the intervention. The first was one of positivity. This involved marketing the intervention as an aid to wellbeing and professional responsibility, using a supportive rather than punitive approach.

> *"I would like to come at it from 'How can you improve your mental wellbeing?'… not 'you're hiding your mental illness, we're going to tell the GMC' type- it just feels very punitive." (P2)*

> *"In the study we did, doctors were sort of reluctant to come forward 'cause they thought 'well, I'll be seen as a bit of a failure, and someone who can't quite hack it'. So, if this is about making sure actually you can hack it and making sure you can deliver and be there for your patients; then that really is a positive." (P5)*

Part of the positivity focus included providing messages of hope, and encouragement to be open and honest.

> *"Give the hope that you can get through the other side, and sort of busting some of those myths, it won't be the end of your career." (P4)*

> *"Honesty has got to be in there. It's much better to be honest and open." (P2)*

Participants explained that the intervention could help normalise users' thinking about their own mental health.

> *"If we can make it widespread that it's good to be thinking about this (mental health) and thinking of ways of doing it, lots and lots of small interventions, so that it doesn't feel as if... that you've got to do one thing, it's lots of times, somehow, get that into the*

ether, that would be a good thing to try to do… I think it's in the sort of mindset of people and how you're supporting each other and actually as colleagues it's good to sort of, if you see someone that's not well, to say 'actually, have you thought about x, y or z?' rather than coming down like a tonne of bricks." (P3)

Further messages related to accessing help. This included the importance of accessing early help to avoid more serious consequences.

"If you get help early you're avoiding the more… yeah, the more extreme position." (P5)

Participants added that help accessed should be professional (no "corridor conversations") and objective. This included urging someone to get help if they have concerns over their wellbeing, regardless of how they might 'score' on a diagnostic scale. Within the following quote, "maybe a trusted colleague" perhaps contradicts other statements that corridor conversations should be avoided.

"We shouldn't necessarily be saying 'tick these boxes and you're okay', we should be saying 'If you even think there's a problem, you should be going to speak to somebody independently', probably your GP, or maybe a trusted colleague or whatever. But it should be about going to speak to somebody else to get that element of objectivity rather than escalating the sort of self-assessment side of things. (P6)

One participant felt that the intervention should convey the amount of help available.

"I suppose the message is that there's so much help out there." (P11)

4.5.4.2.2 Content

Suggestions were made on what should be omitted and included. Relating to the overall positivity message, some of the group felt that content on potential negative consequences of disclosing (e.g. GMC procedures) might best be avoided.

F1 And is there anything that you think specifically shouldn't be in this tool?

P2 Yes, GMC regulations.

P7 Mmmm!

P2 I really don't think they should even be mentioned because that's the negative, to go with the positive. I think if they want to find them out, they can, I think it shouldn't be on this app.

In the resulting debate, other participants argued that the GMC guidelines could be signposted to rather than contained within the intervention itself. Others felt the guidelines should be included, but presented positively, i.e. that seeking help is *always* best.

Specific content suggestions included a 'frequently asked questions' (FAQ) section, discriminatory questions, case-studies, testimonials, wellbeing scales, statistics, and top tips for mental wellbeing.

"There's almost an FAQ bit to this isn't there? 'How will it affect my career?', 'how many people will know?'" (P4)

"Statistics perhaps – it's all about destigmatising the issue so perhaps if people realise there are more people in their boat than they realise, it will help them to come forward too." (P10)

One participant suggested using common mental health scales, stimulating debate about the usefulness of self-report measures. Participants noted that there can be issues in doctors and medical students confidently using self-assessment scales (e.g. the PHQ9) correctly on themselves. Such measures may result in false assurance, and a message that self-diagnosing is appropriate.

"Actually if you introduce perceived objectivity by using a scoring tool, then they might not answer questions entirely objectively, and realistically, and might falsely reassure themselves they don't need help." (P6)

One participant felt that the intervention's content could be very similar to pre-existing decision-making tools or algorithms that are available to purchase "off the shelf", but with a disclosure focus.

"I can see the decision-making tool itself, fairly generic… The context, the substrate, is around disclosing sensitive personal issues, and why should I do that? (P11)

They also felt that the user could be assisted in thinking about whom they might disclose to, and what the aim of disclosing might be.

4.5.4.2.3 Language and style

The importance of achieving the right tone of language within the intervention was discussed at length. Participants gave a range of specific examples. This included using language that did not insinuate any failing on the part of the user, perhaps when eliciting their feelings about how their symptoms of mental ill health were impacting on their work.

"I wonder whether you might be able to say something like 'Is it feeling more difficult to do your work?' because that's not saying 'Are you failing to deliver as a doctor?', but 'Is it feeling really hard?' (P1)

"Something that doesn't suggest it's a failing of the individual, it could be an impact of the pressures, service pressure." (P4)

The word 'disclosure' itself was subject to scrutiny and thought to have punitive or legal connotations.

P1 *I am wondering about the term disclosure to start with.*

P2 *So am I…It sounds punitive.*

P1 *…So I think that disclosure sounds a bit like 'your duty of care to the GMC'.*

One participant explained the importance of wording questions carefully so that they did not cause the user to become defensive. This included not having undue focus on work.

"Certain questions may be slightly contentious, for example, I don't know, say, one that would probably sound alright would be "Do you feel your mental health is affecting your work-life balance or work?" anything that's affiliated with their day job might be, um, might have the opposite effect and if I'm positive for example about that question "Is it affecting your work?" they're more than likely not to disclose to my [sic] work or to anyone." (P4)

Another participant cautioned against using a directive tone.

"It should be reflective… My feeling is it shouldn't have the feel of 'You should *disclose this', it's letting me reflect, and then I make the decision."* (P11)

4.5.4.2.4 Dissemination

On the topic of disseminating the intervention, it was felt that marketing the tool at all doctors and medical students would be the most inclusive approach.

P1 *It needs to be 'everybody', it could happen to anybody, you can have the right combination of things happen to you…*

P5 *It also destigmatises it then, you know, it feels 'why have you got that on there?', 'everyone's got that on there'.*

This included targeting doctors at all career grades, as participants identified a lack of senior role models within medicine with personal experience of mental ill health. Regarding postgraduate medical training, it was stressed that to embed an intervention involved training for those in trainer roles.

"It's a kind of training issue, a CPD issue, or awareness slash knowledge of this with the trainers, it's not just the trainees. It's equally with the trainers in terms of 'yes, this is the norm'. Which is what we should be doing." (P11)

"I think as a junior doctor if you know that your consultant is being shown the tool as well and being given that advice on an annual basis, it gives it much more authority and does destigmatise slightly, in the sense 'it's not just me, 'cause I'm the junior who's struggling, it's

across the board', so I think it does have to be totally inclusive, and it becomes part of the norm." (P3)

In addition to this blanket approach, it was suggested that vulnerable groups could be targeted. Overall dissemination suggestions included:

- Social media (e.g. Facebook group 'Tea and Empathy')
- Appraisals
- NHS trusts
- Royal Colleges
- Attachments on important documents (e.g. payslip)
- Deanery or medical school support services
- Occupational Health
- Events (e.g. Mental Health Awareness Week)
- Posters/leaflets in university GPs, counselling services, and medical libraries
- Advertising in BMJ, student BMJ and online forums e.g. The Student Room.
- Medical school welfare leads
- Lectures at key times (e.g. Freshers' Week, exams, start of clinical phase)
- BMA Medical Students Committee
- Promotion from tool users

Notably, this list did not include the GMC:

> *"I think guidance points from the GMC… would be helpful to include in the tool… however this as a separate thing from actually having the GMC* disseminate *the tool - just because there is that element of students/trainees/doctors fearing the GMC as a regulatory body 'collecting information' on them." (P10)*

Participants discussed possible affiliations, endorsement or hosting by organisations. These included the BMA, the Medical Schools Council, individual medical schools, and the Royal Colleges. Some of the advantages and disadvantages of each were highlighted.

"I think if it was hosted by the BMA, I'm wondering whether that might be perceived as being more 'it's about the individual', rather than about whether you're going to be able to do your job as a doctor as a college member, as registered with the GMC. I know there's lots and lots of political stuff going on at the moment, but off the top of my head I think I perceive the BMA as probably more 'there for me'." (P1)

Early introduction to the intervention within medical school was deemed important, with regular reminders throughout all stages of training. Embedding the intervention generally

would allow it to be pre-emptive, instead of introducing the intervention solely to doctors and medical students who are unwell (e.g. at the point at which they might access support services).

"This tool needs to be sort of becoming part of the thing you know about before you become unwell, 'cause actually it could be more likely to flag a little light up, you know, somewhere further down the line as medical student you think 'oh, I've been told about this', and then you might go and look at it." (P2)

"It is important that this becomes something of 'normality' i.e. it doesn't feel alien, negative or bad to use the tool - so that it becomes as familiar to people as possible and they feel that it is something that people are talking about. This in itself hopefully can help reduce any hidden stigmas associated in using the tool." (P10)

4.5.4.2.5 Technical considerations

Participants broached a range of technical considerations to be considered in developing the intervention. These included the media format, the importance of updating web links, and the confidentiality of the intervention. On discussion of the electronic media format in which the intervention would be made available, two participants queried the suitability of an app over something that could be accessed via the web or email.

> *"I think there's lots of older doctors that wouldn't use an app… I think web-based is probably more accessible than an app isn't it for a lot of people?" (P7)*

One suggestion to keep web links up-to-date was to link only to 'home pages' of relevant sources of support and information rather than sub-pages, to avoid substantial ongoing work.

"Obviously if you've got lots of links to all different things, you're at risk of them going out of date… and you've got broken links." (P1)

In terms of confidentiality and anonymity, participants felt that the security of any data stored within the intervention was important, and that any app should have a discrete icon. Availability across platforms (iphone/Android) was also important.

4.5.4.2.6 Signposting to resources

Participants discussed the individual resources that could be linked to from the intervention, how they should be presented and how users might view them. It was discussed how the range of resources signposted to should be varied, and include a range of modes e.g. telephone, web-based, in-person. The issue of some doctors wishing to seek treatment outside of the geographical area in which they work was also mentioned.

"If we're gonna, you know, point people towards options and resources they can use for help, there'll be a variety of things that will be useful to some people but not useful to others, so it should reflect that variety. Some people would be more comfortable talking face to face to

someone, so there should be an option like that. Some people prefer talking on the phone so they don't see the person. Some people prefer doing it online." (P9)

"We've had quite a few people who've said 'I didn't want to speak to someone locally, I wanted to speak to someone, you know, completely doesn't know me, never met me, never see again." (P5)

Participants listed the resources that they felt should be included:

- Charities: DSN, Sick Doctors Trust, Samaritans, Nightline
- Financial support organisations e.g. RMBF
- British Doctors and Dentists Group (self-help group)
- Students Against Depression (website)
- BMA Doctors for Doctors (now the counselling and advisory services)
- Peer mentors
- University counselling services
- Local GPs
- Patient information leaflets on mental ill health
- Case studies
- Employer/medical school obligations and responsibilities.

It was acknowledged that a long list of resources may be off-putting for some users.

"I didn't know if there'd be a slight adverse effect, if within this app you just had a long list of all the available support, which looks great, but then if you're that person just thinking, "well, which one's best for me?" Sometimes someone just wants to know where to go, you know, "press here if you're a doctor", and we'll take you where you need to go? I don't know if that's a…consideration?" (P8)

A few solutions were offered to address this. It was acknowledged that signposting to existing websites that list comprehensive sources of support and information could be utilised e.g. the GP service for NHS England. By keeping signposting broad, it would not be necessary to list very detailed information (e.g. for specialty, geographical region). Another alternative was to include a simple 'next steps' suggestion of where to turn first. Participant also suggested the idea of an 'SOS' button with urgent contact details on each page of the intervention.

Having a comprehensive range of resources signposted to within the intervention would support one of the desired overall messages, of normalising mental ill health in doctors and medical students.

"If you're mentally unwell, or you're worried about the stigma and you open up this app and suddenly you see this huge number of resources, that you're linked to, you'll suddenly think

'well obviously there's an awful lot of doctors and medics with problems, 'cause they've got all this stuff out there for them'… and itself, it gives you a little bit of reassurance that actually, 'lots of people must feel like I do', 'cause that's the thing, they feel so isolated and alone." (P2)

4.5.4.2.7 Other issues

Participants raised wider potential issues and implications of an intervention. The need for longer term evaluation was identified, and it was acknowledged that acceptance of the intervention may not occur straight away.

> *"I suppose it is part of, if we see this as an ongoing programme, it is then about the evaluation, as you know, everybody likes the evidence, so 'what's the evidence that this has had an impact?' So how do we build that in to this whole process?"* (P11)

It was mentioned that doctors and medical students must trust the intervention for them to use it. This trust would also assist with engagement.

"It's also got to have trust, I think. The biggest thing is trust, if someone doesn't trust it, they're going nowhere near it are they? …Before anything – if I were to use it, I'd want to trust it." (P5)

Participants debated whether the intervention should acknowledge the uncertainty of the outcome of disclosure, and address that there was no guarantee that disclosing would not lead to negative career implications. In keeping with the rest of the positive tone of the intervention, it was suggested that potential negative outcomes were not included.

> *P6* *Where you suggested "Will this affect my career? It shouldn't do, but…". I don't know, or do you say "Under normal circumstances, no it won't", it's difficult.*
>
> *P3* *Because there is a possibility that it will.*
>
> *P2* *You can't actually say no, completely. But I think you have to try and make it, you know…*
>
> *P6* *Try and make it positive.*

It was also acknowledged that there is a training need for those potentially receiving disclosures.

> *"Your average trainer, who the trainee will have a lot of exposure to, we could argue actually that we shouldn't expect them to… have a level of understanding where they don't say anything stupid that derails any disclosure… So this kind of training package is ongoing for the trainers." (P11)*

The issue was also raised of people potentially approaching the intervention seeking help for someone else rather than for themselves.

"The only thing I was thinking is that sometimes it might not be the doctor themselves going to the app, it could be someone close to them, their partner, their friend, their housemates… You could have a section directed towards that person looking to support their friend or whatever, and how they could point them towards those tools." (P9)

One participant reflected on the unhelpful first responses that doctors might experience when disclosing their mental health concerns, suggesting that this could be acknowledged.

"I'm wondering if there's any way of incorporating in, in exactly the right form of words, 'if the first person that you take this problem to has what you perceive to be an unhelpful reaction, don't necessarily assume that they're right'." (P1)

For evaluating the intervention, it was suggested that those doctors and medical students with personal experience of mental ill health and disclosing to their institution could provide a valuable perspective.

4.5.4.3 Summary of key findings

Overall most participants felt that an intervention would be worthwhile. Participants thoughtfully considered the potential content, messages and dissemination of a tool. Both positive and negative implications were raised. The findings of the focus group study are summarised next.

1. **Messages the intervention could convey**
    - Broad message of positivity.
    - Normalise thinking about own mental health.
    - Accessing early help averts more serious consequences.
    - Appropriate professional support should be sought.
    - A great deal of support is available.
2. **Content**
    - Avoid including potential negative outcomes of disclosing.
    - Participants did not reach consensus on whether regulatory guidelines should be included.
    - Specific content suggestions included a 'Frequently Asked Questions' (FAQ) section, discriminatory questions, case-studies, testimonials, wellbeing scales, statistics, and top tips for mental wellbeing.
    - The inclusion of self-report scales would raise issues of false assurance, and a message that self-diagnosing is appropriate.
    - Generic decision-making aid, but with a disclosure focus.
    - Potential to include related decisions e.g. whom to disclose to.

3. **Language and style**
    - The language and tone is of prime importance.
    - The word 'disclosure' itself was subject to some scrutiny, and was thought to have punitive or legal connotations.
    - Maintain a broad focus on general wellbeing, not specifically a work focus.
    - Avoid a directive tone.
4. **Dissemination**
    - Normalise the intervention by embedding it within the medical profession. This will require appropriate training of those who train doctors and medical students.
    - Make the intervention inclusive by marketing at all doctors and medical students.
    - Targeted advertising could ensure vulnerable groups were reached.
    - Organisations could provide affiliation or endorsement.
    - In future, people who have used the tool and found it helpful could help promote the intervention.
5. **Technical considerations**
    - The disadvantage of an app for mobile devices is that older doctors might not use one.
    - Web links must be kept up to date.
    - Users will be concerned about confidentiality and anonymity.
    - An app should have a 'discrete' icon. and be available across platforms.
6. **Signposting to resources**
    - Resources should be varied and include a range of modes.
    - Having a comprehensive range of resources supports the overall message of normalising mental ill health in doctors and medical students.
    - *S*pecific resources were suggested.
    - A 'next steps' or 'SOS' brief section of resources would help to avoid users being overloaded with information.
7. **Other issues**
    - Not everyone knows how to handle disclosed information; this has implications for training.
    - There will be a need for longer term evaluation of any intervention.
    - Acceptance of the tool may not occur straight away.
    - Doctors and medical students must trust the tool for them to use it.

- Consider whether third parties could use the intervention or if it should be solely for doctors and medical students themselves.
- Participants may need to disclose again if they receive an unhelpful response initially.
- Those doctors and medical students with experience of mental ill health and disclosing would be ideally placed to help with an evaluation of the intervention.

4.5.5 Discussion of focus group study

4.5.5.1 Overview

This focus group study explored the opinions of participants representing organisations with an interest in doctor or medical student mental health on how an intervention could enable doctors and medical students to make timely disclosures of their own mental ill health. The findings are now examined alongside the findings from the qualitative semi-structured interview study detailed in chapter 3.

4.5.5.2 Triangulating the data

Focus group participants felt that an intervention could help to normalise mental ill health in doctors and medical students. This had also been highlighted in the semi-structured interviews, where participants explained that the existence of a tool would normalise having mental ill health as a doctor or medical student. This links to the broader issue of raising awareness of mental ill health in doctors and medical students. To achieve this, the intervention would best be embedded within training and made available at the earliest opportunity, i.e. when beginning medical school. There was consensus across the focus group and semi-structured interviews that the intervention should be advertised as widely as possible.

Focus group findings highlighted the importance of language, something that the semi-structured interviews did not. This may reflect the more abstract level on which a potential intervention was explored in the semi-structured interviews, as fewer parameters had been set at that stage. Focus group language-related suggestions included avoiding the term 'disclosure'. Participants did not suggest alternative terminology, noting that it was difficult to think of something appropriately short and simple. The semi-structured interviews had highlighted how participants felt an intervention should guide a decision. This parameter was presented to focus group participants. Participants commented in depth on how carefully the language used within the intervention should be considered to support this aim. One participant noted that a user would want to feel that they were making their own decision.

"It shouldn't have the feel of 'You should *disclose this', it's letting me reflect, and then I make the decision."* (P11)

This careful consideration of language and respecting a user's autonomy are in line with an MI approach, further supporting the use of this model in this intervention.

Focus group participants also suggested not solely focusing on a work context, but rather on wider wellbeing. In the semi-structured interviews, participants expressed concern that not all workplaces were supportive, and that they would choose to seek help elsewhere. Taken together, these findings suggested that the intervention should not focus specifically on deciding to disclose to the workplace or medical school.

In the semi-structured interviews, some participants advocated including a self-assessment scale to provide a diagnosis. Focus group participants discussed whether it would be appropriate to include a diagnostic component, despite being given the initial parameter that the intervention would be non-diagnostic. They identified that the drawbacks of such a component were that it could be seen as endorsing self-diagnosing, and could also provide false reassurance that no help was necessary. This links with the concern raised in the interviews that a self-report scale can be manipulated. These findings identify a disparity between what individuals would want from an intervention. This should be considered in developing the key messages to build engagement with the tool. Those individuals preferring a diagnostic element viewed it as just one element of a broader intervention.

Expanding on the semi-structured interview suggestion that the tool should be electronic, focus group participants discussed the advantages of an app or website. They also drew attention to some of the disadvantages, such as potentially excluding older doctors with limited IT capabilities, or having data security and confidentiality implications. The focus group findings added to the semi-structured interview findings on the accessibility of the intervention with the suggestion that it could potentially be made available in different formats. Electronically disseminating the intervention would have some benefits. First, this would allow the intervention to be highly accessible; users would be able to use the intervention at their convenience. Secondly, it would provide anonymity.

The focus group discussion was at a fairly abstract level. Participants paid little attention to how decision-making could be guided, instead focusing on what content should be included. Participants looked broadly at the key messages of the tool. The focus group generated some similar ideas to the semi-structured interviews regarding possible content, such as using a series of questions. Additional suggestions from focus group participants included a FAQ section, case-studies, and top tips for wellbeing. Focus group participants also debated the appropriateness of including GMC guidelines, and reiterated throughout the discussion that content should maintain a positive focus to aid engagement. Focus group participants felt that a self-reflection

based intervention would also normalise users' thinking about their own mental health and fit within wider work in physician health on resilience. Unlike in the semi-structured interviews, focus group participants did not express any reservations about how a general intervention could feel specific enough to an individual. This was an issue of some importance to the doctors and medical students taking part in the semi-structured interviews.

Participants from both the focus group and the semi-structured interviews recognised the importance of signposting to a wide range of resources from the intervention, with both groups' suggestions combining to create a potential list for inclusion. The suggested resources are not exhaustive at this stage, and will need further review to ensure that the best possible range is included. Discussion by both groups of participants about possible endorsement and hosting of the intervention by different organisations led to several points being raised. First, the possible negative associations that might occur if the intervention was linked to an appraisal, or to the GMC. Secondly, it was noted that endorsement could help users of the intervention feel that it was "for them", and not something that they were obliged to use. Being able to trust the intervention was a key message that was stressed by both groups of participants. This again highlights the importance of hosting, endorsement and dissemination of the intervention.

Taken together, the similarities and discrepancies in the findings from the expert group and the qualitative interviews provided key guidance points to use in the development of a draft tool. These are now summarised in figure 4.8.

Figure 4.8: Development guidance points

Include:

- Electronic format
- Positive focus
- Generic decision-making content, but with mental health focus
- Help guide a decision
- Individually tailored
- Anonymous/confidential (including data security)
- Provide information
- Provide support
- Supportive language and tone
- Varied resources section.
- Brief 'next steps' or 'SOS' resource

Exclude:

- Potential negative outcomes of disclosing
- Self-report scales
- The word 'disclosure'
- Directive tone

4.5.5.3 Strengths and limitations

The focus group methodology used has several advantages and disadvantages. One limitation is the potential for some participants to be inactive observers. All participants contributed to the discussion in this group, but some participants contributed more than others. The cohesive nature of the group may have reflected the backgrounds of participants, all working within the field of physician health and facing similar issues.

Using qualitative methodology allowed participants to explain their responses and provide insight into their perspectives and experiences. Consensus was explored, but participants were not pressured to reach consensus on topics. Instead, the reasons for their agreement or disagreement were of interest i.e. the way that consensus was or wasn't achieved.

Alternative qualitative methods to canvass opinions might have included individual interviews, or a questionnaire. These methods would have lacked the group dynamic of a focus group. It has been noted that the method allows investigation of not only what people think, but how and why they think something (Kitzinger, 1995). The group dynamic that a focus group provides was important to allow ideas to be generated through discussion, any opposing views to be debated, and unanticipated issues to be drawn out. For example, one participant suggested a diagnostic component. Later, others debated this further, and the participant revised their opinion.

Some participants were unable to attend the focus group. Two of these were later interviewed (one face-to-face and one via email). Although interviews lack a group dynamic, they nonetheless added to the points to consider in the tool development. The interviewees received the same advance information and participants were able to address each topic in turn. The interviews allowed for views made in the focus group to be explored to elicit whether the interviewee was in agreement, and their reasoning. Doctor treatment services, and the BMA were not represented (though the BMA students committee was). The BMA is a professional association, of which there were other organisations represented. The sample omitted a representative from a doctor treatment service; however, student treatment services were represented. The views of those working in doctor treatment services would be valuable to obtain in future development and evaluation.

Participants were given parameters for the intervention, established from insights from the interviews. Overall therefore, comments made in the focus group and those made in the semi-structured interviews were congruent. It also generated a highly focused discussion, which allowed all topics to be covered within the timeframe and resulted in little discussion on tangential topics. To avoid unduly narrowing the focus of the discussion, the group was

facilitated to bring others into the discussion, and participants were frequently asked if there was anything that they wished to add before the next topic was broached. Validation was undertaken by sending a transcript summary to group members (Mero-Jaffe, 2001). This identified one error, where a participant had misspoken. Correcting this in the revised transcript enabled the participant's true meaning to be conveyed.

It is considered best-practice to involve appropriate users at all stages of an intervention development (Medical Research Council, 2008). Doctors and medical students with mental ill health were represented in the focus group by a member charity, the DSN, and had personal experience of mental ill health. Further users were not included in the group as users had already been consulted through the semi-structured interviews. They would be further consulted in the subsequent stages of the intervention development.

4.5.5.4 Conclusions

The focus group discussion built on the user perspective, adding to the evidence base. It provided a rich dialogue containing detailed, practical guidance to use in the development of the intervention. These findings address how the intervention could guide disclosure decision-making, what the key features of the intervention should be, and how the intervention could be disseminated.

Following the focus group, the draft tool development began. This is discussed next.

4.6 Creating a draft tool

The draft tool was developed and refined between May and July 2016. The process involved further review and synthesis of the evidence-base. The content was developed through a series of discussions with supervisor DC. Creating the draft comprised three stages:

- Creating a content flowchart
- Creating a draft paper-based tool
- Creating a draft web-based tool

These are now discussed in turn.

4.6.1 Creating a content flowchart

Earlier in this chapter the MRC framework was discussed. Following the three stages within the framework generated the parameters and considerations for developing the intervention content. These are now recapped.

Intervention Aim:

To increase levels of earlier help-seeking by doctors and medical students for mental ill health by helping the user move from indecision to decision when deliberating whether to speak to someone about their mental health.

Key parameters:

- The intervention should help *guide* a decision
- The intervention should signpost to information and support
- The intervention should be electronic

Creating the content flowchart involved outlining the components, then arranging them in an appropriate order. Decisions on what components to include focussed on two areas:

1. MI components.
2. Non-MI components.

These are each discussed next.

4.6.1.1 MI components

As discussed in chapter 1, the method of MI incorporates a broad number of general techniques and specific tools. A wide range of potential techniques and tools were identified through the literature, from prior study of MI (as part of master's degree, and an introductory MI training course), and from discussion with supervisor DC. Selection of techniques and specific MI tools was made by:

- Identifying which components could be used in an electronic intervention rather than in a traditional face to face setting with an MI practitioner
- Identifying which principles could be used in an intervention

The identification process took place over a series of meetings with supervisor DC, where various combinations were discussed. The final selection of MI techniques and tools are shown in figure 4.9. As discussed in chapter 1, these relate to the underlying principles thought to be the key mechanisms through which MI is effective.

Figure 4.9: Selected MI techniques and tools

- Readiness ruler (tool for readiness for change)
- Decisional balancing
- Supporting self-efficacy
- Open questions (to stimulate change talk & motivation for change)
- Action planning (generating commitment)

How the content based on each of these components was developed is discussed later in this section.

4.6.1.2 Non-MI components

Additional components were identified as being complementary (figure 4.10). Some of these were chosen to help specifically address the target population of doctors and medical students, e.g. personal versus professional values.

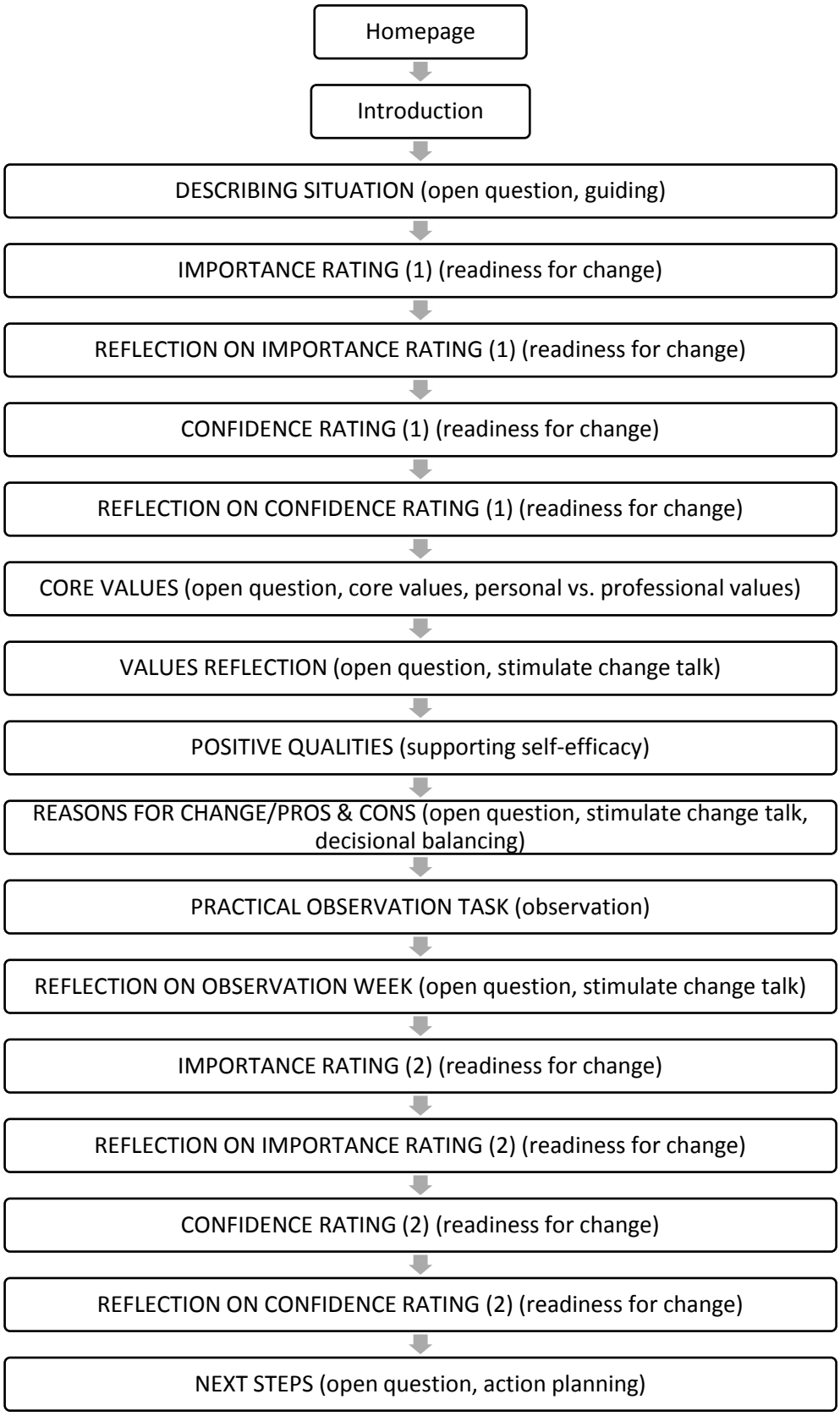
In addition to guiding a decision, the evidence from the semi-structured interviews suggested that the tool should provide information. This included signposting to a wide range of resources. This resulted in the addition of information at specific points in the intervention, and rewording of some sections.

Figure 4.10: Selected non-MI components

- Values (personal versus professional)
- Observation (self-reflection and awareness)
- Signposting to resources

After selecting the MI and non-MI components, several iterations of a flowchart were created to place the components in a coherent order. The order of the components was subject to discussion and revision between SR, DC, and NM. The final order of the components is shown in figure 4.11. The purpose of each component is shown in brackets following the component name. A detailed description of the content of each of these components is discussed later in this section.

Figure 4.11: Draft tool content flowchart



4.6.2 Creating a draft paper-based tool

After identification of the MI-based and non-MI components and the creation of the content flowchart, the individual detail of each component was created.

4.6.2.1 MI content

How the MI-based components (individual techniques and tools) were translated into content suitable for an electronic format is described next.

Guiding

Rollnick, Miller, and Butler (2008) outlined three communication styles that may be used in practitioner-client interactions in healthcare. A following style is where the practitioner follows the client's lead, taking a predominantly listening role. In a directing style, the practitioner "takes charge". The guiding style used in MI lies between these two extremes, where a practitioner would help a client solve their issue themselves. MI differs from a general guiding style in three ways:

1. Is goal-directed
2. Evokes a client's own arguments for change
3. Uses specific clinical skills and strategies (Rollnick et al., 2008)

To achieve an MI guiding style within this intervention, these points were addressed. The goal of helping users decide whether to disclose their mental ill health was clearly stated. Tasks such as 'reasons for change' were included (discussed later in more depth) to help elicit a user's own reasons for change. Some of the skills and strategies used are discussed next, but included specific tools (e.g. the readiness ruler) as well as general approaches (e.g. open questions). Very careful attention was paid to the language used throughout, wording tasks to suggest - rather than direct – things for the user to consider thinking about or doing.

Stimulate change talk

Change talk and sustain talk relate to how an individual talks about the behaviour that they are considering changing. Change talk reflects the side of an individual's ambivalence that is more inclined towards making a change, whereas sustain talk reflects the side that wants things to stay the same. Change talk encompasses desire to change, ability to change, reasons to change, need to change, commitment to change, and taking steps toward change (Rollnick et al., 2008). By stimulating change talk in clients, individuals are helped towards the direction of change. In this intervention, tasks that would help stimulate change talk were included, such as the readiness ruler and observation tasks.

Readiness ruler

The readiness ruler is a technique that can be used to help elicit change talk. The readiness ruler has two aspects. The first relates to how important an individual perceives it to be to make the change that they are considering. This is rated from 0 (not at all) to 10 (very). For this intervention, the question was worded as "consider first how important **you** feel it is **for you** right now to talk to someone about your concerns". Some follow-up questions and reflection points were then presented, e.g. "think about *why* you chose that number", "think about why you didn't choose a lower number?" and "what might need to happen for you to choose a higher number?"

The second aspect to the readiness ruler relates to how confident an individual is that they would be able to make the change that they are considering. This is rated using the same scale as for importance. For this intervention, the question was worded as "How confident are you that you could speak to somebody about what's concerning you?" This was then followed with similar questions and reflection points as for importance, e.g. "think about why you chose that particular number".

In this intervention, the readiness ruler is presented twice. This enables the user to reflect on how importance and confidence may have changed whilst using the intervention.

Decisional balancing

Through decisional balancing, individuals are encouraged to identify the costs and benefits of making the change that they are considering. This is an opportunity to explore ambivalence. For this intervention, the task was introduced, and a series of questions presented e.g. "What might be the pros for talking to someone about your concerns? What might be the cons for doing this? Or is doing nothing the best option for you right now?" This task can help to stimulate change talk.

Supporting self-efficacy

Self-efficacy refers to an individual's belief that they can achieve a certain goal. MI can help increase an individual's confidence, which in turn can enhance self-efficacy. One technique is to help an individual identify their strengths, or positive qualities, which may be drawn on when an individual then decides to make a change. For this intervention, a task was included that encourages a user to identify their positive qualities. The wording used was "Spend some time now thinking about what your strengths and positive qualities are. What are your positive qualities?"

Open questions

An important core skill of MI, open questions give individuals the opportunity to identify their own reasons for change. Open questions also support autonomy, as they do not force individuals to choose from a pre-specified range of responses. In addition, open questions are perceived by clients as showing "personal interest and caring"(Rollnick et al., 2008). Open questions were used throughout this intervention.

Action planning

This involves both developing a commitment to change and formulating a specific plan of action. In this intervention, there is a 'next steps' component in which users are prompted to consider action planning. The wording used is "Thinking about where you've come from and where you are now, what might be your next steps?" A selection of follow-up questions is then presented to prompt further thought, including "Who are you going to speak to? How much information are you going to give them? When are you going to do it?" For those who are not ready to enter action planning, some further questions are presented: "What would have to happen for you to be ready to speak to someone? What would increase your confidence in being able to speak to someone? What would make it more important for you to speak to someone?"

The 'spirit' of MI

The overall approach or 'spirit' of MI has been described as one that is collaborative, evocative, and respects autonomy. The whole intervention content was informed by this approach. This was achieved by the intervention not directing a user what to do, by using techniques to stimulate change talk, and by acknowledging that deciding whether to make a change is the user's decision alone.

4.6.2.2 Non-MI content

How the non-MI components were translated into content suitable for a web-based format is described next.

Values

Values are the guiding principles by which we live our lives. Values can be explored within an MI approach as a way of eliciting motivation to change, when an individual recognises a discrepancy between their current behaviour and their values. The complexity of values in medical decision-making has been recognised (Fulford, 2008). In this intervention, the potential discrepancy between personal and professional values was used as a technique to help elicit change talk. The values task begins with a description of what values are, and then asks "Spend some time now thinking about what **your** core values are". An example list of values is provided if a user requires it. The task then asks the user to reflect on their values in relation to their

concerns about their wellbeing, "Do your feelings and concerns about your wellbeing in any way relate to your core values?". The task then asks the user to continue reflecting on their values, in relation to their professional values: "Do you find at times your **core** values or your **professional** values are challenged by your situation? How does that make you feel?"

Observation

Self-observation is an effective technique for facilitating behaviour change (Johnson & White, 1971). It is used in counselling methods such as Acceptance and Commitment Therapy (ACT). Reflective practice is considered essential for healthcare professionals, forming part of formal requirements such as revalidation (Mann, Gordon, & MacLeod, 2009). In this intervention, an observation task invites users to undertake a week of self-observation: "Over the next week or two, the task is to observe yourself during the day and how you feel whilst at work. Observe when your values are challenged and how you respond. What situations led to you feeling positive about yourself? What might be making you feel less positive about yourself?"

Signposting to resources

While unsolicited advice is not aligned with an MI approach, information may be provided to a client if they give permission for the practitioner to do so. Findings from the qualitative interviews highlighted the value of an intervention signposting to information and support. For this intervention, a resources section was collated, listing charities, specialist services for doctors, and workplace/medical school based support.

The content of each component was subject to multiple revisions. Supervisor DC assisted with ensuring that the language used was in keeping with MI e.g. compassionate, non-directive tone. A draft tool was finalised on paper. The focus group findings suggested that the most suitable platform for the tool would be an app for mobile devices. It was not possible to create an app version straight away due to constraints of time, budget and technical expertise. A web-based version was therefore created in the next stage of development.

4.6.3 Creating a draft web-based tool

The draft paper tool was directly copied into a web-based version, using the website development software Wix (https://www.wix.com). The text was identical, but graphics were added to the web-version. Wix is free of charge, easy to use, and provided an opportunity to create a more realistic and interactive version of the tool. The full content is available in appendix 4.5. The resources section was incomplete in the draft web-version, as there was insufficient time to fully develop this within the timescale allowed.

4.6.4 Summary of draft tool development

This section has described how a draft web-based tool was created, using a systematic, evidence-based approach. There were four steps to this process: a focus group study, creating a content flowchart, creating a paper tool, and converting it into a web version. The next section will describe the final two stages to the intervention development process; a review of the draft web tool, and its development into a final web version ready for evaluation.

4.7 Developing the draft tool into a final version

4.7.1 Introduction and rationale

This chapter so far has described the development of a draft web-based tool to support doctors and medical students in their decision of whether to speak to someone about their mental health. This section describes a questionnaire study that gathered feedback on the draft web-based tool. This feedback was used to create a final version of the tool, ready for evaluation (chapter 5).

4.7.2 Aim

The aim was to gather feedback on the draft web-based tool. This marked the beginning of a revision process that sought to refine the draft into a final web version.

4.7.3 Method

Participants from the focus group study described earlier in this chapter were asked to review the draft web-based tool and complete a short online survey. Participants were emailed a web link to the draft tool in Wix and provided with the password needed to access it. They also received a flowchart detailing each individual component of the tool and its intended function, and an overview of the MI rationale (appendix 4.6). Providing this information aimed to reduce the potential for feedback on the tool that sought to change its purpose. The email also included a link to a short questionnaire in the Bristol Online Survey (BOS) web-based questionnaire service. BOS offers secure data collection, and is approved for use by Cardiff University.

4.7.3.1 Questionnaire

The survey aimed to gather views on accessibility, usability and content validity. Content validity has been defined in the context of an e-health intervention as “the extent to which its component intervention activities are relevant to the underlying construct (i.e. program theory) and likely to be effective in achieving a particular intervention purpose in a specific intended population” (Kassam-Adams et al., 2015). The authors suggest that this can be broken down into three main areas:

- The extent to which an intervention activity is pertinent to its intended intervention target as defined in the program theory or model of change
- The extent to which evidence, theory, and expert judgment would suggest that this specific activity would successfully modify the intended intervention target
- Appropriateness for its intended audience

Additional questions addressed how the tool could be disseminated and what it could be named. Finally, participants were asked for feedback on the survey question wording and additional question suggestions, to help inform a later evaluation. The questionnaire consisted of statement rating questions using a Likert scale, and the option to leave additional free-text comments. The questionnaire is available in appendix 4.7.

4.7.3.2 Data collection

The survey collected data on the draft tool over several weeks in November 2016. Participants were given the option to further discuss the tool by telephone if they wished; none opted to do so.

4.7.3.3 Data analysis

The quantitative questionnaire responses were summarised using the chart function within BOS, and exported in PDF format. Free-text qualitative comments were also exported in PDF format, and manually coded. Comments of an explanatory nature given in addition to responses to statement rating questions were analysed alongside the question to which they referred. Comments were assessed individually for whether they were positive, negative or mixed i.e. a comment following a positive rating on the Likert scale was not automatically labelled as positive. Questions solely with free-text space for answers were analysed separately. Each comment suggesting amendments to the tool was discussed with supervisor DC.

4.7.4 Results

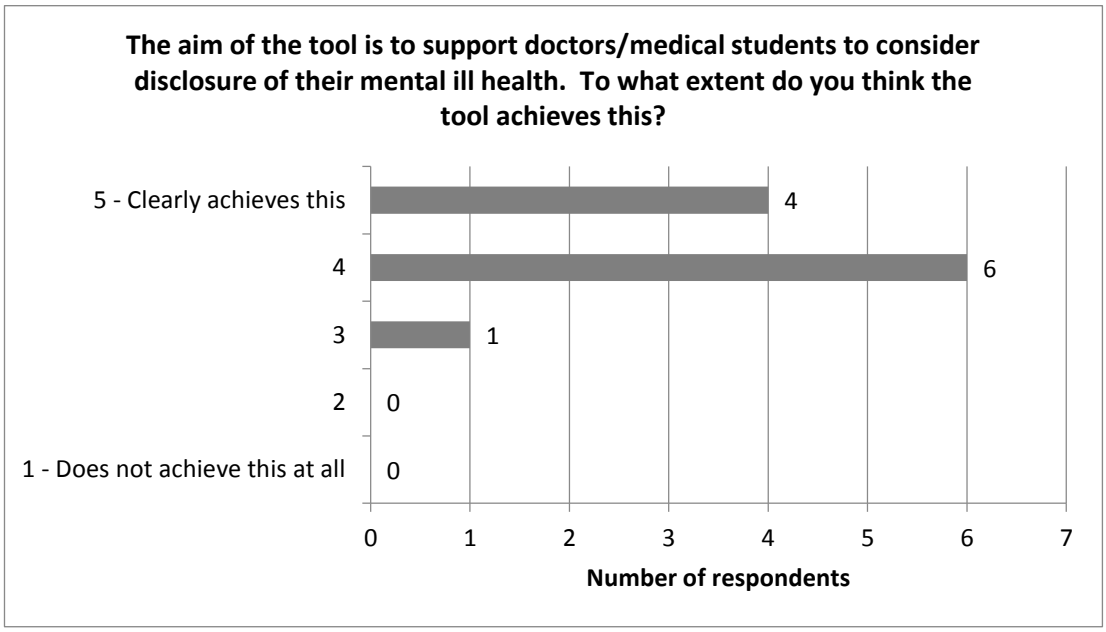
A total of 11 responses were received. Findings for each question are now presented.

4.7.4.1 Question responses

Does the tool achieve its primary aim?

Figure 4.12 shows that 10 respondents agreed (selected 5 or 4 on the scale) that the tool clearly achieves its aim of supporting doctors and medical students to consider disclosure of their mental ill health, with 1 responding neutrally (selected 3 on the scale). None disagreed (selected 1 or 2 on the scale).

Figure 4.12: How far respondents agreed that the tool achieves its primary aim



Free-text comments highlighted positive attributes of the tool. These included a compassionate and non-threatening approach, and accessible format.

"Overall excellent guided reflective system."

"I think it is great that this is in app form – most people have a smartphone and for younger people it is one of the main ways in which they relate to the world."

"Non threatening. Easy to work through."

"I think the tool is great and encourages disclosure in a number of ways. Some of these that impressed me were: the way the questions were asked and the tasks put forward was compassionate, open and not putting any pressure on the student/doctor to achieve a certain objective in a designated amount of time. All the tasks could be completed in a timeframe set by the individual – which will hopefully they (sic) will get into the habit of reflecting about the questions, their emotions and behaviour. And there was a lot of reassurance from the

instructions that no data would be saved or shared through the app, which I can imagine would be a big concern."

"The tool enables users to reflect on their wellbeing and consider whether it is affecting their working life as well as other aspects of their lives. If they feel that their life is being adversely impacted then the tool encourages them to seek further advice and help."

Some comments focused on less positive aspects. An issue raised by one respondent – who responded neutrally to whether the tool achieves its aim - concerned the cognitive demands of the tool:

"I'm not sure whether someone with, say, severe depression would be able to concentrate on the tasks listed in the tool – or whether they would return to complete the assessment."

Another respondent suggested the inclusion of positive case studies of disclosures to provide more guidance.

"Perhaps more guidance on disclosure (e.g. examples of who, how, case studies of people who have done this positively."

Does the tool achieve key outcomes around disclosure?

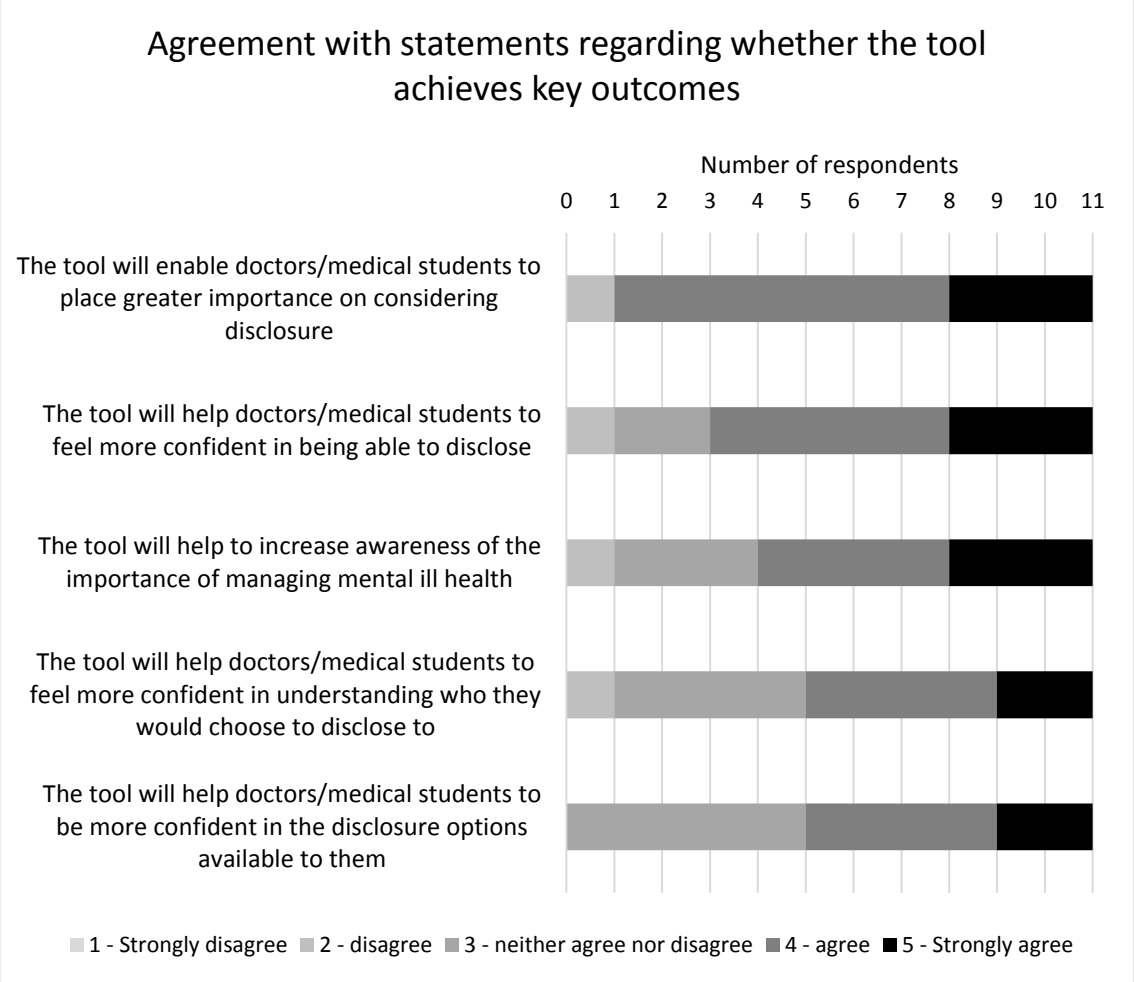
Responses to a series of statements relating to key disclosure outcomes are summarised in figure 4.13. The statement "The tool will enable doctors/medical students to place greater importance on considering disclosure" was agreed with (strongly agree/agree) by 10 out of the 11 respondents.

Most respondents also agreed with the statement "The tool will help doctors/medical students to feel more confident in being able to disclose" (8), and "The tool will help to increase awareness of the importance of managing mental ill health" (7). One respondent made a further comment detailing the proviso with which they agreed:

"Awareness/confidence: agree, if well advertised and endorsed (emphasising confidentiality and no overt link to trusts/universities themselves)."

Fewer respondents agreed that "The tool will help doctors/medical students to feel more confident in understanding who they would choose to disclose to", and "The tool will help doctors/medical students to be more confident in the disclosure options available to them", with 6 respondents agreeing respectively.

Figure 4.13: How far respondents agreed that the tool achieves key outcomes around disclosure.



Free-text comments referring to the five statements about key outcomes highlighted a general desire for more information to be included.

"Who to disclose to: this wasn't exactly clear, a list or examples would be good."

"I am not sure that tool specifically helps explain the disclosure options open to them [sic] I think that the resources section needs to be more detailed or perhaps a simple statement suggesting booking a GP appt [sic] in the first instance."

"Not sure that the tool helps to clarify who you would disclose to – and what would happen if you do?"

"Not sure that the disclosure options are described in sufficient detail."

A further comment demonstrated that the tool doesn't acknowledge the importance of patient safety.

"The tool is specific for doctors but it does not refer to the importance of disclosure for patient safety reasons, although I accept it asks the doctor/student to think about why it would be important for them as individuals."

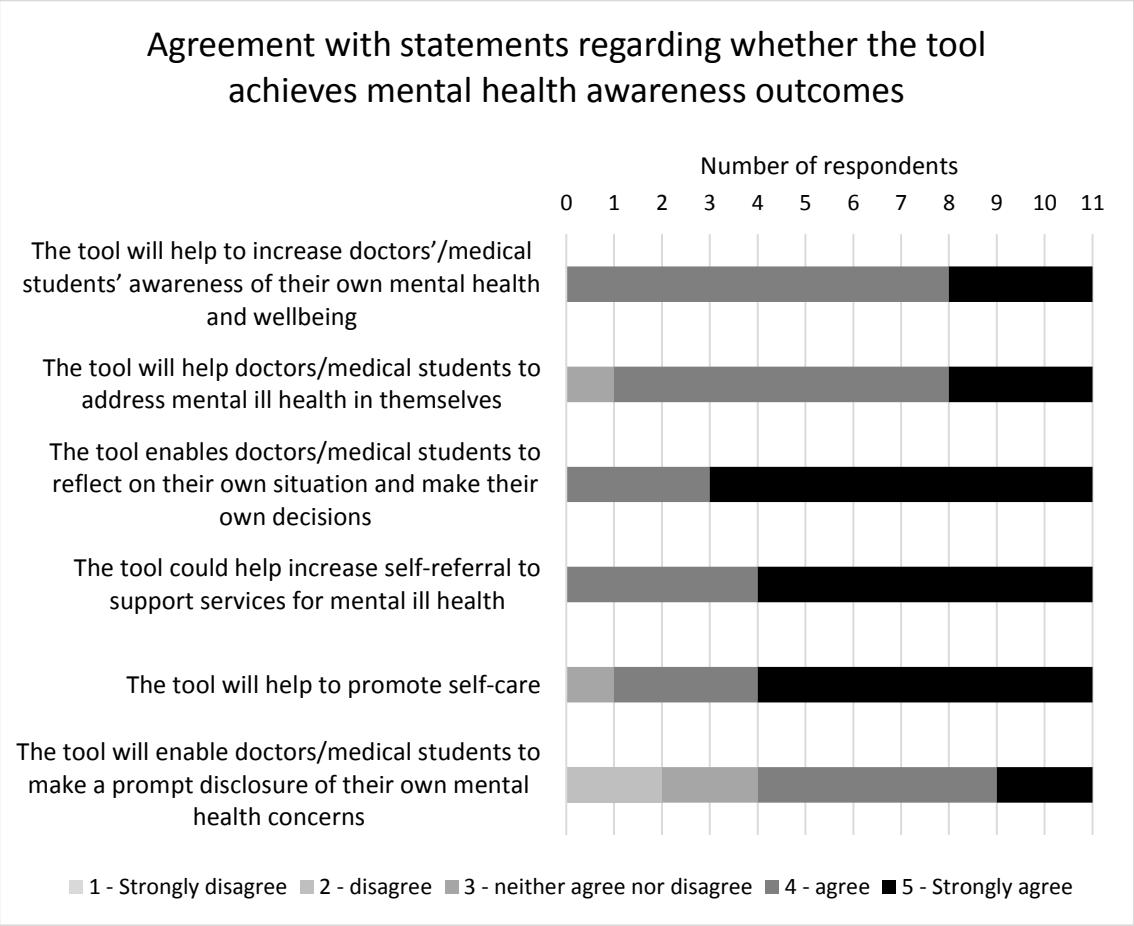
Does the tool achieve key outcomes around mental health awareness?

Responses relating to mental health awareness outcomes are summarised in figure 4.14. All respondents agreed that "the tool will help to increase doctors'/medical students' awareness of their own mental health and wellbeing", and all but one agreed that "the tool will help doctors/medical students to address mental ill health in themselves".

All respondents agreed that the tool "enables doctors/medical students to reflect on their own situation and make their own decisions", and that "the tool could help increase self-referral to support services for mental ill health". All but one agreed that "the tool will help to promote self-care".

For "the tool will enable doctors/medical students to make a prompt disclosure of their own mental health concerns", 2 respondents disagreed, 2 neither agreed/disagreed, and 7 agreed.

Figure 4.14: How far respondents agreed that the tool achieves mental health awareness outcomes.



Free-text comments identified perceived benefits of the tool, such as drawing attention to the importance of well-being, and providing guidance.

"Excellent self-reflective guidance."

"I think the real advantage of the app is that it makes it clear that their well-being is important. The task that links well-being to personal values is particularly good as it really emphasises how important these issues are."

One comment was more cautious:

"There may still be fear and anxiety in prospect of disclosure. This tool goes partially along the route of dispelling these feelings."

A couple of comments queried the purpose of the tool, and raised the issue of insight.

"The tool appears to focus on the need at that particular time to disclose, not on diagnosis or patient safety."

"Any effect on patient safety assumes that the illness was sufficiently serious to impair practice – not sure if this could be assumed. The tool (if completed as instructed) would rely on self-assessment prior to disclosure so the actual disclosure would depend on insight."

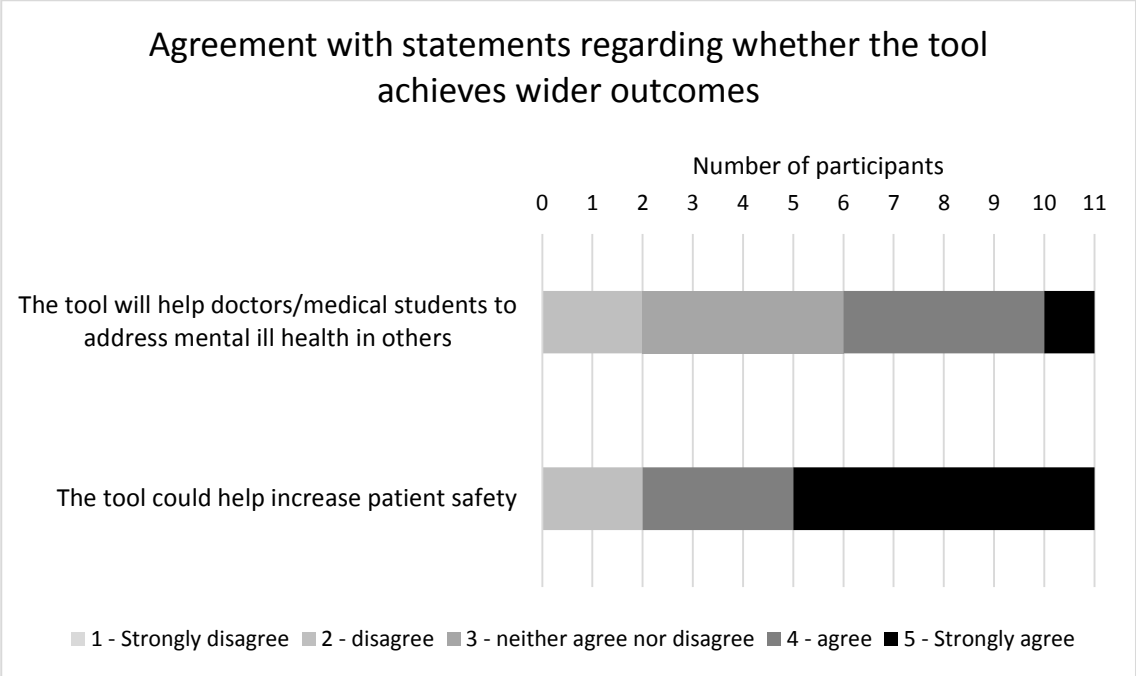
Does the tool achieve wider outcomes?

Figure 4.15 shows responses to two wider outcomes. In response to whether "the tool will help doctors/medical students to address mental ill health in others", 5 respondents agreed, 2 disagreed, and 4 neither agreed/disagreed. One respondent questioned the value of the tool in helping others rather than oneself:

"I am not sure whether the tool will be specifically of help in supporting medics to help others as the questions are very specific to oneself."

Not all respondents felt that "the tool could help increase patient safety"; while 9 agreed, 2 disagreed.

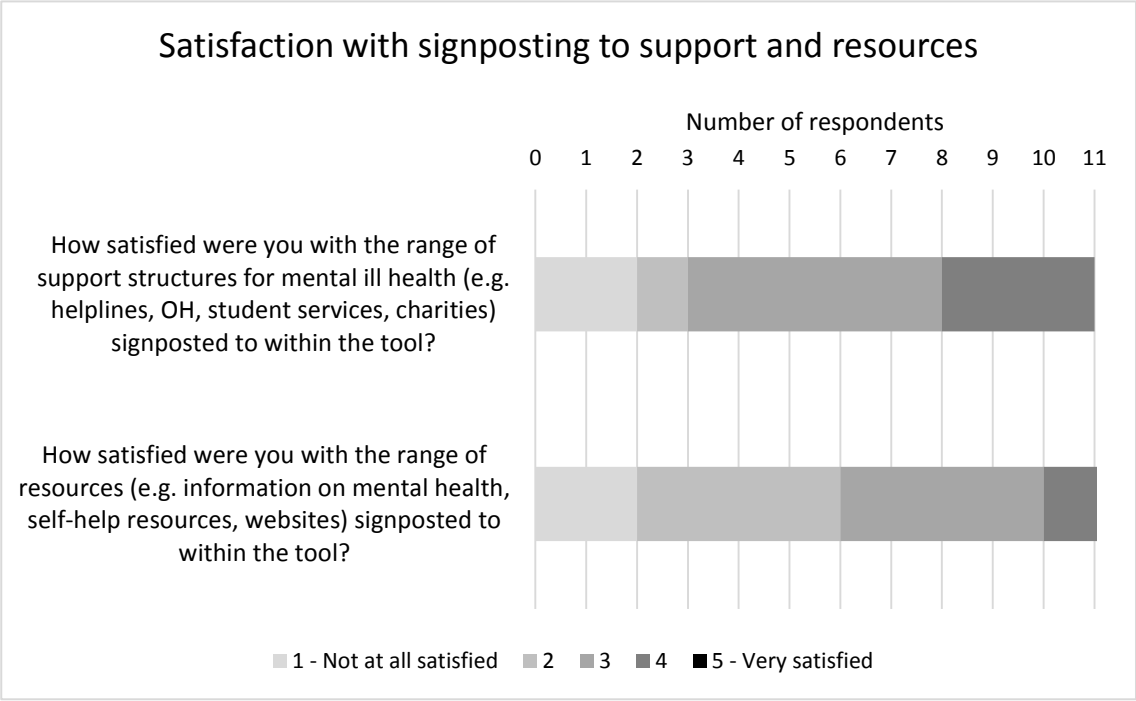
Figure 4.15: How far respondents agreed that the tool achieves wider outcomes.



Support and resources

Respondents showed the greatest levels of dissatisfaction with the range of support structures and resources signposted to in the tool than with any other components. Figure 4.16 shows responses to support and resource signposting.

Figure 4.16: How satisfied respondents were with signposting to support and resources



Satisfaction with the range of support structures for mental ill health signposted to within the tool was expressed by just 3 respondents, with a further 5 stating that they were neither

satisfied nor dissatisfied, and 3 were dissatisfied. The range of resources signposted to in the tool was also not viewed as adequate, with again 3 respondents satisfied, 4 neither satisfied/dissatisfied, and 4 dissatisfied. Further elaboration on the shortcomings of the existing signposting was given in the free-text comments. Respondents felt that support and resources signposting should include further detail and be more visible.

"This may be something that is in process for the tool – for the list of resources, a direct link to each organisation and a short description of what they do/how they might be able to help would encourage doctors/students to access them more."

"Not visible at all and may be better if seen as [sic] the start for those with more serious mental ill health as the toolkit may be too onerous for those who are mentally exhausted."

"Would be helpful to know more about what each offers – maybe that will be added in the final version?"

"I missed the information button the first time around and had to look again – should the tool also direct the user to speak to 'your own registered GP if you have one'?"

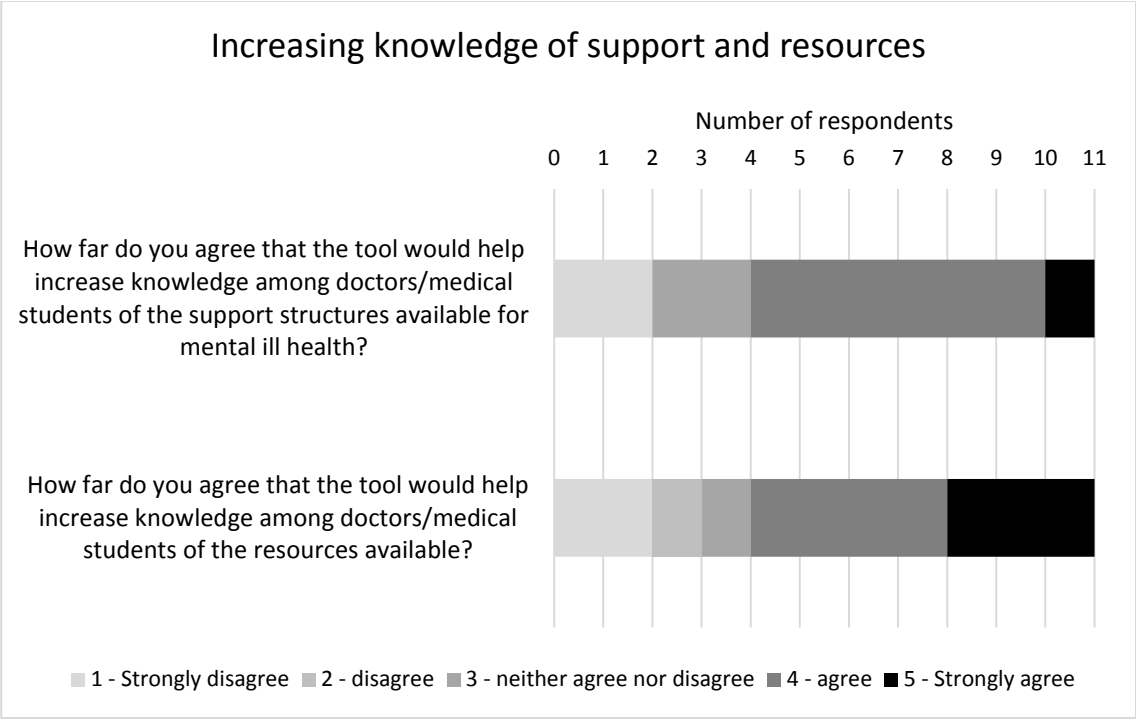
"Definitely scope for more information re: resources and also possibly a link to the GMC page where re: myths that are perpetuated regarding declaring mental health problems."

Respondents were asked to use the free-text space for any omissions of support and information resources to link to. Two suggestions were made: the British Doctors and Dentists Group, and 'generic' health providers e.g. GP, A&E, Samaritans. One respondent commented that including resources within the tool was a positive feature.

"Good to have a resource list built into the app."

Figure 4.17 shows responses relating to whether the tool increases knowledge of support and resources. For "the tool would help increase knowledge among doctors/medical students of the support structures available for mental ill health", 2 respondents disagreed, with 7 agreeing and 2 neither agreeing/disagreeing. For "the tool would help increase knowledge of the resources available"; 7 respondents agreed, 1 neither agreed/disagreed, and 3 disagreed.

Figure 4.17: How far respondents agreed that the tool increases knowledge of support and resources



Free-text comments highlighted positive attributes of the support and resources section.

"Normalises mental health issues. Attempts to reduce stigma."

"The list of support services available itself will assure them that mental health issues are a common problem and they are not alone in seeking help."

"Provided the user clicks on the information button they will have a better idea about the services available."

Other comments focussed on areas for improvement within the section.

"If examples/case studies of people who have followed this advice and to [sic] turned to others for support are included, this would be really good."

"I couldn't see any details on support structures but I assume this is because they would need to be bespoke to the situation the app was being used in? It would definitely be useful to include this."

"Not clear at all."

Some free-text comments reiterated points made for previous questions, with a further suggestion of a 'menu' of support.

"If examples/case studies of people who have followed this advice and turned to others for support are included, this would be really good."

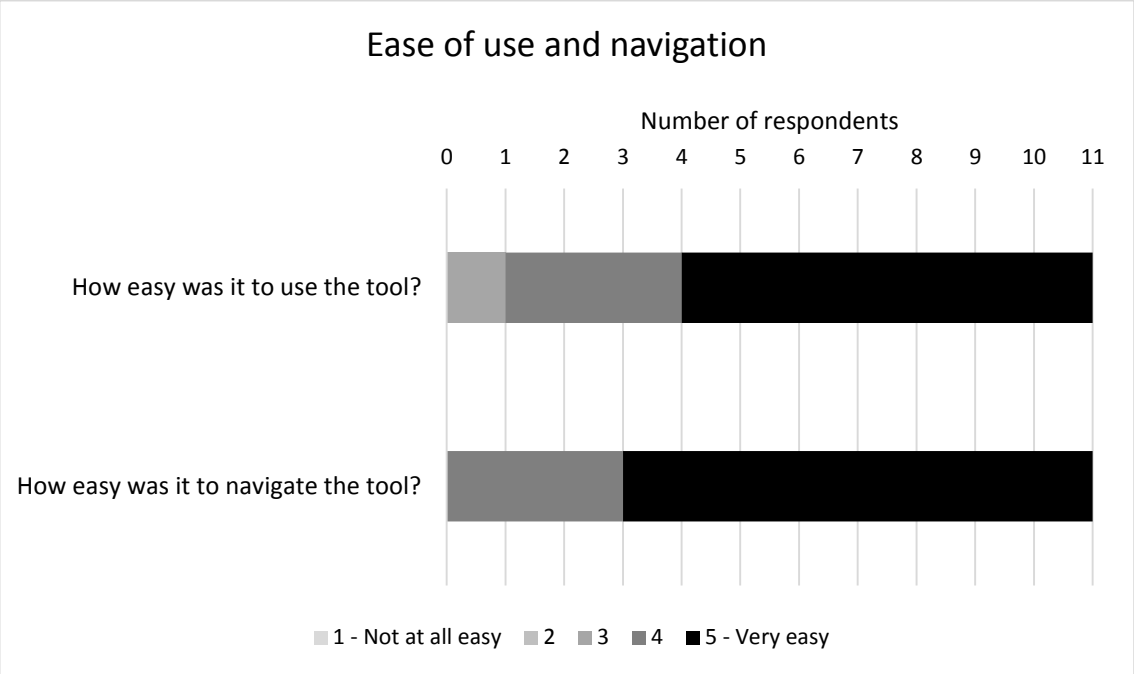
"Give a menu for doctors to choose support they may need."

"It will be a very valuable tool once all the information is collated and easily available."

Accessibility

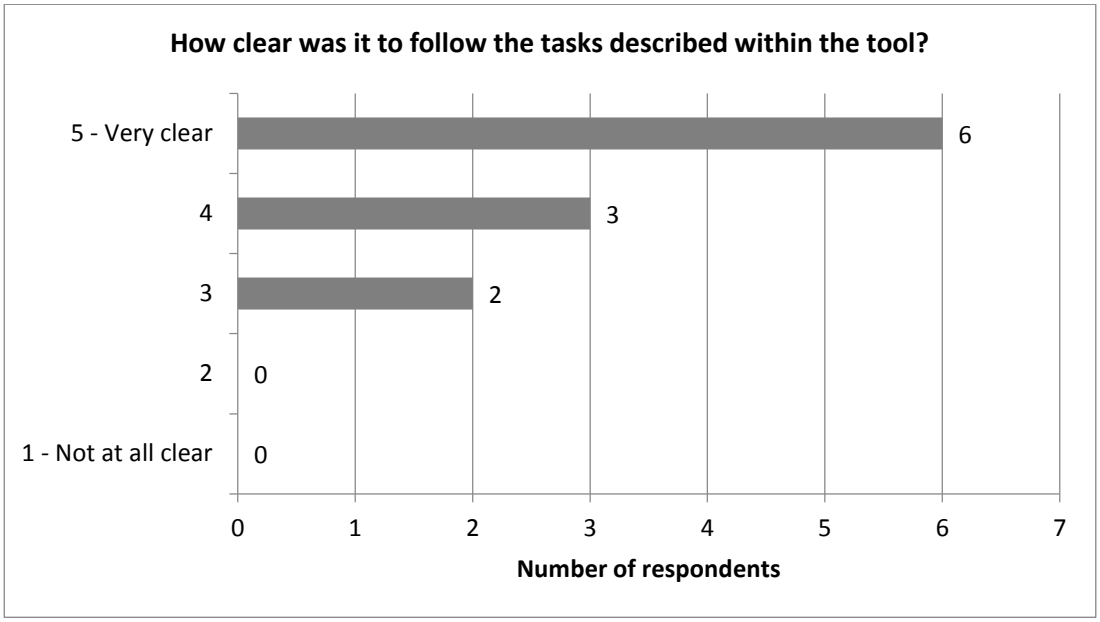
Figure 4.18 shows responses relating to the ease of use and navigation of the tool. Nearly all (10 out of 11) respondents found it easy to use to the tool), and all 11 respondents rated the tool as easy to navigate around.

Figure 4.18: How easy respondents felt use and navigation of the tool was



Clarity of following the tasks was rated as clear by 9 respondents (figure 4.19).

Figure 4.19: How clear respondents found the tasks to follow



Free-text comments relating to accessibility focused on two main areas: content and navigation. Comments on content referred to the language used, the nature of the content (reflective questions, and the written instructions) and how the text was distributed on each page. Comments on the content were largely positive, noting attributes such as clarity of instructions, straightforward language, and the division of the tool into individual tasks.

"Overall, the tone of the writing in the app is really nice, not patronising but not too firm either. This is a really hard thing to get right so I think you have done really well."

"The app is easy to use and I like the way you are asked a question then reflect and then asked the same question again as I think it really encourages insight."

"By dividing into simple, ring-fenced tasks there was complete clarity about the required actions."

"The language was very clear and straightforward."

"All the tasks were easy to follow and the questions were understandable. I imagine reflecting about some of the questions will be difficult for students/doctors, but that's because of the implications of thinking about their feelings and wellbeing rather than the tasks themselves. The tasks were nicely phased and built up to the doctor/student considering their next steps. They also felt empowering rather than taking the individual towards a certain direction, which was the intention stated at the beginning."

However, one respondent noted the implications of the demands of the tool on potential users, and another thought the 'lengthy' instruction could discourage use of the tool.

"The tool asks for a lot of reflective thinking which might be easy [if] not very unwell but harder if very unwell."

"The tasks are clear but may be off-putting due to the lengthy instruction."

Positive comments were made relating to navigation and layout, with respondents noting the clear layout, links to further information, and the ability to pause the tool and return to it later.

"All the pages were clear, simple and easy to follow. The layout itself was also very simple so you could follow through the tasks without any confusion."

"Simple formatting and the style repeats itself which helps to make it user friendly. Also the fact that you can pause and come back to the same point without having to start again is a good idea."

"I like the pause functionality that allows you to take time to think about the task."

"Easy to dip into 'i' for further information and then return to the same page that you left."

Respondents made several suggestions of what would improve the navigation and layout, including numbering pages, altering font size, breaking up larger sections of text, and one respondent identified a technical issue with one of the pages.

"Returning to the tool, if you've logged out, you have to start at page one again."

"Maybe number the questions (page 3, 5 etc.) so that people can keep a track when they are writing them down."

"Accessibility: to add the ability to change colour, background, font size etc. for people with visual dyslexia."

"Visually: page 2 is a lot of text. It is all really well written though. Perhaps the quotes from 'common things medical students and doctors have said to us' could be in speech bubbles or some sort of pictorial format to break the text up a bit?"

"Simple linear navigation, but that means you have to always go from the start even if you are returning to the tool after some time."

"Would be useful to know where you are in the process i.e. how many more pages to go."

4.7.4.2 Free text comments

Two additional free-text response questions were posed at the end of the survey: "Do you have any suggestions for additional questions that should be included in this survey, or any comments on the wording of existing questions?" and "Is there anything else about the tool that you would like to comment on?"

Respondents used both free-text answers boxes to make general comments on the tool, therefore these question responses were grouped together for analysis. Positive feedback included the reassurances of anonymity, and inclusivity of medical students.

"Overall excellent guided reflective system; really great work."

"Really appreciate that the mention of the word 'doctor' is always substantiated with 'and medical students' next to it. It is sometimes hard for medical students but here it's really obvious that they can use this tool too."

"Really like the constant reminders that the app is not publically accessed, no personal data needs to be entered, etc."

The suggested changes included focus on words/phrasing, suggested additional information to include, formatting suggestions, and broader comments on whether the tool is tailored enough for doctors/medical students, and the likelihood of users completing all of the tasks.

"There is a 'first aid' page towards the end of the app in case someone needs immediate help. I feel this should be at the beginning to screen for more urgent mental health problems such as suicidal ideation etc."

"I think in the opening page there needs to be a statement about how common mental health problems are within the medical profession and that it is more common in our profession than in the general population. It also needs to be emphasised that there is help available which is easily accessible and confidential and will not affect your career."

"I think it would be helpful to have more information on what would happen (consequences) if you disclose to a particular type of service and what the level of confidentiality would be."

"Because the app asks people to complete the 'assessment' in stages, is there a danger that they will complete part of the assessment but not return after an interval?"

Other comments included identification of typing errors and duplicate comments. Only one respondent took the opportunity to suggest an additional question to include in the feedback survey:

"How useful have you found this tool and would you recommend it to colleagues who may be struggling at work?"

No respondents commented on survey question wording. Few tool name suggestions were made. One respondent echoed comments that had been made in the focus group on how the word 'disclosure' should not be used as it sounds regulatory rather than about self-care. All name suggestions are shown in figure 4.20.

Figure 4.20: Tool name suggestions

Mind Health
Healthy Minds
On Reflection
Reflect
Medicsupport
Medicmaintenance
Doctorwelfare

4.7.4.3 Results summary

There was consensus that the tool clearly achieves its aim. Respondents also felt that the tool met key and additional outcomes pertaining to mental health. There was less agreement as to whether the tool will help doctors/medical students to address mental ill health in others, or that the tool could help increase patient safety. The tool was found to be easy to use and navigate around, with tasks clear to follow. However, respondents were less satisfied with the resources and support component of the tool than with any other component. Issues raised included the potential cognitive demands and insight required to use the tool, whether it should include more detailed disclosure guidance (e.g. who to disclose to), the importance of disclosing for patient safety, and the need for signposting to support and resources to be highly visible and detailed.

4.7.5 Using the results to inform a final version

The findings from the feedback survey were discussed in depth in a series of meetings with supervisor DC. The draft tool was then subject to amendments. This included simple corrections (e.g. spelling errors), and incorporating suggested revisions. Revisions were made if they met the following criteria:

1. Were in keeping with the overall ethos of the tool (guiding, MI approach, not directive, not diagnostic).
2. Were possible within a web-based version of the tool.
3. Were within the scope of the tool (supporting doctors/medical students in making a disclosure decision).

Some suggested amendments were therefore not made, as it was either not possible to accommodate them within a web-based version of the tool, or the suggestion was outside the scope or ethos of the tool e.g. including information on the importance of patient safety, or reminder notifications by mobile phone to complete tasks. Three types of amendments were made overall. These addressed the content, navigation and layout, and purpose of the tool.

4.7.5.1 Content

Many comments referred to the resources section of the tool, which was incomplete when the tool was sent for review. It was therefore anticipated that the resources section would be substantially reworked, and this was carried out to ensure a much more comprehensive resources section in the final version. This included suggested simple next-steps and a prominent 'SOS' section, as well as expanding the number of resources signposted to and grouping them by type. Full contact details (web address, telephone numbers) and a brief description of what the resources offer were also added. Other amendments to the tool content corrected wording issues, including grammatical and typographical errors.

4.7.5.2 Navigation and layout

Amendments here included adding a drop-down menu, moving page numbers to a more prominent position, and breaking up a large section of text by spreading it over two pages.

4.7.5.3 Tool purpose

There were concerns that doctors/medical students may attempt to use the tool despite having major cognitive impairment, or symptoms that would impact on their decision-making. The text was therefore revised to explicitly signpost users requiring urgent help to appropriate resources.

4.7.5.4 Final web version

All amendments detailed above were made in a new web version of the tool in Wix, creating a final version ready for evaluation. It is available to view at: http://winstanleys.wixsite.com/pilot-version

A step-by-step guide to the tool contents is also available in appendix 4.8.

4.7.6 Summary of final web tool development

This section has described how a draft web tool was further refined into a version ready for evaluation by a wider group of respondents.

The findings from a feedback survey with potential users and experts in physician health provided practical guidance on whether the intervention was likely to be effective in achieving its outcome and its appropriateness for the intended audience. This allowed further refinement and development of the tool from a draft web-version, into a final web-version ready for evaluation.

A discussion of the whole development process described in this chapter follows next.

4.8 Discussion

This chapter describes the development of a web-based tool to support doctors and medical students in deciding whether to speak to someone about their mental health. Development was undertaken collaboratively with expert participants representing both doctors and medical students with mental ill health, and organisations with an interest in doctors' and medical students' mental health. The development followed three stages set out by the MRC, of identifying the evidence base, identifying and developing appropriate theory, and modelling processes and outcomes. The result of following these stages was a clear set of aims and parameters within which to develop the intervention.

The development of the content itself took several steps. The process began with a focus group, from which findings were triangulated with those from the semi-structured interviews. This informed how MI and non-MI based components were selected for inclusion in the tool. A content flowchart set out the order of the components, and from this a paper version of the intervention was created. A draft web-based tool was then created using website building software. Following a review of this web-based tool using a survey, the tool was further refined into a final web-based version. A short summary has followed each of the individual elements in this chapter. The strengths and limitations of the focus group study have already been outlined. This discussion now describes the implications, strengths and limitations of the whole development process.

4.8.1 Strengths and limitations

A strength of the tool development described in this study is that guidelines for developing a complex intervention were followed (Medical Research Council, 2008). This included the use of a wide evidence base to inform the development. Developing a theory-based intervention provides the potential to explore associations between components and effects within the intervention. MI informed the intervention. As noted earlier, it is a *method* for behaviour change. MI was designed to be used in a traditional face-to-face client-practitioner interaction. The intervention does not claim to deliver MI, but does include MI tools and techniques. There are several other methods and theories that could have alternatively been used.

It has been noted that detailed specifications of interventions and individual components are often not provided (Michie et al., 2013), particularly in digital interventions (Michie et al., 2017). A lack of transparency makes many electronic tools difficult, if not impossible, to replicate. The development of this intervention has been reported in step-by-step detail in this chapter.

The content was developed collaboratively with expert participants, representing both organisations relating to physician health, and individual doctors and medical students with

experience of mental ill health. This group of experts participated in a focus group, then reviewed the draft web-tool. The group size was small. The views of group members cannot be generalised to all professionals within physician health, nor is it representative of doctors and medical students with personal experience of mental ill health. Reviewing the draft tool with a small group of participants was the first step in refining it. It was intended following this to invite a wider sample to review the tool, to further inform its development. This would include expanding representation of doctors and medical students with mental ill health. Running additional focus groups over time, would have allowed the opportunity to reflect between groups. This was not possible within the time limitations of this research.

The focus group and web survey aimed to guide development by eliciting participant views, based on their knowledge and experience within the field of physician health. None of the participants were MI practitioners; they were not asked to evaluate how the intervention content was relevant to the theory. Guidance on the MI based components of the tool was provided separately by accredited MI Trainer, supervisor DC. The intervention development would perhaps have benefitted from input from additional MI practitioners. As discussed in chapter 1, some attempts to deliver MI-based interventions electronically have been made. These have tended to mimic a traditional client-practitioner interaction. Two computer-based interventions, one to improve diabetes self-management among US adolescents, and an intervention to increase physical activity among adults in the Netherlands, both used reflections and summaries fed back by avatars or on-screen text (Friederichs et al., 2014; Rajkumar et al., 2015). In contrast, the intervention developed in this chapter was informed by MI but did not attempt to deliver it e.g. rather than presenting reflections and summaries to users, it prompts users to make their own reflections. This was due to concerns over confidentiality suggesting that no data should be inputted by users into the intervention.

Focus group findings suggested an app would be an appropriate intervention format. At the time of developing the intervention, funding was not available for app development. The intervention was therefore built and reviewed in web-format, with a view to developing an app when funding became available. Reviewing a web-based draft tool provided more interactivity than a paper version and a more realistic user experience. A web format still has considerable differences to an app e.g. interacting via a keyboard rather than a touch screen, amount of information displayed on a page. In developing an app from a web-format, design changes might include simplifying navigation and condensing content, as mode of electronic delivery can affect usage and engagement (Morrison et al., 2018).

Participants received detailed advance information, to reduce the potential for feedback on the tool that sought to change its purpose. Despite this, several revisions were suggested that were outside the scope of the tool. Pre-determined criteria were used to exclude such suggestions.

Feedback suggested considerable development of the resource component was required. Further concerns were raised about the tool's suitability for those currently experiencing severe mental ill health, due to the potential cognitive demands required to use it. This issue was addressed in developing the final web-version by including a clear statement on the tool's homepage. There remain further implications for how the tool is 'marketed'. Promotion will require carefully considered language, and key messages.

1.1.1 Conclusion

This chapter has described the development of an intervention to support disclosure decision-making among doctors and medical students about their own mental ill health.

The development process was detailed step-by-step. The intervention has been created in a web-based format. Further development and evaluation will address several issues.

This was one stage of an ongoing process of development. An evaluation study of this final web-version is discussed in chapter 5. Following that, further development and evaluation will be required as described in the MRC guidelines, reaching beyond the scope of this thesis.

Chapter 5: Tool Evaluation

5.1 Introduction and rationale

Chapter 4 detailed how a web-based decision support tool was developed using a wide evidence base, including qualitative interviews with doctors and medical students with mental ill health (chapter 3), a structured review of the literature on doctors' and medical students' disclosure of mental ill health (chapter 2) and consideration of appropriate theory (chapter 1). The tool was developed from a paper version to a draft web-based version. This was refined into a final web-based version in consultation with a group of experts in the field of physician health, including representatives of potential users.

This chapter describes an evaluation of the final web-based decision support tool. The results are discussed in the context of how they informed the development of an app version (outside the scope of this thesis) that will be subject to further evaluation.

5.2 Aim

The aim of this study was to evaluate the web-based decision support tool, by assessing acceptability of the intervention with a wider group of participants. This would inform the next development stage of creating an app for mobile devices. This study therefore remains part of the development process. Creating an app for mobile devices and evaluating it was not possible to complete within the funding and timescale available for this thesis.

This evaluation provided an opportunity to address issues identified in the development work. Four main areas were explored:

- General views on the tool
- Perceptions of how the tool meets key outcomes
- Accessibility, usability and content validity
- How the tool could be signposted to users

5.3 Method

The web-based decision support tool was evaluated between January and March 2017 with a range of potential users (doctors and medical students), individuals in the field of physician health, and allied health professions. Participants were asked to review the web-based decision support tool described in chapter 4 (appendix 4.8). Feedback was collected via an online survey, which included multiple-choice questions as well as inviting free-text comments.

5.3.1 Sampling

The opinions of a broad range of individuals were sought. Participants from the following categories were recruited:

- Doctors (any grade)
- Medical students
- Allied health professionals
- Staff that might support doctors and/or medical students
- Professionals with an interest in physician health

There was no prerequisite for doctors or medical students to have had personal experience of mental ill health. However, it was envisaged that some participants would have personal experience of mental ill health, due to the types of organisations (e.g. doctor mental health charities) that were asked to disseminate the invitation to take part. Allied health professionals (e.g. veterinary surgeons) were included due to interest through professional networking that the web-based decision support tool could potentially be adapted for other professions allied to medicine.

A sample size calculation was not carried out. The study was primarily conducted to assess accessibility, content validity and usability. It did not aim to test hypotheses or make effect size estimates for subsequent studies. It was considered reasonable within the time constraints to aim for a minimum of 30 completed surveys.

5.3.2 Recruitment

Participants were recruited in two ways:

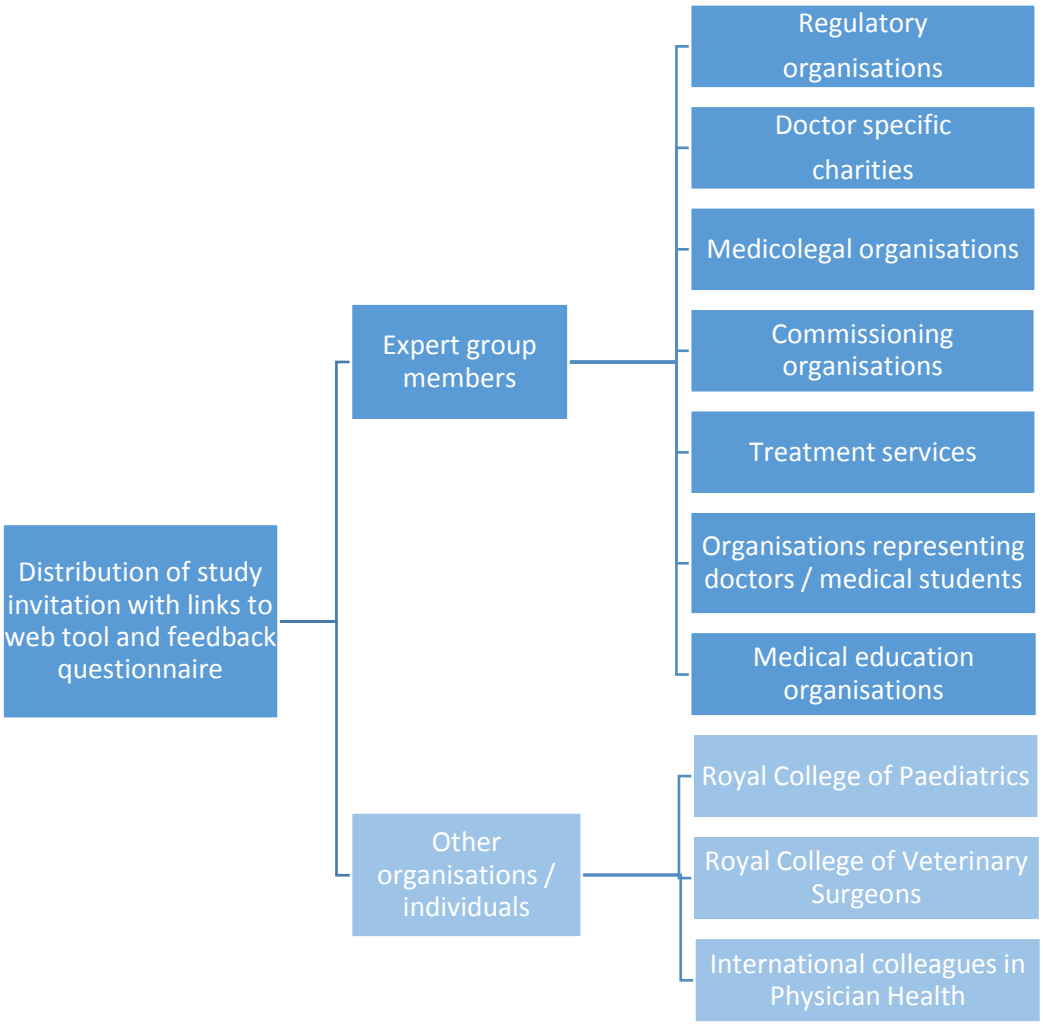
1. Through the organisations represented by members of the focus group (chapter 4).
2. Through additional organisations that expressed an interest in the tool.

A study invitation was prepared (appendix 5.1). It included a summary of the study, a link to the tool, and a link to the online survey. The invitation stipulated that a continuing professional development (CPD) certificate would be issued to participants on request.

Participants from the focus group (chapter 4) were emailed the invitation to disseminate on behalf of Cardiff University. They were asked to contact members of their organisations using the regular and usual methods of dissemination to their members or colleagues. This included presenting the invitation at meetings, forwarding it by email, and including the invitation in electronic newsletters. The type of participant each organisation could access was dependent on the nature of the organisation e.g. charities were able to recruit doctors with personal experience of mental ill health.

An invitation to participate in the study was further disseminated through presentations at conferences and meetings. Initially, it was planned to evaluate the tool only through participants from the focus group and the organisations which they represented. However, interest was expressed in the tool by members of other organisations not represented by the group, e.g. Royal Medical Colleges. This was through professional networking at events such as conferences. Interest was also expressed by individuals from organisations in allied health fields e.g. Royal College of Veterinary Surgeons. Some of the organisations hosting the meetings and conferences also emailed their delegates or members after the event with details of the study. Existing contacts from other countries within the field of physician health were also invited to take part to add an international perspective. Figure 5.1 provides an overview of the recruitment process.

Figure 5.1: Study recruitment strategy



5.3.3 Questionnaire

A short questionnaire was developed (appendix 5.2). It included rating statements using a Likert scale, and free-text questions. The questionnaire was informed by the original questionnaire used to review the draft web-based tool. It was further refined; items were re-ordered and re-worded, with some items removed and new items added. This process yielded a new questionnaire specifically for this evaluation. It used both statement rating questions and free-text options. In summary, questions covered the following areas:

- General views on the tool
- How far the tool met key outcomes
- Accessibility, usability and content validity
- How the tool could be signposted to users
- Suggestions on what the tool could be called
- Whether the participant would recommend the tool

Two different versions of the questionnaire were created, one for those participants recruited through members of the expert group, and another for those participants recruited by other methods. The only difference in versions was an additional item in the latter version to capture the job title or field of the respondents. This was to enable later comparisons between responses from those in medicine, and those in other health fields (e.g. veterinary medicine).

5.3.4 Data collection

The survey was hosted in Bristol Online Survey (BOS). A 3 month timeframe was allowed, from mid-January to mid-April 2017.

5.3.5 Ethical considerations

5.3.5.1 Ethical approval

As mentioned in chapter 4, ethical approval for the tool development was granted by the Cardiff University School of Medicine Research Ethics (Reference number: SMREC 13/43). Two amendments were later applied for. The first amendment was to approach individuals and organisations outside of the expert panel that had expressed interest in the research. The second amendment was to include the study information sheet and consent form as the first page of the web-based tool, rather than having them as separate documents. Both amendments were approved. The wording of the web-based tool was given ethical approval by the Cardiff University School of Medicine Ethics Committee (SMREC ref: 16/21) in December 2016.

5.3.5.2 Consent

The first page of the web-based tool was amended (with ethical approval) to include the study information sheet and consent. By clicking the 'Next' button to view the first page of the tool,

participants were agreeing to the consent conditions laid out. The information sheet and consent form are available in appendix 5.3.

5.3.6 Data analysis

Within the survey software (BOS), bar charts presenting the data were generated. These were then exported in PDF format. Qualitative free-text comments were exported in PDF format and manually coded. Comments of an explanatory nature given in addition to responses to statement rating questions were analysed alongside the question to which they referred. Comments were assessed individually for whether they were positive, negative or mixed i.e. a comment following a positive rating on the Likert scale was not automatically labelled as positive. Questions solely with free-text space for answers were looked at separately.

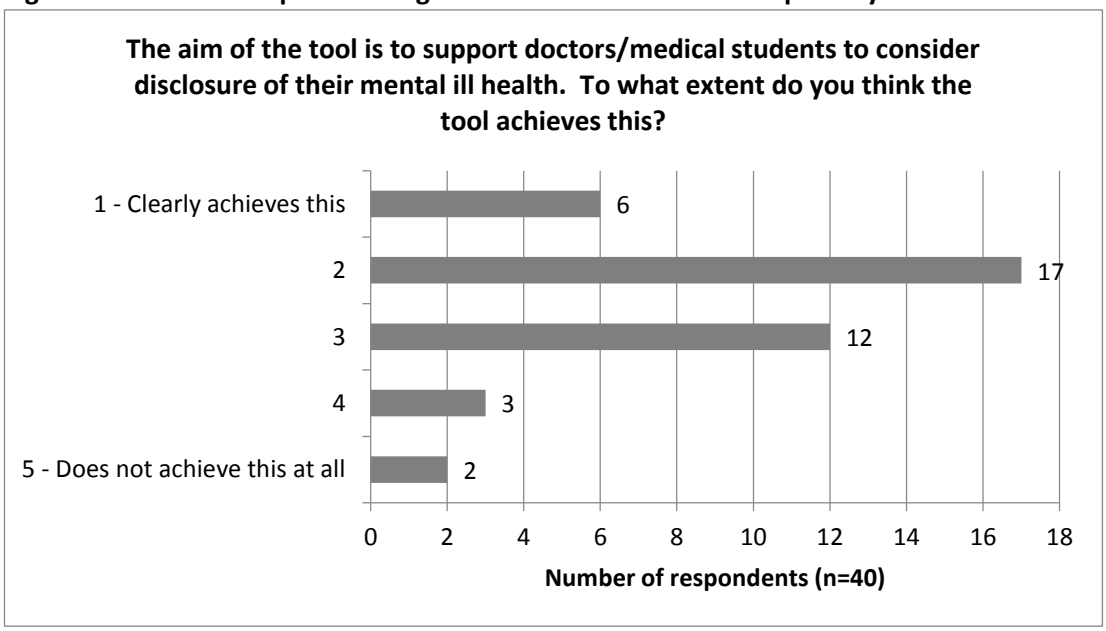
5.4 Results

40 responses were received. 34 responded to the first version for those within medicine. 6 respondents completed the version tailored for other professions. One of these respondents was a qualified vet, with others being doctors, or involved in student welfare. Due to the small sample size of the second questionnaire, the findings presented in this section combine data from the two feedback questionnaires. Findings are presented throughout using the number of respondents rather than percentages.

5.4.1 Does the tool achieve its primary aim?

Over half (23) of respondents agreed (selected 1 or 2 on the scale) that the tool achieves its primary aim. 5 respondents disagreed (selected 4 or 5 on the scale) and 12 responded neutrally (selected 3 on the scale). Figure 5.2 shows the responses.

Figure 5.2: How far respondents agree that the tool achieves its primary aim



Free text comments gave respondents the opportunity to explain their rating. Many comments were general rather than specifically answering the question. Some positive attributes of the tool were highlighted, including that it's comprehensive, provides structure, and allows the user to set their own pace.

"Comprehensive tool. Gentle approach."

"Provides a structure to insight around the issues affecting the doctor and the barriers to working with the issues."

"Good reflective app and good use of pros and cons and practical steps to think through disclosure."

"It has a clear aim and follows this throughout the pages, without being pushy."

"Prompts user of tool to consider pros and cons of disclosure in a non-threatening way."

"Prompts throughout to continually reflect on mental health. Having different sections guiding the user through from recognising something is wrong to thinking about who to talk to, provides the user [with] a structured approach which they can follow at their own pace and are more likely to engage with. And ultimately consider disclosing their mental ill health and seeking help."

"Very clear structure, the emphasis of safety and giving time for reflection is essential."

Further comments expressed mixed feelings about what the tool achieved, with some strengths of the tool highlighted alongside respondents' reservations about what it could achieve and/or suggestions about how it could be improved.

"It will make them think about why they may be feeling the way they are (conflict with their core values) but I'm not sure it will help them decide about speaking to someone. They may feel they have a better understanding of why they feel like they do and feel they don't need to speak to anyone, or they may feel better equipped to speak to someone because they have a better understanding of the problem."

"As someone who has known the difficulty in recognising your own mental illness I am concerned that however calmly and unjudgementally [sic] the questions are put I would not have been able to concentrate on the questions. Here the options of having time to consider and return are beneficial."

"I think it does make people think seriously about disclosure however those using the tool will already be thinking about this and so will just crystallise most people's opinion to seek help."

"It did achieve this, but to me it wasn't clear that [it] was specifically about mental health."

"I felt that the app made them think about their mental state but not actually really encourage them to disclose."

"I think it is a good tool. I was wondering – if the student/doctor is not into thinking about links between values (and differing between professional and core values) it might be a bit difficult to grasp these questions."

Some comments expressed misgivings about whether the tool achieved its aim, or identified issues that would affect how the tool achieved it. This included the tone of the language within the tool, and the length of the tool and whether doctors with mental health issues are best placed to make decisions at all.

"Not sure that drs [sic] with mental health issues are best placed to make the decisions"

"Doesn't address what barriers people might have."

"It didn't seem terribly encouraging or reassuring."

"If you are stressed with mental health problems – the tool involves too much time and effort. You just wouldn't bother it would stress you more."

"I found the app had a lot of questions. They were repetitive and difficult to concentrate on."

"It does not address fears around shame stigma and GMC (as highlighted for example in Daksha Emson inquiry). I would have like to see some psychoed. [sic] on these topics."

"There's so much writing and thinking involved! When I was depressed, this kind of multiple line questioning and instructions would've felt overwhelming. I'm not sure every doctors knows what 'core values' are – example lists or a link to the comprehensive list might help. There is a huge quantity of text and 'do this, do that' with no clear message about why/what benefits that might bring. The tone is quite hectoring/controlling."

"Possibly the language seems more encouraging of not disclosing."

"It does not help the individual to decide whether they are mentally ill, so they may not think there is something to disclose."

"Difficult to evaluate someone's thought process. My concern would be that the tool is entirely self evaluating and therefore it is possible that a person would simply go round in circles due to flawed thinking."

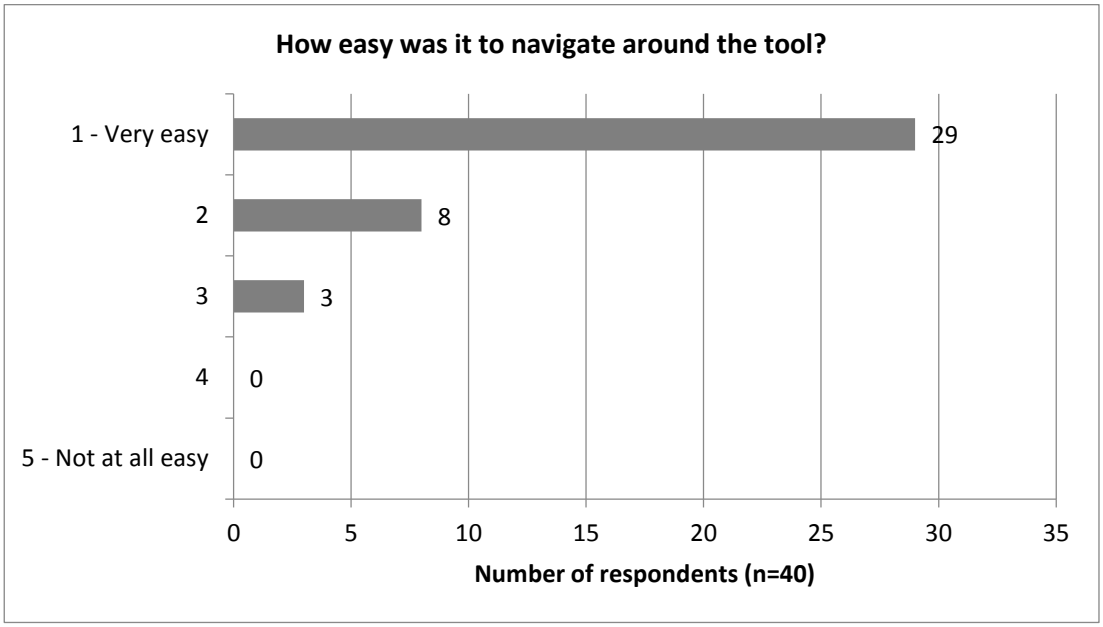
"There is nothing to encourage the doctor or student to seek help not only for their own benefit but also to help the patients they are caring for."

"I do not think the app in its current form is sufficiently well thought out to keep users engaged to the end. Therefore, I think it might aid some users but not all."

5.4.2 Is the tool accessible?

Respondents answered two questions focused on accessibility issues; ease of navigation, and clarity of tasks. Nearly all respondents (37) rated the tool as easy to navigate (1 or 2 on the scale), with 3 responding neutrally, and none rating it as not easy (figure 5.3).

Figure 5.3: How easy respondents found the tool to navigate



The positive reaction to the ease of navigation was further accentuated in the free-text comments, with comments also praising the visual layout, and option to pause the tool and return later.

"Couldn't be made more clear. I did the tool on my android phone."

"Forward button and back button. Very little to get wrong."

"It was easy to use."

"The tool is ordered logically and coherently, and the repetition of certain processes aids the flow."

"Well designed. Good to have the option of pausing and coming back. Important to repeat this on each page, as done."

"Visually clear."

In addition to the positive comments, some were made that suggested further improvements. It was apparent that having a progress indicator in the drop-down task menu (as added since the initial draft) was not sufficiently visible. Some respondents had only explored the tool in a linear manner and had not perhaps noticed the drop-down menu.

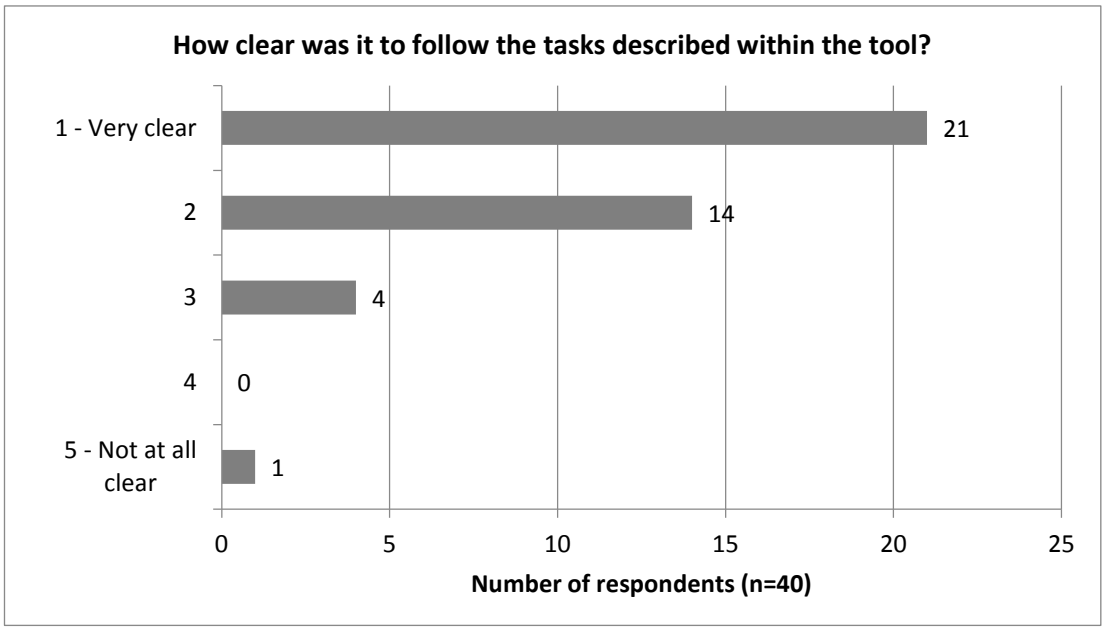
"The only other thing that would be helpful is as well as having a page number on each page say what it is out of e.g. pg 1/15, so the user knows how far along they are without having to go into the task menu."

"It was straightforward - occasional longer pause - uncertain if it was progressing. Could do with a progress bar to help you know how many more Qs."

"It seemed fairly linear. I did wonder if it was possible to jump back and forth and whether there would be any value in it."

Looking next at the clarity of following the tasks within the tool, most respondents (35) rated this as clear (figure 5.4), with 4 responding neutrally and only 1 respondent rating it as 'not at all clear'.

Figure 5.4: How clear respondents felt it was to follow the tasks described within the tool



The free-text comments elaborated on these ratings. Positive comments detailed what aspects of the tasks made them clear to follow. These focused on the language and clarity of the instructions.

"Tasks are worded well and are straightforward. The list of values is helpful."

"I had a clear picture of what was required at each step."

"I found the instructions easy to understand what I was expected to do at each stage."

"A good pedagogic approach. I like the language which aligns with the invitation to reflection, use of time and also normalizing thinking about these issues."

Some comments were mixed, or commented on a perceived negative aspect of the tool. This included the observation that there was a lot of text. Suggested improvements included having a prompt to complete the observation diary, and a way of a score being calculated. One comment queried how MI was used.

"Clear instructions, clearly worded, although the week task of observation may be harder to accomplish and there may be value in thinking is a week too long, is it necessary to have some prompt for example to ensure remains [sic] on target?"

"Maybe use a scale that calculates the score instead of them writing one down? Otherwise very useful content."

"Being aware of the principles of motivational interviewing, I understood what the app was trying to achieve, but I am not convinced the app writer understands how to use motivational interviewing for behavioural change."

"A lot of people with mental illnesses may struggle to concentrate on reading for that long. The tool was very wordy."

5.4.3 Does the tool achieve key outcomes around disclosure?

Figure 5.5 shows how far respondents agreed with 6 statements about whether the tool achieves key outcomes around disclosure.

5.4.3.1 Confidence in disclosing/who to disclose to

The statement "The tool will help doctors/medical students to feel more confident in being able to disclose" had a mixed response. Whilst exactly half (20) of respondents agreed (either strongly agreed or agreed) with the statement, 15 neither agreed/disagreed, and 5 disagreed.

The statement "The tool will help doctors/medical students to feel more confident in deciding who they would choose to disclose to" also had a mixed response. Whilst 21 respondents agreed (either strongly agreed/agreed) with the statement, 16 neither agreed/disagreed, and 3 disagreed.

Free-text comments given in response to these two statements highlighted both positive and negative perceptions. Positive aspects of the tool included increasing confidence and enabling realistic thinking.

"Yes - I think it may help to increase confidence by means of helping someone to organise how they are feeling into a way that may feel easier to explain to somebody else."

"I like the prompting to consider why the score wasn't lower each time and what it would take to make it higher. Makes you think about the past and what you have to gain or lose in a more realistic fashion."

Some reservations were evident. These included a repetition of concern about the length of the tool, its cognitive burden and its suitability for those with a greater severity of mental ill health, despite the addition of a message to the 'homepage' explaining that the app is not suited to those in urgent need. Comments also focussed on how the tool provided useful reflection but potentially may not assist the detail of disclosure decisions e.g. who to disclose to. Some comments were made questioning the approach of a self-reflection app.

"Gets people thinking about it, but I worry it's too long and a bit complex for more serious cases. Might be off putting."

"I think it's all too lengthy. I'm not sure someone in a poor state of mind wouldn't find it really traumatic to have to work alone through this. I worry that apps etc. are being used as a substitute for human contact & compassion. What if someone works through this, clearly needs help, but decides they don't?"

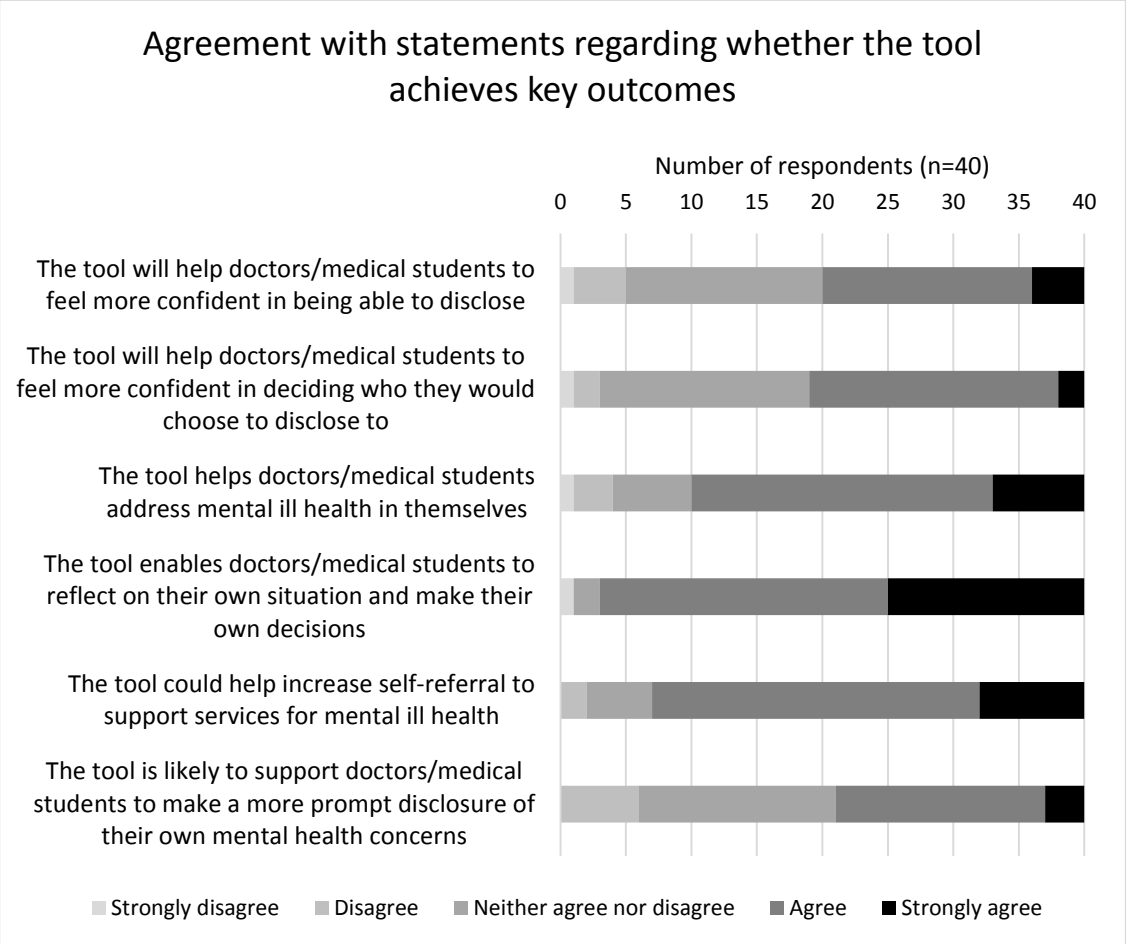
"It is an interesting and helpful process to go through and to help the user to think about their values and how these might be affected in their professional (and personal) life but I am not sure it will help them with disclosing or knowing who to speak to."

"I don't feel that the app encouraged me to disclose to anyone, rather made me assess my mental state and be aware of where I am."

"What I am missing is some more guidance on what qualities you might look for in someone you disclose to. Questions along the lines of 'Who is a good listener / who has experienced something similar / who do you trust etc.' "

"I think the app is unlikely to make users more confident in disclosing their issues, since it provides no real feedback on any of the exercises involved. There needs to be some form of feedback in order to make the exercises meaningful. I do not think there is sufficient information for users to decide specifically who they would disclose their issues to."

Figure 5.5: How the tool achieves key outcomes around disclosure



5.4.3.2 Supporting decision-making

The statement "The tool helps doctors/medical students address mental ill health in themselves" had a mainly positive response. Three-quarters (30) of respondents agreed (either strongly agreed or agreed) with the statement. 6 neither agreed/disagreed, and 4 disagreed.

Many respondents (37) agreed (either strongly agreed or agreed) with the statement "The tool enables doctors/medical students to reflect on their own situation and make their own decisions". Only 2 neither agreed/disagreed, and 1 disagreed.

In terms of how far respondents agreed with the statement "The tool could help increase self-referral to support services for mental ill health", over three-quarters agreed (33). 5 neither agreed/disagreed, and 2 disagreed.

The statement "The tool is likely to support doctors/medical students to make a more prompt disclosure of their own mental health concerns" received a more mixed response. Whilst 19 agreed, 15 neither agreed/disagreed, and 6 disagreed.

Free-text responses included positive comments around how the tool supports decision autonomy.

"I think the tool is most helpful in getting the user to think about their mental health and what might be affecting it and this recognition may help them address it."

"Aid seems to be most effective at supporting reflections on the barriers to disclosure."

Some comments raised concerns about available help, and reiterated the issue of whether a self-reflection based tool can encourage disclosure.

"I think that, quite rightly, people will still be guarded. The treatment we receive is not always helpful or fair. The system needs to change too. As in, as someone who has disclosed and would encourage others too, am not sure I have been helped by doing so in the past. So while I think this is a great app it addresses only half of the problem."

"I do think it helps students reflect on their own mental health but does not encourage disclosure."

"The tool is currently just a self-reflection device. This may work for some, but reflection is not going to work for everybody. It may make some decide to see help more quickly, but I don't think it will for the majority."

Other concerns included the type of doctors or medical students that might use the tool, a repetition of concern over the time and effort the tool takes to use, and the need for further evaluation.

"Self-selecting. Those using this tool might have been more inclined to disclose anyway."

"The doc or medical student needs to be very motivated to do this tool, with stress and mental health problems this tool would be too daunting to attempt."

"It is of course important to pilot this tool among doctors/medical students to see what they think about this. Could there be differences between students and doctors?"

Comments also highlighted components that respondents would like to see added to the tool, such as self-management of mental ill health, the opportunity to provide expert guidance on signs and symptoms of mental ill health, or cognitive behavioural therapy (CBT) techniques.

"I don't think the app even touches on self-management of mental health problems. I don't think it reassures people of the implications of doing so."

"I would have liked to see a more expert stance giving information on depression signs and anxiety signs and burnout signs."

"The tool to some extent presupposes a rational and logical approach to disclosure. Stigma, shame and fear are not rational. Maybe include techniques from cbt? Maybe asking people to what degree they are worried about what others might think - and then ask them to list what proof they have and to reassess their score. Also maybe asking people to reflect on what is the worst and best that could happen with disclosure and how would they handle that situation?"

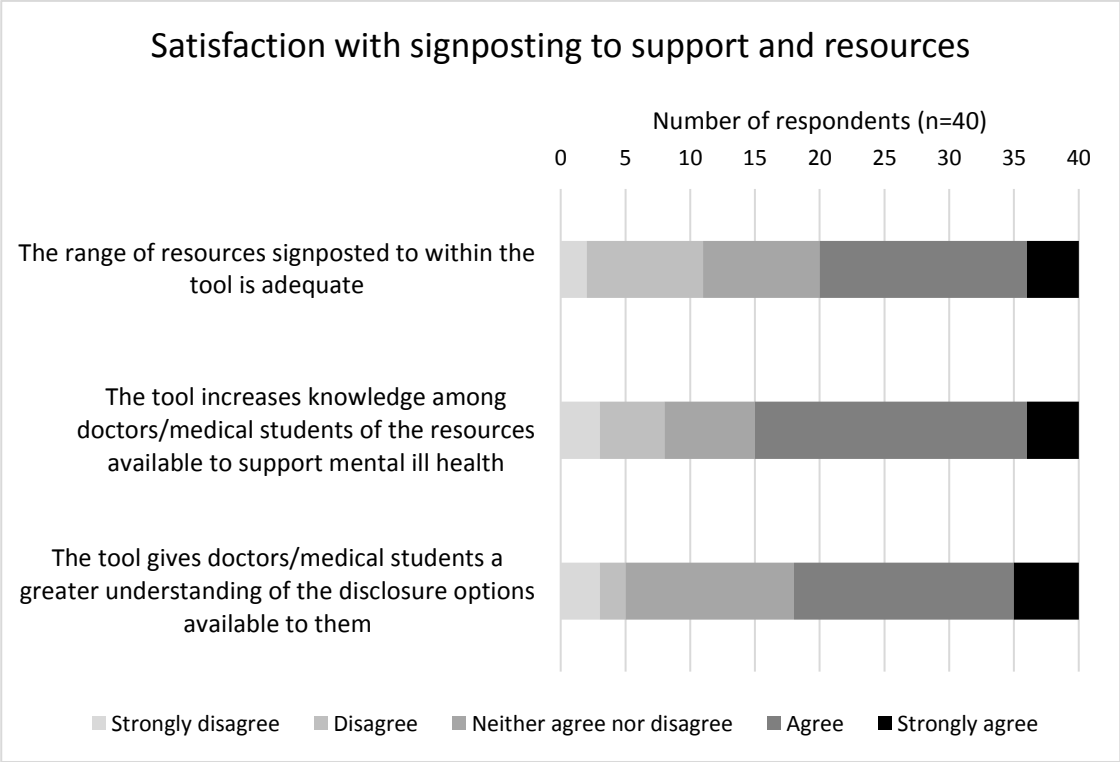
5.4.4 Signposting to resources

Responses to statements regarding signposting to resources is shown in figure 5.6. The statement "The range of resources signposted to within the tool is adequate", was agreed with by half of (20) respondents, with 9 neither agreeing/disagreeing, and 11 disagreeing.

The second statement, "The tool increases knowledge among doctors/medical students of the resources available to support mental ill health" was agreed with by over half of respondents (25). 7 neither agreed/disagreed, and 8 disagreed.

For the final statement on resources, "The tool gives doctors/medical students a greater understanding of the disclosure options available to them" was again agreed with by over half of respondents (22). 13 neither agreed/disagreed, and 5 disagreed.

Figure 5.6: Satisfaction with signposting within the tool



Some issues regarding the resources signposted to by the tool were raised in the free-text comments. All comments here made a suggestion to improve the resources, or highlighted a concern. The first issue was the visibility and placement of the resources.

"The resources took some finding - as a drop down list at the top. I missed them entirely on my first pass."

"It might be good to put the range of resources on the final page so people have to click through them rather than having it in the 'extra info' icon."

"Samaritans and numbers should be available on every page."

"The range of signposted resources is adequate. However, the key resources need to be integrated into the text, with more information about who should be contacted in each situation. Fewer resources should be contained in the 'I' popup, as putting them their[sic] makes them feel less important."

Secondly, comments focused on the range of resources included within the tool. Respondents highlighted what they viewed as omissions, suggesting specific services to add (e.g. NHS Direct, private counsellors, charities) or information on symptoms.

"Was good, could contain more local information though"

"Resources - there needs to be links to websites such as Mind and services such as iTalk. Disclosure options - it would be useful to have a list of potential people to speak to, rather than expecting the user to come up with a solution. If you're mentally ill, it's very difficult to think straight."

"I would like to see more resources and preferably some that are within the app itself. Things like definitions, a brief list of signs to watch out for and a discussion about stigma and how it sabotages people might be useful."

A couple of comments focused on whether the resources section achieved its aim of increasing knowledge of resources and support.

"Rather than increasing knowledge of resources / disclosure options, I feel that the tool provides a pathway for someone to better understand their current mental state, and perhaps why they are feeling a particular way, which in turn is helpful in helping someone decide what type / level of help might be required at that particular moment."

Finally, some general concerns were again reiterated about the approach of the tool.

"In principle a good idea and I want to like it, but I remain unconvinced this is the way forward."

"There is nothing obvious written to reassure Drs and students that seeking help is in their best interests and that many colleagues have mental health problems and do well with support, they need to be reassured that it is the right thing to do if they are struggling."

5.4.5 Would respondents recommend the tool?

Respondents were asked if they would recommend the tool, with a simple yes/no response option. Just under three-quarters (29) of respondents said that they would recommend the tool, with just over a quarter (11) disagreeing.

Free-text comments were made regarding whether respondents would recommend the tool or not. Positive comments made included references to the self-reflection nature of the tool.

"I think I would recommend a friend taking a look at it to see if it is helpful."

"I think it is a good tailored CBT-type tool."

"Excellent tool. Easy to use. Good signposting and links to resources. Prompts reflection and recognition of ill health. Allows an individualised approach to ill health."

"It gets people thinking which is usually good."

The majority of comments made, however, either made suggestions for how the tool could be improved, or raised concerns or doubts. Suggested improvements related to the content of the tool, such as additional information that could be included, the use of self-report scales, storing user responses within the tool, and simplifying the content.

"Need to have more about GMC rules, barriers people face, where to go for help, seeking out an executive career coach or medical care if more serious."

"Needs to be more basic. Multicoloured. Flow diagrams."

"I have experience of mental illness. There is no way a mentally ill person could complete the tasks in the app. It needs to be far simpler and less reflective. I know it's "old hat" but something like Beck's depression inventory plus appropriate screening questions for eating disorders, bipolar illness, schizophrenia, drug and alcohol misuse etc. would be more appropriate, followed by a list of places to obtain help."

"More work needs to be done to convey the importance of what the tool aims to do to the user i.e. to draw them in and make them think using the tool will help them. I also think there need to be reply text boxes following all of the questions asked in the tool. This I think would help with user engagement and retain users until they reach the end."

Comments voicing doubt about recommending the tool were also made.

"I think it would be easier for most people if they came across the app themselves rather than have it recommended."

"I would suggest that the tool is somehow adapted for use by the doctors partner/relative who will be more aware of the partner's problems earlier than the mental health sufferer themselves."

5.4.6 Other comments

Respondents were invited to comment on any other aspect of the tool. 16 responses were left. Typographical/grammatical errors were identified and 2 positive comments were made about the usefulness of the tool/specific tasks within the tool.

"This tool is great as a CBT/coaching resource on a road to recovery once a doctor has had some help and treatment."

"Core values useful."

5 respondents commented with reservations they had about the tool. These included concerns about the complexity and length of the tool, whether the tool is suitable for older doctors, the time commitment required and the focus of the tool on reflection rather than support.

"I feel it is good to have bite sized chunks of information but I am concerned that the length of time over which data is collected may lead to some doctors abandoning the app. without completing. These drs are likely to be the very ones who would benefit most from this tool. You need to have a daily commitment and I can also envisage lots of other daily activities competing for this time."

"The tool is excellent for reflection and self-improvement but would not help someone who is already mentally ill. It is far too complex and reflective."

"This may be less suited to older doctors."

"I think there are two main issues after users have discovered the tool: (1) getting users to actually use it, and use it to the end so that they actually benefit and (2) I am not convinced the tool is actually useful in its current form. It seems to present lots of opportunity for reflection and very little actual support. I realise support is the role of universities, employers and the health service, but to an extent, without providing support I fail to really grasp what using the app achieves."

Further responses regarding suggested improvements included ideas about additional content, reminder alerts, and visual presentation.

"During the observation week - could the tool be made to prompt for a doctor to reflect - through (optional) use of a reminder text or calendar entry?"

"More ideas for routes for help. Maybe some advice on the possible consequences. Would definitely add more about where to go for help including executive career coaching."

"Can you put some information on the tool early on with statistics about how common mental health problems are in the profession and that with help early on professionals do well and carry on working whereas if not treated can lead to more serious problems such as alcohol and drug addiction and self harm."

"I would encourage use of more visuals. It is difficult to keep track of the pages. There is an impression of a journey where you are not quite sure what is going on, so maybe in the excellent introductory pages it might be worth it to outline the process."

5.4.7 Tool name suggestions

Respondents made some suggestions of what to name the tool (figure 5.7). One respondent wrote down their concern of protecting privacy, explaining that any name should be discrete:

"Something that doesn't explicitly describe what the tool is for, so that if others were to see it on your phone they're unlikely to ask questions."

Figure 5.7: Tool name suggestions

Doc-aid
Dr Wellbeing
MindAssist
WellWorthSharing
MindAlert
Mentis Sanus
Steps to Talk

5.4.8 Signposting to the tool

The final question explained that it was hoped that the tool could be developed into an app for mobile devices. Respondents were asked to give suggestions of websites or organisations that should signpost to the tool. A wide range of suggestions were given, from specific mental health charities to medical organisations (figure 5.8).

Figure 5.8: Suggestions of where to signpost to the tool from

Education-based organisations Universities Deaneries Medical schools Medical school welfare pages/resources University welfare/support services Undergraduate forums including medical/dental/veterinary schools	**Other** Health Education North East (HENE) Resilient GP NHS England Local medical councils (LMCs) clarity toolkit AAGBI (Association of Anaesthetists of Great Britain and Ireland) Health Education England (HEE)
Charities Student Minds Blurb The Mental Health Foundation Mind Sick Doctors Trust British Doctors and Dentists Group Samaritans Mentalhealth.org.uk Doctors' Support Network	**Websites** www.mindwell-leeds.org.uk www.idealmedicalcare.org https://physicianburnout.co.uk http://www.sacredspace.org.uk/index.html www.doctors.net.uk - Couch Forum iTalk
Medical organisations British Medical Association Royal Colleges (RCGP, anaesthetists) General Medical Council Student BMJ (British Medical Journal)	**Medical student revision websites**: https://www.pastest.com/ https://geekymedics.com/ https://www.passmedicine.com/ https://www.onexamination.com/ https://almostadoctor.co.uk/
Doctor specific support GP Health PHP (Practitioner Health Programme) Clinical Commissioning Groups HHP (Health for Health Practitioners) Wales	**Social media** Facebook Twitter

5.4.9 Summary of findings

Respondents evaluated the tool using statement rating questions and free-text comments. Issues were raised about a number of areas, and many suggestions were given as to how to improve the tool. A summary of the feedback is given in figure 5.9.

Figure 5.9: Results summary

Positive feedback

- Most respondents found the tool easy to navigate, with comments that it was "logical"
- Respondents found the linear progression of tasks within the tool easy to follow
- Most respondents liked that the tool provides structure for organising one's own thoughts, including evaluating the pros and cons
- The majority of respondents agreed that the tool would support users in considering disclosure of their mental ill health
- Most respondents would recommend the tool
- Most respondents agreed that the tool will help users address mental health in themselves, reflect on their own situation and make their own decisions.
- The majority of respondents agreed that the tool will help users to feel more confident in deciding who they would choose to disclose to
- Most respondents agreed that the tool could help increase self-referrals to mental health support services
- Overall, respondents liked the language used in the tool, describing it as "gentle", "non-pushy", with "good explanations" and "clear instructions".

Mixed feedback

- The reflective nature of the tool generated both positive and negative responses
- Half of respondents agreed that the tool will help users to feel more confident in being able to disclose

Negative feedback

- A progress bar was a suggested option for improving navigation
- Some respondents missed items in the drop-down menu format
- The length and "wordy" nature of the tool and the commitment needed to complete it was questioned
- Not diagnostic, doesn't give feedback

- Just under half of respondents agreed that the tool will support users to make a more prompt disclosure of their mental health concerns
- Some respondents expressed doubt about whether the tool would help users decide about speaking to someone, or deciding who to speak to.
- The tool assumes that the users' values are in conflict.
- It's not clear that the tool is about mental health
- The tool is not particularly encouraging or reassuring
- Language viewed as "controlling"
- Ability to use the tool is dependent on the severity/stage of mental illness (e.g. whether they can concentrate sufficiently to complete the tasks)
- Will those using it already be thinking about disclosure?
- Are doctors with mental health issues best placed to make the decisions?
- Might appeal to younger doctors rather than older
- Observation week task: is a week too long?
- Values task: doubt as to whether users would grasp the concept of values
- Visibility and range of resources to be improved

Additional content suggestions

- Information on illness symptoms
- CBT based exercises
- Specific guidance on who to disclose to
- Address barriers e.g. 'worthiness' of getting help, fear of stigma.
- Feedback on answers to exercises

5.5 Discussion of final web-based tool evaluation

This study aimed to assess acceptability of the final web-based decision support tool with a group of individuals working within physician health, and potential users. It also provided an opportunity to address issues identified in the development work, such as increasing the visibility of signposting to support. Four main areas were explored:

- General views on the tool
- Perceptions of how the tool meets key outcomes
- Accessibility, usability and content validity
- How the tool could be signposted to users

Overall, respondents viewed the tool positively, and felt that it met key outcomes. There was a majority agreement that the tool is likely to be effective in supporting doctors and medical students in their decision of whether to disclose their mental health concerns.

5.5.1 Implications

The study generated several implications for further development and evaluation of the tool. Some respondents queried the approach of the tool. They did not find a self-reflective approach appropriate, expressing a desire for a diagnostic tool or one that directs users towards a particular course of action. These comments illustrate that some respondents' expectations of what the tool is and does were not met. How the tool is 'marketed' will require careful consideration to ensure clarity of its key messages of prompting users to draw on their own capacity for identifying a potential problem and possible solutions, through a self-reflective approach. Respondents also showed concern over the suitability of the tool for individuals with more severe mental ill health. This again demonstrates the need to strengthen the existing message within the tool that those in urgent need of help will not find the tool suitable. One participant questioned how the intervention used MI principles. This again perhaps signifies different expectations about what the intervention does with implications for how the tool is described.

There were also implications for refining the design and content of the tool. Many concerns regarded accessibility and usability. The length of the tool and the quantity of text within it were identified as potential barriers to engagement. The resources section of the tool was highlighted as being particularly weak.

Several issues to consider in further evaluation of the tool were raised. This study reviewed a web-based format. Further review of an app version will help address specific issues arising from that format. Feedback on the tool was gained from respondents who were reviewing it in the context of a research study, and were not necessarily engaged in real-life disclosure decision-making. Piloting the tool with individuals experiencing mental ill health who access the app for support with their disclosure decision-making is essential future work. Those in 'urgent need' are not the target group for this intervention. However, doctors and medical students who may be in greater need may not be willing to engage with it. Further work should address how engagement with the tool might be best achieved.

The web-based tool was tested on a small sample and findings suggested general acceptability. Guidance by the MRC details the importance of conducting feasibility testing to address key uncertainties and determine the extent to which the intervention is acceptable and feasible in 'everyday practice' (Medical Research Council, 2008). A key uncertainty to be addressed is

engagement of the target population with the app. Will those doctors and medical students who are struggling with their decision whether to disclose their mental ill health use the app? A secondary uncertainty is will the app help individuals in their decision-making?

5.5.2 Strengths and limitations

This was a small sample. Findings must be viewed with caution, as the views of this group may not be representative of the wider population of medical students and doctors and the professionals that support them.

A strength of the study was the detailed level of feedback received within the free text comments. Many were highly insightful, providing a rich set of reflections on the user perspective. However, not all participants would have had personal experience of mental ill health. Respondents were not asked for demographic information and it is therefore unknown how many individual doctors and medical student potential users were included in the sample alongside physician health professionals. The representation in the sample of types of mental ill health and participants' grades or specialties is unknown. Further work could help to establish the tool's suitability for types of mental ill health, grades and specialties.

Caution must also be used in interpreting the findings from the free-text comments. It was optional to respond to some of these questions, and therefore those individuals with particularly polarised viewpoints may have been more likely to comment than those holding more neutral views.

The recruitment methods involved cascading. This may have resulted in some individuals outside of medicine completing the survey intended for medical professionals. Several responses were received to the survey version for allied health professionals. It is recognised that the usefulness of views of allied health professionals on an intervention designed specifically for doctors and medical students is more limited.

Use of the web-based decision support tool was not monitored. It is possible that some participants did not engage fully with it, e.g. skipping some tasks. The rate of individuals using the intervention and then not completing the feedback survey is also unknown. Capturing this information would have been useful. A further issue in reviewing the tool is that it was presented in web format, yet with the aim of translating it into an app. Questions did not attempt to assess perceived differences between formats.

5.6 Conclusions

This study provided a preliminary evaluation of the acceptability, feasibility and content validity of the web-based decision support tool. Findings suggested that the intervention was generally

acceptable, and that there is value in supporting doctors and medical students in their decision-making about their mental ill health. Further work is needed to understand whether the tool is effective in addressing its key aims, among which demographics of users. The study provides a range of findings to inform future refinement, before evaluation with a larger sample. Progressive refinement of an intervention design before piloting and feasibility evaluations can be planned is recommended by the MRC (Medical Research Council, 2008).

5.7 App development

Following the work described so far in this thesis, funding was secured from the Wales Deanery for an additional year. The web-based decision support tool was developed into an app for mobile devices. The National Centre for Mental Health (NCMH), a Welsh Government funded research centre, provided funding for this. Named 'Arbour', the app was developed from June to August 2017 with the learning software development company 'Kallidus'. The app was deployed in Google Play and Apple stores in June 2018. A pilot evaluation of the app is underway. This further development work was beyond the timescale available for this thesis.

Chapter 6: Discussion

6.1 Chapter overview

In the preceding chapters I have detailed the design and development process of a decision-support tool to help doctors and medical students in their decision-making about whether to disclose their mental ill health.

Several studies are included within this thesis. A brief discussion of each study has been presented, including strengths and limitations. This chapter presents an overarching discussion of this thesis as a whole.

In this chapter, I examine the key findings of this thesis in relation to the wider context of physician health. I then present an appraisal of the strengths and limitations of this thesis. Finally, I examine implications and future directions for research and practice in this area.

6.2 Introduction

Doctors and medical students struggle with the decision of whether to disclose their own mental health concerns. This is one issue regarding doctor and medical student mental health. The literature review described in chapter 2 showed that to date, disclosure decision-making about doctors' and medical students' own mental health has not received close attention. It found no interventions to support disclosure decision-making in this population.

The aims of this thesis were:

1. To understand the attitudes and experiences of doctors and medical students in decision-making about disclosing their mental ill health.
2. To develop a theory-based intervention to aid doctors and medical students in their decision-making about whether to disclose their mental ill health.

This thesis has described a series of studies that have informed the development of a novel intervention to help doctors and medical students decide whether to disclose their own mental health concerns. In this closing chapter, I examine the novel contribution that the work in this thesis has made. I look broadly at the research questions that this PhD set out to answer. I then examine my findings within the current context, taking account of recent developments relating to both doctor and medical student mental health. The chapter concludes with recommendations for further evaluation of the intervention, and directions for future research.

6.3 Key findings and contribution

This thesis set out to better understand disclosure decision-making among doctors and medical students about their own mental health. It used a structured literature review and qualitative

interviews to inform the development of a web-based tool. The aims and objectives, and research questions have been addressed in depth in the preceding chapters of this thesis. A novel intervention informed by principles of MI has been developed. It was subject to an evaluation among doctors, medical students, and professionals in physician health. Beyond this thesis, it was developed into an app for mobile devices. The broad research questions that this thesis set out to answer are as follows:

1. What is known about disclosure of mental ill health in doctors and medical students?
2. How do doctors and medical students make disclosure decisions about their own mental ill health?
3. How does the evidence inform what the key features of a disclosure decision support tool should be?
4. Can a simple decision tool informed by MI support disclosure decision-making among doctors and medical students?

Figure 6.1 details the contributions this thesis has made to answering the research questions.

Figure 6.1: contributions of this thesis.

1. Clarified existing knowledge in the literature about disclosure of mental ill health in doctors and medical students.
2. Provided a more in-depth understanding of disclosure decision-making about mental ill health among doctors and medical students, including how they evaluate the advantages and disadvantages of disclosing.
3. Used the evidence base to inform the key features of a disclosure decision support tool.
4. Conducted a preliminary evaluation or whether an intervention informed by MI can support disclosure decision-making among doctors and medical students.

A summary of how this thesis has made each of the contributions now follows.

6.3.1 Clarified existing knowledge in the literature about disclosure of mental ill health in doctors and medical students.

In chapter 2, a literature review provided an overview of current knowledge about disclosure of mental ill health in doctors and medical students. The literature review highlighted that disclosure of mental ill health by doctors and medical students is an underdeveloped area. It explored new ground in that it looked at disclosure, not just help-seeking. It also looked at both doctors and medical students of any grade or specialty. Finally, it encompassed all types of mental ill health, and did not focus on specific diagnoses only. The key findings are summarised in figure 6.2.

Figure 6.2: key literature review findings

1. Theoretical approaches to understanding disclosure of mental ill health by doctors and medical students have not been widely implemented.
2. Doctors and medical students under-disclose their mental ill health.
3. Multiple demographic factors appear to be associated with likelihood of disclosure among doctors and medical students.
4. Limited data suggests that doctors may be more likely to present with depression at specialist services, and that medical students may be more likely to seek help for anxiety than other conditions.
5. Doctors delay help-seeking, waiting until the impact of their mental ill health is severe or until extended time has passed.
6. Disclosures to workplaces, medical schools and regulatory bodies tend to be avoided; medical students are reluctant to disclose on medical school application forms, and doctors are reluctant to disclose on postgraduate training application forms and to regulatory bodies.
7. Studies have tended to focus on why doctors and medical students don't disclose sooner, and why they don't disclose at all. Limited data on why doctors and medical students *do* disclose suggests professional responsibility is an enabler.
8. Disclosure decision-making by doctors and medical students about their mental health has not been studied in depth.
9. Strategies for improving the mental health of doctors and medical students have not focussed specifically on improving disclosure conversations or assisting disclosure decision-making.
10. Limited data indicates that some doctors recognise the benefits of disclosing, such as managing health alongside work and training.

6.3.2 Provided a more in-depth understanding of disclosure decision-making about mental ill health among doctors and medical students, including how the advantages and disadvantages of disclosing are evaluated.

The qualitative study in chapter 3 explored a new area by examining attitudes and behaviours about disclosing mental ill health within a population of both doctors and medical students. It moved beyond understanding obstacles to disclosure, by looking at enablers. It was also novel in exploring disclosure decision-making in depth. The key findings are summarised in figure 6.3.

Figure 6.3: Key qualitative study findings

1. **First disclosures** were mainly for help-seeking. This included seeking help in being able to manage work or studies; for some participants, their first disclosure outside of friends and family was to their workplace or medical school.
2. All participants had made **further disclosures**, having disclosed to more than one person. Help-seeking was again a main reason for further disclosures, but additional reasons included work implications, and a desire to be open and honest.
3. **Unhelpful responses to disclosures** had considerable negative impact, such as delaying further help-seeking for several years, or forcing participants to take extended sick leave.
4. Participants **evaluated multiple factors** in their decision-making, with some factors appearing to be obstacles to disclosing, but enablers for others.
5. Disclosure decision-making can have **considerable emotional impact**, for both those choosing to disclose and those choosing not to.
6. Participants applied varying **approaches to disclosure,** including both spontaneous and planned disclosures, seeking advice from others, and being selective in the information divulged.

6.3.3 Used the evidence base to inform the key features of a disclosure decision support tool.

Chapter 4 described the tool development, following guidelines by the MRC (2008). It was informed by an evidence base comprising of psychological theory (chapter 1), a literature review (chapter 2), qualitative study (chapter 3), and findings from an expert focus group (chapter 4).

Findings from the evidence base were translated into guidance points to inform the development process. The intervention was modelled, and feedback on a draft web-version was gathered via an online survey. A final web-based version was then created. It was a collaborative process with expert participants representing both doctors and medical students

with mental ill health, and organisations with an interest in doctors' and medical students' mental health.

6.3.4 Conducted a preliminary evaluation or whether a simple decision tool based on MI can support disclosure decision-making among doctors and medical students.

Chapter 5 reported the findings of a preliminary evaluation of the intervention. Four main areas were explored:

- General views on the tool
- Perceptions of how the tool meets key outcomes
- Accessibility, usability and content validity
- How the tool could be signposted to users

Initial findings were encouraging. Stakeholders indicated that the intervention appears acceptable, feasible, and that the proposed mechanism of effect may be viable in supporting disclosure decision-making among doctors and medical students. Some concerns were raised; further development of the intervention should provide careful consideration of them and explore ways in which to address them.

6.3.5 Summary

The development of an intervention was innovative as it is a novel intervention targeting doctors and medical students to support their disclosure decision-making about their own mental ill health.

Using principles of MI to inform the development of the intervention is an original application of this counselling method. It is believed that MI has previously not been used in any interventions to support disclosure of mental ill health decision-making for doctors and medical students. The literature shows that some electronic health behaviour change interventions using MI have attempted to replicate a practitioner-client interaction. The intervention developed for this thesis used an alternative approach more aligned with 'self-help'.

In summary, the work described in this thesis has made a novel contribution through its broad focus on supporting disclosure decision-making (not just help-seeking), the inclusion of all types of mental ill health, and a new application of principles of MI, all within the target population of doctors and medical students of all grades and specialties.

6.4 Why supporting disclosure decision-making is important

This thesis has highlighted the importance of understanding more about disclosure of mental ill health by doctors and medical students. Disclosing is the first active step in the help-seeking journey for doctors and medical students. Disclosure of mental ill health is also important for a

variety of reasons beyond help-seeking. In a regulated profession such as medicine, there can be serious consequences for false declarations e.g. on revalidation documents. Doctors have a duty to inform their regulatory body of any health conditions that may impair their work. Failure to do so may result in fitness to practise proceedings.

As discussed in chapter 1, mental ill health and associated illness behaviours among doctors and medical students have widespread impact. This ranges from impact on individuals themselves, to the organisations they work and study in. Timely disclosure of mental health concerns by doctors and medical students therefore is crucial for the future of the healthcare workforce and the patients it serves.

6.5 Strengths and limitations

The strengths and limitations of each individual study within this thesis have been discussed within each chapter. I now discuss the overarching strengths and limitations of the work describe in this thesis as a whole. This include the strengths and limitations of the overall approach and methods.

A strength of this work is that it followed guidelines by the MRC for the development of complex interventions (Medical Research Council, 2008). These guidelines outline the three initial development stages of: identifying the evidence base, identifying appropriate theory, and modelling outcomes. Chapters 2 and 3 of this thesis described a review of the literature and a qualitative study that widened the evidence-base. Those findings were used in conjunction with findings of a focus group. The model of MI was identified as a potentially useful approach. Developing a logic model brought the evidence base and theory together to describe the envisaged mechanism of the intervention. This was then used to develop the content of the tool. Subsequent feedback led to further refinement. Using the framework has ensured that the intervention is grounded theoretically, with consideration of how it works. Evidence suggests that interventions grounded in theory are more effective than those with no theoretical basis (Glanz & Bishop, 2010). The framework has also ensured that the intervention is empirically evidenced. The development process has been reported transparently, with a detailed description of the intervention. The MRC states this is necessary to enable replication, evidence synthesis, and wider implementation. It has been noted that where decisions underpinning complex behavioural interventions have not been reported explicitly, there is an increased risk of 'reinventing' existing ineffective interventions (Gardner et al., 2014). Although the content was developed systematically and using the evidence base, there remained an element of my own personal judgement in selecting the components; it is acknowledged that there are many components that 'could' have been included, or that another researcher would have excluded.

The development was undertaken collaboratively with users and professionals within physician health. There are drawbacks to using such participatory methods, such as the potential for the development to take considerably longer (Waller, Franklin, Pagliari, & Greene, 2006), though this was not an issue in this work. A benefit of user engagement is the potential to identify unmet needs and preferences, and for these to be considered at an early stage in the design process (Owens et al., 2010). In this study, some parameters of the intervention were set before user involvement. Consequently, the intervention may have been substantially different if users had been involved from the very beginning. Including the views of professionals within physician health was important in understanding how the intervention could fit within the constraints of current policy. It also helped to understand how organisations relating to physician health might aid optimum dissemination of the intervention.

There are some limitations in the testing of the final web-version of the intervention. The sample size was small. Use of the intervention was not monitored. The menu function within the tool gave the option to navigate the tool in a non-linear manner. This means that some participants may not have viewed the tool in its entirety from start to finish, or they may have viewed the components in an unintended order. There was therefore potential for individuals to experience a different 'version' of the intervention to each other. No demographics on the participants who took part in the testing of the final web-version were collected; it is unknown how many doctors, medical students, and physician health professionals participated. Some individuals asked to take part in the testing were doing so from the perspective of a physician health professional. This meant that they were responding hypothetically to how the tool might enable change. This 'theoretical' testing is obviously vastly different to testing of the intervention by doctors and medical students currently in need of support in their disclosure decision-making.

Using qualitative methods as part of the evidence base and development process was a strength. It has been noted that qualitative methods can make a significant contribution to developing a complex intervention (Corrigan et al., 2006). In this thesis, qualitative findings from interviews with doctors and medical students not only helped to illuminate the disclosure decision-making process, but were also useful in highlighting potential barriers to using an intervention and to its implementation. Barriers to the intervention use and implementation were further explored within the focus group, and in the open-ended questions as part of the feedback surveys on the draft and final web-based tool versions. Qualitative methods will also be crucial for further evaluation of the intervention; they are useful to "examine and test the theoretical basis of an intervention and question or affirm the principles on which the tasks and processes have been based" (Bradley, Wiles, Kinmonth, Mant, & Gantley, 1999). Medical student voices were

underrepresented in the qualitative interviews; further evaluation of the intervention in its app format would benefit from greater inclusion of this group.

Developing an app has provided a low-cost solution to supporting doctors and medical students in their decision-making about disclosing their mental ill health. Simple decision aids are often made available online, but the complexity of disclosure decision-making suggested that the format of a tally of advantages and disadvantages was too simplistic for this topic. Using MI to inform the intervention with a 'guiding' approach and self-reflective tasks allows users to self-tailor the intervention to their individual needs. Traditional face-to-face delivery of MI would be resource intensive. A limitation of using an app-based intervention is the potential to exclude older doctors who are less technology-savvy. Although this was a concern raised by participants in both the semi-structured interviews and focus group, using computer-based systems is now a widespread requirement for doctors (e.g. online appraisals, NHS systems etc.), and so the number of users this would exclude is potentially very small.

The intervention was informed by principles of MI, and includes MI techniques such as the 'readiness ruler'. No attempt was made to replicate a client-practitioner interaction as other electronic interventions have done (Friederichs et al., 2014; Rajkumar et al., 2015). Instead, it used an approach more aligned with 'self-help', which has already been used in book format (Zuckoff, 2015). There is scope for further consideration of theoretical issues. As discussed in chapter 1, MI is congruent with several health behaviour change theories, such as self-determination theory. Closer examination of how the intervention fits with such theory would be a valid area of future work. Other theories and models could have guided the development of the intervention, including those developed for other populations and health conditions, such as the DD-MM discussed in chapter 1. An alternative framework to guide theory-based intervention development is the 'behaviour change wheel' approach (Michie, van Stralen, & West, 2011).

6.6 Implications

The findings and outcomes of this thesis positioned within the current context are now examined.

6.6.1 Further research

Questions have been raised in a number of areas from looking at how the work in this thesis might inform further research. The structured literature review highlighted how disparate the disclosure literature in the area of medical student and physician health is, with great variation in terminology. Figures on levels of disclosing are particularly sparse for some sub-populations within medicine e.g. certain doctor specialties, and medical students from minority ethnic

groups. This is because most research has studied narrow populations, some based in just one specialty, medical school or hospital. International comparison studies are notably few. Direct comparisons between studies in different countries are not possible due to wide variety in measures, question wording and study design. Further research studies might seek to address that, as identification of vulnerable groups (e.g. trainee doctors, as identified in chapter 2) is important for targeting interventions.

The literature review also found little application of theory in trying to understand and improve the help-seeking behaviour of doctors and medical students. This thesis chose to examine the issue using the model of MI, which is congruent with the Transtheoretical Model (TTM). There is potential for many different theoretical approaches to be explored and tested.

Future research might also consider important nuances in language when examining disclosure and help-seeking. First, the difference between disclosing and help-seeking, as assumptions have been made that these terms refer to the same thing. The definition of disclosure provided in chapter 1 states that disclosure in the context of this thesis refers to doctors and medical students intentionally revealing information about their own mental ill health. This can be for a variety of reasons, including to seek help. In contrast, 'help-seeking' necessitates disclosing for that purpose only. Ensuring clear definitions of the terms 'disclosing' and 'help-seeking' is important to ensure that there is a greater scope to bring evidence from different studies together. The semi-structured interview findings demonstrated that help-seeking can range from seeking workplace adjustments (e.g. amended rotas, shortened hours), to advice on medication or therapies, or seeking treatment. Secondly, there has been an unclear distinction between 'help-seeking' and 'seeking treatment'. The semi-structured interview study (chapter 3) found that doctors and medical students sought help for a wide range of reasons relating to their mental ill health. This included not solely seeking treatment (e.g. consulting a GP or obtaining counselling), but also seeking advice, information, workplace adjustments, or 'moral support'.

Another finding from the semi-structured interviews that has stimulated questions for further research was the role of other people in doctors' and medical students' disclosure decision-making. Some participants accessed formal support for mental ill health after informal support and advice from friends and family. Other participants were prompted *not* to seek help by others. Understanding more about the influence of other people on a larger scale would add greatly to this area of knowledge. This could include looking at the influence of medical families.

The semi-structured interviews identified doctors' and medical students' motivations to disclose their mental ill health. Looking at enablers, not obstacles, had received only cursory attention

in the existing literature. It would be interesting to expand this work and further explore enablers to disclosure in different populations. Enablers may vary by various demographic factors e.g. specialty, country, age. Understanding more about these would enable better targeting of interventions, and how to promote them. This could include understanding how best to word the messages used to promote interventions. For example, would positive messages that focus on the benefits to disclosing be more effective than negative messages that focus on the undesirable consequences of not disclosing?

6.6.2 Implications for organisations

The qualitative findings reported in chapter 3 broadened our understanding of doctors' and medical students' disclosure decision-making about their own mental ill health. There are implications for the organisations within which doctors and medical students work and study. The work in this thesis has stressed the importance of responses to disclosures, especially first disclosures. Unhelpful responses to both first and further disclosures had considerable negative impact, such as delaying further help-seeking for several years, or forcing participants to take extended sick leave. This can create negative outcomes for both the individual and their employing organisation. For an individual, mental ill health may decline if left untreated. For organisations, presenteeism can impact medical errors and patient outcomes (Halbesleben & Rathert, 2008b; Shanafelt et al., 2010). When staff take sick leave, there are financial costs. Remaining staff are put under additional pressure to cover the workload, in a workforce where demand for doctors already outstrips supply (GMC, 2017). There is potential within healthcare organisations for disclosures that are received from doctors and medical students to be better managed. Further research could potentially try to determine the level of awareness that organisations have of this issue, what they currently do to manage it, and how they think it could be improved. Future work on helping recipients of disclosed mental health information act on it in an appropriate way could contribute to improving the mental health culture within the NHS. It has been recognised that staff health and wellbeing must be embedded within the NHS and continually demonstrated managerially (Department of Health, 2009). A challenge is perhaps the sheer range of different sub-cultures between hospitals, regions, and specialties. Each of these can have unique unspoken rules that guide behaviours, with entrenched working practices e.g. bullying within surgery (Wild, Ferguson, McDermott, Hornby, & Gokani, 2015) or teaching by humiliation (Lempp & Seale, 2004). There are opportunities to develop clear procedures within organisations, for both those seeking support and those in receipt of mental health disclosures. It would also perhaps be pertinent to provide mental health awareness training for staff working in doctor and medical student facing roles. These staff may have a lot of contact with doctors or medical students despite not having an official pastoral role. Support pathways

can be invisible to those who do not work within them. This was recognised in a study looking at the experiences of non-academic administrative staff, who are often the first port of call for students (Hu et al., 2016).

A key finding was that many doctors and medical students disclose *despite* the array of obstacles that they face. Organisational approaches have had positive effects on healthcare employee wellbeing. These approaches may comprise numerous small components (e.g. opportunities for group meetings, having canteens open 24 hours a day), that together have a combined impact on organisational culture (Dunn et al., 2009; Firth-Cozens, 2001). This suggests that simple changes within organisations may make a difference in enabling more doctors and medical students in distress to come forward, and to facilitate access to support.

Mental health promotion strategies could be focused positively i.e. on the benefits of disclosing rather than the disadvantages of not disclosing. Benefits identified included included averting serious consequences, assuaging guilt or worry, having increased empathy for patients with mental ill health, and experiencing an improved work situation. The literature has also previously highlighted a need for open disclosure of mental health conditions as an important step in challenging the existing culture within medicine, which is often viewed as stigmatising (Adams et al., 2010). A campaign to address this was launched in January 2017 by the charity Doctors' Support Network in partnership with the Royal College of Veterinary Surgeons (Royal College of Veterinary Surgeons, 2017). The campaign focuses on encouraging senior, currently well professionals from medicine and associated professions to share their personal stories about their own experiences of mental ill health.

It is important to acknowledge that help-seeking does not always equate to seeking *treatment* for mental ill health. For doctors and medical students, help may often be sought to manage mental ill health alongside work or studies. This help may encompass workplace adjustments, for example, seeking a period of reduced hours.

6.6.3 Broader issues

Enabling doctors and medical students to make earlier disclosures of their mental health concerns is the first part of the journey to accessing support. Assuming that timely disclosures are made, and responded to appropriately, available support services vary geographically. A recent step to address this was the launch in 2017 of the NHS GP Health Service in England, at a cost of £20 million (National Health Executive, 2017). Similar financial investments have been made globally. In addition to increasing support provision, a host of strategies to address doctor and medical student mental health have been employed. These include anti-stigma campaigns and curriculum changes. The intervention developed in this thesis aims to provide a stepping

stone between individuals and support, helping doctors and medical students respond to whatever situation has led to them facing a decision about disclosing their mental ill health. It is designed as an early intervention, and can be implemented alongside existing initiatives that address the wider issues relating to doctor and medical student wellbeing.

There is a caveat to enabling earlier disclosures. It must be recognised that disclosure of mental ill health is a highly sensitive and personal decision, and unless a doctor or medical student has reached the threshold outlined in the GMC guidance where their judgement is impaired, there is no duty to disclose. There are exceptions to this e.g. on official revalidation documents for doctors. It is recognised that inevitably there may be a number of individuals who use the app developed as part of this thesis that may benefit from some support, that nonetheless choose not to disclose their mental ill health.

Finally, in looking at other applications of the tool, there is also a question of whether the tool might be adapted for use in other populations. For example, there is an elevated risk of suicide among veterinary surgeons (Bartram et al., 2009). The mental wellbeing of all students – not just medical students – has received much attention recently (YouGov, 2016). There might be potential for the tool to be adapted for these additional populations.

6.7 Conclusions

The work described in this thesis outlines an approach informed by MI that attempts to understand and support disclosure of mental ill health by doctors and medical students. This thesis has highlighted the importance of understanding more about disclosure of mental ill health by doctors and medical students.

The intervention was a new application of MI. It aims to support individual doctors and medical students in their decision-making about their mental ill health, and is the first to address this need. Further work is needed to determine its suitability for all types of mental ill health, and all grades and specialties of doctors and medical students. The main strength of the work in this thesis is the transparent, structured approach using established guidelines.

The work in this thesis sits under the 'development' stage of the MRC guidelines for the development of complex interventions. The evaluation undertaken was small and was with the web-based version of the tool. Now that the tool has been created as an app, it will require further evaluation in that format. The remaining stages of feasibility/piloting, evaluation, and implementation can be carried out. This will help understand the impacts in the short, medium and long term. The intervention may have further applications in allied health professions and beyond.

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Appendix

Appendix 3.1: qualitative study information sheet and study invitation

PARTICIPANT INFORMATION SHEET

1. Study title

Understanding doctors' attitudes towards self-disclosure of mental ill health.

2. Invitation paragraph

You are being invited to take part in the above 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. Take time to decide whether or not you wish to take part.

Thank you for reading this.

3. What is the purpose of the study?

The aim of this study is to understand doctors' attitudes to self disclosure of their mental ill health through anonymous interviews.

Information gathered from research so far suggests that we do not fully understand the factors that weigh up a doctor's decision to disclose or not, and that not disclosing can be a barrier to receiving support and treatment. In The School of Medicine at Cardiff University, the Medic Support has seen an almost 4 fold increase in request for support from students by simply clarifying confidentiality processes.

4. Why have I been chosen?

Doctors and medical students with personal experience of mental ill health are being asked to take part. There does not need to have been a formal diagnosis of a mental health condition, and you do not have to have told your workplace about your symptoms.

5. Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason.

6. What will happen to me if I take part?

You will be invited to take part in an interview (either face-to-face or by telephone), which will take approximately 30 minutes.

7. What about confidentiality?

All information collected from you will be anonymised, therefore it will be impossible to trace this information back to you individually. Your participation is completely voluntary.

8. **What do I have to do?**

If you decide to take part in the study we will arrange a convenient time with you to carry out the interview.

9. Are there any risks?

This study contains minimal risk. We do request you consider all the above information carefully before you decide whether you would like to take part.

10. What will happen to the results of the research study?

The results of the study will be written up as a report and distributed to interested groups such as Wales Deanery, HHP Wales, Health Boards and Trusts, Welsh Government and LMCs. In addition the results may also be published in a peer review journal and presented at appropriate conferences. You will not be identified in any publication related to this study; any quotes from the data will be anonymous.

11. Who is organising and funding the research?

Researchers from the School of Medicine at Cardiff University are conducting this study. The School of Postgraduate Medical and Dental Education are funding the study.

12. Contact for Further Information

If you would like to take part in the study or have any questions or queries please contact Sarah Winstanley using the details given below.

Sarah Winstanley, Research Assistant - email: winstanleys@cf.ac.uk

Cardiff University

54 Park Place

Cardiff University

CF10 3AT

Tel: 02920 870314

Useful contacts

British Medical Association

Telephone helpline: 08459 200 169

Website: http://bma.org.uk/practical-support-at-work/doctors-well-being

Health for Health Professionals Wales

Telephone helpline: 0800 058 2738

Website: http://www.hhpwales.co.uk/

THANK YOU FOR TAKING THE TIME TO READ THIS INFORMATION SHEET

STUDY INVITATION

Have you experienced mental ill health? Did you talk to your workplace about your symptoms or did you hide them? How did you feel about talking to the workplace?

If you have experienced mental ill health, either as a medical student or as a doctor, we would like to invite you to take part in our study by participating in a 30 minute interview. Whether your symptoms were mild or severe, and whether you told your workplace or not, we would be very interested to hear your views and understand your experiences in more depth.

At the Centre for Psychosocial Research, Occupational and Physician Health, we are working to understand more about how, when and why doctors and medical students might disclose their own mental ill health to the workplace. We hope that our findings can enable doctors and medical students to get more timely and effective support.

In our interview we would like to ask you specifically about what prompted you to disclose if you did so, and what kept you from disclosing if you didn't. The interview could be conducted over the phone or in person. It will take no more than 30 minutes. All information that is collected from you will be anonymised and your participation is completely voluntary.

If you are interested in taking part we would be grateful if you could contact us and please let us know a suitable time to contact you to arrange the interview.

We look forward to hearing from you.

Kind regards,

Sarah Winstanley
Research Assistant

Centre for Psychosocial Research, Occupational and Physician Health
Cardiff University
School of Medicine
54 Park Place
Cardiff
CF10 3AT

Tel: 02920 870314
Email: winstanleys@cardiff.ac.uk

Appendix 3.2: qualitative study interview schedule

- Introduce self and thank them for filling out the pre-interview form (& consent form if over phone)

- You are not obliged to answer any questions which you do not feel comfortable answering. As you know, the interview will be audio-recorded to allow it to be analysed by the research team, and your data will then be stored securely. Do you have any questions before we proceed?

- (ask to complete consent form if interviewing in person)

What they feel is most important on the topic of disclosure

1. As you know, this research is about trying to understand in some more detail about why doctors do or don't disclose their mental ill health to others. Before I start with some specific questions, I wonder what made you respond to my invitation to take part and what you think might be the most important issues to consider?

The reasons for and against disclosure

2. You mentioned on your form that you experienced mental ill health (time period). I'm interested in how that felt for you, having symptoms of mental ill health while you were working/studying. If it's ok with you, could you tell me a bit more about working/studying and having mental ill health at the same time?

   Prompts:
   - Tell me a bit more about your priorities at the time
   - I'm wondering what things were important to you?

3. You mentioned that you did/didn't tell your workplace/medical school, I'm wondering what was going through your mind, could you tell me a bit about whether that was a conscious decision?

   Prompts:
   - Tell me a bit more about the pros and cons/advantages and disadvantages that were going through your mind
   - It sounds like you had a few things going through your mind…
   - I'm wondering if anything would have made a difference?
   - Thinking about your decision-making leading up to that, I wonder what you feel influenced you most?
   - Did anything else influence you/go through your mind?

4. At the time, did you feel that your decision was clearly the right one? How do you feel about that decision now?

Who disclosed to and why

5. In terms of how you came to approach the person you told, I'm curious as to your reasons for going to them over others, what led you to approach them first?

   Prompts:

- I'm wondering if you talked to anyone outside of work before you decided to tell/not to tell the workplace/medical school?

Impact on work and personal life

6. I'd like to understand more about how your mental health affected you when you were in work/studying, so if it's ok I'd like to know something quite specific, and ask you to rate the impact.

   So, if I was to ask you how much impact your mental health was having on your work/studies, on a scale of 1 to 10 where 1 is no impact at all and 10 is a major impact, where might you put yourself on that scale?

7. The next question is about how much of an impact your symptoms were having on your work/studies at the time you **told your workplace/medical school.**

   So, if I was to ask you how much impact your mental health was having on your work/studies at the time that you disclosed to them, on a scale of 1 to 10 where 1 is no impact at all and 10 is a major impact, where might you put yourself on that scale?

8. I am also interested in how your mental ill health was impacting on your on your personal life? So, on a scale of 1 to 10 again, where might you have been?

   Summarise answers to scaling questions above: e.g. So what you're telling me is that it impacted more on your work life/studies than your personal life.

Tool development

9. Where would you personally look for help in making your decision?

10. As part of this study we hope to develop a tool to help support doctors/medical students who have mental ill health in their decision of whether to speak to their workplace/medical school. I'd be interested to hear your views on whether you think a tool would be valuable?

If have time to ask:

11. Thinking generally about doctors/medical students deciding whether to speak to their workplace/medical school about their mental ill health, can I just ask, what do you think from your experience would make a difference to doctors/medical students who have mental ill health and are deciding whether to speak to their workplace/medical school?

12. What do you think someone would want in such a tool?

13. What do you think might make them seek out such a tool?

14. What might make them think it was worthwhile using it?

15. If we did develop some kind of tool, that is, some way of helping people make that decision, how would you envisage someone using it?

    Prompts:

- What do you think might be the best way to present the tool or provide access to it? (e.g. web based, paper based) What other ways could we offer it?
- What would be a good way to signpost people to such a tool – trusted sites/ resources etc. (like the College, BMA etc. - only say this if they don't understand what you mean).

CLOSING COMMENTS

- Thank them for taking part
- Can I just ask permission for us to come back to you with some further questions about developing a tool?

Appendix 3.3: qualitative study brief questionnaire

Pre-Interview Questionnaire

Thank you for agreeing to take part in an interview about disclosure of mental ill health to the workplace. . This is part of a wider study Cardiff University is undertaking to investigate disclosure of mental ill health in doctors. The interviews are to try and understand in more depth why people choose to tell or not to tell their workplace about their mental ill health. We are particularly interested in what factors people weigh up when assessing and then making their decision. We appreciate that everyone's circumstances are unique, and so it would help us to have some preliminary information before we speak to you. This will help us to ask you the right questions when we speak to you and take up as little of your time as possible.

We'd be grateful if you could fill out this form and email it back to us in advance of the interview. Please be assured that all information provided on this questionnaire is strictly confidential.

Are you

☐ Male

☐ Female

What is your age?

_____

Are you

☐ A medical student

☐ A doctor in training

☐ A consultant

☐ A GP

☐ A locum

☐ A SAS doctor

☐ Other (please specify) _____

Are you currently

☐ Working full time

☐ Working part time

☐ Studying full time

☐ Studying part time

☐ On sick leave

☐ Other (please specify)

_____

When was the first time you experienced symptoms of mental ill health?

- ☐ Before medical school
- ☐ At medical school
- ☐ During my trainee years
- ☐ As a consultant
- ☐ As a locum
- ☐ As an SAS
- ☐ Other (please specify) _____

When did you last experience symptoms of mental ill health?

- ☐ In the last year
- ☐ 1-2 years ago
- ☐ Over 2 years ago

How would you best describe your mental ill health?

- ☐ I have a long term condition with recurrent episodes
- ☐ I have had an isolated episode of mental ill health that I have fully recovered from
- ☐ I am at present unwell with a mental illness
- ☐ Other (please specify) _____

To what degree has your mental ill health impacted on your medical studies or your ability to work?

- ☐ Significantly impacted on my work/studies, so that I have had to take time off.
- ☐ Partially impacted, but have been able to stay in work/continued with my studies
- ☐ It hasn't impacted on my work/studies at all.

Have you ever disclosed your mental ill health to your workplace or medical school?

☐ Yes

☐ No

Where did you hear about our research?

_____

If you would like to take part in the interview by telephone, please let us know what the best number to reach you on is? _____

Please return this form by email to winstanleys@cardiff.ac.uk in advance of your interview. Many thanks.

Appendix 3.4: qualitative study participant debrief sheet

PARTICIPANT DEBRIEF SHEET

Understanding doctors' attitudes towards self-disclosure of mental ill health

Thank you for your participation in this project. This study will help to inform the development of a simple tool to facilitate earlier disclosure in doctors experiencing mental ill health, and will form part of Sarah Winstanley's PhD. The results of the study will be written up as a report for the School of Postgraduate Medical and Dental Education. In addition the results may also be published in a peer review journal and presented at appropriate conferences. You will not be identified in any publication related to this study; all data will be anonymous. Below are some contacts if you find this study has raised some issues that you are concerned about.

For Students:

You can contact the Medic Support Unit at School of Medicine, Cardiff University.
Email Medic support at: medicsupport@cardiff.ac.uk or you can find out more information at http://medicine.cf.ac.uk/medical-education/undergraduate/medic-support-cardiff/student-support-unit/

Alternatively you can contact your own GP or the student counselling services at Cardiff University.

For Doctors:
You may find the following organisations helpful.

British Medical Association
Telephone helpline: 08459 200 169
Website: http://bma.org.uk/practical-support-at-work/doctors-well-being

Health for Health Professionals Wales
Telephone helpline: 0800 058 2738
Website: http://www.hhpwales.co.uk/

Alternatively you can contact your own GP if you have any mental health concerns.

If you have any questions or queries about this project please contact Sarah Winstanley at Cardiff University:

Sarah Winstanley
Centre for Psychosocial Research, Occupational and Physician Health
Cardiff University
53 -54 Park Place
Cardiff
CF10 3AT
E: winstanleys@cardiff.ac.uk T: 02920 870314

Appendix 3.5: transcribing conventions

The qualitative interviews and focus group were transcribed verbatim; that is, everything audible was captured. This included:

- Utterances such as 'mm-hm' or 'er'.
- False starts, stutters and repetitions.
- Speech patterns such as 'right', 'like', 'you know'.
- Non-verbal sounds (laughter, crying).
- External interruptions/noises (e.g. phone ringing).
- Pauses.

The following table outlines the main conventions used.

Convention	**Meaning**
-	False start
…	Ellipses are used at the beginning of sentences to indicated continuation of a train of thought, and at the end of sentences to indicate speech petering out (an unfinished sentence).
um, uh, er, hmm, mm-hm	Hesitations and utterances
(inaudible)	Speech was inaudible.
(pause)	Indicates a longer pause. Very brief pauses were not marked.
(laughter), (crying)	Nonverbal communication is shown in brackets.
It was awful, *really* awful.	Italics used for emphasis.
[sic]	Placed immediately after a word, indicates a grammatical error by the participant.
Well I was thinking, 'should I say anything?' He said, 'Keep it to yourself'.	Single quotation marks are used when participants are quoting someone, or indicate that they are thinking something.

Appendix 4.1: focus group information sheet and consent form

Study Title: Development of a tool to guide doctors' and medical students' decision-making about disclosing their own mental ill health to others

Invitation paragraph
Cardiff University is developing a tool to guide doctors' and medical students' decision-making about disclosing their own mental ill health to others. You are being invited to participate in an expert group to assist in the development of the tool.

What is the purpose of the study?
We are developing a tool to guide doctors' and medical students' decision-making about disclosing their own mental ill health to others.

Do I have to take part?
Your participation is completely voluntary. You are free to withdraw at any time, without giving a reason.

What will happen to me if I take part?
You are being asked to be part of an expert group that will work together to help develop a tool to guide doctors and medical students in their decision-making about disclosing their own mental ill health to others.

What about confidentiality?
You are being asked to attend as a representative of your organisation, and will not be identified personally in any reporting. The groups will be audio-recorded, but individuals will not be identified in the transcriptions and notes.

What do I have to do?
You are being asked to attend an expert group (2 hours maximum in duration) to help answers questions about the development of the tool. You will be asked for further feedback via email on the draft tool after its development, so that a final version may be developed for piloting.

Are there any risks?
This study contains minimal risk. Please consider the above information carefully before you decide whether you would like to take part.

What will happen to the results of the research study?
The results of the tool development and pilot will help to inform a final version of the tool. Findings may be presented at research groups and conferences, and submitted to journal publications.

Who is organising and funding the research?
The Wales Deanery is funding the research, which is being undertaken by Cardiff University.

Contact for further information
If you have any questions about the research please contact Sarah Winstanley at winstanleys@cardiff.ac.uk.

Study Title: Development of a tool to guide doctors' and medical students' decision-making about disclosing their own mental ill health to others

Consent

Please read the following carefully:

1. I confirm I have read and understood the information sheet (expert group information sheet.doc) for the above study. I have had the opportunity to consider the information and what is being required of me as a group member. I have been able to ask questions and have had these answered satisfactorily. ☐

2. I understand my participation is voluntary and that I am free to withdraw at any time without giving reason. ☐

3. I understand that the information provided by me is confidential. I understand that, in accordance with the Data Protection Act (1998), this information may be retained for up to 5 years after the end of the study. ☐

4. I understand that the results of this study may be presented at conferences and meetings. ☐

5. I understand that by taking part in the expert group I am agreeing to be part of the above study and give permission for the expert group meetings to be audio-recorded. ☐

Name of Participant	Date	Signature

Researcher	Date	Signature

Appendix 4.2: focus group advance information

EXPERT GROUP OUTLINE FOR MEMBERS

This research in the area of doctors' and medical students' mental health disclosure is being undertaken by Cardiff University, and is funded by the Wales Deanery. We have so far undertaken a survey of doctors' views on disclosing their own mental ill health (now published in Occupational Medicine, see attachment) and conducted in depth interviews with 46 doctors and medical students, which we are present analysing.

PURPOSE

The purpose of convening the expert group is to help shape the development of a decision support tool to guide decision-making regarding disclosure of mental ill health to the workplace, aimed at doctors and medical students.

MEMBER ROLE

The role of the group is an advisory one. We are asking group members to share their experiences, views and expertise with the group. We are exploring how the user needs identified from the interviews could practically be incorporated in a tool. We are also seeking advice on usability, accessibility and dissemination.

The process is outlined in the figure below. We envisage there being a number of draft-feedback cycles before producing a final version of the tool suitable to pilot. The process will take place over May to July 2016. There is one initial face-to-face group meeting planned in May that you have agree to attend; we hope then to get further feedback on the tool drafts from group members via email.

GROUP COMPOSITION

We have invited representatives from organisations with an interest in the mental wellbeing of doctors and medical students. This includes organisations that support ill doctors/medical students, medical education, and those from a regulatory/legal perspective.

The group at present include representatives from the following organisations

- The General Medical Council (GMC)
- The Royal Medical Benevolent Fund (charity)
- The Practitioner Health Programme (treatment service)
- The Medical Schools Council
- The BMA Medical Students Committee
- The University of Bristol Students' Health Service
- Wales Deanery
- NHS England

- IT developers with experience in healthcare provision
- The Medical Defence Union (MDU)

To be confirmed

- Doctors Support Network (charity)
- North East England Deanery

GROUP FORMAT

Part 1: Objectives

We aim to build the tool based on the work already undertaken and the evidence collated from the qualitative interviews with doctors and medical students (4 students, 20 trainees, 5 consultant grade doctors, 15 GPs and 2 SAS doctors). The study is based on the model of Motivational Interviewing (MI), which has been demonstrated to be effective in helping to achieve behaviour change in health contexts. Specifically, MI is thought to help guide individuals to resolve their ambivalence about behaviour change. The focus of the tool therefore is not to provide a 'diagnosis'.

There are also financial and time constraints in completing this project which will be explained in the meeting.

Part 2: Key discussion areas

Themes already identified from the users through the qualitative interviews include

User-identified themes:

1. The tool should be to help *guide* a decision
2. The tool will signpost to information and support
3. The tool will be electronic

The areas of discussion will include:

1. What should/could the tool aim to achieve?
2. Prior research has identified vulnerable populations among doctors and medical students - how might we best target these populations? Are there any other vulnerable populations that should be targeted also?
3. What do you think would be most helpful to include in the tool?
4. Do you have any views on what should not be included within the tool?
5. What resources do you think would be most useful for the tool to signpost to?
6. From your perspective, what are the most important things that will give credibility to the tool, to ensure that doctors feel confident using it?
7. How can the tool be made most accessible? (e.g. font size, reading level of language)
8. How do you think the tool best be signposted to and promoted?
9. Do you have any suggestions as to how we could pilot the tool?

We will welcome additional areas of discussion that we haven't thought of – please feel free to make suggestions.

Appendix 4.3: focus group topic guide

EXPERT GROUP OUTLINE FOR FACILITATORS

Equipment checklist

- Tea, coffee, milk, sugar, biscuits
- Audio-recorder and batteries
- Flip chart + pens
- Powerpoint slides
- Consent forms and information sheets
- Pens and paper
- Post-it notes

Introduction (20 mins)

- Introduce the research team
- Ask participants to briefly introduce themselves

Housekeeping

- Fire exits, toilets, mobile phones to be switched to silent.
- We haven't scheduled a break as we only have 2 hours.
- Confidentiality – We want everyone to talk freely but please don't share anything personal that is discussed today outside this room.
- Consent forms – ask to complete, and double-check permission to audio record.

Outline of research and discussion group

(With powerpoint slide presentation)

- The aim of the research project is to enable earlier disclosure
- Explain background to research
- Explain MI
- The project will be completed by August 2017
- The aim of the discussion group
- User-identified themes

Main discussion (80 mins)

** Allow 20 minutes max for each of the four topics. **

Before we get into the main discussion topics, is there anything that anyone would like to add to the list?

1. **Enabling earlier disclosure**

a. How could the tool achieve this?
b. Prior research has identified vulnerable populations among doctors and medical students - how might we best target these populations? Are there any other vulnerable populations that should be targeted also?
c. From your perspective, what are the most important things that will give credibility to the tool, to ensure that doctors feel confident using it?

2. **How the tool can help *guide* a decision**

a. How can we achieve this?
b. What do you think would be most helpful to include in the tool?
c. Do you have any views on what should not be included within the tool?

3. **How the tool will signpost to information and support**

d. What resources do you think would be most useful for the tool to signpost to?
e. How do you think the tool best be signposted to and promoted?

4. **The look and feel of the tool**

f. How can the tool be made most accessible? (e.g. font size, reading level of language):
g. Do you have any suggestions as to how we could pilot the tool?

Wrapping up (20 mins)

- Top 3 ideas task
- Any other points we haven't thought of – please feel free to make suggestions.
- Explain next stage

Appendix 4.4: presentation to focus group

Developing a decision aid to support doctors and medical students with mental ill health

Professor Debbie Cohen
Sarah Winstanley

Background

The aim of this work is to develop a simple decision aid to support doctors and medical students in their decision to disclose their own mental ill health.

Work already completed:
Stage 1: a UK wide questionnaire study (published in Occupational Medicine)
Stage 2: semi-structured interviews with 46 doctors and medical students across the UK (reported internally)

What the tool is and what it does

Aim: To enable earlier disclosure

Key considerations:
- The tool should help *guide* a decision
- The tool will signpost to information and support
- The tool will be electronic

Discussion Topics

1. **Enabling earlier disclosure**
   a. How could the tool achieve this?
   b. How might we best target vulnerable populations?
   c. What are the most important things that will give credibility to the tool?
2. **How the tool can help *guide* a decision**
   a. How can we achieve this?
   b. What do you think would be most helpful to include in the tool?
   c. Do you have any views on what should not be included within the tool?
3. **How the tool will signpost to information and support**
   3. What resources do you think would be most useful for the tool to signpost to?
   4. How and where do you think the tool would best be signposted to and promoted?
4. **The look and feel of the electronic tool**
   a. How can the tool be made most accessible?
   b. Do you have any suggestions as to how we could pilot the tool?

Top 3 Ideas

From everything that has been discussed today, what are the most important 3 ideas for us to take away and incorporate into the tool development?

Next Steps

- We will create draft version 1 of the tool
- We will invite you to further participate by reviewing the tool over email

Appendix 4.5: draft tool content

1. **Homepage**

Page 1

(App name) is an app developed by Cardiff University.

It has been designed to support doctors and medical students who are concerned about their mental health and wellbeing.

Please be confident that using the app is anonymous. N**o data will be stored within the app**.

The app has been informed by research conducted at Cardiff University (press 'i' to find out about the research behind the app).

Press 'next' to view the introduction and begin.

If you are in urgent need of help, contact your GP or phone the Samaritans on **08457 90 90 90**

2. **Introduction**

Page 2

About (app name)

Why use the app?

Maybe you are finding it increasingly difficult to keep up with the demands placed on you? Maybe you are hoping that things will "sort themselves out"? Maybe you know that you are struggling but don't know what to do? This app is specifically aimed at doctors and medical students who are concerned about their own mental health and wellbeing. It aims to help you think about your concerns and come up with a solution that suits you. You might think that some of the following statements apply to you:

I have to put more and more energy into achieving normal day to day tasks

I am concerned about my wellbeing but am not sure why

I know my wellbeing isn't good, but I don't know whether to speak to someone

I don't know if the way I feel is normal

These are common things that doctors and medical students have said to us during our research about mental ill health. You may have other thoughts. Whatever they are, working through this app might support you in your next steps and decisions about managing your own health and wellbeing.

Take a look at the next page to understand more about how the app works

PAGE BREAK HERE

Page 3

What does it do?

The app won't tell you what to do. There is no right or wrong answer. It will help you decide **whether** you want to talk to someone, **when** you might want to talk to them and **how** to access the right kind of support for you. Remember, if you need urgent help, this app is not for you – please phone your GP, or alternatively phone the Samaritans on **08457 90 90 90. You can also call BMA Counselling on** 0330 123 1245 **- you don't have to be a BMA member to use it and it's for medical students too.**

How do I use it?

The app will take you through a series of tasks, step by step. Find a quiet space before you begin, at a time when you are not likely to be disturbed. We would advise you to write down your thoughts privately at each stage as you go through the app. You will find it helpful to use a notebook (paper or electronic). You don't enter any personal information in the app, so you don't have to worry about who could access your private thoughts through the app.

How long will it take?

This app is not a quick-fix, one-time use. You will be presented with questions to stimulate your thoughts and tasks to consider and respond to if you want to. Take your time over this. Spend as much time as **you** need. There's no rush to move on to the next task. When you're ready to move on you can press 'Next', or press 'Pause' to exit the app and return to where you left off later.

What if I get stuck?

Throughout the app you will see the 'i' button that links to further information and advice that may help you complete a task. Remember though, your views and experiences will be completely unique.

Press 'next' to begin the tasks.

3. **Describing situation**

Page 4

Describing your situation

Think about your current situation. Consider what is troubling you, rather than trying to solve it.

Below are some questions that might help focus your thoughts.

What has made you come to this app?

What specifically is worrying or bothering you about your mental health or wellbeing?

What impact is it having on your life?

How long have you been worrying about your wellbeing?

How have you dealt with it so far?

Have you had similar feelings before? If so, what was it that helped you?

What hasn't worked for you in the past?

What makes you feel worse?

What makes you feel better?

Write down your answer privately. You can use a paper journal, or store notes electronically.

Spend as much time as you like on this. You might want to go away, think about it, and then come back tomorrow, or even next week. When you've written down your answer you are ready for the next task.

When you're ready to move on, press 'Next'.

If you want time to think about this task, press 'Pause' to exit the app and return to this point later.

4. **Rating importance 1**

Page 5

Sharing your problem
It might help to start to think about what is important for you, and how confident you would feel in talking to someone right now about your current situation.

So consider first how important **you** feel it is **for you** right now to talk to someone about your concerns.

Look at the scale below and decide where you would put yourself on the scale

0 - Not at all important to speak to someone right now
1
2
3
4
5 - Moderately important to speak to someone right now
6
7
8
9
10 - Very important to speak to someone right now

When you've written your answer down and are ready to move on to the next task you can press 'Next', or press 'Pause' to exit the app and return to this point later.

5. **Reflecting on importance 1**

Page 6

Reflecting on your importance score
Think about *why* you chose that number. Spend a moment on each of the following questions.
What might have influenced your decision?
What were the main thoughts going through your mind?
Can you write them down?

Now think about why you didn't choose a lower number?
Can you put this into words and write it down?

Finally, what might need to happen for you to choose a higher number?
Can you think of a few things and write them down?

Spend as much time as you need thinking about this task.

When you've written your answer down and are ready to move on to the next task you can press 'Next', or press 'Pause' to exit the app and return to this point later.

6. **Rating confidence 1**

Page 7

Rating your confidence in being able to share your problem
Think now about maybe taking that step to talk to someone about how you are feeling right now. How confident are you that you could speak to somebody about what's concerning you?

Look at the scale below and decide where you would put yourself on the scale

0 - Not at all confident in speaking to someone right now
1
2
3
4
5 - Moderately confident in speaking to someone right now
6
7
8
9
10 - Very confident in speaking to someone right now

When you've written your answer down and are ready to move on to the next task you can press 'Next', or press 'Pause' to exit the app and return to this point later.

7. **Reflecting on confidence 1**

Page 8

Reflecting on your confidence score
Think about *why* you chose that particular number. What might have influenced your decision?
What were the main thoughts going through your mind?
Can you write them down?

Now think about why you didn't choose a lower number?
Can you put this into words and write it down?

Finally, what might need to happen for you to choose a higher number?
Can you think of a few things and write them down?

Spend as much time as you need thinking about this task.

When you've written your answer down and are ready to move on to the next task you can press 'Next', or press 'Pause' to exit the app and return to this point later.

8. **Core values**

Page 9

What matters to you?
We all hold values that are personal to us. Our core values can be thought of as the guiding principles by which we live. They shape our actions, and give us direction.

Our core values are unique to us and can be different to the professional values that we may commonly share with others.

Spend some time now thinking about what **your** core values are. Can you list 2 or 3?

If you need a little more help working out what your core values are, click the information button at the bottom of the screen.

Write down your answer privately.

Spend as much time as you need.

When you've written your answer down and are ready to move on to the next task you can press 'Next', or press 'Pause' to exit the app and return to this point later.

9. **Values reflection**

Page 10

Reflecting on your values
Looking at what you have written down about those things that are most fundamental and important to you as an individual, spend some time now thinking about your core values and professional values.

Do your feelings and concerns about your wellbeing in any way relate to your core values?

Do you find at times your **core** values or your **professional** values are challenged by your situation? How does that make you feel? Angry? Irritated? Upset?

Write down your answer privately.

Spend as much time as you need.

When you've written your answer down and are ready to move on to the next task you can press 'Next', or press 'Pause' to exit the app and return to this point later.

10. **Positive qualities**

Page 11

Your positive qualities
It's easy to be self-critical and feel that as doctors we must be invincible and manage everything that presents itself to us. It is all too easy to notice our flaws and weaknesses. However we all have strengths too. Spend some time now thinking about what your strengths and positive qualities are.

What are your positive qualities? Can you list at least 3?

Write down your answer privately.

Spend as much time as you need.

When you've written your answer down and are ready to move on to the next task you can press 'Next', or press 'Pause' to exit the app and return to this point later.

11.Reasons for change & weighing up pros and cons

Page 12

The Pros and Cons
You've now had time to think about your situation in a way you may not have done before: the underlying reasons for your concerns, alongside your core and professional values, your positive qualities and strengths and about how your situation is impacting on you in terms of your emotions.

So the next task is to spend some time thinking about the pros and cons for talking to someone. What might be the pros for talking to someone about your concerns? What might be the cons for doing this? Or is doing nothing the best option for you right now?
Can you list some of the pros and cons and the reasons for not doing anything?

Reflect on the list, do any of these relate to your values or your positive qualities?

Write down your answer privately.

Spend as much time as you need.

When you've written your answer down and are ready to move on to the next task you can press 'Next', or press 'Pause' to exit the app and return to this point later.

12.Observation task

Page 13

Observation task
This task is a practical one. Over the next week or two, the task is to observe yourself during the day and how you feel whilst at work. Observe when your values are challenged and how you respond. What situations led to you feeling positive about yourself? What might be making you feel less positive about yourself?

Spend if you can 5 minutes each day writing down short notes about how you feel in a given situation. Some people notice that when they feel their values are challenged, they react automatically. They may feel anger or irritation. This might then impact on how they interact with others around them.

Write down your observations on your thoughts, feelings and behaviour as the weeks progress.

When you've written your answer down and are ready to move on to the next task you can press 'Next', or press 'Pause' to exit the app and return to this point later.

13.Reflecting on observation task

Page 14

Reflecting on your observation week
Spend some time now reflecting on how the week went. What comes to mind now when you look back on it?
What have you learnt from the observations?
Do you notice any patterns or thoughts emerging?

Write down your answer as fully as you can. Are there things that you could consider doing to help you feel more positive in discussing your mental health and wellbeing with others?

When you've written your answer down and are ready to move on to the next task you can press 'Next', or press 'Pause' to exit the app and return to this point later.

14.Rating importance 2

Page 15

Sharing your problem
So having reflected on all the steps and tasks in this app and your week of observations think again about how important **you** feel it is to talk to someone about your concerns.

Look at the scale below and decide where you would put yourself on the scale now.

0 - Not at all important to speak to someone right now
1
2
3
4
5 - Moderately important to speak to someone right now
6
7
8
9
10 - Very important to speak to someone right now

When you've written your answer down and are ready to move on to the next task you can press 'Next', or press 'Pause' to exit the app and return to this point later.

15.Reflecting on importance 2

Page 16

Reflecting on your importance score
Has the importance you give to speaking to someone about your concerns changed?

If it has changed:
What influenced your decision?
What were the main thoughts going through your mind?

If it hasn't changed, why didn't you choose a lower number on the scale?
Can you put this into words and write it down?
What might still need to change for you to choose a higher number?
Write down what might need to change and why

Spend as much time as you need thinking about this task.

When you've written your answer down and are ready to move on to the next task you can press 'Next', or press 'Pause' to exit the app and return to this point later.

16.Rating confidence 2

Page 17

Rating your confidence in being able to share your problem
So having reflected on all the steps and tasks in this app and on your week of observations think again about how confident **you** feel now in talking to someone about your concerns now.

Look at the scale below and decide where you would put yourself on the scale now.

0 - Not at all confident in speaking to someone right now
1
2
3
4
5 - Moderately confident in speaking to someone right now
6
7
8
9
10 - Very confident in speaking to someone right now

When you've written your answer down and are ready to move on to the next task you can press 'Next', or press 'Pause' to exit the app and return to this point later.

17. Reflecting on confidence 2

Page 18

Reflecting on your confidence score
Has your confidence in speaking to someone about your mental health and wellbeing changed?
If it has changed:
What influenced your decision?
What were the main thoughts going through your mind?

If your confidence hasn't changed:
Why didn't you choose a lower number on the scale?
Can you put this into words and write it down?

What might still need to change for you to choose a higher number?
Write down what still might need to change and why

Spend as much time as you need thinking about this task.

When you've written your answer down and are ready to move on to the next task you can press 'Next', or press 'Pause' to exit the app and return to this point later.

18.Next steps

Page 19

Next steps
We hope this app has helped you to start to consider your next steps and how you might approach seeking guidance and support if you decide to do so.

Thinking about where you've come from and where you are now, what might be your next steps?

If you have decided that you **are** going to speak to someone about what's concerning you, you might like to consider the questions below.
Who are you going to speak to?
How much information are you going to give them?
When are you going to do it?
What do you want to get out of the conversation?
What are you going to do if you don't get the response you would like?

A starting point for speaking to someone could be to contact your GP or someone whose opinion you trust and value.

To view a list of those people or organisations you could contact to discuss your situation please click the information button at the bottom of the screen.

If you have decided that you are **not ready** to speak to someone about what's concerning you, write down at what point you think you would be ready.

It might be helpful to think about:
What would have to happen for you to be ready to speak to someone?
What would increase your confidence in being able to speak to someone?
What would make it more important for you to speak to someone?

If you are still not sure what to do or feel speaking to someone is not the right decision for you right now, then maybe revisit the app another time if things change for you.

Press 'Pause' to exit the app and return to this point later.

If you have finished using the app, press 'finish' to exit. Remember that you can return to it at any point in the future.

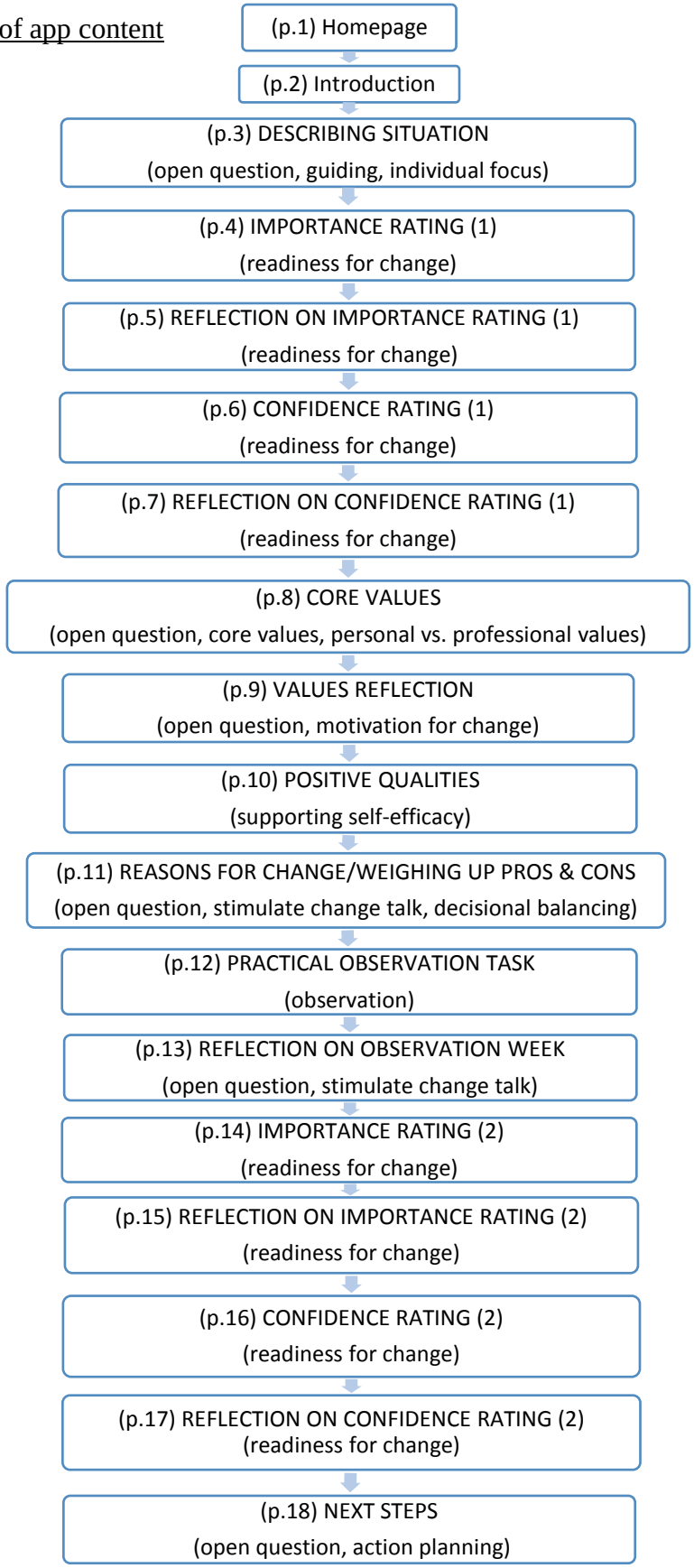
Thank you for looking at our tool. Your feedback is very important to us. Now please click the link below to complete the required feedback survey. It will take no more than 10 minutes.

(survey link)

If you have any queries, comments, or technical difficulties, please contact Sarah Winstanley on winstanleys@cardiff.ac.uk

Appendix 4.6: details of draft tool for review

Flowchart of app content



Rationale:

The draft tool has been developed using the views of potential users and of the expert panel and informed by the research undertaken so far. The tool is based on the guiding principles of Motivational Interviewing (MI).

MI uses a guided approach to enable people to find their own personal way to change behaviours. MI is a well-established method and model of behaviour change used throughout healthcare practices in the UK today.

The principles we have used here are to use 'guiding language' – so we don't tell people what to do. We offer opportunities to reflect on decisions and the pros and cons of those decisions. Finally, we use the concept of 'readiness for change'. That is, the more important it is for someone to change and the more confident they are in being able to make that change the more likely they are to be ready to change.

Appendix 4.7: questionnaire for draft tool review

Thank you for reviewing our draft tool. We would now like you to answer some specific questions in our feedback questionnaire.

Your general views on the tool

1. The aim of the tool is to support doctors/medical students to consider disclosure of their mental ill health. To what extent do you think the tool achieves this where 1 is does not achieve this at all and 5 the tool clearly achieves its aims. (5 point scale, strongly disagree to strongly agree)
    a. Please explain your answer (free text)

Ease of use of the tool

2. How easy was it to use the tool? (5 point scale, not at all easy to very easy).
    a. Please explain your answer (free text)
3. How clear was it to follow the tasks described within the tool? (5 point scale, not at all clear to very clear)
    a. Please explain your answer (free text)
4. How easy was it to navigate around the tool? (5 point scale, not at all easy to very easy)
    a. Please explain your answer (free text)

How the tool achieves key outcomes

5. For each of the following statements, please rate how far you agree with them (5 point scale, strongly disagree to strongly agree)
    a. The tool will enable doctors/medical students to place greater importance on considering disclosure
    b. The tool will help to increase awareness of the importance of managing mental ill health
    c. The tool will help doctors/medical students to feel more confident in being able to disclose
    d. The tool will help doctors/medical students to feel confident in understanding who they would choose to disclose to
    e. The tool will help doctors/medical students to be more confident in the disclosure options available to them
        i. Please add any additional explanation here

How well the tool signposts to support and resources

6. How satisfied were you with the range of support structures for mental ill health (e.g. helplines, OH, student services, charities) signposted to within the tool? (5 point scale, not at all satisfied, to very satisfied)
    a. Please explain your answer and detail any omissions
7. How far do you agree that the tool would help increase knowledge among doctors/medical students of the support structures available for mental ill health? (5 point scale, strongly disagree to strongly agree)
    a. Please explain your answer
8. How satisfied were you with the range of resources (e.g. information on mental health, self-help resources, websites) signposted to within the tool? (5 point scale, not at all satisfied to very satisfied)
    a. Please explain your answer and detail any omissions

9. How far do you agree that the tool would help increase knowledge among doctors/medical students of the resources available? (5 point scale, strongly disagree to strongly agree)
    a. Please explain your answer

How well the tool achieves additional outcomes

10. For each of the following statements, please rate how far you agree with them. (5 point scale, strongly disagree to strongly agree)
    a. The tool will help increase doctors' and medical students' awareness of their own mental health and wellbeing 5 point scale)
    b. The tool will help doctors/medical students address mental ill health in themselves
    c. The tool will help doctors/medical students address mental ill health in others
    d. The tool enables doctors/medical students to reflect on their own situation and make their own decisions
    e. The tool will help to promote self-care
    f. The tool could help increase self-referral to support services for mental ill health
    g. The tool could help increase patient safety
    h. The tool will enable doctors/medical students to make a prompt disclosure of their own mental health concerns
        i. Please add any additional explanation here

11. Do you have any suggestions for additional questions that should be included in this survey, or any comments on the wording of existing questions? (free text)
12. Is there anything else about the tool that you would like to comment on? (free text)
13. Finally, do you have any suggestions of what the app could be named? (free text)

If you would like to share your views on the tool in more depth, I would be interested in speaking to you over the phone soon after you have reviewed the tool. Please let Sarah know if this would be possible by emailing her at winstanleys@cardiff.ac.uk

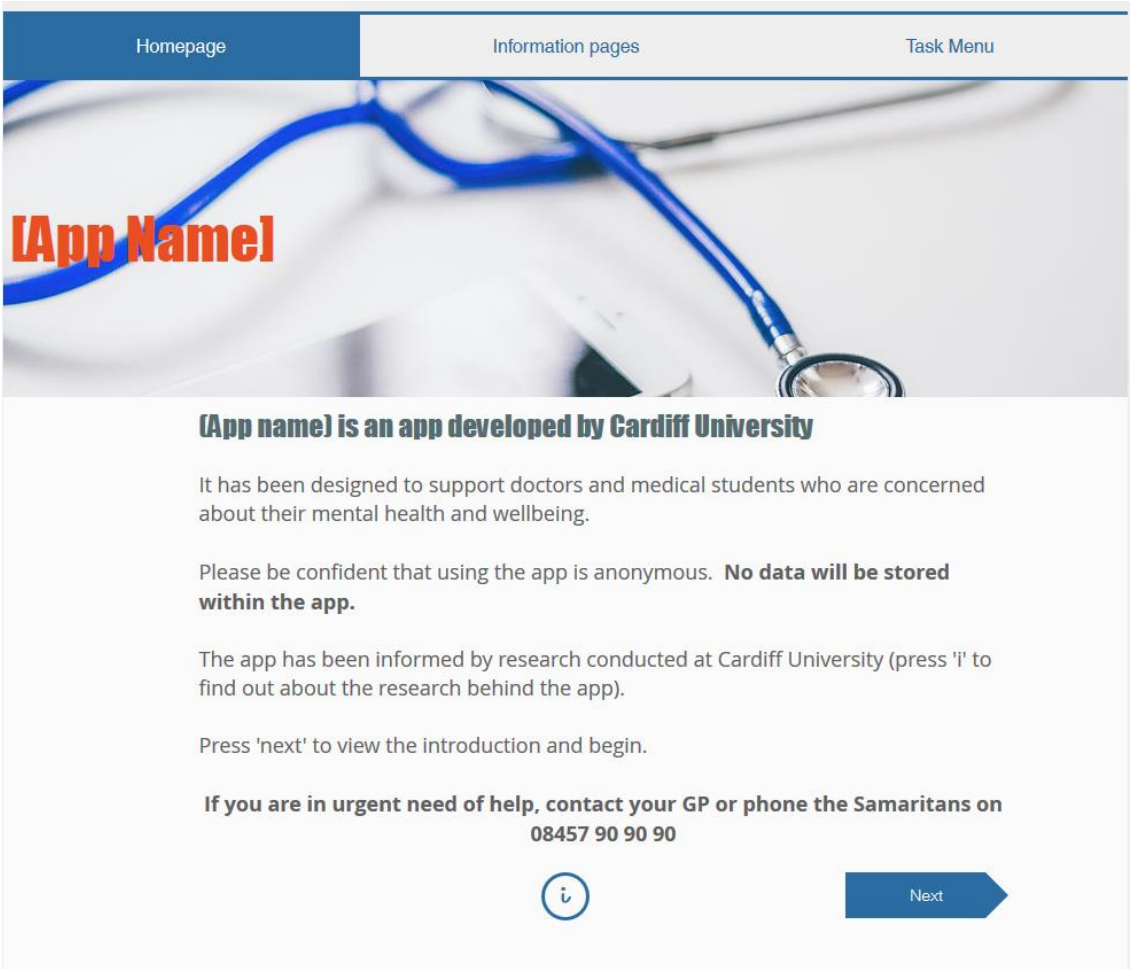
Appendix 4.8: final web-based tool content

Overview of the tool content

1. **Introductory pages**

The introductory page of the website (i.e. the 'homepage') provides a short introduction to its purpose (figure 1). The page also details where the user can access urgent help.

Figure 1: Screenshot of the intervention's homepage



The 'i' button links to an information page (discussed later), and the 'next' button allows the user to move sequentially through the intervention.

The banner at the top of the page includes a background image, the title of the intervention, and a horizontal menu bar. This menu provides navigation between all of the pages of the website, enabling users to move back and forth between tasks, and allowing access to the information pages at any time. This top section of the page remains the same throughout the intervention; to avoid repetition this is cropped out of the screenshots that describe subsequent pages.

Pages 2 (figure 2) and 3 (figure 3) of the intervention attempt to answer anticipated questions about the app. This includes addressing:

- Why someone might want to use the app
- What the app does
- How the app is to be used
- How long it will take to use the app
- What to do if any problems are encountered

Figure 2: Screenshot of page 2 of the intervention

Figure 3: Screenshot of page 3 of the intervention

Page 3

Using (app name)

What does it do?
The app won't tell you what to do. There is no right or wrong answer. It will help you decide **whether** you want to talk to someone, **when** you might want to talk to them and **how** to access the right kind of support for you. Remember, if you need urgent help, this app is not for you - please phone your GP, or alternatively phone the Samaritans on 08457 90 90 90. You can also call BMA Counselling on 0330 123 1245 - you don't have to be a BMA member to use it and it's for medical students too.

How do I use it?
The app will take you through a series of tasks, step by step. Find a quiet space before you begin, at a time when you are not likely to be disturbed. We would advise you to write down your thoughts privately at each stage as you go through the app. You will find it helpful to use a notebook (paper or electronic). You don't enter any personal information in the app, so you don't have to worry about who could access your private thoughts through the app.

How long will it take?
This app is not a quick-fix, one-time use. You will be presented with questions to stimulate your thoughts and tasks to consider and respond to if you want to. Take your time over this. Spend as much time as **you** need. There's no rush to move on to the next task. When you're ready to move on you can press 'Next', or press 'Pause' to exit the app and return to where you left off later.

What if I get stuck?
Throughout the app you will see the 'i' button that links to further information and advice that may help you complete a task. Remember though, your views and experiences will be completely unique.

Press 'next' to begin the tasks.

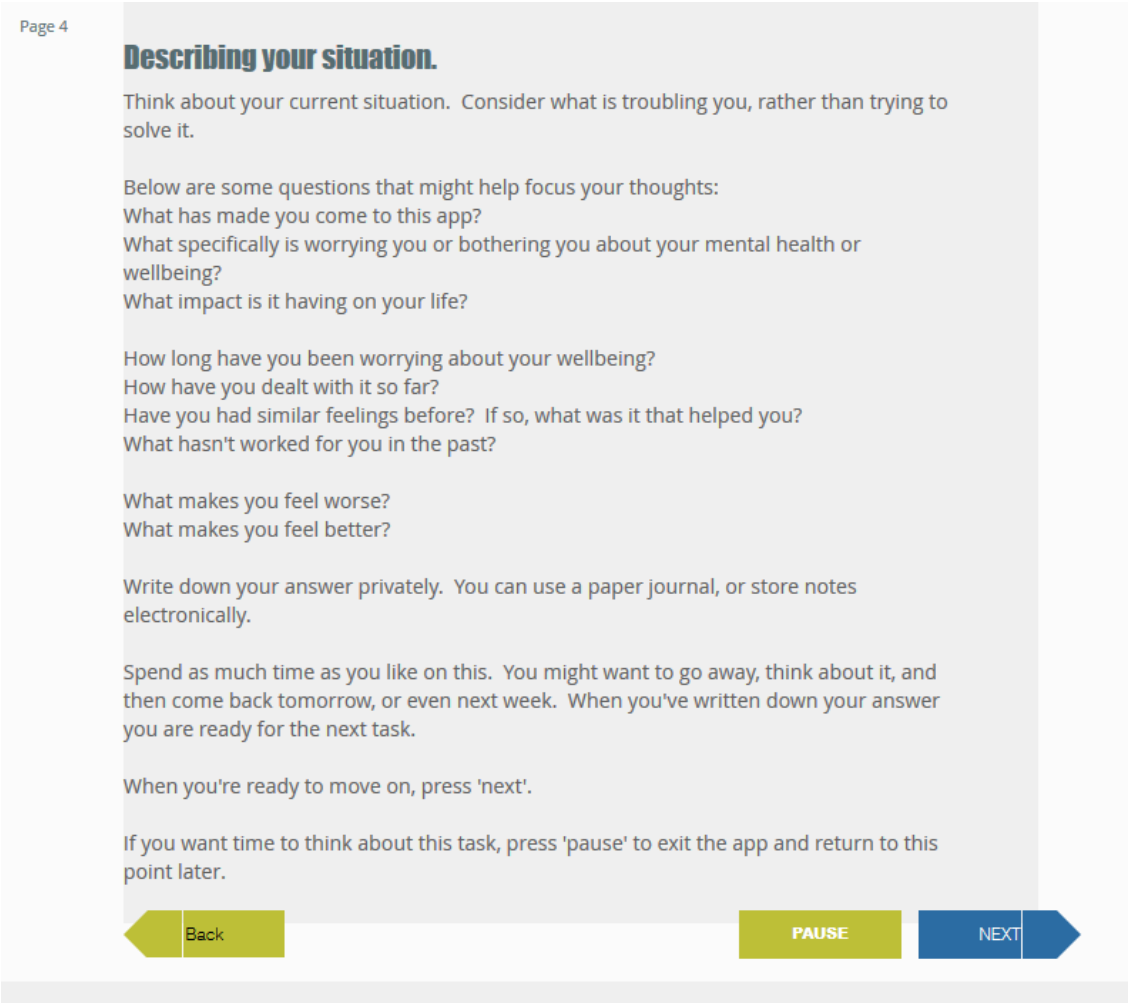
Back Next

2. Intervention Tasks

Page 4 of the intervention introduces 'Task 1: Describing your situation' (figure 4). The task is designed to help users reflect in-depth on their own situation.

This page also introduces a 'pause' button. In this web-version it is non-functional; it indicates that in an app, the user would have the function to close the app and return to the same page.

Figure 4: Screenshot of page 4 of the intervention



Page 5 introduces the first of two importance and confidence rating tasks used. Pages 6 to 8 then continue this task, asking users to reflect on the reasons they chose their importance/confidence ratings (figures 5 to 8).

Figure 5: Screenshot of page 5 of the intervention

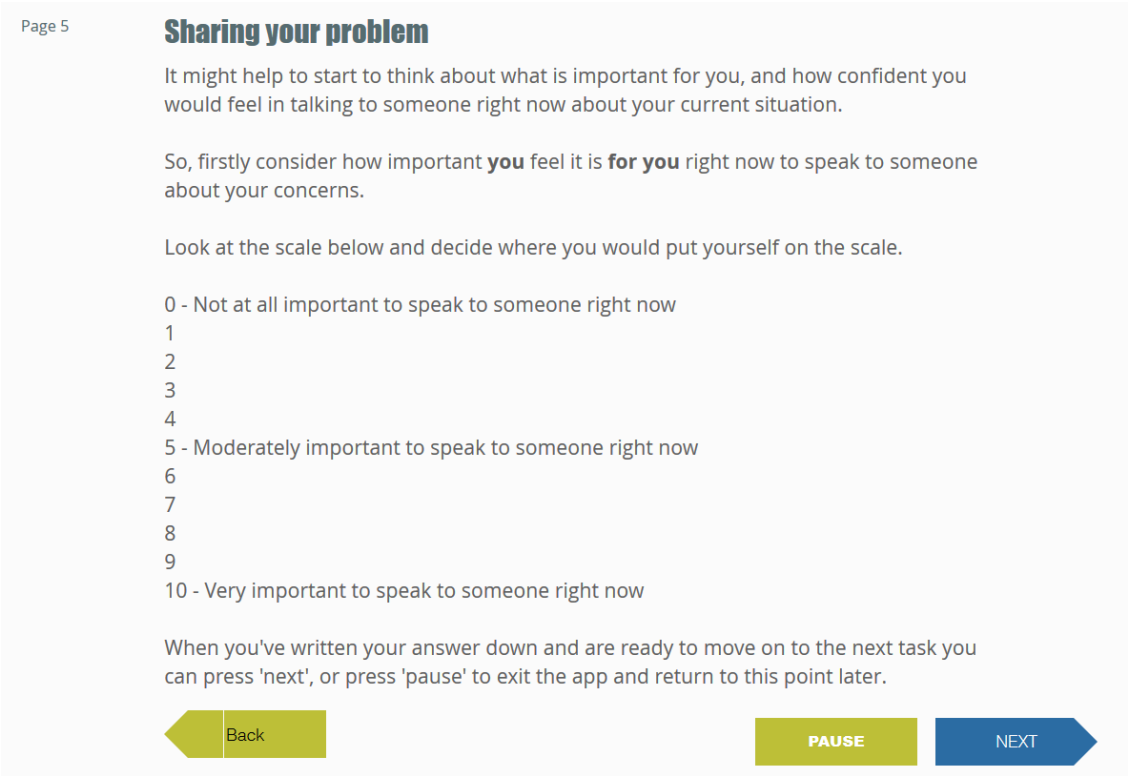


Figure 6: Screenshot of page 6 of the intervention

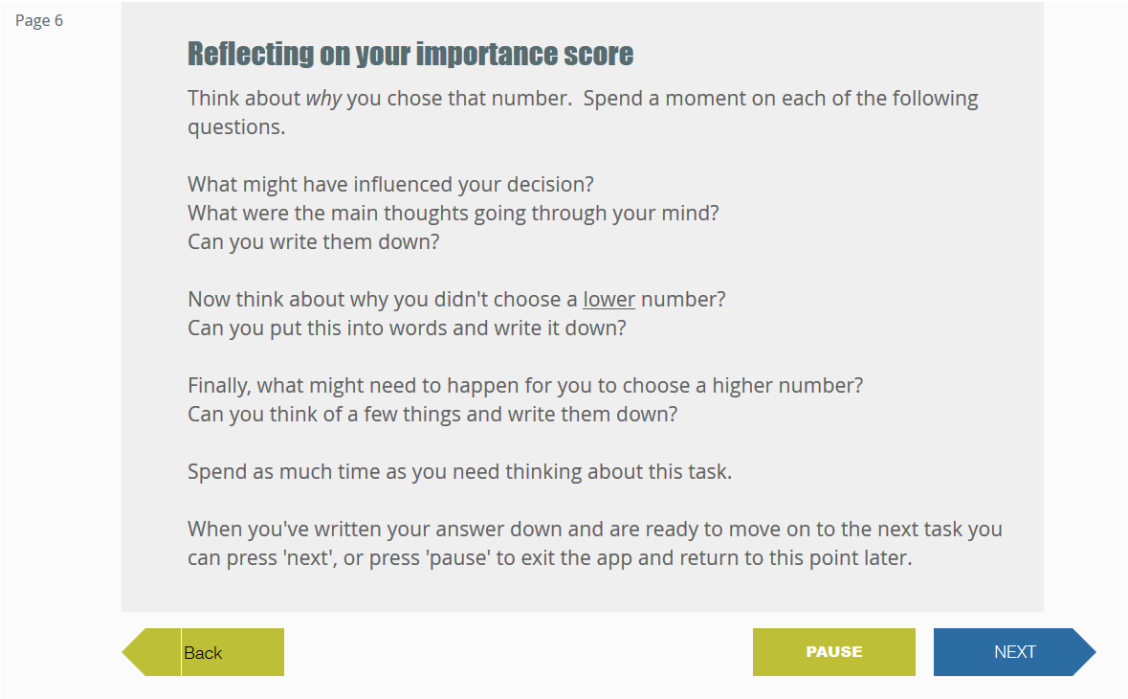


Figure 7: Screenshot of page 7 of the intervention

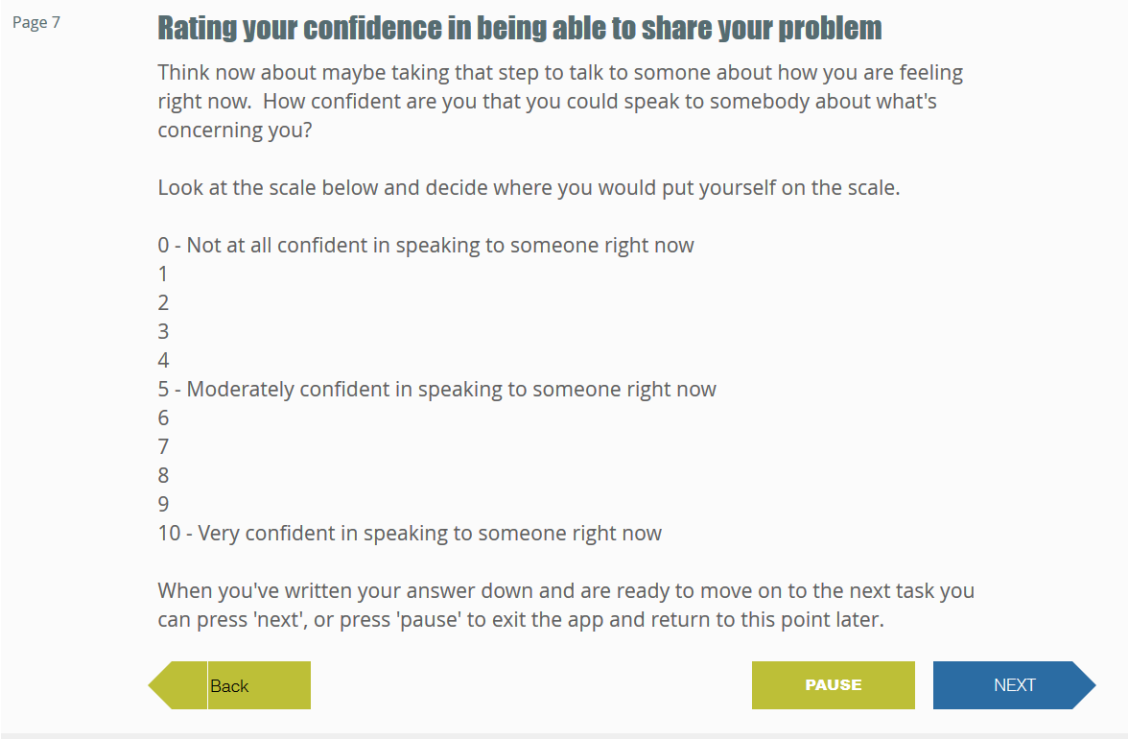
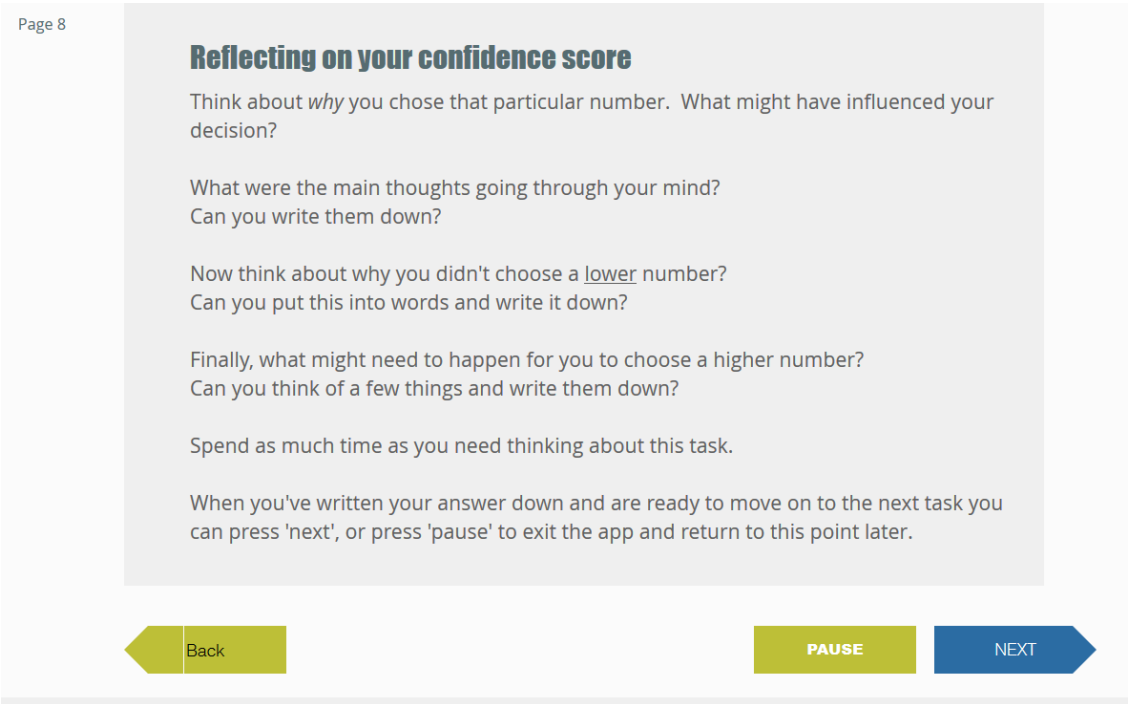


Figure 8: Screenshot of page 8 of the intervention



Page 9 introduces a new task, where users are asked to examine their core values (figure 9). This is followed by a reflective task on Page 10 (figure 10).

Figure 9: Screenshot of page 9 of the intervention

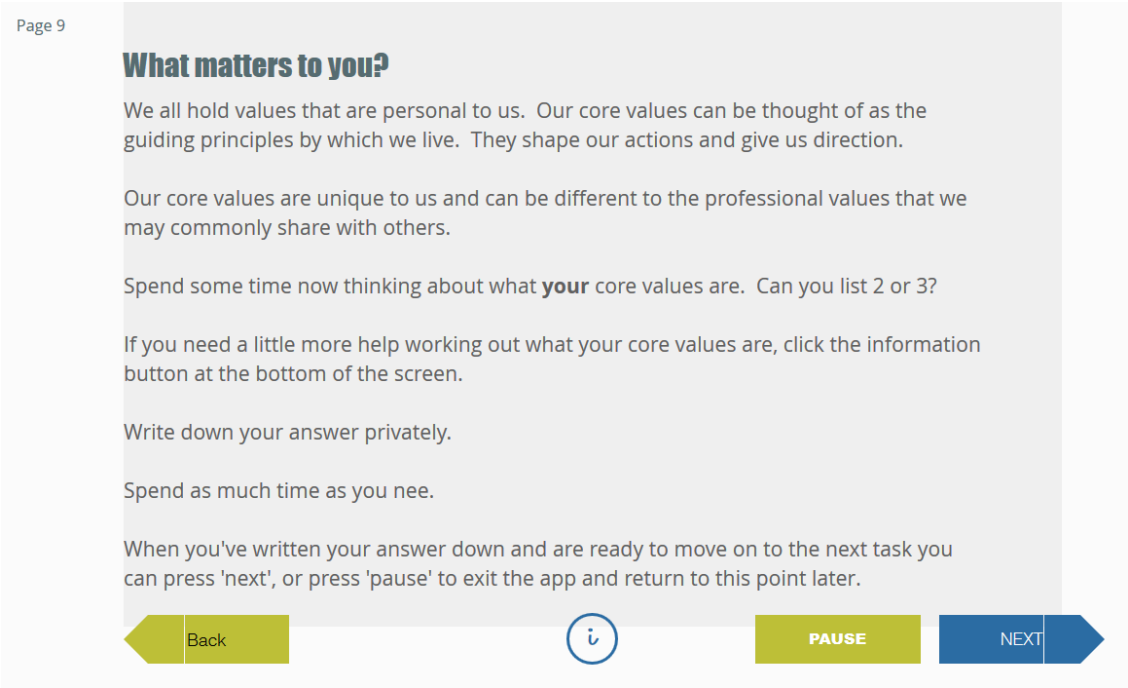
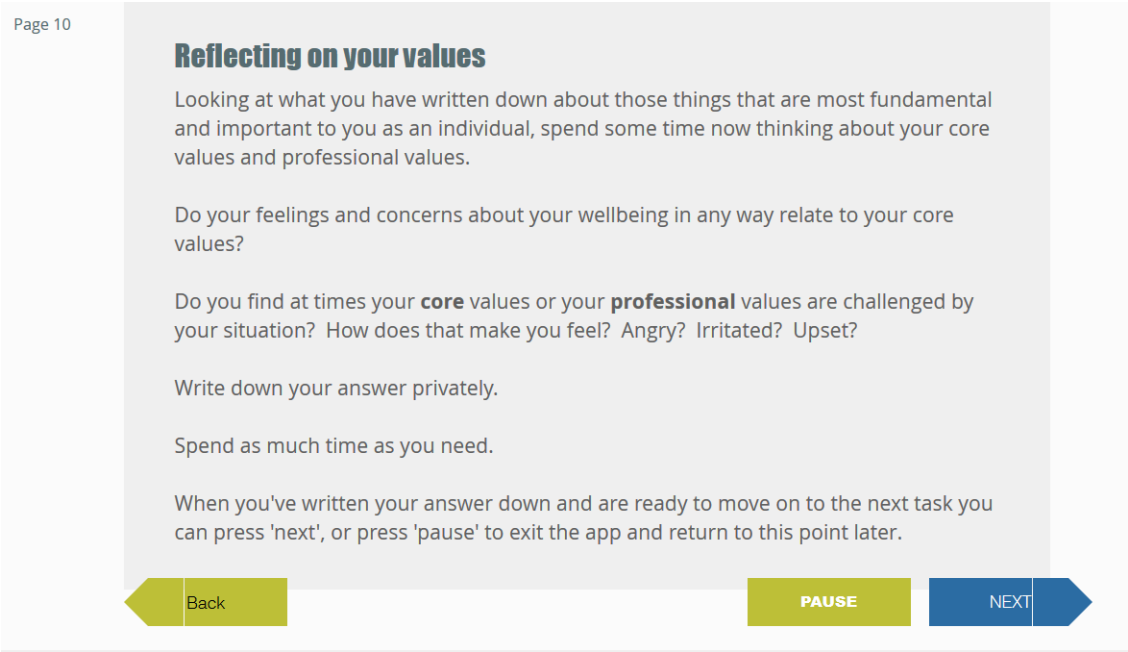
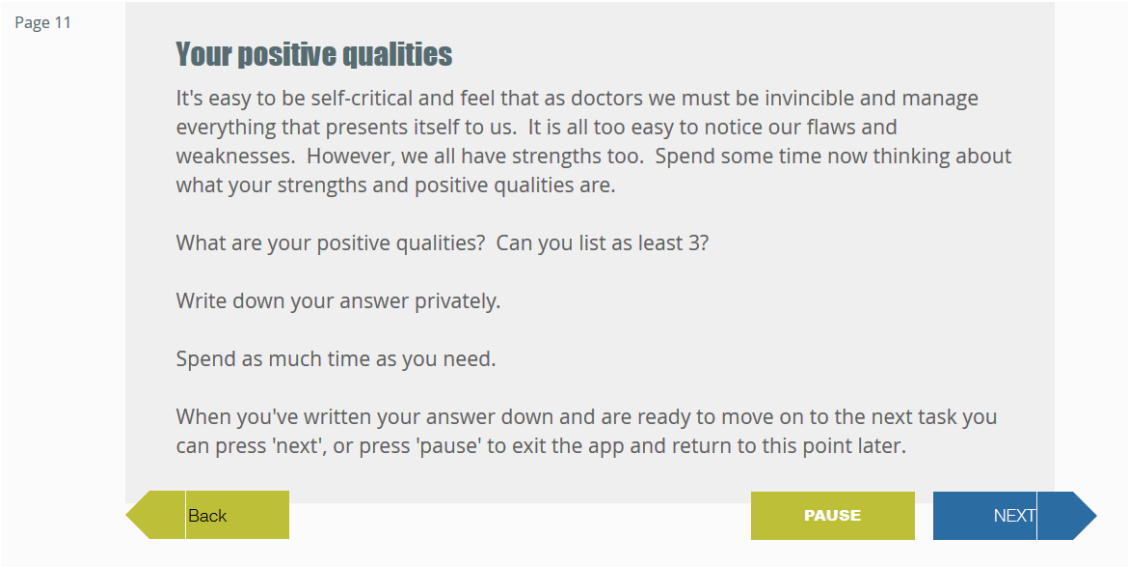


Figure 10: Screenshot of page 10 of the intervention



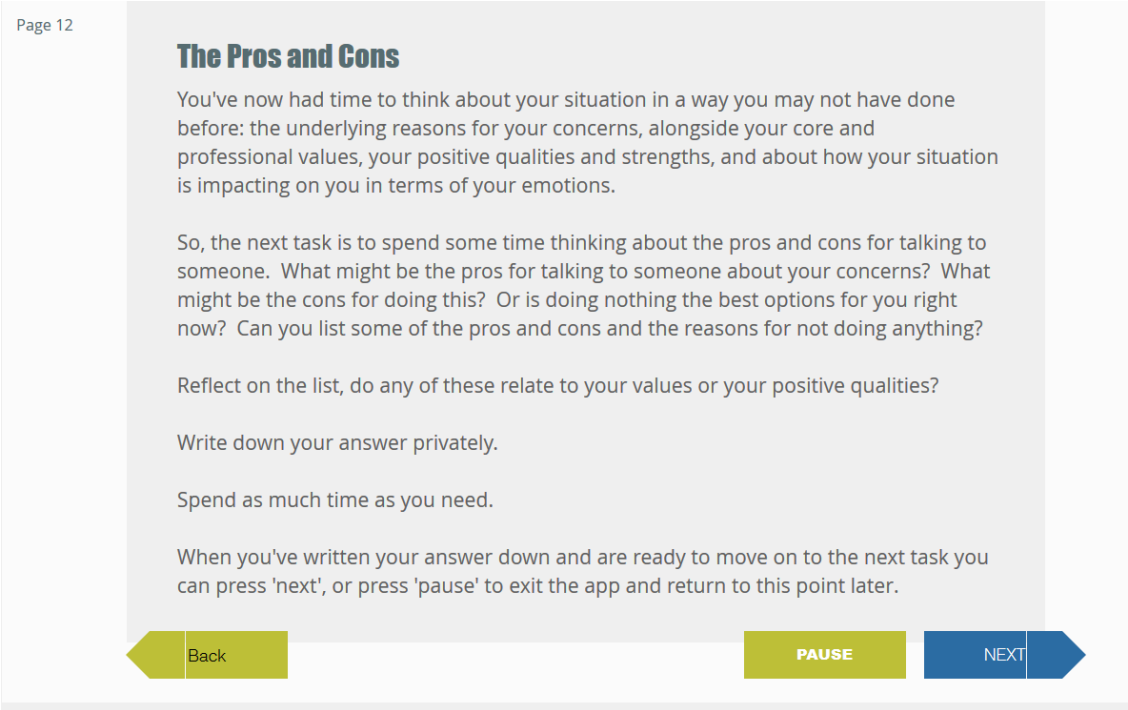
Page 11 contains a task about positive qualities (figure 11).

Figure 11: Screenshot of page 11 of the intervention



Page 12 introduces a reflective task to the user about the advantages and disadvantages of talking to someone about their mental ill health (figure 12).

Figure 12: Screenshot of page 12 of the intervention



Page 13 introduces an 'observation task', where users are encouraged to make observations over a working week (figure 13). Page 14 is then a reflective task on those observations (figure 14).

Figure 13: Screenshot of page 13 of the intervention

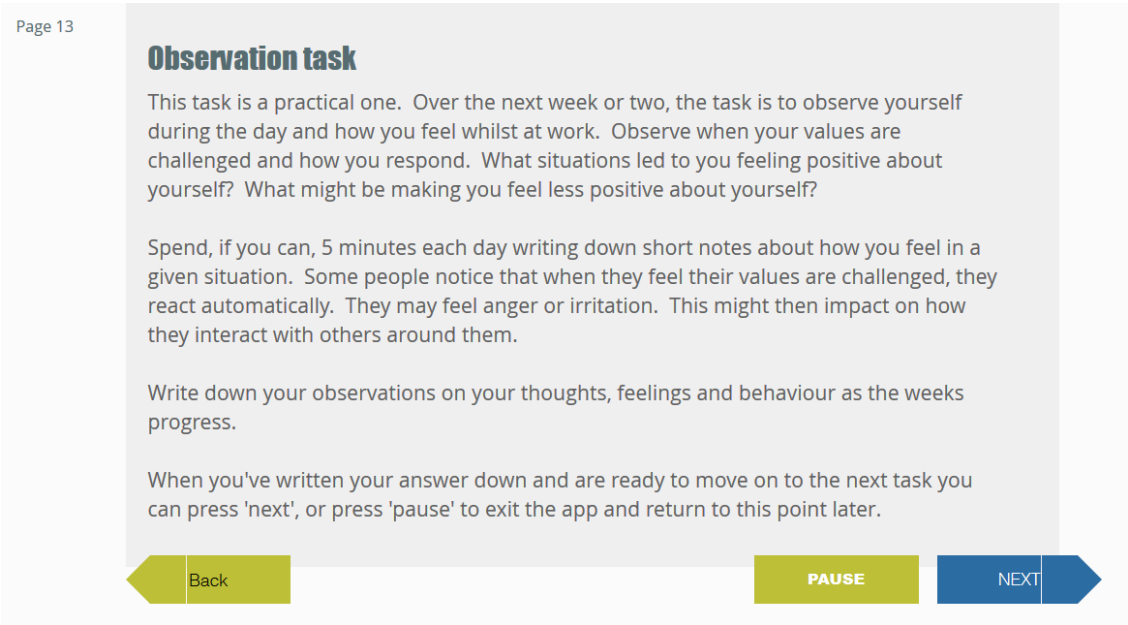
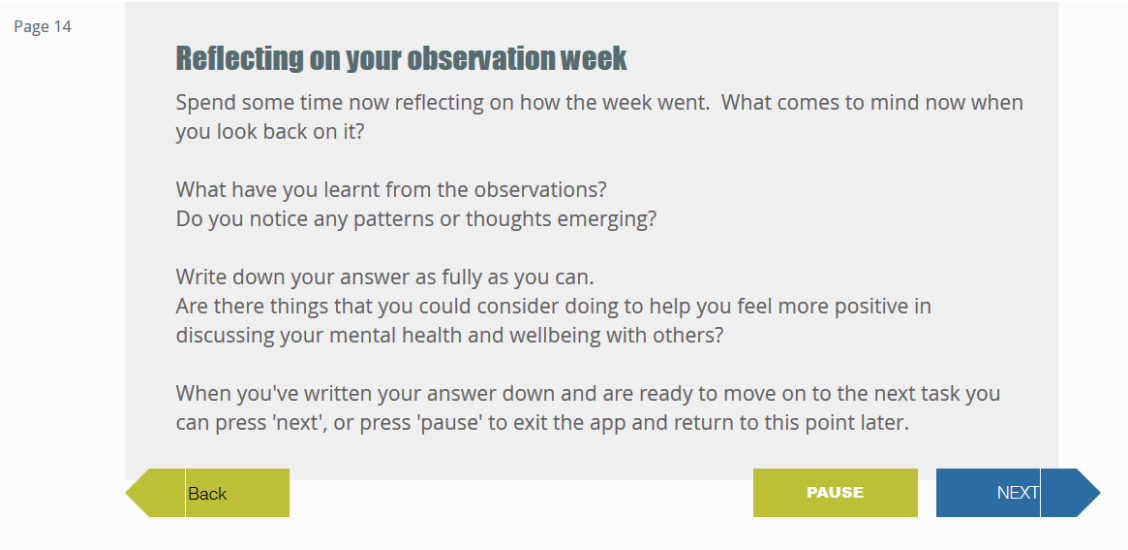


Figure 14: Screenshot of page 14 of the intervention



On page 15, the second of the two importance and confidence rating activities is introduced (figure 15). This task continues over pages 16 to 18 (figures 16 to 18).

Figure 15: Screenshot of page 15 of the intervention

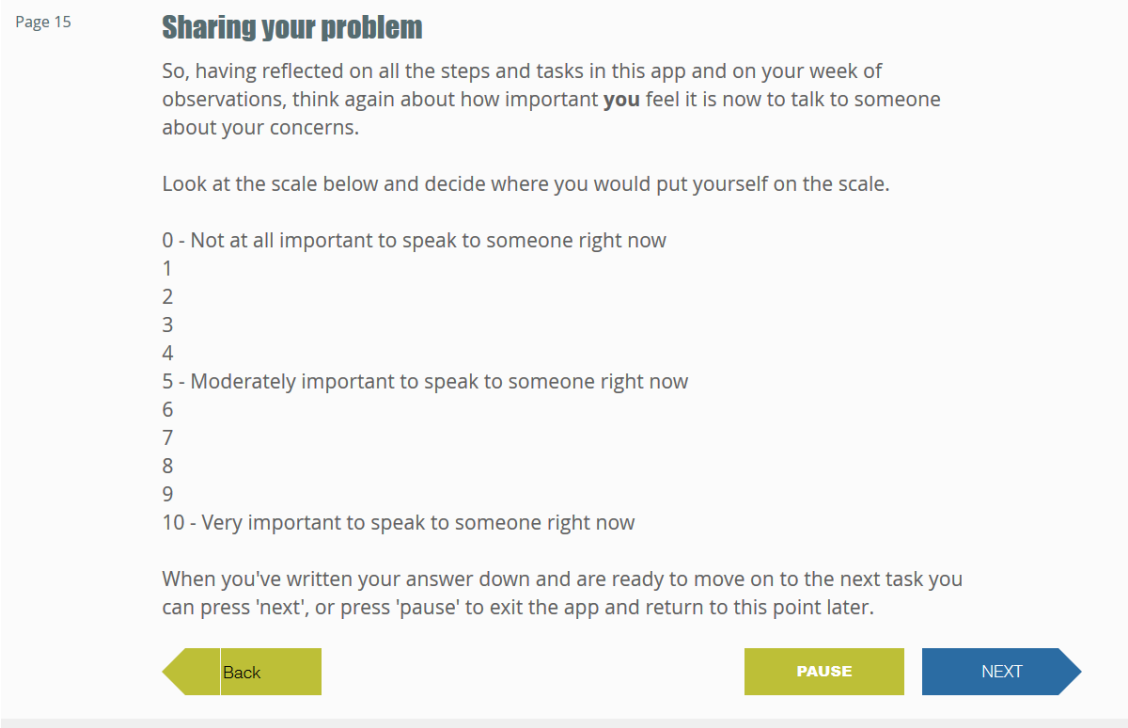


Figure 16: Screenshot of page 16 of the intervention

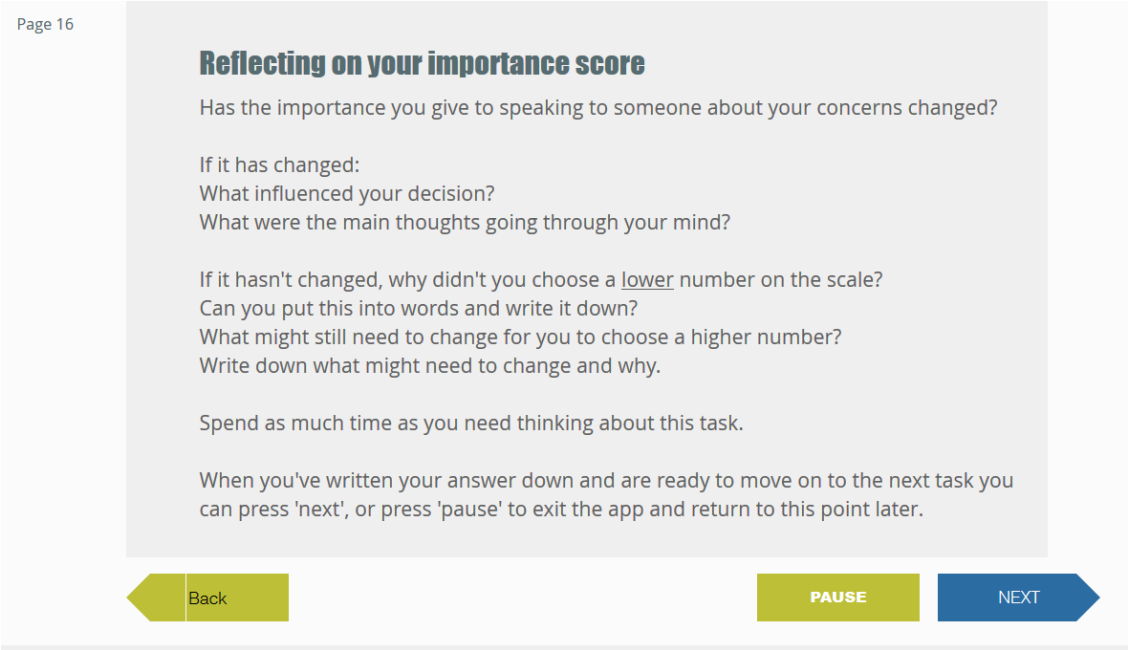


Figure 17: Screenshot of page 17 of the intervention

Page 17

Rating your confidence in being able to share your problem

So, having reflected on all the steps and tasks in this app and on your week of observations, think again about how confident you feel now in talking to someone about your concerns now.

Look at the scale below and decide where you would put yourself on the scale.

0 - Not at all confident in speaking to someone right now
1
2
3
4
5 - Moderately confident in speaking to someone right now
6
7
8
9
10 - Very confident in speaking to someone right now

When you've written your answer down and are ready to move on to the next task you can press 'next', or press 'pause' to exit the app and return to this point later.

Back PAUSE NEXT

Figure 18: Screenshot of page 18 of the intervention

Page 18

Reflecting on your confidence score

Has your confidence changed in speaking to someone about your mental health and wellbeing changed?

If it has changed:
What influenced your decision?
What were the main thoughts going through your mind?

If your confidence hasn't changed:
Why didn't you choose a lower number on the scale?
Can you put this into words and write it down?
What might need to change for you to choose a higher number?
Write down what still might need to change and why.

Spend as much time as you need thinking about this task.

When you've written your answer down and are ready to move on to the next task you can press 'next', or press 'pause' to exit the app and return to this point later.

Back PAUSE NEXT

3. Final page

The intervention's concluding page (figure 19) suggests some 'next steps' for users, and includes a link to the feedback survey to be used in the evaluation.

Figure 19: Screenshot of page 19 of the intervention

Page 19

Next steps

We hope this app has helped you to start to consider your next steps and how you might approach seeking guidance and support if you decide to do so.

Thinking about where you've come from and where you are now, what might be your next steps?

If you have decided that you **are** going to speak to someone about what's concerning you, you might like to consider the questions below.
Who are you going to speak to?
How much information are you going to give them?
When are you going to do it?
What do you want to get out of the conversation?
What are you going to do if you don't get the response you would like?

A starting point for speaking to someone could be to contact your GP or someone whose opinion you trust and value.

To view a list of those people or organisations you could contact to discuss your situation, please click the information button at the bottom of the screen.

If you have decided that you are **not ready** to speak to someone about what's concerning you, write down at what point you think you would be ready.

It might be helpful to think about:
What would have to happen for you to be ready to speak to someone?
What would increase your confidence in being able to speak to someone?
What would make it more important for you to speak to someone?

If you are still not sure what to do or feel speaking to someone is not the right decision for you right now, then maybe revisit the app another time if things change for you.

Press 'Pause' to exit the app and return to this point later.

If you have finished using the app, press 'finish' to exit. Remember that you can return to it at any point in the future.

Thank you for looking at our tool. Your feedback is very important to us. Now please click the link below to complete the required feedback survey. It will take no more than 10 minutes.

https://cardiff.onlinesurveys.ac.uk/disclosure-tool-pilot

If you have any queries, comments, or technical difficulties, please contact Sarah Winstanley on winstanleys@cardiff.ac.uk

Back PAUSE FINISH

4. Supplementary pages

In addition to the main sequential tasks of the intervention, there are three supplementary pages that give additional information. The first of these is an 'about the research' page that is accessed via the 'i' button on the homepage, and through the drop-down menu (figure 20).

Figure 20: Screenshot of 'about the research' page

The second information page provides examples of what core values are, to assist users in completing the core value task. This information page is accessed by the button on the core values task page, and through the drop-down menu (figure 21).

Figure 21: Screenshot of values information page

Page 8A

A bit more about values

Below is a list of personal values that you might want to read through to help you pick what you think are your own values. It is not an exhaustive list, and you might want to rephrase them into your own words.

Acceptance	Friendship	Order
Accuracy	Fun	Passion
Achievement	Generosity	Pleasure
Adventure	Genuineness	Popularity
Attractiveness	God's Will	Power
Authority	Growth	Purpose
Autonomy	Health	Rationality
Beauty	Helpfulness	Realism
Caring	Honesty	Responsibility
Challenge	Hope	Risk
Change	Humility	Romance
Comfort	Humor	Safety
Commitment	Independence	Self-acceptance
Compassion	Industry	Self-control
Contribution	Inner peace	Self-esteem
Cooperation	Intimacy	Self-knowledge
Courtesy	Justice	Service
Creativity	Knowledge	Sexuality
Dependability	Leisure	Simplicity
Duty	Loved	Solitude
Ecology	Loving	Spirituality
Excitement	Mastery	Stability
Faithfulness	Mindfulness	Tolerance
Fame	Moderation	Tradition
Family	Monogamy	Virtue
Fitness	Non-conformity	Wealth
Flexibility	Nurturance	World Peace
Forgiveness	Openness	

When you're ready to return to the task on your core values, click 'return'.

Reference: Card Sort. W.R. Miller, J. C'de Baca, D.B. Matthews, P.L.. Wilbourne. University of New Mexico, 2001

Return

The final information page is a resource where users may find details of support services. This page can be accessed through the 'i' button on the 'next steps' page, and through the drop-down menu (figure 22).

Figure 22: Screenshot of resources page

Page 18A

Who can I speak to?

Urgent help:

1. Your GP (or their out of hours service)
2. The Samaritans on 08457 90 90 90 (24 hours)
3. BMA Counselling on 0330 123 1245 (24 hours)
4. Nightline (8pm to 8am) – find your local number here: http://nightline.ac.uk/

If your need to speak to someone is less urgent, you might find some of the suggestions below useful.

Support through your employer/ training organisation/medical school
Your Occupational Health department
Deanery support services
Your line manager
Wellbeing services
University student support and wellbeing services

Support through your specialty
Many specialties offer specific support – check your college or faculty's website.

Specialist Services and charities for doctors and medical students

UK wide services

BMA Counselling: 0330 123 1245
BMA Counselling is staffed by professional telephone counsellors 24 hours a day, 7 days a week. For medical students as well as doctors.

BMA Doctor Advisor Service: 0330 123 1245
The Doctor Advisor service runs alongside BMA Counselling giving doctors and medical students in distress or difficulty the choice of speaking in confidence to another doctor.

Doc Health: http://www.dochealth.org.uk/
Run by the BMA and RMBF, Doc Health is a new confidential, not for profit, psychotherapeutic consultation service for all doctors.

The British Doctors and Dentists Group: http://www.bddg.org/
A mutual support society for doctors and dentists who are recovering, or wish to recover, from addiction/dependency on alcohol or other drugs.

Doctor's Support Network: http://www.dsn.org.uk/
Fully confidential, friendly peer support group for doctors and medical students with mental health concerns.

The Royal Medical Benevolent Fund: http://www.rmbf.org/
Charity for doctors, medical students and their families. Provides financial support, money advice and information when it is most needed due to age, ill health, disability or bereavement.

The Sick Doctors Trust: http://sick-doctors-trust.co.uk/
Support and help for doctors, dentists and medical students who are concerned about their use of drugs or alcohol.

The Cameron Fund: http://www.cameronfund.org.uk/
Provides support to GPs and their families in times of financial need, whether through ill-health, disability, death or loss of employment.

The Doctor Support Service: 020 7383 6707
Confidential support service from the BMA for doctors who face the ordeal of GMC fitness to practice hearings.

Royal Medical Foundation: http://www.royalmedicalfoundation.org/
Assists registered doctors and their families who are in financial hardship.

Defence Unions
Contact your defence union for full details of the support they offer.

Regional Services

PHP (The Practitioner Health Programme): http://php.nhs.uk/
For medical students and doctors. London-based free and confidential NHS service for doctors and dentists with issues relating to a mental or physical health concern or addiction problem, in particular where these might affect their work.

Health for Health Professionals Wales: http://www.hhpwales.co.uk/
Confidential face to face counselling service for all doctors in Wales. Any doctor working in Wales is offered up to 8 sessions of CBT free of charge.

Enfys: http://www.enfys.wales/
Support for qualified doctors in Wales with addiction difficulties.

NHS GP Health Service: (web address)
English service for GP trainees and GPs only.

General Services and Charities

It's Good To Talk: http://www.itsgoodtotalk.org.uk/
This is a BACP (British Association for Counselling and Psychotherapy) run website where you can find a local counsellor.

The Samaritans: http://www.samaritans.org/
Free phone number, available 24 hours a day, 365 days a year. You don't have to be suicidal to call.

Mind: www.mind.org.uk
Charity providing advice and support to empower anyone experiencing a mental health problem.

ACAS (Advisory, Conciliation and Arbitration Service): http://www.acas.org.uk/
Provides information, advice, training, conciliation and other services for employers and employees to help prevent or resolve workplace problems.

Information

Support 4 Doctors: http://www.support4doctors.org/
An RMBF run site, this is an online portal of information for UK doctors.

GMC: http://www.gmc-uk.org
The GMC has comprehensive information on its website, including guidance on supporting medical students with mental ill health, and common myths.

Return

Appendix 5.1: tool evaluation study invitation

Helping doctors and medical students who are concerned about their mental health

Doctors and medical students with concerns about their own mental health face difficult decisions about who to turn to. Cardiff University has created a new decision support tool, to help doctors and medical students in their decision-making about whether to speak to someone about their mental health concerns.

To take part in the pilot of the tool, you will need to review the tool by following the link below. The last page of the tool has a link to a short feedback survey. Reviewing the tool and completing the survey should take no longer than 30 minutes in total. At the end of the survey, you will be able to request a CPD certificate that you will be able to use towards appraisal and revalidation.

Link to tool: http://winstanleys.wixsite.com/pilot-version-2

We would like you to simply read through the tool. **You are not required to actually complete the tasks within the tool, simply to read through them.** The feedback survey has some specific questions about the tool. It also gives you the opportunity to type any additional information that you would like to include.

We are providing the link to the feedback survey as well here:

Link to survey: https://cardiff.onlinesurveys.ac.uk/disclosure-tool-pilot-2

Many thanks for your help. If you have any queries, comments or technical difficulties, please contact Sarah Winstanley on winstanleys@cardiff.ac.uk

Appendix 5.2: tool evaluation feedback questionnaire

Thank you for reviewing our draft tool. We would now like you to answer some specific questions in our feedback survey. If you haven't reviewed the tool, please do so at the following web address, before returning here to complete the survey. **Link to tool:** **http://winstanleys.wixsite.com/pilot-version-2**

Which of the following best describes you? ***(Vet survey version only)***

- Veterinary student
- Qualified vet
- Medical student
- Doctor
- Other (Please specify)

Your general views on the tool

1. The aim of the tool is to support doctors/medical students to consider disclosure of their mental ill health. To what extent do you think the tool achieves this? (5 point scale, clearly achieves this to does not achieve this at all)
    a. Why did you choose that score? (Free text)

Achieving key outcomes

2. How clear was it to follow the tasks described within the tool? (5 point scale, very clear to not clear at all)
    a. Why did you choose that score? (Free text)

3. How easy was it to navigate around the tool? (5 point scale, very easy to not easy at all)
    a. Why did you choose that score? (Free text)

4. To what extent do you agree with the following statements?
   (5 point scale, strongly agree to strongly disagree)

- The tool will help doctors/medical students to feel more confident in being able to disclose
- The tool will help doctors/medical students to feel more confident in deciding who they would choose to disclose to
    a. Please leave any comments about why you chose those scores here

Signposting to resources

5. To what extent do you agree with the following statements? (5 point scale, strongly agree to strongly disagree)

- The range of resources signposted to within the tool is adequate
- The tool increases knowledge among doctors/medical students of the resources available to support mental ill health
- The tool gives doctors/medical students a greater understanding of the disclosure options available to them
    a. Please leave any comments about why you chose those scores here

6. To what extent do you agree with the following statements? (5 point scale, strongly agree to strongly disagree)

- The tool helps doctors/medical students address mental ill health in themselves
- The tool enables doctors/medical students to reflect on their own situation and make their own decisions
- The tool could help increase self-referral to support services for mental ill health
- The tool is likely to support doctors/medical students to make a more prompt disclosure of their own mental health concerns

    a. Please leave any comments about why you chose those scores here

7. Would you recommend this tool? (Yes/no)
    a. Please leave any comments about recommending this tool here.

8. If there is anything else about the tool that you would like to comment on, please do so here (free text)

9. If you have any suggestions for the name of this tool please comment here (free text)

10. We hope to develop the tool into an app for mobile devices. Do you have any suggestions of websites or organisations that should signpost to it? (free text)

Appendix 5.3: tool evaluation information sheet and consent form

Study Title: Development of a tool to guide doctors' and medical students' decision-making about disclosing their own mental ill health to others

Invitation paragraph
Cardiff University is conducting a pilot of a tool to guide doctors' and medical students' decision-making about disclosing their own mental ill health to others, and you are being invited to participate in piloting this tool. We are inviting a broad range of doctors and medical students to review the tool and answer a short questionnaire about it. We are keen to hear the views of individuals who have and have not personally experienced mental ill health.

What is the purpose of the study?
We are piloting a tool to guide doctors' and medical students' decision-making about disclosing their own mental ill health to others

Do I have to take part?
Your participation is completely voluntary. You are free to withdraw at any time before submitting the questionnaire, without giving a reason. Once the anonymous questionnaire is submitted, we will not be able to remove your data.

What will happen to me if I take part?
You are being asked to look at the tool and give your feedback on it via an anonymous questionnaire.

What about confidentiality?
All information that is collected from you is anonymous; therefore it is impossible to trace this information back to you individually.

What do I have to do?
You are being asked to look at the tool and then answer a short questionnaire about it, which will take approximately 10 minutes.

Are there any risks?
This study contains minimal risk. Please consider the above information carefully before you decide whether you would like to take part.

What will happen to the results of the research study?
The results of the pilot will help to inform a final version of the tool, which will then be further evaluated through focus groups and use of the tool.

Who is organising and funding the research?
The Wales Deanery is funding the research, which is being undertaken by Cardiff University.

Contact for further information
If you have any questions about the questionnaire please contact Sarah Winstanley at winstanleys@cardiff.ac.uk.

Consent

Please read the following carefully:

1. I confirm I have read and understood the information for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

2. I understand my participation is voluntary and that I am free to withdraw at any time without giving reason up until the questionnaire has been submitted. ☐

3. I understand that the information provided by me is anonymous, so that it is impossible to trace this information back to me individually. I understand that, in accordance with the Data Protection Act (1998), this information may be retained for up to 5 years after the end of the research study. ☐

4. I understand that data collected in this survey may be presented at conferences and meetings. ☐

5. I understand that by completing the questionnaire I am agreeing to take part in the above study and give my permissions for my responses to be used. ☐