

**Hearing voices: How do substances  
affect the relationship with voices,  
coping and compliance?**

**Lucy Redstone**

**A thesis submitted in partial  
fulfilment of the requirements of the  
University of Lincoln for the degree  
of Doctorate in Clinical Psychology**

**2011**

## Table of Contents

<b>Abstract</b>	<b>1</b>
<b>Statement of Contribution</b>	<b>2</b>
<b>Part 1: Journal Paper</b>	<b>3-39</b>
<b>1.1 Introduction</b>	<b>5-11</b>
<b>1.2 Method</b>	<b>12-18</b>
<b>1.3 Results</b>	<b>19-28</b>
<b>1.4 Discussion</b>	<b>29-33</b>
<b>1.5 Conclusion</b>	<b>33</b>
<b>1.6 References</b>	<b>34-39</b>
<b>Part 2: Extended Paper</b>	<b>40-124</b>
<b>2.1 Extended background</b>	<b>40-67</b>
<b>2.2 Extended results</b>	<b>68-84</b>
<b>2.3 Extended discussion</b>	<b>85-102</b>
<b>2.4 References</b>	<b>103-122</b>
<b>Part 3: Appendices</b>	<b>123-160</b>
<b>3.1 Ethical approval documents</b>	<b>123-130</b>
<b>3.2 Recruitment and data collection materials</b>	<b>131-144</b>
<b>3.3 Analysis</b>	<b>145-154</b>
<b>3.4 Participant feedback</b>	<b>155-157</b>
<b>3.5 British Journal of Clinical Psychology –         manuscript requirements</b>	<b>158-160</b>

## Abstract

*Objectives:* The cognitive model offers a useful framework to understand the emotional and behavioural consequences of voice-hearing experience. Substance use can be viewed as a way of coping with these emotional and behavioural consequences. This research explores how substance use as a coping strategy may affect voice-hearers' beliefs about their relationships with the voices, how they cope with the voices and compliance with command hallucinations.

*Design:* This research used a qualitative design to analyse the experiences of participants that have used substances as a way of coping with hearing voices giving commands. Participants were recruited from early intervention services and community mental health services within a local NHS Trust.

*Methods:* Semi-structured interviews were held with nine participants and analysed using a thematic analysis to identify themes amongst the accounts of their experiences. Participants also completed a Beliefs About Voices Questionnaire (BAVQ-R) as a triangulation measure of the appraisals of the voices.

*Results:* Six themes in total were identified during the analysis and a theme of control was interpreted as central to the research question. These themes were: Control; emotional moderation; relationships; self-concept; understanding of psychosis and function of the substance use. Many participants viewed themselves as passively using substances which took control of themselves and their voices. Participants also used substances to disengage from the emotional effect of hearing voices

*Conclusions:* The research suggests that people who hear voices may use substances to lessen the control of the voice. For some this may mean remaining passive and attributing substances (including anti-psychotic medication) as having control over the voice. This has implications for how services can successfully engage individuals in treatment. The effect of substance use on compliance with commands remains unclear.

## **Statement of Contribution**

I, the lead researcher was involved throughout the research process by designing the research, the ethical application and the collection and analysis of the data. I would like to thank my research tutor for contributing to the initial research design and critically reviewing my written work.

I would also like to thank both of my clinical research supervisors, who contributed a lot of time into planning and implementing the recruitment process. They also supported me throughout the research process, especially contributing to the analysis process.

I would like to thank all the participants and care co-ordinators for their support with this research.

## **Part I: Journal Paper**

### **Hearing voices: How do substances affect the relationship with voices, coping and compliance?**

**Lucy Redstone, Mark Gresswell, Noel McGrath and Danielle De Boos**

*Objectives:* The cognitive model offers a useful framework to understand the emotional and behavioural consequences of voice-hearing experience. Substance use can be viewed as a way of coping with these emotional and behavioural consequences. This research explores how substance use as a coping strategy may affect voice-hearers' beliefs about their relationships with the voices, beliefs about coping with the voices and compliance with command hallucinations.

*Design:* This research qualitatively analysed the experiences of participants that have used substances as a way of coping with hearing voices giving commands.

*Methods:* Semi-structured interviews were held with nine participants and analysed using a thematic analysis to identify themes amongst the accounts of their experiences.

*Results:* Six themes in total were identified during the analysis and a theme of control was interpreted as central to the research question. Some participants viewed themselves as passively using substances which took control of themselves and their voices.

*Conclusions:* The research suggests that people who hear voices may use substances to lessen the control of the voice. For some this may mean

remaining passive and attributing substances (including anti-psychotic medication) as having control over the voice. This has implications for how services can successfully engage individuals in treatment. The effect of substance use on compliance with commands remains unclear.

## **1.1 Introduction**

Around one in every 200 people experience symptoms of psychosis, defined as a mental state where the line between belief and reality is obscure (Bentall, 2004; Sproston & Nazroo, 2002). Symptoms of a psychotic disorder may include delusions, disorganised speech, catatonic behaviour and hallucinations (American Psychiatric Association (APA), 2000). Research into psychosis has focused on schizophrenia, a type of psychotic disorder. As such, the term schizophrenia is hereafter used to refer to research that has been conducted with individuals with that particular diagnosis. Schizophrenia is a well-known psychotic disorder that is described in terms of positive and negative symptoms. Negative symptoms involve lowered functioning such as flattened affect and reduced speech. Positive symptoms refer to the psychotic symptoms (APA, 2000).

Hallucinations are convincing perceptual events not objectively experienced by others. To the person experiencing a hallucination, it appears to be a sensory experience, indistinguishable from objective sensory experiences (Oyeboode, 2008). However, the interpretation of this experience is important and is often distressing (Chadwick, Birchwood & Trower, 1996). The present research focuses on auditory hallucinations, where a person hears a voice. [See 2.1.1 Definition of psychotic disorder and auditory hallucinations]

This research has chosen to explore the experiences of people who hear voices that give them an instruction, often referred to as 'command hallucinations' (Braham, Trower & Birchwood, 2004). These range from less harmful or

innocuous commands (e.g. instructions to make a cup of tea) to more serious commands involving violence or self-harm (Beck-Sander, Birchwood & Chadwick, 1997).

[See 2.1.2 Models of psychosis and hallucinations]

*Chadwick and Birchwood (1994): The Omnipotence of Voices*

Cognitive-behavioural theories centre on the idea that emotional and behavioural reactions in a situation result from the cognitive appraisal of the situation (Chadwick et al., 1996). Over the last twenty years, considerable research into cognitive-behavioural explanations of psychosis has been conducted (Jones, Cormac, Silveira da Mota Neto & Campbell, 2004). However, there is not a single cognitive-behavioural explanation, but different models to explain the different symptoms of psychosis (e.g. Morrison, Haddock & Tarrier, 1995). Benjamin (1989) argued that content of auditory hallucinations affected an individual's reaction and the function the voice serves needs to be fully understood prior to intervention.

Chadwick and Birchwood (1994) disagreed with Benjamin's (1989) position arguing that it was the appraisal of the voice rather than the content which determined a person's emotional and behavioural reaction. Three characteristics have been found to be attributed to the voice; omnipotence, malevolence and benevolence (Chadwick & Birchwood, 1994).

Chadwick and Birchwood's (1994) study highlighted some incongruence between the content of the voice and the reaction but later research found that



the characteristics they identified were always congruent with the content (Close & Garety, 1998). The study did not identify appraisals that would determine if people would comply with command hallucinations. However, the study did succeed in beginning to standardise categories for assessment and treatment of voice-hearing experience from a cognitive perspective. [See 2.1.3 Treatment for psychosis and hallucinations]

### *Responses to hearing voices*

The cognitive-behavioural model suggested that a person's reaction to hearing voices is dependent on their appraisal of the relationship with the voice. Voices appraised as malevolent were more likely to be resisted, while benevolent voices were more likely to be engaged with (Chadwick & Birchwood, 1994). Many people with psychotic disorders report negative affect associated with hearing voices, for example symptoms of depression and anxiety are correlated with malevolent and omnipotent voices (Chadwick & Birchwood, 1996). However, these correlations are relatively weak, indicating that the determinants of emotional reactions to hearing voices are likely to be complex and not yet fully understood. Many people also report hearing voices as a positive experience, especially amongst some religious groups (Davies, Griffin & Vice, 2001). Positive affective responses associated with benevolent voices include happiness and feeling calm (Chadwick & Birchwood, 1996).

Chadwick and Birchwood (1994) proposed that behavioural responses are best understood as influenced by the beliefs a person holds about their relationship with their voice (referred to hereafter as the relationship with voices). These

responses may function to avoid a feared consequence or threat perhaps as a coping strategy or 'safety-seeking behaviour' (Salkovskis, 1991). While individuals who hear voices may respond differently (e.g. self-harm, reduced activity, aggression), two aspects of this experience were focused on by the researcher: compliance with voices and using substances or alcohol in response to hearing voices. These were chosen as the literature indicated that they were problematic for a substantial number of people who hear voices (e.g. Juninger, 1990; Regier et al., 1990). It is also important to find out more information about the function of substance or alcohol use as it is considered a risk factor by services working with psychosis (Tiffin & Hudson, 2007).

#### *Coping in response to psychotic symptoms*

Coping may be understood as individuals' psychological or behavioural response to stress (Lazarus & Folkman, 1984). There are different perspectives on what influences individual responses to stress. Different theories suggest person-based factors, environmental demands or an interaction between these factors influence coping (Aldwin, 2007). Lazarus and Folkman (1984) distinguished between emotion-focused coping (directed to resolving emotions linked to the stressor) and problem-focused coping (directed towards resolving the stressor). Problem-focused coping is generally accepted as more effective, but in psychosis this has not been reliably demonstrated (Rudnick, 2001). [See 2.1.4 Safety-seeking and coping in psychosis]

### *Acting on voices*

The focus of the present research is upon people's experiences of hearing a voice giving an instruction or command. Chadwick and Birchwood's (1994) research identified that commands to commit dangerous and violent acts were generally resisted but compliance with milder commands, such as "don't go to church today" were dependent upon beliefs about the voice. Beck-Sander et al. (1997) proposed that people who appraised their voices as benevolent were more likely to engage and comply with commands. However the relationship between malevolence and compliance was more complex. Whilst participants were more likely to resist malevolent voices, there was no correlation between the severity of command and compliance. [See 2.1.5 Compliance with command hallucinations]

### *Substance and alcohol use*

There is much debate in the literature about the relationship between substance use and psychosis. From this point, the term substance use will be used to acknowledge illicit drug use and alcohol use. It has been proposed that there are different motivators to use substances including 'coping' with negative affect and enhancement of positive affect (Cooper, Frone, Russell & Mudar, 1995).

Substance use is associated with behaviours such as aggression and risk-taking behaviours. One explanation for this is that substances, particularly alcohol, affect the neurotransmitters' usual inhibitory responses to threat leading to disinhibited behaviour (Pihl & Peterson, 1994). However substances affect people differently, suggesting that behaviour is likely to be mediated by social, cultural

and psychological factors (Greenfield & Room, 1997; McLeod et al, 2004). [See 2.1.6 Theories of substance use]

### *Substance use and psychosis*

Many theories have been proposed to explain co-occurrence of substance use and psychosis. [See 2.1.7 Theories of substance use and psychosis] People with a diagnosis of schizophrenia are six times more likely than the general population to have a substance disorder and three times more likely to have an alcohol disorder (Regier et al., 1990). Gregg, Barrowclough and Haddock (2009) found over half of people with schizophrenia and substance disorders reported using drugs to in response to auditory hallucinations. While the present research does not focus on substance disorders, the literature indicates that substance use is related to experiences of auditory hallucinations.

Psychosis is associated with poorer health, social and psychological outcomes than the general population and co-existing substance use appear to worsen outcomes (Mueser, Drake & Noordsy, 1998). An integrated treatment model has been proposed based on cognitive-behavioural models of substance use and psychosis (Graham et al., 2004). [See 2.1.8 Integrated treatment model of substance use and psychosis]

### *Substance use, psychosis and coping*

Using substances to cope with psychotic symptoms has a negative relationship with quality of life (Rudnick & Martins, 2009). Substance use is considered to be an emotion-focused coping strategy, altering affect and not attempting to solve

the stressor (Quimette, Finney & Moos, 1999). However, other forms of emotion-focused coping positively correlate with quality of life in psychosis, for example seeking social support (Rudnick & Martins, 2009). Therefore, the concept of emotion-focused coping may be too broad when considering effective coping strategies within psychosis.

The aim of the researcher was to understand the use of substances as a coping response to command hallucinations. Over half of people with psychosis and substance use problems cite coping with hallucinations as a reason for using substances (Gregg et al., 2009). Other responses may involve compliance with commands, perhaps to appease the voice and avoid threat (Beck-Sander et al., 1997).

The way substances alter the relationship with voices or their perception of coping has not been explored. Substances may be used to increase or decrease compliance, increase the individual's own sense of power, decrease the power of the voice or affect the characteristics of the voice. Perceptions of malevolence, benevolence, resistance and engagement may also alter following substance use. The present research explores the effect of substance use (as a coping response) upon coping with the voice, the relationship with voices and compliance.

## **1.2 Method**

### *Design*

The research focused on the relationship between the voice and voice-hearer, coping and compliance with the voice. The research was conducted using a qualitative design and data was collected using semi-structured interviews.

### *Participants*

Nine participants (all White British) were recruited, eight males and one female, between 19 and 47 years old (mean = 27.2 years). Five participants reported currently using substances and four participants reported not currently using substances, all stopping within the three months prior to the interviews. Demographic information for participants (including information on substance use and voice-hearing experience) is provided in Table 1.

### *Recruitment*

Participants were recruited from two services within a local NHS Trust. Firstly, the early intervention in psychosis service which comprised of two locality teams. This service accepted people between 14 and 35 years of age and provided intervention for up to three years. Secondly, the adult community mental health services which comprised of nine locality teams within the local Trust, provided support for people with ongoing mental health problems, including psychosis. [See 2.1.9 Additional recruitment information]

### *Inclusion / exclusion criteria*

Participants were included if they experienced hearing voices that gave a command in the last two years, regardless of diagnosis. These participants were also included if they reported using substances to cope with hearing voices within the last two years. It was thought that two years was a sufficient time period for participants to be able to recall information about their voices and using substances (Chadwick, Lees & Birchwood, 2000). Substances were defined as non-prescribed drugs and alcohol. These inclusion criteria were assessed initially by clinicians but later confirmed by the researcher during consent. Participants were excluded if they were under 16 years old, unable to understand English or experiencing acute psychiatric symptoms that may affect consent or participation [See 2.1.10 Exclusion criteria]

### *Sample size*

Initially it was anticipated that the sample size would be between 10 and 12. There is often great difficulty ascertaining appropriate sample sizes for qualitative research, especially among inexperienced qualitative researchers (Sandelowski, 1995). The research used purposive sampling which selects the sample based on the requirements of the study and research question (Boeije, 2010). This sampling method was chosen because the research was exploratory in nature and there was little existing theory to describe how substance use affects the perception of and compliance with voices.

### *Measures*

A semi-structured interview method was chosen to ensure each participant had opportunity to discuss similar topics but with sufficient flexibility to allow both the researcher and the participant to expand on areas. The interview schedule was designed to incorporate different types of questions to enable the participant to share a rich account of their experiences (Kvale, 1996). The researcher used the aims and research question to identify three topic areas: general experiences of hearing voices; experiences of the voice giving a command and how substances affected beliefs about the relationship with voices, coping and compliance. The interview schedule was discussed with clinical research supervisors who worked within the two services. Following suggestions from these supervisors and the ethical committee, the last section of the interview schedule was modified to ask more questions about coping strategies. [See 2.1.11 Interview schedule development]

In addition to the interview data, participants were asked to complete the 'Beliefs About Voices Questionnaire- Revised' (BAVQ-R). This questionnaire was developed by Chadwick et al. (2000) as a self-report measure of individual's beliefs about their relationship with the most dominant voice. The questionnaire assesses the beliefs about the omnipotence, malevolence and benevolence of their voice, as well as the individual's engagement and resistance with the voice. This was used as a triangulation measure to identify similarities between the interview data and an established measure of the relationship with voices. [See 2.1.12 Information about the BAVQ-R]



### *Procedure*

Following recruitment, interviews were generally held at each participant's local team base or Trust venue that was identified as a familiar environment for the participant and maintained the personal safety of the researcher. Three interviews were conducted at participants' homes but Trust policy on community working was followed. During the process of seeking informed consent, a member of the clinical team was present for all participants to ensure the participants were not coerced. The interviews lasted between 15 and 60 minutes. At the end of the interviews participants were asked to complete the BAVQ-R measure and place in a sealed envelope to ensure the researcher was blind to the responses. [See 2.1.13 Administering the BAVQ-R]

### *Materials*

The interviews with participants were recorded using a digital audio recorder that was securely stored between interviews. Interviews were transcribed and stored on an NHS encrypted USB drive and physical data was stored securely at the University.

### *Ethics*

Ethical approval was granted by the Derbyshire Research Ethics Committee (REC), the local trust Research and Development department and the University of Lincoln Ethics Committee. [See 2.1.14 Ethical considerations and recommendations]

### *Epistemological position*

It is essential for researchers to outline their epistemological position, as this is inextricably linked to the methodology and shapes the direction of the research from the outset. The epistemological position of any research is formed through ideas about the type of knowledge sought, the nature of the world and the researcher's role within research (Willig, 2008). The epistemological position within the present research's pragmatic paradigm is critical realism. Critical realism acknowledges experience and discourse as two different levels of reality. Bhasker (1993) described these levels as different angles of reality and argued knowledge could not be reduced to cause-and-effect relationships. [See 2.1.15 Further epistemological detail]

### *Analysis*

Three interviews were transcribed by the researcher and the remaining six were transcribed by a transcription company due to time restraints following recruitment difficulties. The company conformed to the University of Lincoln's confidentiality agreement for transcription services.

A thematic analysis was used to identify themes in the interview data, which appeared to be shared amongst some or all of the participants. The thematic analysis was based on the six-stage process outlined by Braun and Clarke (2006). [See 2.1.16 Further detail about thematic analysis]

The process of thematic analysis is subjective and relies on interpretation of the data, which can attract criticism. The researcher tried to be open and reflective

during the analysis process to improve the quality of the research. As advocated by Silverman (2010), a reflective diary was kept during the research process to identify and consider the impact of the researcher upon the research from the conceptualisation stage through to the analysis and producing the report.

During the analysis, notes were kept about the development of codes and ideas throughout each stage, providing a pathway for the researcher and others to follow the theme development (Boyatzis, 1998). To improve the reliability of the findings further, one transcript was also analysed by one of the clinical research supervisors, to determine the reliability of the codes.

The BAVQ-R was scored following the development of the themes within the interview data. The measure was used to triangulate the information within the interview that related to beliefs about the participants' most dominant voices. [See 2.1.17 for discussion on triangulation] [See 2.1.18 for issues of validity and reliability in qualitative research]

Table 1. Demographic information

Participant	Age	Gender	Ethnicity	Length of time hearing voices	Number of voices heard	Types of substances used	BAVQ-R Omnipotence	BAVQ-R Malevolence	BAVQ-R Benevolence	BAVQ-R Resistance	BAVQ-R Engagement
Adie	21	Male	White British	3.5 years	4	Amphetamines, Cannabis, Cocaine	8	1	9	6	14
Ben	29	Male	White British	6 years	5 +	Amphetamines, Cannabis	10	8	2	20...	7
Joey	20	Male	White British	2.5 years	5 +	Alcohol	13	4	2	22	0
Julie	26	Female	White British	3 years	1	Alcohol	5	14	0	25	1
Mark	47	Male	White British	10 years	5 +	Alcohol, Cannabis	12	5	17	18	24
Michael	19	Male	White British	8 years	1	Alcohol	16	16	0	24	3
Nick	33	Male	White British	30 years	2	Alcohol	12	14	4	18...	6
Sam	25	Male	White British	2 years	2	Alcohol	3	12	0	23	0
Thomas	25	Male	White British	Not available	5 +	Amphetamines, Cannabis, Cocaine	8	2	3	12	11

.... Missing responses on BAVQ-R scale items

### 1.3 Results

Six themes were identified throughout the data: Control, emotional moderation, relationships, self-concept, understanding of psychosis and function of substance use. The transcript which was coded separately by the researcher and clinical research supervisor demonstrated a 72% level of agreement (identical coding or same theme group) initially then discussed until agreement was reached. The results of the BAVQ-R and the representation of the six themes are presented for each participant in Tables 2 and 3 respectively.

#### *Control*

The researcher identified the theme of control as a major theme within the research, predominant in every interview. Four sub-themes (voice in control, substances in control, participant in control and lack of control) were identified.

#### *Voice in control*

Participants felt the voice was in control, especially without using substances:

Erm, well, destroy things that's not mine. Erm, erm, er, really anything really, like if, er, if, if it tells me not to eat I won't eat, and that, stuff like that. I dunno  
(Michael: 18-20)

[See 2.2.1 for detail about the voice's control in the absence of substances]

Participants, who had recently stopped using substances, indicated the voice had more control when they used substances:

Julie: So the fact that I'm not drinking, I'm thinking clearly, and 'cause I'm not drinking I've got that bit more control. So it makes it easier to get on with life.

Int: So when you were drinking did it give you less control ...

Julie: Yeah.

Int: over John?

Julie: Yeah. Because I was at a weaker point, so he had the control.

(Julie: 413-419)

Nick also viewed the voice as having more control when he previously used alcohol:

But at that specific point the voices and that were so controlling and so, and the paranoia involved with it, the things I was doing, erm, I should've been in a hospital at that time, but erm, I don't know, because I, I wasn't interested in help, I was drinking, drinking, drinking (Nick: 706-710)

Here he recognised the role of delusions in maintaining the voice's control and 'drinking' as a coping response.

### *Substances in control*

Another sub-theme that the researcher drew from the data was that substances were in control. Mark implied that substances could control him to forget or intensify problems:

It just numbs and makes me forget on what I'm actually thinking. It's like a dream state well cannabis is like a dream state, and it just makes you forget, whereas alcohol heightens, it sort of makes the problem bigger. (Mark: 223-225)

Another way that substances could control the voice was by provoking a reaction:

I think that's because like I'm not drinking, because the drink does affect John a lot, it soon sends him on one. (Julie: 412-413)

Julie personifies the substance as well as the voice creating a sense of other things being in control.

This sub-theme also related to a sense that medication took control of the voices:

Erm although now I'm taking medication, I feel as though my emotions'll be a lot better controlled, which feels as though, really erm, that the voices aren't going to be so much of a problem. Its more gonna be, how I can cope with the antipsychotic medication I feel as though thats m-more of the issue, erm, whether the effect of that is working properly and also by sort of er the initiative to keep on using taking the tablets that i'm supposed to take on a day to day basis (Adie: 291-296)

When participants described the voices generally, a dominant theme was the voice being in control. The use of substances seemed to be associated with the voice having more control and substances having control.

#### *Lack of control and passivity*

The researcher identified participants feeling unable to control the voice:

And it's like every time I get older it gets stronger and stronger 'cause I'm getting older, and it's when I get to about, when I'm about 20 I'm going, I'm going to be going off the rails. Er I need something to help me (Michael: 112-114)

A belief about being passive and the inevitability of the voices permeated participants' accounts. The sub-theme of participant's lack of control also related to the participants' accounts of their psychosis. Mark implies a lack of control over other people's reactions towards him:

I can't help my illness, so. At the end of the day I say to myself it's not my problem, but it is my problem, but it's not my problem, so I can't win anyway!

(Mark: 362-364)

In relation to substance use, participants indicated a lack of control and a sense of passivity, especially where it had become habitual:

Yeah, I've been smoking it since I was 15 years old, I have. It's one of the bails of my life; it cripples me with money, to be honest, it does. I can't help it, I, I, I couldn't even imagine not stopping (Ben: 248-250)

The use of substances also seemed to increase beliefs about not having control:

I'd say as a summary it (alcohol) makes my voices more muddled and confused, confused like I'm unsure where the voice is being directed towards whereas when I'm sober I instantly know where the voice is being directed whether it's to another person or myself I mean sometimes I'll hear voices and they're not talking to me they're talking to someone else (Joey: 433-437)

Here Joey seems to become more passive when using alcohol, describing confusion over whether the voices are addressing him or others.

### *Participant gaining control*

In contrast to the above sub-theme, some participants described feeling more in control of the voices or their reaction. There was a dichotomy between the lack



of control and participants having control. This sub-theme seemed particularly relevant for participants who recently stopped using substances:

I'd say I do, because now I've realised I can be in control, and like I say, because I'm not drinking it makes it so much better because I know I've got the control now. And so it does make me feel, 'you're not going to beat me,' 'cause that's what it was like before, it was as if he was constantly trying to take over and I was letting him, but now I'm not drinking I can stand up to him more and say, 'no, I'm not going to do that!' (Julie: 441-446)

Thomas considered that he had control over the voices by not doing what the voice told him:

Int: Yeah. So in that situation where it's saying something like, 'oh, you don't want to go and comfort your dog

Thomas: Yeah.

Int: do you do, do you go and comfort your dog?

Thomas: Yeah. (Thomas: 85-89)

Thomas reported not feeling distressed by his voices, perhaps enabling him to be more resistant to the voices' innocuous commands.

Participants described substances as enabling them to have more control over the voices:

Ben: it does get rid of them, cannabis does.

Int: So do they like get quieter or do they like just stop altogether?

Ben: Just disappear, I just think to myself, 'piss off!' Then they can, as soon as that, as soon as I do that, stop. Other times it takes a little bit longer, it can take a big fat turbo, if you know what one of them is. (Ben: 227-231)

Interestingly, Ben appeared to fit into the sub-themes relating to both 'lack of control' and 'participants gaining control'. He described cannabis being a difficulty in his life and not being able to 'help' using it. However, he also described it as enabling him to gain control through his thoughts. In some cases, it gave the participant more control to decrease or stop the voices altogether. In other cases, participants had more control of their emotional and behavioural reaction to the voices.

[See 2.2.2 – 2.2.7 for other themes identified during the data analysis]

#### *Acting on command hallucinations*

Participants generally stated that using substances would mean they were less likely to comply with commands from the voice:

Int: So when you use alcohol or, are you more or less likely to do what the voice tells you?

Michael: Yeah.

Int: Like more or less?

Michael: Less. (Michael: 48-52)

This seemed related to a theme of emotional moderation [see extended paper].

Participants seemed to use substances to cut-off emotions associated with the voices and 'escape':

Joey: Sometimes I just give in and erm get intoxicated with alcohol so I don't worry about it so much I find when I'm drunk I don't worry about stuff much

Int: mm

Joey: I just go with the flow and it takes a lot more to bother me (Joey: 306-310)

Less commonly, participants felt that substances meant they were more likely to act on commands:

Int: So when you're in that, that tipsy stage, what kinds of things ... you say he'd kinda get angrier?

Julie: Yeah.

Int: Erm ...

Julie: That's when he's told me to like cut myself and take the overdoses, that's when he could really get to me, and in the end I ended up doing 'em. (Julie: 338-343)

Here Julie described acting on commands to self-harm when she was 'tipsy' but later described being less likely to comply if she was severely intoxicated because she "was a zombie" (Julie: 348).

Nick also described being more likely to react to commands when using substances:

Int: OK. And the last question I had to ask was kinda when you, you used alcohol, were you more or less likely to do what the voices

Nick: I'd say more likely.

Int: told you?

Nick: When I've been drinking I've been more likely to react on it, erm, which is kinda stupid.

Int: Can you give me any, could you give me an example?

Nick: The self-harm thing (Nick: 591-598)

This participant had previously described an ability to inhibit behaviour when experiencing command hallucinations without using substances. Here, using substances appeared associated with a loss of inhibition.

Table 2. BAVQ-R results ordered by 'Omnipotence' scores

Name	Omnipotence	Malevolence	Benevolence	Resistance	Engagement
Sam	3	12	0	23	0
Julie	5	14	0	25	1
Adie	8	1	9	6	14
Thomas	8	2	3	12	11
Ben	10	8	2	20...	7
Mark	12	5	17	18	24
Nick	12	14	4	18...	6
Joey	13	4	2	22	0
Michael	16	16	0	24	3

... Missing responses on BAVQ-R scale items

Ben, Mark, Nick, Joey and Michael agreed with four or more 'Omnipotence' items. The interview data for Nick, Joey and Michael also reflected the sub-theme of the 'voice in control' at the time of the interview. However, Adie and Thomas agreed with three of the omnipotence items which would not have met the cut-off scores for omnipotence as defined by Chadwick et al. (2000). However, both participants had a number of extracts that were identified as belonging to the theme of 'voice in control'. This suggests that the concept of omnipotence may be related to the sub-theme of 'voice in control'. As such,

neither concept seems to be fully defined by each other as participants did not fully fit in both concepts.

Table 3. Theme representation for each participant

	Control				Emotional moderation		Relationships		Self-concept	Understanding of psychosis	Function	
	Voice	Substances	Lack of control	Participant	Disengagement	Engagement	Voice	Others			Coping	Compliance
Sam	○		○		○		●	○	○	○	○	○
Julie	○	○		●	●		●	●	●	○	○	○
Adie	●	●				●	●	○	●	●	○	
Thomas	○			●	○		○	○	●	○		
Ben	○	○	●	○	○			○	●	○	○	
Mark		○	●	○	○	●	○	●	●	●		
Nick	●	○	○	○	○		●	●	●	●	●	○
Joey	○		●	○	●		●	○	○	●	○	
Michael	●		●		○		○	○			○	○

Key: ○ One to three extracts related to theme / sub-theme

● Three or more extracts related to theme / sub-theme

## **1.4 Discussion**

The results above indicated that control is a central theme for understanding how substances affect relationships with voices, coping and compliance with command hallucinations.

### *Relationships with voices*

The theme identified by the researcher indicated participants viewed themselves as being generally controlled by their voices. Substances were perceived as affecting the control of the voice. While some felt that substances enabled them to have more control over the voices, more commonly substances had more control over the voices than the participant. Often the participants described themselves as lacking control. Interestingly, participants also described medication as in control of voices, in a similar interaction as the use of substances that were used to control the voices.

### *Coping*

The sub-themes relating to control highlighted some participants' passivity in relation to coping with their voices. Substances did not generally increase their sense of control over the voices but appeared to enable emotional disengagement and maintain an external locus of control beliefs. Substance use was generally used as a passive coping strategy aimed at resolving the negative emotional consequences of hearing voices (Rudnick & Martins, 2009).

### *Compliance*

The use of substances as a passive coping strategy enabled most participants to disengage or escape from their voices giving a command. For most they would be less likely to comply with commands from the voice when intoxicated. However, some participants described being more reactive to commands when intoxicated, corresponding with the literature on behavioural dis-inhibition in substance use (Pihl & Peterson, 1994). However, other factors (e.g. appraisals, types of command) may also influence compliance after using substances.

### *Mediating factors*

Some participants described their medication as instrumental in coping with voice-hearing and reducing the frequency. Furthermore, the prominent sub-theme of lack of control and passivity indicated participants may interact with their treatment in a passive way, similar to their passive interaction with substances. Research into personality traits may be helpful in understanding why there are higher rates of substance use in people with psychosis (Hides, Lubman & Dawe, 2004). Neuroticism is associated with increased use of passive coping strategies, such as substance use (Beauchamp, Lecomte, Lecomte, Leclerc, & Corbiere, 2011). Alternatively there may be a number of other environmental factors (e.g. social influences, trauma) which may influence the decision to use substances (Morgan & Fisher, 2007). [See 2.3.1 – 2.3.4 for an extended discussion regarding the current findings]

Following the analysis, the themes identified reflected differing beliefs about the voice but also perceptions about participants' own abilities to control the



situation. These differences highlight the influence of other factors other than the beliefs about the voice. Substances appear to change the perception of control related to the voice, yet the themes identified also indicate that beliefs about the voice and compliance are affected by beliefs participants held about themselves as well as their relationships with others. This finding supports the idea that appraisals about voices can influence behaviours, such as substance use (Chadwick & Birchwood, 1994). The effect of substance use in voice-hearing experience may also be understood in terms of an interpersonal relationship (Birchwood, Meaden, Trower, Gilbert & Plaistow, 2000; Thomas, McLeod & Brewin, 2009).

### *Limitations*

The sample must be taken into consideration when considering applying the results to the wider client group. The sample size was relatively small and would need further replication to support the link between beliefs about the voice and other measures. People experiencing command hallucinations and using substances are two population groups that can be problematic to engage in research and treatment (Bogenschutz & Siegfried, 1998). The current research encountered difficulties in recruiting participants, particularly as service-users were identified as suitable but were reported to be unsuitable to participate either due to their current functioning or unstable relationship with the services. It is acknowledged that people in such positions may present very differently to the sample interviewed. There are also people who experience hearing voices and use substances in response but are not known to mental health services. This may be due to being in an environment where they have not come into contact

with services or they are functioning at a level where they do not need services (Romme & Escher, 1989). As such, the sample may not be representative of all people's experiences of using substances as a way of coping with hearing voices. [See 2.3.5 – 2.3.6 for further discussion on the strengths and limitations of the study]

#### *Future research and clinical implications*

These findings indicate that using substances does not necessarily enable people with command hallucinations to feel more in control of the voice. However the extent to which this is linked to the beliefs a person holds about their voice remains unclear. The themes identified also involved perceptions of self and relating to others. Future research should explore the effect of substances upon beliefs about the voice, the self and others. [See 2.3.7 for further research suggestions]

It was identified that participants viewed themselves as passive, without the self-efficacy to control their situation. Substances and in some cases medication were seen as ways of lessening the voice's control, maintaining beliefs about the participant's lack of control. Services should be aware that when participants are on medication, their belief about their own lack of control may be maintained. This has implications for their treatment as there may be differences between compliance and active engagement (Bradley, 2006). It is argued that empowering individuals in treatment is crucial to enable them to take back control from their voices. This may be important for substance use that meets the criteria for a disorder, potentially affecting social functioning, physical and

psychological health (Graham et al., 2004). [See 2.3.8 for further implications for clinical practice] [See 2.3.9 for implications for the wider context] [See 2.3.10 for a critical reflection on the scientific, ethical and theoretical issues]

## **1.5 Conclusion**

The research suggests that people who hear voices may use substances to lessen the control of the voice. For many this may mean remaining passive and attributing substances (including medication) as having control over the voice. This has implications for how services can successfully engage individuals in treatment.

## References

- Aldwin, C. M. (2007). *Stress, coping and development: An integrative perspective*. New York, NY: Guildford Press.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders (4<sup>th</sup> ed., text revision)*. Washington, DC: American Psychiatric Association.
- Beauchamp, M. C., Lecomte, T., Lecomte, C., Leclerc, C., & Corbiere, M. (2011). Personality traits in early psychosis: relationship with symptoms and coping treatment outcomes. *Early Intervention in Psychiatry*, 5, 33-40.
- Beck-Sander, A., Birchwood, M., & Chadwick, P. (1997). Acting on command hallucinations: A cognitive approach. *British Journal of Clinical Psychology*, 36, 139-148.
- Benjamin, L. S. (1989). Is chronicity a function of the relationship between the person and the auditory hallucination? *Schizophrenia Bulletin*, 15, 291-310.
- Bentall, R. P. (2004). *Madness explained: Psychosis and human nature*. London, England: Penguin.
- Bhaskar, R. A. (1993). *Dialectic: The pulse of freedom*. London, England: Verso
- Birchwood, M. J., Meaden, A., Trower, P., Gilbert, P., and Plaistow, J. (2000). The power and omnipotence of voices: Subordination and entrapment by voices and significant others. *Psychological Medicine*, 30, 337-344.
- Boeije, H. (2010). *Analysis in qualitative research*. London, England: Sage.

- Bogenschutz, M. P., & Siegfried, S. L. (1998). Factors affecting engagement of dual diagnosis patients in outpatient treatment. *Psychiatric Services* 49, 1350-1352.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.
- Bradley, S. (2006). *Engagement in assertive outreach: Compliance or alliance?* Retrieved October 15, 2010 from <http://go.warwick.ac.uk/wrap/1168>.
- Braham, L. G., Trower, P., & Birchwood, M. (2004). Acting on command hallucinations and dangerous behaviour: A critique of the major findings of the last decade, *Clinical Psychology Review*, 24, 513-528.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3, 77-101.
- Chadwick, P., & Birchwood, M. J. (1994). The omnipotence of voices: A cognitive approach to auditory hallucinations. *British Journal of Psychiatry*, 165, 190-201.
- Chadwick, P., & Birchwood, M. J. (1996). Cognitive therapy for voices. In G. Haddock, P. D. Slade (Eds.), *Cognitive-behavioural interventions with psychotic disorders* (pp. 75-85). London, England: Routledge.
- Chadwick, P., Birchwood, M. J., & Trower, P. (1996). *Cognitive therapy for delusions, voices and paranoia*. Chichester, England: John Wiley and Sons.
- Chadwick, P., Lees, S., & Birchwood, M. J. (2000). The revised beliefs about voices questionnaire (BAVQ-R). *British Journal of Psychiatry*, 177, 229-232.

- Close, H. & Garety, P. A. (1998). Cognitive assessment of voices: further developments in understanding the emotional impact of voices. *British Journal of Clinical Psychology, 37*, 173-188.
- Cooper, M. L., Frone, M. R., Russell, M. & Mudar, P. (1995). Drinking to regulate positive and negative emotions: a motivational model of alcohol use. *Journal of Personality and Social Psychology, 69*, 990–1005.
- Davies, M. F., Griffin, M., & Vice, S. (2001). Affective reactions to auditory hallucinations in psychotic, evangelical and control groups. *British Journal of Clinical Psychology, 40*, 4, 361-370.
- Graham, H. L., Copello, A., Birchwood, M. J. & Mueser, K. T., Orford, J., McGovern, D. et al. (2004). *Cognitive-behavioural integrated treatment (C-BIT)*. Chichester, England: Wiley.
- Greenfield, T. K., & Room, R. (1997). Situational norms for drinking and drunkenness: trends in the US adult population, 1979-1990, *Addiction, 92*, 1, 33-47.
- Gregg, L., Barrowclough, C., & Haddock, G. (2009). Development and validation of a scale for assessing reasons for substance use in schizophrenia: The ReSusS scale. *Addictive Behaviours, 194*, 152-157.
- Hides, L., Lubman, D. I., Dawe, S. (2004). Models of co-occurring substance misuse and psychosis: are personality traits the missing link? *Drug and Alcohol Review, 23*, 4, 425–432.
- Jones, C., Cormac, I., Silveira da Mota Neto, J. I., & Campbell, C. (2004). Cognitive behaviour therapy for schizophrenia (review). *Cochrane Database of Systematic Reviews, 4*, 1-45.

- Junginger, J. (1990). Predicting compliance with command hallucinations. *American Journal of Psychiatry*, 147, 245-247.
- Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. London, England: Sage Publications.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York, NY: Springer.
- MacLeod, J., Oakes, R., Copello, A., Crome, I., Egger, M., & Hickman, M. Et al. (2004). Psychological and social sequelae of cannabis and other illicit drug use by young people: a systematic review of longitudinal, general population studies, *The Lancet*, 363, 9421, 1579-1588.
- Morgan, C., & Fisher, H. (2007). Environmental factors in Schizophrenia: Childhood trauma – a critical review. *Schizophrenia Bulletin*, 33, 3-10.
- Morrison, A. P., Haddock, G., & Tarrier, N. (1995). Intrusive thoughts and auditory hallucinations: a cognitive approach. *Behavioural and Cognitive Psychotherapy*, 23, 265-280.
- Mueser, R. T., Drake, R. E., & Noordsy, D. L. (1998). Integrated mental health and substance abuse treatment for severe psychiatric disorders, *Journal of Practical Psychiatry and Behavioral Health*, 4, 3, 129-139.
- Ouimette, P. C., Finney, J. W., Moos, R. H. (1999). Two-year posttreatment functioning and coping of substance abuse patients with posttraumatic stress disorder. *Psychology of Addictive Behaviors*, 12, 105-114.
- Oyebode, F. (2008). *Sims' symptoms of the mind: An introduction to descriptive psychopathology*. Philadelphia, PA: Elsevier.

- Pihl, P. O., & Peterson, J. (1994). Drugs and Aggression: Correlations, Crime and Human Manipulative Studies and Some Proposed Mechanisms, *Journal of Psychiatric Neuroscience*, 20, 2, 141-149.
- Regier, D. A., Farmer, M. F., Rae, D. S., Locke, B. Z., Zeith, S. J., Judd, L. L., et al. (1990). Comorbidity of mental disorders with alcohol and other drug abuse: Results from the epidemiologic catchment area (ECA) study. *Journal of the American Medical Association*, 264, 251-258.
- Romme, M., & Escher, A. (1989). Hearing voices. *Schizophrenia Bulletin*, 15, 209-216.
- Rudnick, A. (2001). The impact of coping on the relation between symptoms and quality of life in schizophrenia. *Psychiatry*, 64, 304-308.
- Rudnick, A., & Martins, J. (2009). Coping and schizophrenia: A re-analysis. *Archives of Psychiatric Nursing*, 23, 11-15.
- Salkovskis, P. M. (1991). The importance of behaviour in the maintenance of anxiety and panic: A cognitive account. *Behavioural Psychotherapy*, 19, 6-19.
- Sandelowski, M. (1995). Sample size in qualitative research. *Research in Nursing and Health*, 18, 2, 179-183.
- Silverman, D. (2010). *Doing qualitative research* (3<sup>rd</sup> ed.). Thousand Oaks, CA: Sage.
- Sproston, K., & Nazroo, J. (2002). *Ethnic Minority Psychiatric Illness Rates in the Community (Empiric)*, National Centre for Social Research, The Stationary Office.



- Thomas, N., McLeod, H., & Brewin, C. R. (2009). Interpersonal complementarity in responses to auditory hallucinations in psychosis, *British Journal of Clinical Psychology*, 48, 4, 411-424.
- Tiffin, P. A., & Hudson, S. (2007). Early intervention in the real world: An early intervention in psychosis services for adolescents. *Early Intervention in Psychiatry*, 1, 212-218.
- Willig, C. (2008). *Introducing qualitative research in psychology* (2<sup>nd</sup> ed.). Maidenhead, England: Open University Press.

## **Part II: Extended Paper**

### **Hearing voices: How do substances affect the relationship with voices, coping and compliance?**

**Lucy Redstone, Mark Gresswell, Noel McGrath and Danielle De Boos**

#### **2.1 Extended background**

##### **2.1.1 – Definition of psychotic disorder and auditory hallucinations**

The most recent edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) states that psychotic disorders may include one or more symptoms of delusions, disorganised speech, catatonic behaviour or hallucinations (American Psychiatric Association (APA), 2000). Delusions are defined as 'bizarre' beliefs based on a misinterpretation which may be held with strong conviction (APA, 2000). A person with disorganised speech may be incoherent or move rapidly between different topics of conversation (Serretti et al., 2001). These communication difficulties in psychotic disorders are believed to be associated with poorer planning, processing and memory abilities (Bentall, 2004). Catatonic behaviour refers to motor activity that is either very slow or very excessive. There may also be voluntary movements or posturing that appears peculiar (APA, 2000).

The focus of the present research was auditory hallucinations which can vary from hearing a voice which gives an instruction, to hearing a conversation between multiple voices or experiencing a running commentary on actions (Casey & Kelly, 2007). Verbal auditory hallucinations are experienced by up to 60% of people diagnosed with schizophrenia (Slade & Bentall, 1988). However these figures should be interpreted with caution because the diagnosis of schizophrenia is heavily associated with verbal auditory hallucinations, leading to a potential bias to diagnose people with schizophrenia if they report these symptoms. Furthermore, much of the research into auditory hallucinations relates specifically to individuals with a diagnosis of schizophrenia. Verbal auditory hallucinations are also linked to bipolar disorder, dissociative identity

disorder and severe depression (Bentall, 2004). However, research has also identified that up to 3% of non-clinical samples also report hearing voices as part of an unexplained perceptual experience (Tien, 1991). Diagnostic systems have modified definitions of hallucinations to avoid pathologising relatively common experiences amongst the general population. The DSM-IV-TR state that some experiences are considered to be in the normal range such as hearing one's name called occasionally and experiencing hallucinations upon waking (APA, 2000).

However, there is still much debate about the value of diagnosis. Research is particularly focused on defining people in terms of a diagnostic category, which based on a broad range of symptoms. As such, people within such a category may present very differently and arguably too heterogeneous to draw firm conclusions about the broad diagnosis (Boyle, 2007). Service-users have also acknowledged that diagnosis has mixed outcomes. While it can provide access to much needed entitlements and benefits, it can also be very stigmatising and lead to assumptions from professionals and the wider society (Campbell, 2007). The present research aimed to include individuals with auditory hallucinations as a specific aspect of psychotic experience. The researcher has tried to avoid the categorisation of participants as having 'schizophrenia' throughout.

### **2.1.2 - Models of psychosis and hallucinations**

Bleuler (1950) reconceptualised Kraepelin's ideas about psychosis as 'schizophrenia', a splitting of the functions of the mind, rather than an early dementia state. Schneider (1959) agreed with the term schizophrenia but made a distinction between 'first-rank symptoms' (more overt symptoms such as hallucinations) and 'second-rank symptoms' (other symptoms such as disordered behaviours or speech) (Morrison, Renton, Dunn, Williams & Bentall, 2004). Modern diagnostic systems such as DSM-IV-TR still use Schneider's concepts of overt first-rank symptoms.

Bio-medical models dominated the psychosis literature in the early 20<sup>th</sup> century following these early conceptualisations by Bleuler (1950) and Schneider (1959). One bio-medical theory argues that different levels of the neurotransmitter

dopamine are associated with psychosis. The dopamine theory argues that people with psychosis have hypersensitive dopamine receptors which affect other neurotransmitters in the brain (Grilly, 2002; Seeman et al., 2005). In the 1950s chlorpromazine, a phenothiazine-derived drug originally used as an anaesthetic, was found to alleviate the symptoms of psychosis (Shepherd, 2009). Following this discovery, researchers attempted to discover the mode of action that chlorpromazine had on the brain. This research led to the dopamine theory. Since the discovery of chlorpromazine in the 1950's, many other anti-psychotic drugs have been introduced. The early drugs have later been classed as 'typical' anti-psychotics whereas the newer drugs are termed 'atypical' antipsychotics. The newer 'atypical' antipsychotics also act on other neurotransmitters in the brain such as serotonin and noradrenalin (Lieberman et al., 2005).

Although drug treatments have been used as a treatment of choice for psychotic disorders, the mechanisms affected by the drugs are not fully understood. The dopamine hypothesis is weakened by the finding that 'atypical' antipsychotics bind more readily to other neurotransmitter receptors than dopamine receptors in the brain (Richtand et al., 2007). Research has not found an underlying mechanism to account for the development and presence of hallucinations (Asaad & Shapiro, 1986). Boyle (2002) argued that such disparity amongst bio-medical models and treatment efficacy cannot be accepted as reliable and consistent evidence of such a model. Opponents of the bio-medical model such as Laing and Esterson (1964) maintained an extreme theoretical position, conceptualising psychosis as a socially-based phenomenon where people try to communicate difficult existential concerns.

During the mid-century the bio-medical model was predominantly used to explain mental disorders, including psychosis. Meyer (1952, cited in Pilgrim, 2002) had been stressing the importance of environment in psychiatric diagnosis for some time and disagreed with a reductionist approach to psychiatry. In the 1960's the psychiatry model faced criticism from extreme social theorists (eg Laing and Esterson, 1964). During the 1970s and 1980s the biopsychosocial model was proposed as inclusive of psychological, social and biological factors (Engel,

1980). Nuechterlein, Parasuraman and Jiang (1983) applied this model to psychosis. They proposed that psychotic symptoms occur in a vulnerable person when personal and environmental protective factors are outweighed by stressors in the environment.

By the 1990s figures such as Bentall (1990) took a critical view of psychosis research, stating the participants' symptoms were too heterogeneous to produce a valid encompassing theory. He advocated a symptom-based approach to research which has led to more psychological exploration of psychosis (Chadwick, Birchwood & Trower, 1996). Following the widespread development of cognitive-behavioural therapy since the 1950s, researchers began to explore explanations and models of individual symptoms associated with psychosis.

#### *Cognitive-behavioural theories of psychosis and auditory hallucinations*

Prior to the 20<sup>th</sup> century psychosis was conceptualised as part of a disease of the mind associated with an early dementia process (Kraepelin, 1905 cited in Bentall, 2004). The development and progression of psychosis was seen as inevitable and unavoidable once it had begun. Until the mid-20<sup>th</sup> century the bio-medical models were the principle explanation of psychosis. Following criticism against the traditional psychiatric model, theories emerged which incorporated social and psychological factors into explanations of psychosis (Nuechterlein et al., 1983). At the same time cognitive theories were attracting interest in a number of mental health fields, including psychosis.

Cognitive theorists and researchers have attempted to explain auditory hallucinations as misattributed external stimuli. Bentall and Slade (1985) identified that people with a history of hallucinations would be more likely to interpret patterns in background noise and random visual patterns. This view is linked to explanations of functional hallucinations which occur only in the presence of an external stimulus but remain distinct from the real sensation (Oyebode, 2008). However, this 'misattributed external stimuli' hypothesis minimises the content of the hallucinations and therefore neglects to explain the varying behavioural and emotional reactions of the person hearing the voice.

People with auditory hallucinations often report they hear voices or other people speaking their thoughts (Casey & Kelly, 2007). In this type of hallucinatory experience, internal stimuli or events appear to be interpreted as external auditory hallucinations (Horowitz, 1975). A number of cognitive processes are thought to be implicated in these experiences including poor reality testing, vivid mental imagery and difficulty differentiating self and other-boundaries (Slade, 1976; Sims, 1991).

Two main assumptions have been highlighted in cognitive-behavioural therapy (CBT) models of psychosis. Firstly the models tend to focus on discrete symptoms, a stance advocated by authors such as Bentall (2004). Theories are also built on the second assumption that symptoms of psychosis are extremes on a continuum of normal processes and behaviours. Romme and Escher (1989) identified a considerable number of people who experienced hallucinations but did not have formal mental health difficulties. They began to report on the experiences and meaning of voice-hearing experience in clinical and non-clinical populations. The range of meanings identified by Romme and Escher (1989) was consistent with global beliefs that the general population often hold about themselves, others and the world.

Given that the present research focuses upon auditory hallucinations the models presented will generally focus upon explanations of these hereafter. Whilst there is not a generic cognitive-behavioural model of psychosis, there are different models each with different perspectives (for example Chadwick & Birchwood, 1994; Garety, Kuipers, Fowler, Freeman & Bebbington, 2001; Frith, 1992; Morrison, Haddock & Tarrier, 1995).

### **2.1.3 - Treatment for psychosis and hallucinations**

The core components of a CBT approach to psychosis include linking the symptoms of psychosis to thoughts, feelings and behaviours as well as adapting irrational beliefs that relate to their symptoms (Pilling et al., 2002). A number of systematic reviews have also demonstrated the efficacy of CBT for auditory hallucinations as part of a diagnosis of schizophrenia (e.g. Jones, Cormac, Silveira da Mota Neto & Campbell, 2004). CBT appears to maintain greater

effects at follow-up periods compared to other therapeutic approaches but some outcomes, such as mental state, were shown to have little improvement during treatment compared to baseline data and other approaches (Pilling et al., 2002). However, other reviews have shown greater effect during treatment which have not been maintained at follow-up periods (Turkington, Kingdon & Weiden, 2006). While research does show promising results for CBT in the treatment of psychosis, further clarification is needed.

The variability of CBT programmes and the emphasis on different components is likely to account for some of the differences in outcome. Often such treatment studies are completed with participants with a broad diagnosis of schizophrenia and little is done to distinguish between the types of symptoms they may be experiencing. It is recommended that further research should find the components of CBT which are the most effective (Turkington, Kingdon & Chadwick, 2003). Research has also begun to consider the 'active ingredients' of successful treatment for psychosis based on the work of Lambert (1992) regarding common factors across different variations of psychotherapy. The effectiveness of schizophrenia treatments may be more related to therapist variables such as model allegiance rather than a particular therapeutic model (Paley & Shapiro, 2002).

Chadwick and Birchwood (1994) proposed a CBT treatment model for working with people with auditory hallucinations. They conducted semi-structured interviews with participants who had a diagnosis of schizophrenia or schizo-affective disorder. They discovered that in 31% of their sample, the content was incongruous with participants' reactions and the appraisals of the relationship with the voice could be linked to the reactions. Interestingly, all participants rated their voice as omnipotent whether the voice was considered malevolent or benevolent. Where a voice was considered malevolent, a person appeared to display a negative affective response and often resisted the voice by shouting or not complying. Participants were more likely to engage with benevolent voices in ways such as listening or doing things to elicit the voice experiences (Chadwick & Birchwood, 1994). The benevolent voice was also associated with positive affective response in most cases such as amusement and happiness. Their

research was limited by the focus on voice-hearing within a diagnosis of schizophrenia or schizo-affective disorder. As such the results may not be applicable to individuals who hear voices within another diagnostic category (such as bi-polar disorder) or in the absence of a mental health diagnosis.

Chadwick et al. (1996) developed a protocol for assessing and treating voice hallucinations based on the A-B-C model by Ellis (1962) and Beck's model of cognitive therapy (1976). In the classic A-B-C model, the A represents an external event or activating event. In turn this event is interpreted based on a person's belief system (B). As a result of the belief about the event, there are emotional and behavioural consequences (Cs). Chadwick et al. (1996) adapted the ABC model to include the voice as the A or activating event, arguing that the person perceives the voice to be an external event therefore can be treated as such. To assess the belief a number of characteristics need to be identified such as topography of the voice, context and coinciding symptoms as well as what the voices say. According to the model proposed by Chadwick and Birchwood (1994) it is the beliefs about the voice (B) that determine the emotional and behavioural consequences (C).

A number of studies have been published which demonstrate the effectiveness of using a CBT approach to modify beliefs about the voice's omnipotence and control (Chadwick & Birchwood, 1994, 1995; Close & Garety, 1998). This approach has also been adapted to be delivered in a group setting which demonstrated reduced appraisals of omnipotence and control (Chadwick, Sambrooke, Rasch & Davies, 2000). Whilst it appeared to improve perceptions of coping, there was little change in levels of affect following the group treatment.

One of the difficulties of identifying the effectiveness of different treatments is the overlap between medication and other treatments. Many studies include participants who are on medication during other treatments, due to the nature of the symptoms and recommended management (Chadwick, Lees & Birchwood, 2000). Other researchers have proposed an integrated treatment model combining a range of treatments is more effective than a single treatment approach (Mojtabai, Nicholson & Carpenter, 1998). 'Hallucination-focused



integrated treatment' combined a number of approaches including psychoeducation, CBT, family work and medication. When compared to routine care, the integrated treatment showed greater reduction in positive symptoms and general psychopathology (Jenner, Nienhuis, Wiersma & Willige, 2004).

In recent years models have been developed specific to command hallucinations. Trower and colleagues developed a cognitive therapy model to work with command hallucinations to reduce levels of harmful compliance (Trower et al., 2004). They developed a model based on social-rank theory, proposing that voice-hearers would be more likely to view themselves as lower in social comparison to both their voice and other social relationships (Birchwood, Meaden, Trower, Gilbert & Plaistow, 2000). In the trial, cognitive therapy aimed to undermine the power of the voice whilst increasing the voice-hearer's power (Trower et al., 2004). Results showed that participants were much less likely to comply with command hallucinations at 12 month follow-up, compared to a control group who received routine treatment. Whilst these preliminary results were promising, work is ongoing to increase the sample size and power of the study (Birchwood, 2010). In summary the concept of addressing beliefs about the relationship with voices appears to be important in improving functioning and reducing risk through reducing compliance.

#### **2.1.4 - Safety-seeking and coping in psychosis**

##### *Safety-seeking behaviours*

Rather than successfully avoiding the feared consequence, safety-seeking behaviours prevent the person from disconfirming their belief in the feared consequence (Hacker, Birchwood, Tudway, Meaden & Amphlett, 2008). An example of the safety-seeking behaviour of someone hearing voices is avoiding places where they previously heard their voices. This avoidance reinforces the idea that the person cannot cope with the voices, increasing their fear. In turn this leads to more avoidance, increased safety behaviours and a cycle is maintained. However these safety-seeking behaviours occur in situations where the person views the voice in a negative way. As described earlier, other people may experience their voice as benevolent and may do things to elicit the

experience (Chadwick & Birchwood, 1994). Safety-seeking behaviours may be considered a form of coping.

### *Coping*

Coping strategies have been defined as the cognitive and behavioural responses to a stressor which exceeds a person's perceived resources (Folkman & Lazarus, 1988). The different coping strategies that individuals use have been conceptualised in terms of ego defences, stable personality traits and a person-situation contextual approach (Sorlie & Sexton, 2001). The contextual approach, as proposed by Lazarus and Folkman (1984), proposed that individuals chose between coping strategies dependent on their appraisals about their resources to manage the situation and the specific demands of the situation. The types of coping strategy have been broadly divided by the function of the coping response: problem-focused (e.g. confrontive coping, problem-solving) and emotion-focused (e.g. seeking social support, positive reappraisal) (Folkman & Lazarus, 1988).

Within these two broad categories there have been numerous attempts to sub-categorise coping strategies using the 'Ways of coping questionnaire' (WCQ), developed by Folkman and Lazarus (1985). Different numbers of scales have been identified among different populations, leading to concerns about the reliability and validity of measures of coping (Sorlie & Sexton, 2001). The inter-relationships between coping strategies and the function has not been considered. Social support, for example, was originally defined in the WCQ as emotion-focused. However, the function of seeking social support may be to gain support to solve the difficulty and therefore problem-focused. Researchers have used alternative categorisations of coping strategies differently, for example into active (e.g. actively trying to change a situation, getting information) and passive (e.g. avoidance, wishing a problem would go away) coping strategies (Brown & Nicassio, 1987). Again, social support may be considered active or passive dependent on whether the function of the support was to get further information or vent emotions with someone for example.

Research indicates that between 72 and 100% of people experiencing psychosis use coping strategies adopted without formal intervention from mental health services (Garcelan & Rodriguez, 2002). Individuals with psychosis reportedly tend to use more emotion-focused coping strategies, such as social avoidance and denial (Rollins, Bond & Lysaker, 1999). While problem-focused coping strategies are generally considered to have better outcomes, individuals with psychosis using emotion-focused strategies have been shown to have improved work performance and better quality of life (Lysaker et al., 2004; Lee, Lieh-Mak, Yu & Spinks, 1993).

However the literature contains inconsistent definitions of 'effective coping' and the outcome of successful coping strategies. Carter, MacKinnon and Copolov (1996) defined effective coping as reducing the frequency of auditory hallucinations. However other authors considered it to be a multi-faceted concept involving degree of control over the voice and levels of anxiety (Farhall & Gehrke, 1997). So and Wong (2008) concluded that effectiveness was best measured from a participant's perspective, although they made no attempt to assess their meaning of effective coping. Again this literature appears to focus on voices which people experience as malevolent. As described above there are a number of difficulties in measuring and defining coping, although it remains an important concept in psychological research.

### **2.1.5 - Compliance with command hallucinations**

#### *Prevalence and predicting compliance*

There is some disagreement within the literature about the rate of compliance with command hallucinations, with estimates ranging between 39 and 88% (Chadwick & Birchwood, 1994; Junginger, 1990). Discrepancies between the definitions of 'compliance' with voices may account for contradictory findings. Compliance may be classed in three ways: full compliance, partial overt compliance (e.g. disprove critical comments) or partial covert compliance (mentally rehearse instruction without action) (Hacker et al., 2008). Other studies have limited the definition to obeying the instruction or not obeying the instruction (Rogers, Gillis, Turner & Frise-Smith, 1990). In addition the sample

sizes are relatively small and often conducted on US populations which may not reflect the UK population (Braham, Trower & Birchwood, 2004).

A number of variables are thought to be implicated in compliance with command hallucinations. The relationship a voice-hearer has with their voice is thought to be a mediating variable (Braham et al., 2004). The identity of the voice, its power and appraisal of the voice are all thought to be implicated in predicting compliance (Beck-Sander, Birchwood & Chadwick, 1997; Chadwick & Birchwood, 1994; Close & Garety, 1998). Content is also thought to be linked to compliance but there have been mixed findings. For example Junginger (1995) reported that compliance was not reliably predicted by 'dangerousness' of the command, whereas Beck-Sander et al. (1997) proposed that compliance was related to the beliefs held about the voice and about the 'acceptableness' of the command.

#### *Understanding compliance in the context of transgression*

Beck-Sander et al. (1997) suggest that participants may be likely to appease the malevolent voice by completing an unrelated task that their measures did not assess. The transgression literature is cited as justification for this rationale. Transgression is the non-engagement with rules or commands. Carlsmith and Gross (1969) proposed that generally people who do not comply with commands often experience feeling guilt, so adopt other behaviours to protect their self-esteem. Beck-Sander et al. (1997) suggest that voice commands may be transgressed by the voice-hearer then they attempt appeasement-activity unrelated to the command content. They give the example of cleaning things as a result of transgressing a command to kill. This could also be considered a distraction coping strategy (Carter et al., 1996). Further investigation would need to clarify the function of such distraction techniques.

#### *Understanding compliance and the role of obedience.*

Milgram's (1974) infamous study on obedience to authority has been cited as an explanation of compliance with command hallucinations. In the study, experimenters viewed as having more authority were more likely to be complied even when being asked to carry out a harmful procedure on another person. In

command hallucinations, obedience to commands may be understood in the context of the voice being perceived as malevolent and having more power than the voice-hearer (Braham et al., 2004). However this contradicts the assertion that benevolent voices are more frequently complied with (Beck-Sander et al., 1997).

#### *Models of decision making in relation to compliance*

The cognitive literature indicates that the processes involved in decision making may be applicable to decisions about compliance with commands. Janin and Mann (1977) proposed a 'conflict-theory' model of decision making based on emergency situations. The model defined 'decisional conflicts' as the "opposing tendencies within the individual to accept or reject a given course of action" (p.46). These conflicts cause physiological arousal and emotional distress. Normally this arousal interrupts decision making and focuses the decisions on prioritised needs and adaptive behaviour (Simon, 1967 cited in Janin & Mann, 1977). However extreme arousal can interrupt this process and prevents a careful appraisal of alternative courses of action.

Janin and Mann (1977) proposed that the model of decision making begins with an authentic warning of danger. A person may avoid distress if they perceive there is no hope of escaping the danger. In applying this model to a person experiencing voices, it is proposed that hearing a commanding voice could be perceived as an impending warning of danger. Substances may be used to avoid the distress associated with no perceived escape. Janin and Mann's (1977) model also proposed that hyper-vigilance or panic would occur if a person considered there was no time to consider alternative courses of action. In these situations a person may look to others to make decisions and follow their actions. It is argued here that a person experiencing a voice command might look to act on the voice if they perceived the voice to be an immediate threat with little time for deliberation. This model may be useful in conceptualising the cognitive processes utilised in acting on voices but it highlights the importance of the beliefs about their voices.

### **2.1.6 – Theories of substance use**

Kessler (1994) estimates that around one in four people will meet the criteria for a substance use disorder during their lifetime. In the latest British Crime Survey, 8.6% of respondents admitted using illicit substances in the past year, with cannabis the most commonly used (Hoare, 2010). In a national statistics survey, nearly three-quarters of male respondents and over half of female respondents admitted drinking at least one alcoholic drink in the previous week (The NHS Information Centre, Lifestyle Statistics, 2010). It is acknowledged here that there are many differences between substance use and abuse. However, the current research did not assess the criteria for substance abuse in participants for two reasons. Firstly, the research aimed to use broad inclusion criteria in order to maximise the sample population given that this population has been identified as problematic to engage in services as well as research (Lecomte et al., 2008). Secondly, the researcher was interested in the function of the substance use rather than the quantity consumed. Therefore the term ‘substance use’ will be used to describe any use of alcohol, illicit or misused prescription drugs.

It is useful to first consider the models of substance use and addiction prior to exploring the interaction with severe mental health problems such as psychosis. The role of psychological dependence will be focused upon here, although it is recognised that physiological dependence is a contributing factor to models of substance use. In particular the physical effects of withdrawal may often negatively reinforce substance use (Grilly, 2002).

There is a long history of neurobiological models of addiction which focus on the reinforcing effects of substances on the mesocorticolimbic dopamine system (Koob & Nestler, 1997). This area, known as the ‘reward system’ of the brain has been shown to be affected by the vast majority of ‘addictive drugs’ and alcohol (Wise, 1998). Dopamine release in the nucleus accumbens seems to be implicated in the rewarding properties of substances. However, while most substances increase dopamine release in the nucleus accumbens, benzodiazepines appear to reduce dopamine levels in that area (Grilly, 2002).

It is also acknowledged that a number of other social, cognitive and behavioural factors are involved in decisions about using substances. It is proposed that alcohol is used for two reasons: to enhance positive affect and to 'cope' with negative affect (Cooper, Frone, Russell & Mudar, 1995). The 'enhancement' hypothesis of drinking appears to be related to the effect that alcohol has on a particular experience or activity (Leigh, 1990). Drinking to cope appears to be a learnt behaviour and an example of maladaptive coping (Abrams & Niaura, 1987; Cooper, Russell & George, 1988). In illicit drug use, peer pressure and a 'sampling' Western culture are cited as key factors in the onset of drug use (Jay, 1999). Environmental and internal state cues then become associated with pleasurable affective effects of the drug, making regular use more likely (Pollack et al., 2002). Behavioural treatment programmes often aim to reduce cravings through exposure to environmental cues (O'Brien, Childress, McLellan & Ehrman, 1990). However, CBT-based interventions that also use cognitive techniques to modify thoughts and response to internal cues appear to be more effective (Pollack et al., 2002).

Substance dependence and the relationship with mood disorders such as anxiety and depression are very complex. Studies about alcohol and anxiety have shown anxiety to increase, decrease and stay the same during alcohol consumption (Young, Oei & Knight, 1990). People who do not regularly use cannabis often express acute episodes of anxiety, whilst regular users report a decrease in anxiety after using cannabis (Degenhardt, Hall & Lynskey, 2001). People with alcohol dependence appear to report an increase in negative affect whereas people not considered as alcohol dependent tended to report positive affective states after drinking alcohol (Young et al., 1990).

### **2.1.7 Theories of substance use and psychosis**

There is much research documenting the relationship between substance use and psychosis (see Graham, Copello, Birchwood & Mueser, 2003). There are various perspectives about the relationship. The first hypothesis suggests that schizophrenia is precipitated by substance use. A cohort study identified that 18 year olds who had used cannabis more than 50 times were six times more likely to develop schizophrenia over the following 15 year compared to a control group

of non-drug users (Andreasson, Engstrom, Allebeck & Rydberg, 1988). Cannabis has been shown to trigger symptoms similar to schizophrenia (Hambrecht & Hafner, 2003).

The DSM-IV-TR categorises a substance-induced psychotic disorder separate from other psychotic disorders, however it is often difficult to assess whether the substance or alcohol use began before the psychosis because the prodromal stage may not be clearly defined (APA, 2000). The prodromal stage refers to the time before the symptoms are seen and reach clinically significant levels. In psychotic disorders prodromal stage indicators include social withdrawal and blunted emotions. However, this is particularly difficult to distinguish from other difficulties such as depression and may also be affected by substance use (Graham et al., 2003). This first hypothesis is linked to the stress-vulnerability model as described earlier but has been criticised for minimising the role of substance use as a coping strategy, especially within the prodromal stage (Hambrecht & Hafner, 2003).

Another view is that substance use should be seen as a secondary disorder to psychosis (Schneier & Siris, 1987). Khantzian (1990) proposed a self-medication hypothesis for all drug addictions. People with poor self-regulation arguably choose particular substances in order to relieve negative emotions (Khantzian, 1990). However, there has been little evidence to support different patterns of substance use specific to psychosis (Degenhardt et al., 2001). It is also proposed that there is a third variable or other common factors which increase vulnerability to both mental health and substance use difficulties (Graham et al., 2004). While there is much debate among these models, people with psychosis often report improvement in symptoms following substance use. For example, amphetamines have been linked to a self-reported improvement in well-being but also a brief increase in the frequency of delusions and hallucinations (Baigent, Holme & Hafner, 1995; Curran, Byrappa & McBride, 2004). Gregg, Barrowclough and Haddock (2009) assessed reasons for taking substances in a sample of 230 participants who met the DSM-IV-TR criteria for a psychotic disorder and substance use disorder (including alcohol disorders). They identified three types of explanations: coping with emotions and symptoms,



individual enhancement and social enhancement. Half of the sample agreed that they used substances to cope with auditory hallucinations and when they felt paranoid.

Whilst the paper provided a broad, psychometric measure of reasons for substance use in psychosis, many of the explanations may also be endorsed by non-psychotic substance users. Gregg et al.'s (2009) study acknowledges that people use substances to cope with auditory hallucinations but do not explore how this coping strategy alters the experience of auditory hallucinations.

### **2.1.8 – Integrated treatment model of substance use and psychosis**

This treatment model attempts to integrate CBT models of severe mental health problems with particular reference to psychosis, as well as CBT models of problematic substance use (Graham et al., 2004). The aim of therapy is to change substance-related beliefs, based on cognitive distortions, by generating more flexible alternatives and to find more adaptive ways of coping with their symptoms of mental health problems.

The emphasis is on a collaborative working relationship between client and clinician whilst recognising the need to take an assertive approach at times to engage and motivate the client. There are four treatment phases: engagement, negotiating behaviour change, early relapse prevention and relapse prevention/management (Mueser, Drake & Noordsy, 1998). Behavioural experiments and modifying thought techniques are techniques used during treatment (Greenberger & Padesky, 1995). The goal of treatment is harm-reduction or reducing problematic substance use which does not necessarily mean stopping altogether. Treatment is viewed as having a dual focus upon both the mental health and the substance use problems. This contrasts traditional approaches where often different services may work in parallel with different perspectives (Graham et al., 2004). A large-scale randomised control trial is being run (at the time of submission) to identify the effectiveness of an integrated CBT-based treatment for psychosis and substance use (Barrowclough et al., 2009).

### **2.1.9 – Additional recruitment information**

The research team met with teams in each service to explain the research and ask clinicians to consider service-users on their caseload who would meet the inclusion criteria. Clinicians were also given information letters and additional participant information sheets for service-users meeting the inclusion criteria. There were two clinical research supervisors; clinical psychologists who acted as a liaison link between the clinicians and researcher. One supervisor worked within the early intervention teams and the other worked within the community mental health teams. When a service-user had expressed interest in participating in the study, the clinicians would approach the clinical research supervisors to arrange a meeting with the lead researcher to conduct the interview.

As the lead researcher did not work within the service, it was decided that clinical research supervisors would generally liaise with the service-user and clinician prior to the interview. This was done to ensure that potential participants did not meet the researcher unnecessarily and prior to giving consent. The clinical research supervisors also had access to the researcher's diary, enabling a more efficient recruitment process. Due to practical limitations, some service-users and clinicians were contacted by the lead researcher to arrange interviews. Service-users were only contacted in this way if they gave consent to be contacted by the lead researcher.

### **2.1.10 - Exclusion criteria**

Service-users under 16 years were excluded from the research, even though the early intervention service was designed for 14 to 35 year olds. This was decided for a number of reasons. Firstly, the process of gathering informed consent would have been different to the 'over 16 years' population and would have involved getting parental consent. Secondly, the BAVQ-R questionnaire had not been validated on a sample under 16 years old. Finally, in consultation with the local services, it was identified that there were only one or two service-users under 16 years within the service. It was anticipated that those under 16 years old would have a different experience of the research process compared to those over 16 years old.

The research also excluded people who were unable to understand English, as there were not sufficient resources to provide translation services. One participant was unable to read or write but was considered able to consent to participation as their care co-ordinator read out the participant information sheet and consent form prior to the interview. The participant had the BAVQ-R questions read out by their care co-ordinator while the researcher left the room. Whilst this enabled the researcher to remain unaware of the scores prior to analysing the interview data, it raised possible validity issues of completing a self-report measure with another person. For example, the participant may have not wanted his care co-ordinator to be aware of some of his answers. The researcher emphasised that the responses should not be discussed or influenced by the care co-ordinator and the participant should only give his response to the questionnaire item. Nevertheless, this must be considered as a potential limitation in the methodology.

The final exclusion criterion was for participants that were experiencing acute psychotic symptoms or other symptoms that would affect their ability to give informed consent and engage in the interview process. Clinicians were encouraged to discuss any concerns that they had about a service-user's ability to engage with the research. The researcher also used their clinical judgement and experience working with the population to apply the exclusion criteria.

Participants were deemed unable to give informed consent on two occasions. One participant had a variety of social problems at the time of the first arranged interview, which impacted on their mood. The researcher recognised this would affect their ability to engage in the interview and suggested that they complete the interview at another time once the problems were resolved. Another service-user, who initially agreed to take part in the research, was experiencing some acute psychotic symptoms when the researcher met them. In this situation, the researcher excluded the participant from the study as they were unable to understand and engage in a discussion about the research during the consent process.

### **2.1.11 – Interview schedule development**

The interview schedule began with some general introduction questions to build rapport with the participant before talking about more personal topics (Willig, 2008). Following these introductory questions there was a brief introduction into the purpose of the research before the researcher began asking questions about the participant's experience of hearing voices. This section of the interview explored how participants describe their emotions and thoughts when they heard the voice. The section also asked participants to describe characteristics of their voices and how they view their relationship with their voices.

The next topic area focused upon times when the voice gave commands to the participant, asking them for examples of the commands and how they react to the voice. The purpose of this section was to identify contextual information about the command hallucinations. These questions also gathered information about the beliefs about the voice, coping and compliance by asking how the participant reacted to the command.

The final section of the interview schedule aimed to identify how substances affected the voice hearing experiences. Questions identified how coping, beliefs about the voice, the relationship with the voice and compliance were affected by substance use.

The schedule was designed to begin by identifying general information about the voices the participant heard and lead to asking more detailed information about the voice giving commands and how the participant may have used substances as a coping strategy. The researcher developed the schedule to try and maximise rapport throughout the interview by beginning with less intrusive questions. The clinical research supervisors, who were clinicians working in the target services, worked collaboratively with the researcher to develop the interview schedule. This was to ensure the questions were appropriate and would be understood by participants. The ethical committee within the University of Lincoln also made suggestions that were used to refine the interview schedule. This will be discussed further in the section below concerning ethical approval.

### **2.1.12 - Information about the BAVQ-R**

The other measure used was the Beliefs About Voices Questionnaire (Revised) (BAVQ-R) which measured the beliefs that participants hold about their relationship with their most dominant voice heard and how they react to this voice (Chadwick et al., 2000). This was used as a triangulation measure to assess consistency between the interview data and a recognised measure of beliefs of the relationship between voice and voice-hearer. There were three subscales for characteristics attributed to the voices heard by individuals: malevolence, benevolence and omnipotence. There were also two subscales that described how the participant's perceived relationship with the voices that they heard: resistance and engagement (Chadwick & Birchwood, 1995).

The original questionnaire (BAVQ) was a 30 item questionnaire which provided a measure of beliefs a voice-hearer had about the voices they heard. The BAVQ required respondents to answer 'yes/no' and contained only one question to measure omnipotence. The BAVQ-R was developed to address these weaknesses as a 35 item questionnaire with a four point scale for each item and five additional items measuring omnipotence (Chadwick et al., 2000).

The BAVQ-R was validated with 71 participants, with a diagnosis of schizophrenia, schizoaffective disorder or psychotic depression. The internal reliability for the omnipotence subscale was high (Cronbach's  $\alpha = 0.74$ ), as was the internal reliability of the other four subscales (Cronbach's  $\alpha = 0.84 - 0.88$ ), which was of a similar level to the BAVQ (Chadwick et al., 2000).

Construct validity of the BAVQ-R was determined by comparing the correlations between the subscales. The cognitive model of hearing voices proposed by Chadwick and Birchwood (1996) argued that people who experienced their heard voices as malevolent, were more likely to resist engaging emotionally and behaviourally with the voices. Subsequently they argued that individuals who experienced their heard voices as benevolent were more likely to engage with the voices. Their findings confirmed previous conclusions that there was a strong significant relationship between malevolence and resistance and between benevolence and engagement. Whilst the omnipotence subscale did show

significant correlations with malevolence and resistance and a negative correlation with engagement, there was no significant correlation between omnipotence and benevolence (Chadwick et al., 2000).

According to Chadwick and Birchwood's cognitive model of hearing voices, experiencing malevolent voices is more likely to produce negative emotional reactions (such as symptoms of anxiety and depression) (Chadwick & Birchwood, 1996). Therefore in the validation of the BAVQ-R they also administered the Hospital Anxiety and Depression Scale (HADS), a short questionnaire with seven items each for depressive and anxiety symptoms developed by Zigmond and Snaith (1983). Depressive symptoms were found to have a weak positive relationship with malevolence, resistance and omnipotence and a weak negative relationship with engagement. Anxiety symptoms were found to have similar strength positive relationships with malevolence, resistance and omnipotence and a weak negative relationship with engagement. This indicates the relationship between subscales of the BAVQ-R and symptoms of depression and anxiety is more complex than initially reported.

The limitations of the BAVQ-R were considered in conjunction with other similar measures when selecting which assessment to use in the research. In the BAVQ-R the concept of omnipotence lacks a thorough and coherent definition, which is perhaps reflected in the slightly weaker statistical relationships. Chadwick et al. (2000) consider the definition of omnipotence and argued that the definition needs to go beyond 'power' as participants also endorsed the omnipotence items relating to control and knowing everything about them. Whilst the reliability and validity results did produce moderately high levels of significance and correlations, the findings supported much of the authors' previous work. The research would have been stronger if the authors had considered how their findings compared to other measures.

Alternative measures looked at a broader range of experiences associated with auditory hallucinations, rather than focussing on beliefs about the voices and reactions to the voices that individuals hear. The 'Psychotic Rating Scale' (PSYRATS) measures auditory hallucinations on an 11-item questionnaire that

assesses factors such as controllability, durations and frequency (Haddock, McCarron, Tarrier & Faragher, 1999). Other measures that focus on relationships with heard voices are based on different psychological models. For example the 'Voice and You' measure is based upon an interpersonal psychological model (Hayward, Denney, Vaughan & Fowler, 2008).

The BAVQ-R was chosen as the triangulation measure because it focused on beliefs that the voice-hearer holds about their voices and behavioural responses, which were particularly relevant to the research questions. It is also considered to be a widely established measure within the literature (Hayward et al., 2008).

#### **2.1.13 – Administering the BAVQ-R**

Following the interview, participants were asked to complete the BAVQ-R. Participants took between three and ten minutes to complete the questionnaire. They were then asked to put the envelope in a provided envelope and give it back to the researcher, so the questionnaire could be scored following analysis of the interview data.

Following the analysis of the interview data, the BAVQ-R questionnaires were be scored for each of the five subscales: malevolence, benevolence, omnipotence, resistance and engagement. Participants' scores could range between 0 – 18 for the malevolence, benevolence and omnipotence subscales, 0 – 27 for resistance of the voice and 0 – 24 for engagement with the voice. The scores were not to subjected to rigorous statistical analysis but instead were used to triangulate the interview data. The scores obtained represented a current appraisal of participants' relationships with voices which were compared to participants' current appraisal of the voices in the qualitative data. [See 2.1.16 Discussion about triangulation and mixed methods]

#### **2.1.14 – Ethics considerations and recommendations**

During the initial meeting with the Derbyshire REC, a number of issues were discussed with the researcher. The committee were concerned that the research would be subject to control measurement bias as some participants could be potentially using substances whilst others may have stopped using substances.

They reported that recall would be better on the part of those who were currently using substances. The researcher emphasised that the research was exploratory in nature and not necessarily subject to the same form of control measures as quantitative methods. The researcher also argued that previous research had included participants that had heard voices or used substances in the past two years (for example Chadwick et al., 2000). The researcher also clarified the process of analysis and triangulating the questionnaire and interview data.

Following the meeting with the Derbyshire REC a number of points required further clarification or amendment before ethical approval could be granted. The first issue was the storage of data at the University. The committee were concerned that the administrator was able to access the data from the metal locked filing cabinet. The researcher clarified that the data was kept in sealed envelopes and the administrator accessed the data for the researcher to prevent other researchers within the course having access to the data.

The second issue raised by the committee was the consent form did not contain separate points for consent to be audio recorded and using direct quotes from participants. They also requested that the storage of data in the University should be stated on the consent form. The consent form documentation was therefore amended to address these issues.

Thirdly, the committee requested that the 'Participant Information Sheet' should include more information about the sponsor of the research, taking part in the research and how direct quotes would be used sensitively to maintain confidentiality. They also requested that the contact number for the researcher should be a landline number rather than a mobile number. The researcher amended the document to include these changes and arranged with the University administration team to provide a landline telephone extension which would divert straight to an answer-phone machine.

Finally the fourth issue that was addressed was altering the BAVQ-R questionnaire to include a space to write the participant code rather than the



name. This documentation was also altered to reflect this change. Following the resolution of these issues, the committee granted ethical approval.

Following ethical approval from the Derbyshire REC, the University of Lincoln Ethics Committee raised some issues for further clarification. Firstly, the committee questioned whether the members of the NHS Trust would see the data, as referred to in the consent form. In the project this referred to the researcher's clinical research supervisors who were employed by the local NHS Trust. To clarify this issue, the researcher amended the consent form to refer to members of the research team rather than the NHS Trust.

Secondly the committee made suggestions to improve the interview schedule, as it was argued that some questions were leading. The researcher amended some questions to address this issue. An example of this was changing the first question of the coping strategy section of the interview schedule from "When do you use alcohol/ drugs to cope with your voices?" to "Have you used alcohol/ drugs to cope with your voices?" The researcher also provided the University Ethics Committee with amended documentation which had been granted approval by the Derbyshire REC. The Chair for the University of Lincoln Ethics Committee approved the amendments and clarification.

It was then necessary to submit an amendment application to the Derbyshire REC outlining the proposed changes that were approved by the University of Lincoln Ethics Committee. The Derbyshire REC reviewed the amendments and suggested that the consent form should be amended to include 'other regulatory authorities' who might look at the data. Following these further amendments to the consent form the researcher was given ethical approval for the amendment.

The final stage of the ethics process was seeking approval from the local NHS Trust Research and Development (R&D) department. The data protection officer sought further clarification from the researcher that any data transcribed by an external transcription service would not be given personal identifiable information. The researcher clarified that this would be the case and approval was given by the R&D department.

### **2.1.15 – Further epistemological detail**

The research is based upon a pragmatic paradigm which seeks to understand a single reality, whilst recognising this reality has many facets that are interpreted by individuals in different and unique ways (Mertens, 2010). Postpositivist paradigms also support the notion of a single reality but argue that this reality can be eventually identified, often through rigorous quantitative methods. Other paradigms, such as constructivism and transformative, support the idea that there are multiple realities based on social constructions and social positioning respectively (Guba & Lincoln, 2005).

Pragmatic paradigms view the researcher as pursuing research ideas in line with their values and objectives. Whilst the postpositivist researcher is seen as objective and detached from the research, the pragmatic researcher acknowledges their responsibility in choosing and understanding the participant's version of reality. In contrast, the constructivist researcher is seen as more embedded within the process, creating the findings in a joint collaborative process (Mertens, 2010).

Critical realists desire an understanding of reality whilst recognising that data reflects some but not all aspects of reality (Willig, 2008). The present research embraced this perspective as it recognised different perspectives of reality. This is of particular importance to the experience of hearing voices, which is argued to be an example of different experience of reality, influenced by underlying structures, discourses and relationships.

The interview data will be analysed using a thematic analysis, defined as a method of identifying patterns and themes within qualitative data (Boyatzis, 1998). This type of method has been described and criticised for not having a specific associated epistemological position. However, Braun and Clarke (2006) argue that this method can be applied in a flexible way to answer a wide range of research questions, provided that the researcher clearly states their epistemological position from the outset. The researcher considered that this analysis would answer the research question by seeking to identify how

participants understand how their relationship with their voice, coping and compliance changes through substance use.

#### **2.1.16 – Further detail about thematic analysis**

Braun and Clarke (2006) described how the process first begins with the active reading and repeated reading of the data to identify initial patterns. This process begins when the data is transcribed, although six interviews were externally transcribed. The researcher thoroughly checked all externally transcribed data and spent extra time becoming familiar with this data to ensure initial ideas and patterns were not overlooked.

The second stage of the analysis process involved systematically going through the data to identify where ideas and patterns could be coded as having similar experiences across the participants or within a transcript. The researcher explicitly chose to code the data inductively to base the findings in the data and limit applying preconceived codes (Frith & Gleeson, 2004). However, it is acknowledged that such analyses can never be free from subjectivity and some preconceptions.

Thirdly, the codes were collated to link particular codes, thus developing common themes between the codes. In the fourth stage of the process, the themes were reviewed using the data extracts to ensure they were congruent with the data. The themes were also checked in the context of the whole data set and the individual transcripts. In the fifth stage, the themes were refined and labelled to clearly define and express the underlying themes. In the sixth and final stage, the themes and data extracts were selected and reported to address the aims set out in the research question.

This process is summarised in the table below:

Table 1. Six stage process of thematic analysis

Stage	Description
1. Data familiarisation	Data transcription, reading, re-reading and noting ideas.
2. Generate initial codes	Systematically coding themes of interest throughout the data.
3. Search for themes	Identifying possible themes by collating the codes.
4. Review themes	Check themes work within the extract, the data set and individual transcripts.
5. Define and name themes	Refine the themes, generate clear names and definitions.
6. Produce report	Selecting and reporting themes and data that reflects the research question and literature.

Adapted from Braun and Clarke (2006) (p. 87)

### 2.1.17 – Discussion about triangulation

Triangulation refers to a method of corroborating and integrating data (Bryman, 1992). Denzin (1989) proposed five methods of triangulation: methodological, investigator, data, theory and multiple. Methodological triangulation, used in the present research, aims to combine different methods to investigate a particular phenomenon. Triangulation should be determined if necessary through consideration of the research aims and questions. Where research questions have a very narrow-focus it is considered that single-method research may be most appropriate (Sim & Sharp, 1998). For the present research the research question was broad and it was identified that the use of a questionnaire would provide useful and additional data. The questionnaire served as a way of triangulating the interview data in relation to the participants' current beliefs about their relationship with the voices.

Mixing qualitative and quantitative methods has been criticised for holding incongruent fundamental epistemologies (Brannen, 1992). However the current

research utilised the questionnaire method as way of triangulating the participant's relationship and beliefs held about their voices (in general, as opposed to after using substances) from another dimension. The quantitative data provided a quantified measure to contextualise the qualitative detailed data (Bryman, 1988). This perspective is considered suitable for the critical realist position that there are different angles on a true reality. Cain and Finch (1981) argued that triangulation can provide deeper insight to a multi-faceted reality.

The approach used in the current study suited the researcher's critical realist epistemological position. Given that this position refers to a multi-faceted single reality, it is accepted that sometimes a combination of methods are the best way of understanding this from different perspectives and answering the research question (Maxcy, 2003). Within this methodology the semi-structured interview method will be used to collect the data and the questionnaire will be used as a triangulation measure.

#### **2.1.18 Issues of validity and reliability in qualitative research**

Triangulation is considered to be one method of enhancing validity within qualitative research (Yardley, 2008). The present research also used comparative coding with one of the clinical research supervisors and discussing codes and themes with both clinical research supervisors. This was done to enhance the reliability of the analysis process by ensuring that the researcher's perspective on the data could be understood and followed by others (Boyatzis, 1998; Yardley, 2008). Additionally, the researcher kept records of code and theme development to provide an audit trail of the analysis process (Flick, 1998).

There is some debate about the use of validity and reliability measures in qualitative research. It is argued that the attempts to minimise bias within such research can be seen as contradictory to its ethos which emphasises the influence of the researcher's own context (Yardley, 1997). However, researchers have acknowledged the need to ensure quality and transparency in qualitative methodologies (Yardley, 2008).

## 2.2 Extended results

### 2.2.1 Voice's control in the absence of substances

Behaviours were often felt to be controlled by the voices, often through commands which could range from instructions to switch TV channels to harming themselves or another person. Commands of violence against others were generally resisted:

I mean I've had some really bad ones in the past where I've been stood on the train, waiting for a train, they say, 'push that person off.' But obviously I'm not going to do that. (Nick:169-171)

However commands to self-harm were more often acted on:

And so, and then there's like, there's been times where, like I've had to take the tablets and, because he, he tells me, 'take that box of tablets. (Julie: 193-194)

Voices were also viewed as controlling emotions as well as behaviours:

It is, it's very hard though. I mean erm, like I say, when, when I'm not well it's, that's, that's when I struggle, because the voices can be quite erm, it's like a mind game, you know, and it's horrible, and er, but they make me feel horrible (Nick: 876-879)

Here the participant refers to the voice as controlling them to feel 'horrible'. Others (Adie, Sam, Ben) viewed the voice as controlling them implicitly rather than explicitly:

Adie: Erm ... i'm not too sure i'm not too sure that they tell me what to do it feels more along the lines of they'll basically manage to erm control me, i think erm, using my emotions it feels like

Int: Mm

Adie: Its like they've managed to learn how i feel when they say certain things or they've got a good feel for how i think and stuff so that they (.) will be able to enjoy what i'm doing themselves as well (Adie: 219-227)

### 2.2.2 Emotional moderation

Another theme identified in the interviews was emotional moderation. This referred to how participants used substances in different ways to modify the experience of hearing voices. In many cases, substances were used as a way to disengage or engage with the voices.

## Emotional disengagement

All participants, with the exception of Adie, thought that substances helped them to disengage from the emotional experience of hearing voices. For participants, substance use was associated with not caring about the voices:

Int: Does the h- does the alcohol change anything about (.) the voice  
Joey: It changes my mood it changes my mood it makes me like not care about it anymore I don't worry about anything anymore I just I just go with it and its a way of calming me down (Joey: 192-196)

Yeah, if I was absolutely drunk, then it weren't so bad because I weren't thinking and my head was all over so. I drank a hell of a lot, so I was like, like I say, I was a zombie, all over the place. So you don't care as much, and I think because I didn't think about it as much I didn't hear him as much, and so it did make it a bit easier when I was drunk. (Julie: 347-351)

If I can have a joint, you know what I mean, three or four drags of a good joint I can just go, <sniffs> you know what I mean, just don't care what they say even if they are there. (Ben: 226-229)

The awareness of the voices was often still there after using substances:

Int: So I mean do you still get the voices when you've been drinking?  
Michael: No.  
Int: So, so the voice goes?  
Michael: Yeah, it, I still have it but it's, like, like nothing really. I know it's there, but I'm (.) I dunno, I dunno how to explain it, but I know it's there, but it's OK. (Michael: 21-25)

During the 27 years it was like constantly every day, just to numb like the voices or, or the feeling or (.) yeah. Some people say like drugs don't help, alcohol don't help, but it does, it does. (Mark: 203-206)

The reference to the voices of feeling becoming 'numb' implied that the voices do not have the same emotional impact that they may had previously. This indicated that the emotion associated with the voice was more problematic than the voice itself. This may also explain Thomas' milder reaction to the experience of hearing voices as they did not report it as emotionally distressing:

Yeah, they're not really erm, horrible voices in any way. I think they might have used to have been at some point, but I've never been really like discomforted by them, you know what I mean. (Thomas: 64-66)

### **Emotional engagement**

Mark and Adie both used cannabis in particular to engage with the voices or to enhance the participant's mood:

I have got negatives, I have got a lot of negatives, but it's hard just to get rid of the negatives, it's that one positive what I'm looking for, it's hard to get. But I get it a lot with cannabis, not alcohol, with cannabis, 'cause it helps me like just sit down and analyse things. Whereas like people say that cannabis is like, gives you paranoia, it, not to me it doesn't, to me it doesn't. It's like, like a release I can analyse, it's a release for me so.  
(Mark: 301-307)

Mark described using cannabis as a way becoming more optimistic. Interestingly, he referred to his voices as both "positives" and "negatives", depending on his mood and he recognised that the voices as part of himself. Within this frame of reference it appears that cannabis is used to engage and strengthen his belief in the positive voice.

Adie also used cannabis and seems to put more emphasis on the voices engaging with him in a more meaningful way:

Adie: Previously when i used cannabis erm (.) they would be (.) really loud [they would be really sort of there and and I've (.) got an ability to understand

Int: Mm

Adie: That as well because with having just used cannabis I had great sense of feeling relaxed and erm since have heard voices I've always tended to be with someone else when I've (.) used cannabis erm and (.) I always manage to have a laugh with the people erm (.) the voices seem to they seem to sometimes manage to (.) really get in depth into something by saying something to me because it means something to me deep down inside erm and its just sometimes that can be really confusing I think it's just when I've just used cannabis they tend to be confusing although at the time of just recently using the drug with



the effect of it whilst been high on it and I feel really comfortable  
(.) no matter what the voices can be saying (Adie: 303-314)

Adie viewed his voices generally in quite benevolent terms, seemed to try and think about what the voices were saying to him when he had used cannabis. There also seems to be an emotional 'enhancement' in the sense that he felt "relaxed" and "comfortable."

### **2.2.3 Relationships**

Throughout the data, it was identified that participants frequently referred to relationships in a number of different ways. As anticipated in the research question, a sub-theme was developed that described different relationships with the voices. However, a second sub-theme was identified that indicated other important relationships with other people.

#### **Relationships – voice**

Whilst most participants viewed their voices as in control, they differed in how they perceived other aspects of the relationship with their voice. Some described the voice as being very dominant and aggressive towards them:

It can be it wants to be dominant it wants to be dominant it wants to be it can't stand being drowned out by other noises so when its like in a noisy room it wants to say my name or something it will say it really loudly (Joey: 285-288)

Others saw their relationship in positive terms, despite the voice sometimes being controlling:

The voices to me erm seem to be really bright and enthusiastic and they just seem to be full of what you would imagine a bright young person to be full of like love and you know curiosity and things and (.) with there being different voices erm its mainly female voices although the male voices are also there (.) (Adie: 35-38)

It was also identified that participants viewed the relationship with the voice as similar to an external relationship, either in terms of a friendship or an abusive relationship:

I feel as though er the male voices (.) erm and the female voices could be an effect that I I would have drawn up by how I would like one a male friend to be and a female friend to be in real life although there is so many emotions around

my drawn up well perspective of them its very hard to tell sort of difference because it always seems to come across (Adie: 105-108)

Some participants perceived the relationship in terms of a friendship, although it was not always based on an idealised view of what they wanted in a friend:

Well, I don't like it, it's one, if I could click my fingers and get rid of Dave, I would. Erm, we've never had a nice relationship, 'cause he's never nice. I used to always think he was my best friend at one time, 'cause I used to think that's why he's told me what to do, 'cause he wants me to have the best life. And I thought, if, if he's saying I'm fat I must be fat, so him telling me not to eat, he's helping me fix that problem. So at one time I, I really did trust every word he said, I didn't like him, but I trusted what he was telling me, 'cause I thought he's telling me it all the time, it must be true! So you just tend to listen to him. <Voice name (Dave) was changed to maintain confidentiality> (Julie: 198-206)

Julie described an emotionally abusive relationship with the voice in the extract above. The interview did not offer the scope to explore how this relationship may have developed and if it was based on previous experiences of relationships or friendships. Some participants recognised the voice as based on someone they know:

Sometimes, I mean, erm, it could be like erm (.) I think a lot of it relates to my stepdad, 'cause a lot of the sayings that he used to say to me, like erm, you know, 'one of these days I'm going to hit you so, you know, hard it won't (.) ' you know, 'you're an idiot,' you're this, you're that, you're other. Erm, erm, you know, and er, and then the commands ones I suppose are from him as well, because he was such a dominant figure in my life, but yeah, it was, you know, it was, he was such a nasty person, and I think it derives from him, so. (Nick: 109-116)

Participants reported that the relationship with the voice shared similar qualities to the relationship with other significant figures in their life. The second sub-theme identified within the 'relationships' theme was how participants interacted with others.

### **Relationships – others**

It was identified that participants appeared to follow a pattern of substance use maintained through relationships characterised by conflict. Substance use was seen as causing difficulties in relationships close to the participant:

Yeah its really trying to cut down at the moment cos there was quite a big row in the family a while back cos I was drinking a hell of a lot and er I've cut down quite a bit and my doctor says it's safe to cut down more so I'll cut down further erm so I'm doing my best (Sam: 176-178)

Also difficulties in the family and other relationships appeared to increase substance use:

Say that's why I don't have a girlfriend, because for instance we could be sat down arguing, and then they'll come in, the voices will come, then that'll be where the drink comes into it, or used to come into it. But I don't have, not in that situation. (Nick: 40-43)

Conflict in other relationships lead to hearing voices and then substances were used in response. The increased use of substances then made conflict more likely and a circular pattern develops. Nick described how he attributed this pattern as a reason for not having a girlfriend. They may have been actively avoiding relationships to avoid conflict and subsequent voices and substance use. Alternatively, the belief that his voices and substances are the reason for not having a girlfriend, may seem more acceptable than the belief that there was something about him that prevented him from having a girlfriend. This issue of acceptability will be discussed further in a subsequent theme.

In addition to avoiding relationships, participants also described a loss of other relationships. For Julie, she withdrew from other relationships during substance use which had become the focus of her life:

I don't know, that's the thing. I think because I've realised that my family are still there, because I've pushed a lot of 'em away and stuff, and it was just me then, and then like I was with a bloke that I'd met in (hospital) and, and he's a heavy drinker as well, so he's, he's even worse than what I was. So it was just, our life was constantly about drink. But now I can go out, I can walk round town, I can see friends that I've known right from school, and they'll quite happily talk to me. At one time they wouldn't because if I'd been looking at myself I'd have said I was a down and out, and I really would, says, 'oh, I wouldn't bother with her,' or ought like that. But now I'm a totally different person yet again. (Julie: 457-466)

An improved relationship with family and others seemed to be related to improved ways of coping and understanding:

I think because everything around me had started to get easier, I think I'd got into a bit of a better place where I had a better understanding, and so you, when you've got all like your family support and everything, it's a bit easier. Because if you're with like one bully, and you've got a big group of friends, then the group of you can say no to this person, and it, you have to treat it just the same. (Julie: 260-265)

This highlighted the importance of having social support and the benefit of "talking to people", which seemed to reduce the emotional impact of hearing voices as opposed to stopping it altogether.

Overall relationships with others seemed to have an impact on the experience of hearing voices. Relationships with conflict were thought to increase voices and substance use. Increased support from family as well as wider casual relationships seemed to be beneficial to participants' experience of hearing voices.

#### **2.2.4 Self-concept**

The experience of hearing voices was often seen as shameful or embarrassing:

So the next morning I had to go and repeat it to the doctor, and says to him, I says, 'I don't know how to say it,' I said, 'but when I'm alone it don't sound like I am.' 'Cause I didn't want to turn round and say, 'I hear this voice,' 'cause I, to start off I thought it was quite a bad thing, it was something I'd never really come across. So I did, I thought it was something to be quite ashamed of, and I didn't want to tell anyone, 'cause I never told anyone, it must have been about eight, nine months before I told anybody, 'cause I thought it's not right. (Julie: 62-69)

Participants also described an identity of being "insane" especially when they first started hearing voices:

I used to think like (.) I'm really insane and messed up and sometimes I got frustrated by it (Joey: 78-79)

Er it's both of them for the sort of first time it's kind of worrying because you think you really are cracking up which I suppose I was but er it wasn't good er because especially the first one I'd hear was the derogatory one which was er quite worrying but er (.). (Sam: 43-45)

Such thoughts about the self at the onset of hearing voices could be seen as the initial stages of forming a relationship with the voice where they feel insecure and unstable. This can be seen in later stages of the relationship where the voice is seen in control, as discussed previously.

Within this theme of self-concept, participants varied in the extent to which they integrated their identity and the identity of their voices. One position was the self-identity and voice-identity were very separate:

But because John's not a nice person I try not to think of him as a person, 'cause I know he's not a real person, but you try and find a, a face to go with that voice.  
(Julie: 146-148)

Julie described giving her voice a name. By providing a name and image of his face, she personified her voice and gave it an identity separate to herself.

The opposite position was ascribing the voices as being integrated as part of the participant's self-identity:

Int: How would you describe your relationship with the voice or voices?

Mark: It's just me. There's no relationship, it's just me. (Mark: 127-128)

In this example, Mark conceptualised the voices and himself as one identity. He had no sense of separation demonstrated by not acknowledging any sort of relationship with the voices. He also tended not to be distressed by his voices and generally used substances as a way of engaging with voices. This could be viewed as positively enhancing his mood and emotional engagement as described previously.

Participants often reported different levels of voice-self integration throughout the interview. For example, Julie on one level acknowledged that her voice is not a "real person". However, she also gave him a name and a personality with characteristics which implied that he had much the same qualities as a real person. Nick also described different identities which he changed between at different times of his life:

'Cause everybody at AA know me as Gregg, but everybody in the pub knows me as Trigger, but I turn Trigger back into Mike sorta thing, do you know what I

mean. And I've gotta be very careful because if, I don't want, when I got arrested, I know I was in the police station I turned round and said, when they said, 'what's your name?' And I was going to say Trigger or Mike, that's how bad it was, do you know what I mean? So erm, yeah, I do get in, I can, or have done, or er, it is possible to get into a relationship with a voice, because you become that, that voice becomes you in a way. <names changed to maintain confidentiality> (Nick: 221-229)

'Mike' was described by Nick as a voice which he had "created" after an incident where he felt guilty and alleviated the guilt by imagining that 'Mike' had been involved. This appeared to link into the concept of the idea that the voice could be held responsible for certain events or actions seemed to be more acceptable than the appraisal that they themselves had some responsibility. This will be highlighted further in the final theme discussed. The penultimate theme to be presented is the theme which represented participants' understanding of psychosis and hearing voices.

### **2.2.5 Understanding of psychosis**

Participants demonstrated different understandings of psychosis and what precipitated their experience of hearing voices. Most participants viewed previous substance use as causing the onset of their voices:

It came about after I'd used cannabis as a drug to smoke for around erm five years erm starting from when I was around twelve thirteen years old to the age of seventeen and a half (.) erm during that time I mainly stuck to the use of just that drug but I'd also before I came off the drug used speed ecstasy and cocaine erm at different times erm I first started using ecstasy when I was sixteen and a half and then moved onto speed erm I actually did something with speed that could relate to the current situation I have with the voices being there as it seemed to be an overdose at the time er where I was actually smoking speed along with cannabis at the same time. (Adie: 10-17)

In this example, he viewed the voices as being created from an 'overdose' of substance use. Participants appeared to conceptualise the voices as a product of the mind's threshold being crossed. For Adie, substance use was the main cause of his voices but others acknowledged the role of stressful events in the onset of voice-hearing and psychotic illness:

But the right, the very first voice was then, when I was waiting to see my sister, and this bloke got in, it was just, it was just erm ... I think with all the, all the stuff that I'd gone through in the past with er, children homes, my stepdad, blah-de-blah, and with the flat I was in I hated, and the job I was in, it was a horrendous job, it was a horrible, horrible job, and I was drinking at the time. Anyway, but at that specific moment in time it was like my mind just like <puff> exploded, and that was it, I just. Once you'd crossed over the line there's not really much, when it comes to schizophrenia, once you like, once you've opened that door, that you can't close that door, you can't close that door, you can't put it, just that's it, it's wide open. (Nick: 94-104)

In this example, Nick recognised his diagnosis as enduring and irreparable once his mind had “exploded”.

Some participants also described their experiences in biological terms demonstrating a ‘medical model’ understanding:

Joey: Well I'm just interested in what sort of effect alcohol would have on the brain when when suffering from psychosis (.) I know you're not supposed

Int: Mm

Joey: To really drink alcohol when you're on medication because it cancels out the effects of the medicine but I do it anyway sometimes. (Joey: 225-229)

The relationship between alcohol and medications is described in a way that appears to remove the control away from the participant. This can be seen to reinforce the feelings of passivity as identified in a sub-theme of the key ‘control’ theme discussed earlier.

Similarly, Nick related the concept of tolerance to explain why substances did not work as an effective coping strategy:

The mind becomes tolerant to, like the, it's like the medication, you become tolerant to it, erm. So the alcohol, the voices thing, I became tolerant with it, so then the alcohol wouldn't work. (Nick: 428-431)

Interestingly, he seemed to view himself as becoming tolerant to alcohol as opposed to the voices, perhaps reflecting a close self-voice integration.

In contrast to a 'medical model' understanding, participants also viewed their voices and psychosis in cognitive terms:

Erm, really I just sorta get voices. Erm, I've sort of started to conquer them, erm, I've sort of realised that it's more my thoughts in my head I think. Erm, yeah, it's quite stupid really some of the voices. (Thomas: 15-17)

In this example, Thomas identified voices as thoughts which seemed to have improved his beliefs about being able to cope with or "conquer" them. Interestingly, this participant also reported not using substances to cope with hearing voices in recent times. One explanation for this could be that as he began to conceptualise the voices as thoughts, he was able to develop a belief that he could control them.

Other participants appeared to have not reached a similar level of understanding but had entered a 'contemplation' stage where they would consider the voices from a cognitive perspective:

Erm, my own voice, but then I can't work out whether that, is that just me thinking in my head, or is it an, my actual voices in my head? I can't, I can't work it out, I can't just ... (Ben: 101-112)

Participants generally reflected an understanding of psychosis that can be observed in treatment approaches amongst mental health practice in the United Kingdom. Participants also acknowledged that substance use often had negative effects on their symptoms of psychosis but still persisted with using them. However, participants gave different explanations for using substances in response to voices. The next section explores the theme where substance use was identified as a coping strategy and as compliance with commands.

### **2.2.6 Function of substance use: Coping vs compliance**

Participants clearly identified that some behaviours they performed were attributed to a strategy to cope with the voices:

Yeah, so yeah, I've gone a long way in a whole year. I mean this time I was in a bit, in a very, I was in a mess, I was, I'd cut myself up and stuff and I wasn't telling anybody. Erm, and the self-harming thing is another way of coping with the voices, because it distracts you. (Nick: 551-554)



Self-harm was conceptualised as a coping strategy by Nick and as a method of distraction. Substances were also conceptualised as a way of coping at times:

Julie: Well, I didn't tend to hear him as much when I was drinking, as long as I was absolutely pissed as a fart.

Int: Right.

Julie: If I was tipsy he'd be worse than ever.

Int: Really?

Julie: Yeah, because he, it seemed like he was trying to fight against it, 'cause he knew I'd sort of wash him out a little bit, if I was totally drunk. And so it did seem like he was trying to get me not to do it, 'cause he didn't want to go, which if I fall asleep then he's not there. (Julie: 285-293)

Julie described using alcohol as a coping strategy which had the function of escaping or disengaging with her voice. Here this example links to the theme of emotional moderation. She later described the amount of alcohol consumed in order to cope with the voices:

Er, I used to, every morning before I went down to Wetherspoon's, and was getting ready to go into town, I'd drink a full litre bottle of vodka. And then I'd spend all day in the pub, and I'd drink Jack Daniels all day, and then I wouldn't get home till about 12, 1 o'clock in the morning, and I lost track of the amount I was drinking, 'cause much as I could get I would drink. (Julie: 304-310)

Participants also described how substances were used because the voice had instructed them to do so:

Er, like before I started taking alcohol the, it was like, not telling me to have a drink, but something along them lines, so I started taking, having a drink and it was like getting, it was like, not as, it wasn't as angry 'cause it, it was something it liked. So I carried on doing it. And then I used to drink like nearly every day and it never, it was never there. (Michael: 42-47)

Michael identified that alcohol changed the reaction of the voice and pleased the voice. Similarly, Sam described using substances in compliance with the voices:

Sam: There have been times when I've sort of just ... I usually [drink] just cos its just like being bombarded and it's just urgh I'll just give in for a bit of peace and quiet ...

Int: Mm ... can you give me an example of a time when ..

Sam: Oh yeah I mean there was one time when it was just like go and get drunk get drunk drink drink drink and it was just like that for an hour and a bit and I just eventually gave in and just went and got a bottle of wine and got slaughtered but er ... no it was just for a bit of respite. (Sam: 69-74)

Compliance gave participants a sense of “respite” from the voices that they viewed as continuously harassing them. In the sample, commands to use substances were only related to using alcohol whereas both alcohol and illicit drugs were cited as coping strategies.

Often participants viewed the same type of behaviour both as coping strategies and compliance with voices. For example, Michael resisted violence as commanded by the voice but then felt so frustrated that he ended up doing the command:

Erm, like say if I like it told me to like punch something for no reason, and if it's strong then I have to do it, 'cause I can't avoid it, and if it's not strong I'll sit there and I'll get, I'll get angrier and angrier and angrier, and then I'll have to flip, and I'll have to punch something 'cause I'll get so angry about it. (Michael: 53-57)

Punching something was reasoned as coping with the emotion as opposed to viewed as compliance with the voice.

Nick viewed self-harm as a strategy to cope with the voices (see above). However, during the interview he also described self-harming as compliance with the voices:

And she died, and sometimes it's her, it's a kinda her that talks to me. Erm, you know, when I was self-harming it was kind of, I've not really gone into detail with <CPN> about it, but when I was self-harming it was like she was kinda telling me to do it because she did it herself and I thought it would help, because the idea was the blood was draining the badness out of me, (Nick: 121-126)

There were two narratives described by this participant: one was self-harm as a distraction from the voices and the other was complying with the voice. In this example the voice is again based on a previous relationship and viewed as a source of advice.

For participants, substance use was also viewed in terms of coping and compliance. Julie described drinking to cope during the interview (see above) and described the voice as instructing her to drink:

So it may start off as something that might seem quite fine to go for a walk, it don't hurt nobody, but then when it leads onto having to go into the shop to buy tablets, or going and buying a bottle of Jack Daniels, 'cause he likes Jack Daniels, and so he used to quite often tell me to get a bottle. And I have, used to have to go and sit like by the river and go and sit and drink a bottle to myself, 'cause I had to sit where nobody else could share my bottle, because they was all being greedy. (Julie: 230-236)

Interestingly, she spoke about herself choosing to drink 'Jack Daniels®' and also how the voice preferred 'Jack Daniels®'. There appeared to be some overlap between participants' substance use being appraised as coping and compliance. Substance use was also cited as a previous way of coping with other negative moods and stressful life events, prior to the onset of hearing voices. Again it is considered here whether different appraisals of participants' experiences and substance use are a protective strategy to maintain a positive self-concept.

### **2.2.7 Findings from the BAVQ-R**

The BAVQ-R was a measure to identify a quantitative understanding of participants' beliefs about their relationship with their most dominant voice. The purpose of this measure was to provide a way of triangulating the qualitative data, particularly aspects relating to the BAVQ-R dimensions: malevolence, benevolence, omnipotence, resistance and engagement. The qualitative data was analysed initially and subsequently the questionnaire was scored and compared with the correlating interview data and themes. This was done to avoid the researcher being influenced by the BAVQ-R dimensions when analysing the interview data.

Items on the BAVQ-R were reviewed to identify those that appeared to relate to the themes identified in the thematic analysis. Items were identified that were related to the 'voices in control', 'lack of control and passivity' and 'emotional disengagement'. Finally, the differences between emotional and behavioural

resistance (as measured by the BAVQ-R) and the sub-theme of emotional disengagement were considered.

#### *Voice in control*

Four items from the BAVQ-R were considered to be related to the sub-theme 'voice in control':

- Q3 My voice is very powerful
- Q9 My voice makes me do things I really don't want to do
- Q15 My voice will harm or kill me if I disobey or resist it
- Q18 My voice rules my life

Most participants, who agreed with the above items, were also identified in the sub-theme 'voice in control'. Mark was the exception to this finding; he agreed with items 3 and 18 but none of his coded extracts were grouped within the sub-theme of 'voice in control'. These items were all related to the omnipotence scale.

A comparison between omnipotence and the 'voice in control' sub-theme

The following items were items that contributed to the omnipotence sub scale on the BAVQ-R:

- Q3 My voice is very powerful
- Q6 My voice seems to know everything about me
- Q9 My voice makes me do things I really don't want to do
- Q12 I cannot control my voices
- Q15 My voice will harm or kill me if I disobey or resist it
- Q18 My voice rules my life

Joey, Ben, Michael, Mark and Nick agreed with four or more of the above items. The interview data for Joey, Michael and Nick also reflected the sub-theme of the 'voice in control' at the time of the interview. However, Adie agreed with three of the omnipotence items and had a number of extracts that were identified as belonging to the theme of 'voice in control'. This suggests that the concept of omnipotence may be related to the sub-theme of 'voice in control'. However, neither concept seems to be fully defined by each other as participants did not

fully fit in both concepts. The implications of this are discussed in the discussion below.

#### *Lack of control and passivity*

Item 12 was considered to be related to the sub-theme 'lack of control and passivity': I cannot control my voices. All participants were associated with the sub-theme but Sam and Julie did not agree with that item. The reasons for this will be considered in the extended discussion section below.

#### *Emotional disengagement*

Two items in the BAVQ-R were thought to reflect the sub-theme of 'emotional disengagement' within the qualitative data in relation to substance use:

- Q28 'When I hear my voice, usually I ... I try to take my mind off it
- Q30 'When I hear my voice, usually I ... I do things to prevent it talking.

Adie was the only participant to not be associated with the theme 'emotional disengagement'. This was also supported by his disagreement with the above two items. Within the theme of 'emotional moderation', he was associated with the sub-theme of 'emotional engagement'. Interestingly, he did not agree with two out of the four items which contributed to the 'emotional engagement' scale.

A comparison of emotional and behavioural resistance with the 'emotional disengagement' sub-theme

Following the analysis of the qualitative data, 'emotional disengagement' was identified as a sub-theme for all participants except Adie. The BAVQ-R comprised of a 'resistance' scale which consisted of emotional and behavioural components. All participants, Adie, agreed to three or more of the items following items related to 'emotional resistance':

- Q20 My voice frightens me
- Q22 My voice makes me feel down
- Q23 My voice makes me feel angry
- Q25 My voice makes me feel anxious

Most participants (Joey, Sam, Ben, Michael, Julie, Mark) agreed with at least three items from the 'behavioural resistance' scale:

- When I hear my voice, usually ...
  - Q27 I tell it to leave me alone
  - Q28 I try to take my mind off it
  - Q29 I try to stop it
  - Q30 I do things to prevent it talking
  - Q31 I am reluctant to obey it

Therefore participants who appraised their substance use as enabling 'emotional disengagement' also scored higher on the resistance scales of the BAVQ-R.

## **2.3 Extended discussion**

### **2.3.1 Substance use and beliefs about the relationship with voices**

#### *Substance use and the attribution of control*

The findings from the present research suggest that substances affect an individual's experience of hearing voices in a number of ways. As described above, 'control' was considered to be a central theme when identifying how participants used substances in response to hearing voices and command hallucinations.

During the interview participants described their voice as being in control, which is central to the concept of voice omnipotence (Chadwick & Birchwood, 1994). However this was not consistently reflected in participants' omnipotence scores on the BAVQ-R. One reason for this finding is because the concept of omnipotence is not limited to the control and power of the voice (Chadwick et al., 2000). It is a much broader concept which has individual meaning for both participant and researcher. During the analysis process the researcher identified the theme of control and the scores of omnipotence in the BAVQ-R are likely to reflect the other components of the omnipotence as identified by Chadwick et al. (2000).

#### *Substance use and the effect on relationships*

Participants often described characteristics about their voices throughout the interviews. All participants were identified as viewing their voice as in control, as described above. Whilst voices were seen as in control, voices were perceived in both negative and positive terms. The use of substances did not appear to change the negative and positive appraisals of the voices, only the perceived control. Participants' views about their voices did fit with existing cognitive models that voices perceived as in control could also be identified as 'benevolent' (Chadwick & Birchwood, 1994).

The findings identified factors other than the beliefs that participants had about their voices that seemed to be affected by substance use. In the 'relationship' theme, the relationship participants described with others appeared to influence substance use and the experience of hearing voices. Participants described

conflict in some relationships with other people and perceived conflict with others and the voice as triggering substance use. Often voices were identified as being similar to past relationships with people, particularly traumatic or abusive relationships (Romme & Escher, 2000). As seen in abusive relationships within society, substance use is seen to be more prevalent in difficult and conflicting relationships (Wilson-Cohn, Strauss & Falkin, 2002).

#### *Substance use affecting self-concept*

Some participants described using substances as a way of gaining control over their voices. This was in contrast to the substances and medication having control over the voices. The exact factors and circumstances which enabled these participants to have perceived control over their voices is not clear. However, it was clear that participants had varying levels of self-voice integration. Substance use did also enable some participants to perceive themselves as being in more control of the voices. This indicated that the substance use may affect appraisals about the self and others. Individuals' appraisals about themselves in relation to their voice and other relationships predict levels of distress (Birchwood et al., 2000).

### **2.3.2 Substance use and coping**

#### *Substance use as moderating emotional experience*

Substances were described by participants as changing their emotional experiences of hearing the voice. Substances were viewed as enabling participants to disengage from their emotions, although the voices were still present after using substances. This finding supports the cognitive model of hearing voices which proposed that the appraisal of the voice determined an individual's emotional and behavioural reaction to it (Chadwick & Birchwood, 1994).

It is argued that participants who described 'emotional disengagement' when using substances are likely to have developed thoughts that substances will enable them to cope with their voices. The theme of 'emotional disengagement' was considered to be related but not the same as the concept of emotional resistance as measured by the BAVQ-R (Chadwick et al., 2000). The term



'resistance' may be different to 'disengagement' as it implies an active process trying to prevent something which could be an emotion or behaviour. By contrast, 'disengagement' implies a detachment from something (Pearsall, 2002). The present study conceptualises substance use as a type of behavioural resistance in the BAVQ-R theoretical framework.

Some participants described how drugs were used to change their emotions, for example enabling them to feel more 'relaxed'. As such, substance use facilitated participants' engagement with the voices. The majority of participants used substances to cope with negative experiences of hearing their voices. In addition to altering negative affect, substance use was used to 'disengage' participants from their voices.

Models of substance use also suggest that individuals use substances to alleviate negative emotions (Hambrecht & Hafner, 2003). Cooper et al (1995) proposed a model of alcohol use, which stated that alcohol was used by individuals to regulate both positive and negative emotions. The findings from the present study support such models as participants used substances for both positive and negative emotions and may be useful when considering substance use in a population of people who hear voices. However, the theme of 'emotional disengagement' also implies that substances are used to cut-off emotions rather than altering them as the previous literature suggests. The emotional 'disengagement' corresponds with the literature on coping strategies in psychosis, which suggests that substances are used as a form of 'disengagement' (Rudnick & Martins, 2009).

In terms of the coping literature, participants who described using substances to modify their emotional experience are considered to have used emotion-focused coping strategies (Lazarus & Folkman, 1984). For some participants, particularly those who had stopped using substances, they reportedly developed alternative and successful emotion-focused coping strategies, such as seeking social support. This finding is supported by previous research that identified emotion-focused coping, including social support, may be associated with better outcomes (e.g. higher quality of life) (Lee et al., 1993). This is in contrast to

earlier research which suggested problem-focused coping was more effective (Lazarus & Folkman, 1984).

As discussed previously, problem and emotion-focused definitions of coping may not be a helpful distinction to determine effective coping strategies. Active and passive coping may be a useful categorisation based on the degree the person takes action to manage their distress (active) or relinquishes control to others (passive) (Brown & Nicassio, 1987). The present research identified themes related to participants relinquishing control to the voices and medication. As such, it appeared that substances were used as a passive coping strategy. The participants who described social support as an additional coping strategy may have used this as active or passive coping, dependent on whether the function of the coping was to manage the problem in conjunction with others or seek emotional support (Carver, Weintraub & Scheier, 1989). The data did not indicate the function of participants' reported social support.

### **2.3.3 Substance use and the effect on compliance**

Participants generally reported that they would be less likely to comply with commands from the voice. This appeared to be commonly reported where participants has used substances to 'disengage' from their emotions following commands from the voice. Participants also viewed substance use as a way to escape by sleeping. In these circumstances it is logical to understand that compliance would be less likely as they would not be conscious to act on the command.

Interestingly, some participants described an increased likelihood of complying with commands after using substances, particularly those to self harm or use substances. There appears to be an explanation to account for this within the existing substance use literature about behavioural dis-inhibition. It has been well established that alcohol, cannabis and amphetamines are associated with poorer cognitive functioning, specifically impaired decision making and reduced will power in neurocognitive research (Bechara, 2005). The prefrontal cortex, which is involved in inhibiting behaviour, has also been shown to be damaged in individuals with substances use disorders (Iacono, Malone & McGue, 2008).

However, such accounts do not acknowledge the widely established role of psychological factors in substance use and behaviour (Cooper, 2006).

*The function of substance use: Coping or compliance?*

Participants reported the use of substances to cope with their voices in the present study and were also recruited on this premise. This finding was consistent with the self-report literature that identified reasons for increased substance use in psychosis (Gregg, Barrowclough & Haddock, 2007). In addition, participants also cited reasons that were not directly related to their symptoms of psychosis. These other reasons generally correlated with an existing measure of substance use in individuals with a diagnosis of schizophrenia (Gregg et al., 2009). These other reasons corresponded with the three categories of the measure: coping with distressing emotions and symptoms; social enhancement and intoxication and individual enhancement. Finally, participants viewed substance use as complying with their voices which has not been identified in the existing psychosis literature. This is discussed further in the 'Theoretical issues' in a later section of this paper.

**2.3.4 Substance use, coping and psychosis: The role of personality**

In the extended background section, two models of co-occurring substance use and psychosis were discussed: the 'vulnerability' model and the 'self-medication' model. The 'vulnerability' model stated that substance use increased susceptibility to developing symptoms of psychosis (Andreasson et al., 1988). The 'self-medication' model stated that substances were used to modify affective states, including symptoms of mental health problems (Khantzian, 1990).

The personality literature has influenced the development of another model accounting for common personality factors in both substance addiction literature and psychosis literature (Hides, Lubman & Dawe, 2004). Where an individual has traits of neuroticism and impulsivity, substance use may be used as a maladaptive way of coping with increased levels of negative emotion and used to increase positive emotions (Blanchard, Brown, Horan & Sherwood, 2000).

Increased levels of neuroticism and impulsivity have been identified in both substance using populations and people with psychosis who used substances (Blanchard et al., 2000). There has been some controversy regarding the role of neuroticism in the development of psychosis and substance use. Neuroticism has been linked to most personality models of mental health diagnoses, therefore it is difficult to identify the specific route to developing psychosis rather than other mental health problems (Hides et al., 2004). Neuroticism has also been positively associated with passive coping styles in clinical samples (Gilbert, 1991) and individuals with psychosis (Beauchamp, Lecomte, Lecomte, Leclerc & Corbiere, 2011). The results from the present study identified substance use being used in a passive way. These findings provide some support for the suggestion that passive coping styles are associated with symptoms of psychosis.

However, research also indicates that other factors may be related to substance use in psychosis. Trauma may also influence the development of psychosis. Indeed, significantly more people with psychosis have been identified as experiencing a traumatic event in childhood compared to clinical controls (Spence et al., 2006). Individuals with psychosis are likely to have more severe symptoms of psychosis as well as other disorders such as depression and anxiety if they have a history of childhood abuse (Beck & van der Kolk, 1987; Greenfield, Strakowski, Tohen, Batson & Kolbrener, 1994). One model of co-existing post-traumatic stress disorder (PTSD) and psychosis suggests that an individual who experienced trauma may be at greater risk of substance use as a way of managing intrusive PTSD symptoms, which in turn may increase the symptoms of psychosis. Other variables, such as antisocial personality characteristics and social support may moderate the relationship between trauma and psychosis (Mueser, Rosenberg, Goodman, & Trumbetta, 2002).

Social influences may also affect the relationship between substance and psychosis. The use of substances has been found to be influenced by a number of social and demographics factors such as income, peer influence and economic conditions (Wermuth, 2000). Similarly the development and severity of psychosis may be influenced by social underachievement and negative social

interactions (Bebbington et al., 2004). As such, social influences appear to be a common correlate of both psychosis and substance use. Clearly there may be a wide range of factors which may influence the relationship between substance use and psychosis. Further research would be welcome to further clarify the how personality variables may moderate environmental influences in the co-existence of substance use and psychosis.

### **2.3.5 Strengths**

The research attempted to utilise a number of methods to address issues of reliability in qualitative methods of analysis. This included using a research diary throughout the data collection and analysis phases to trace the process of interpreting themes within the data (Boyatzis, 1998). An audit trail was also created to demonstrate how codes were developed, collated and clustered into six themes (Braun & Clarke, 2006). The clinical research supervisor also coded one transcript to provide a way of assessing the inter-rater reliability of the coding. The reliability may have been improved further if more transcripts were subjected to a secondary coding process by the clinical research supervisor. Unfortunately, this was not possible due to time constraints but the codes and themes across the data set were discussed with the clinical research supervisors. This enriched the analysis process and ensured that the themes could be linked to the data by someone other than the main researcher.

### **2.3.6 Limitations**

In the inclusion criteria for the present research, participants were included if they had experienced command hallucinations within the past two years and had used substances within the last two years to cope with these voices. Some participants had stopped using substances as the time of the interview. For these participants, the interview identified participants' present beliefs towards voices but also identified participants' beliefs towards the voices from the past. The recall of their past and present beliefs about the voice was potentially affected by factors such as memory, social desirability and the interview (Ross, 1989). Given these limitations, it could be considered problematic to compare interviews of participants who were using substances at the time of interview with those who had stopped using substances. However, in the study sample it was

identified that four participants had stopped using substances within the last three months. It was considered that they would be likely to recall most information regarding their voices and substance use, however there would be some differences between their accounts and current substance users' accounts. The interview process involved introspection by participants and exploring their beliefs around past events which has been shown to influence present attitudes and alter attitudes (Wilson, Hodges & LaFleur, 1995). Therefore participants' answers on the BAVQ-R may have been influenced by discussing their experience during the interview.

The inclusion criteria also influenced the selection of the sample. In the theme 'function of substance use: coping vs obeying', a number of participants described their substance use as compliance with a command from their voices. The inclusion criteria specified people who 'coped' with their voices using substances excluded people who did not use substances to cope but always used substances as a way of complying.

The present study also did not assess the frequency and amount of substances that participants used in response to hearing voices. The criteria for substance use were very inclusive and broad to maximise the sample population which was necessary given the difficulties with recruitment. However, it must be considered that some participants may have met the criteria for substance disorders whereas other participants may not have met such criteria. There may be differences in coping, beliefs and compliance between those who are addicted to substances and those who may be using substances within normal limits.

Another limitation of the present study was the use of the BAVQ-R which measured beliefs about the voice over the previous week. The participants who had stopped using substances over a week before the interview may have therefore had different beliefs about their voice than when they were using substances. It may also be hypothesised that a change in belief about the voices may have influenced their decision not to use substances in response to the voices.

The BAVQ-R also did not relate directly to substance use and asked for responses which reflected beliefs over the past week. The questionnaire did provide an alternative way of measuring how participants felt about their voice at the time of interview. However, it did not assess how the beliefs about the voice had changed after using substances. This is addressed further in a section below relating to future research implications.

The semi-structured interview schedule allowed for some flexibility within the interview but at times the interview schedule did not allow deeper exploration of particular issues. During the analysis, a number of data extracts were identified as having significance to previous and early life experiences. Further exploration of these issues may have provided some more insight into participants' experiences in relation to the research question that was not adequately covered by the interview schedule.

Another potential limitation of the interview schedule was the question order in the last section termed 'coping strategies'. As the first questions in this section were related to the use of substances as coping strategies, the participants may have been primed to think of their substance use only in terms of a coping strategy. Following discussion with the ethical committee and the clinical research supervisors, the effect of priming was minimised by initially asking if they had used substances as a way of coping. The theme of 'function of substance use: coping or compliance' provided some support that participants were able to recall experiences of substance use as compliance with a command from the voice. In some instances this may be a form of coping strategy but it may also be a different behavioural response, for example an individual who appraised the voice as being benevolent and complied with substance use.

Out of the sample of nine participants, only one participant was female. While many gender differences have been reported in the symptoms of psychotic disorders, particularly schizophrenia, the prevalence is broadly similar. However research continues to under-represent the experience of women with psychosis and this has been replicated in the present study (Fleming, 2004). There are a number of possible explanations for this bias. One reason maybe that

schizophrenia, most commonly associated with psychosis, is seen as a 'male disorder' which could affect diagnosis and research selection (Read, 2004). A second reason may be that women are more likely to decline to take part in research. However, this explanation has received mixed empirical results (Covell, Frisman & Essock, 2003). The female participant in the present research did reveal broadly similar themes compared to her male counterparts. However, further research which seeks to represent women who use substances and hear voices would be recommended.

The age of participants may have potentially influenced their responses or the homogeneity of the sample. The average age of participants was 27 years old, although Mark was 47 years old. He described himself as having quite a positive relationship with his voices and scored highly on the benevolence and engagement scales in the BAVQ-R. However, this may be influenced by his age, for example he may have developed alternative strategies to cope with his voices. Similarly, the length of time participants had experienced hearing voices may also have affected substance use, coping, beliefs and compliance. For example, someone who has experienced it for a long time may have developed more effective coping strategies or may have adapted their beliefs. Interestingly, Mark and Nick were both over 30 years old and had experienced hearing voices most of their life but had quite different perspectives on the voices. This suggests that age and duration of symptoms cannot alone explain differences in voice-hearing experience.

### **2.3.7 Future research**

Following the findings of the present research, a number of suggestions for future research are recommended. Firstly, the BAVQ-R could not be used in the present research to analyse beliefs about the voice after substance use. A quantitative study could be designed to administer the standard BAVQ-R and compare it with an adapted version of the BAVQ-R which asked about beliefs, emotions and behaviours after using substances. With a larger sample size this could be used to indicate specifically how omnipotence, malevolence, benevolence, engagement and resistance were affected by substance use. In



turn such research could also provide further clarification regarding the theme of emotional resistance and beliefs about control identified in the present research.

Substances appear to influence an individual's attribution of control in different ways depending on self-concept, beliefs about voices and beliefs about others. These findings suggest that the voice-hearer relationship follows similar patterns to other relationships (Thomas, McLeod & Brewin, 2009). Further research is recommended to explore these areas in more detail in order to advance understanding of how substance use affects these areas in individuals who hear voices.

As described above, research indicated that neuroticism and impulsivity may be personality traits associated with substance use in people with psychosis (Blanchard et al., 2000). Neuroticism is also associated with passive coping styles, such as using substances (Gilbert, 1991). The present findings suggest substance use enables participants to continue to respond in a passive way. Further research could clarify the role of personality traits, such as neuroticism, in substance use specific to hearing voices, especially command hallucinations.

The present research was conducted within early intervention services and community mental health settings. This is likely to have had some influence on the answers to the research question. Much of the command hallucination literature has been conducted on forensic populations (Braham et al., 2004). The present research could be replicated in forensic populations to identify any differences or similarities between these sample populations. For example, some of the forensic population may have identified substances as increasing the likelihood of complying with commands. Under these circumstances they may comply with more harmful commands and be more likely to be identified as part of a forensic population.

### **2.3.8 Implications for clinical practice**

The findings indicate that medication appears to maintain a sense of passivity and lack of personal control amongst individuals who hear voices that give a command. Personal control is positively associated with emotional and physical

well-being, as well as functioning following stressful life events (England & Evans, 1992; Glass, McKnight, & Valdimarsdottir, 1993; Thompson, 2002). Research has also identified that control and empowerment is a central component of recovery from co-morbid substance use and mental health disorders (Davidson et al., 2008). It is recommended that services are aware of the potential for individuals to passively accept treatment and not have a sense of control which is likely to impact on their recovery.

Services can promote personal control in a number of ways. Firstly, informed choice about treatment enables empowerment and active participation with services (Fisher, 1997). Secondly, the importance of the therapeutic relationship is also crucial to develop personal control, rather than autonomy that can lead to poorly informed treatment and recovery choices (Coffey, 2003).

It is also recommended that the concept and language of engagement is considered within mental health services. Bradley (2006) proposed that the term 'engagement' is often measured in terms of compliance with treatment and outcomes. Instead, she proposed that engagement should be viewed as an alliance between client and clinician to develop an effective working therapeutic relationship.

The findings of the present research also indicate substance use as a response to hearing voices may be seen as a coping response, appeasement or compliance with commands (Trower et al., 2004). Substances can therefore be used to fulfil various functions for a single individual. It is recommended that services should carefully assess the circumstances in which substance use may be employed as coping rather than compliance.

### **2.3.9 Implications for wider context**

As described above the research has clear implications for clinicians working within services supporting people with psychosis who also use substances. However, the findings also indicate the importance of understanding the wider implications related to substance use. The co-existence of substance use and

psychosis is associated with poorer outcomes related to psychotic symptoms and medical problems (Dixon, 1999). The results of the research indicate that some individuals may interact with their medication in a passive way, which may be generalised to their interaction with services and other people generally. Previous research indicates that individuals with co-existing substance use problems and psychosis may have a number of social skills difficulties (e.g. social exclusion, poor coping skills) (Miles et al., 2003). Interventions to increase individuals' sense of control may additionally benefit their social functioning and relationships with services. In turn this may also improve their access to physical and mental health services.

### **2.3.10 Critical reflection of scientific, ethical and theoretical issues**

#### *Scientific issues*

The present research used qualitative and quantitative methods to triangulate the data, known as between-method triangulation (Denzin, 1970). The advantage of using two methods is that the limitations and bias of one method can be offset by using a contrasting method (Thurmand, 2001). This process needs to be carefully planned in order to ensure that epistemological positions do not conflict with each other (Foss & Ellefsen, 2002). In the present research, the epistemological position of critical realism, which acknowledges different and complex facets of reality, was considered suitable for a mixed methods approach (Cain & Finch, 1981).

The quantitative data was used to provide an additional measure of understanding participants' beliefs about their voices, based on an empirically validated measure (Birchwood et al., 2000). The BAVQ-R measured beliefs about the voice over the past week, yet four participants had not used substances over the past three months prior to the interview. Additionally the BAVQ-R assessed beliefs about the voice at a time when it is thought that participants would not have been under the influence of substances. When compared to the interview data, the BAVQ-R provided some validation for themes identified related to the general beliefs about the voice rather than how beliefs change (for example 'lack of control and passivity'). The BAVQ-R was intended to be a triangulation measure to check the consistency between

participants' verbal account about the function of substance use as a coping strategy in voice-hearing. There was generally consistency between the verbal account of participants and themes related to their interviews. The data does indicate that the themes identified incorporate beliefs about the voice, which was central to the research question. However, a single method qualitative approach may have been sufficient to address the research question therefore should have been used (Morse, 1991).

A thematic analysis method was used to analyse the interview data. There is much debate in the qualitative literature about the role of thematic analysis as a method (Braun & Clarke, 2006). Some researchers view thematic analysis as a component of other types of analysis, such as 'grounded theory' and 'discourse analysis' (Potter & Wetherell, 1987; Strauss & Corbin, 1998). Whilst there is disagreement about the use of thematic analysis, it is often published as an individual method in widespread journals which do not specialise in qualitative research (e.g. Bevan, Oldfield & Salkovski, 2010). Therefore it can be viewed as accessible to a wide range of clinicians and researchers.

### *Ethical issues*

The present research highlighted some ethical issues about research in a client group with people with various difficulties. One of the main themes identified that participants often described their influence on the voice in a passive way. It is considered that relationships with voices often follow similar patterns to other interpersonal relationships (Birchwood et al., 2000). During the recruitment process, the protocol was developed to minimise acquiescence amongst participants who did not want to participate in the research. However, some potential participants who initially agreed to take part cancelled some interviews. One reason for this may have been initially feeling obliged to take part then withdrawing. Alternatively, they may have decided to withdraw for a number of other reasons such as changing their minds, physical illness or practical limitations such as work or transport. The symptoms of psychotic illness can also affect engagement with services and research (Bogenschutz & Siegfried, 1998)

Given the nature of the research topic, much of the interview was spent talking about topics that are related to risk and risk assessment. For example participants described command hallucinations which involved harm to self and harm to others. They also described incidents of illegal substance use. Participants were informed about the conditions of confidentiality at the beginning of the interview prior to consent being given. Conditional confidentiality has been shown to affect disclosure of information which must be considered in the present research (Ford, Millstein, Halpern-Felsher & Irwin, 1997). Disclosure may have also been affected by the methods of data collection, as there were a couple of inconsistencies between questionnaire and interview data (Gerbert, 1999). No issues of current risk were identified during the research which may have been because there were not foreseen risk issues to be disclosed or because participants limited their disclosure.

All participants in the sample consented to their care co-ordinator being aware of their participation in the research. Also in most cases, the care co-ordinator was also the clinician who acted as a witness to the process of gaining informed consent. The usefulness of having a clinician, who knew the participant, present at this stage was particularly valuable. In one interview a participant was able to disclose some stressful issues that had affected him recently. The researcher, participant and care co-ordinator jointly agreed that participation would be unsuitable given his recent difficulties. It must be acknowledged that if that care co-ordinator had not been present, they may not have felt able to disclose such information.

Two participants also requested for their care co-ordinator to be present during the interview, suggesting a positive relationship with their care co-ordinator (Simpson, 1999). Given the difficulties in recruiting participants, interviews were conducted with the care co-ordinators present, although interviews may have been affected by having a third person present when compared to a dyadic interview (Greene, Majerovitz, Adelman & Rizzo, 1994). Participants may also have shared less information with a researcher alone than with a clinician also present as they may have felt more comfortable. Alternatively, participants may

have not shared as much information in front of their care co-ordinators perhaps due to beliefs about what the care co-ordinator may do with the information.

Consent to participate may also have been affected by the participants relationship with their care co-ordinator. Some participants may have felt obliged to participate when approached by their care co-ordinator. However, it was felt that participants may feel more or less obliged to take part if approached by the researcher initially. To minimise the influence of these factors, the researcher emphasised that non-participation or withdrawal would not affect the care individuals received from the service. Additionally it was thought that the clinical skills of the researcher and the care co-ordinator's knowledge of the individual would help them to recognise a participant who did not want to participate. An example of this was described above when a number of stressful events were affecting an individual's ability to participate.

#### *Theoretical issues*

One of the theoretical issues that the present research raises is the use of substance use as compliance with a command hallucination as well as coping with the experiences of the voice. It is well accepted that individuals who have a diagnosed psychotic disorder report that using substances helps them to 'cope' with these symptoms. However, it must also be recognised that such individuals also use substances for similar reason to other individuals, such as social factors and individual enhancement (Brandon, Herzog, Irvin & Gwaltney, 2004; Gregg et al., 2007). These findings generally rely on self-report methods and provide some support for the 'self-medication' hypothesis of substance use as described earlier. However, this hypothesis has received little empirical support in general (Mueser, Drake & Wallach, 1998). The findings from the present research reflect the general finding that participants use substances for 'coping' reasons.

Participants also reported that substance use was carried out in response to their voice instructing them to use substances. Early research into compliance tended to focus specifically on command hallucinations involving harm or violence, particularly in forensic populations (e.g. Jones, Huckle & Tanaghow, 1992; Juninger, 1990). More recently, research has begun to categorise commands

and has acknowledged beliefs about the voice when predicting compliance. There is frequent reference to commands to self-harm where compliance is not reliably predicted by beliefs about malevolence and benevolence (Beck-Sander et al., 1997). However, the author has been unable to find any literature which referred to substance use being reported as compliance with a command.

Beck-Sander et al. (1997) categorised command hallucinations as ‘innocuous’, ‘severe’ or ‘self-harm’. Innocuous commands were identified as ranging from day-to-day instructions (such as making a drink) to committing minor illegal offences (such as non-violent crimes). It is proposed here that commands to drink alcohol or use drugs do not clearly correspond with the categories defined by Beck-Sander et al. (1997). For example, commands to drink a glass of wine may be considered ‘innocuous’ whereas commands to drink a bottle of spirits may fall into the ‘self-harm’ category. The distinction between minor illegal offences (within ‘innocuous’ commands) and self-harm is difficult in the context of drug use where the threshold is not easily defined. Furthermore, the ‘self-harm’ category referred to “immediate self-harm” (p. 142) although substance use may have longer term implications for physical harm (Beck-Sander et al., 1997). Further work should be done to identify how categories of command hallucinations can incorporate the use of substances.

The answer to ‘why substance use is reported as compliance’ may be found within the cognitive dissonance literature. Cognitive dissonance occurs when an individual’s actions conflict with their self-concept (Aronson, 1969). It is proposed that in the present research, substance use and the consequences of use may have conflicted with some participants’ self-concept resulting in cognitive dissonance. To reduce such dissonance the substance use is then attributed to the voice as opposed to the participant.

### *Epistemological position*

The present research has explored the use of substances in voice-hearing from a critical realist position. This epistemological stance proposes that there is a ‘truth’ about the world and its structures but also explores how they have developed through social and historical context (Stickley, 2006). It was

considered to be consistent with a mixed methods approach due to the different angles and perspectives that the world and our knowledge entails (McEvoy & Richards, 2006). The thematic analysis was also considered appropriate for this position because it is not constrained by a fixed and traditional epistemology (Braun & Clarke, 2006).

The findings presented take account of the participants' perspectives but also consider the social and cultural factors that shape this perspective. In the theme of control for example, the role of services and psychiatric treatment are considered as developing and maintaining a sense of passivity among some participants.

**Word count:**

**Journal paper = 5,500**

**Thesis total = 26,451 (excluding tables, references and appendices)**



## References

- Abrams, D. B., & Niaura, R. S. (1987). Social learning theory. In H. Blane & K. Leonard (Eds.). *Psychological theories of drinking and alcoholism* (p. 131-178). New York, NY: Guilford Press.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders (4<sup>th</sup> ed., text revision)*. Washington, DC: American Psychiatric Association.
- Andreasson, S., Allebeck, P., Engstrom, A., & Rydberg, U. (1988). Cannabis and schizophrenia: a longitudinal study of Swedish conscripts. *The Lancet*, *2*, 1483-1485.
- Aronson, E. (1969). The theory of cognitive dissonance: A current perspective. *Advances in Experimental Social Psychology*, *4*, 1-34.
- Asaad, G., & Shapiro, B. (1986). Hallucinations: theoretical and clinical overview. *American Journal of Psychiatry*, *143*, 1088-97
- Baigent, M., Holme, G., & Hafner, R. J. (1995). Self reports of the interaction between substance abuse and schizophrenia. *Australian and New Zealand Journal of Psychiatry*, *29*, 69-74.
- Barrowclough, C., Haddock, G., Beardmore, R., Conrod, P., Craig, T., Davies, L., et al. (2009). Evaluating integrated MI and CBT for people with psychosis and substance misuse: recruitment, retention and sample characteristics of the MIDAS trial. *Addictive Behaviors*, *34*(10), 859-866.
- Beauchamp, M. C., Lecomte, T., Lecomte, C., Leclerc, C., & Corbiere, M. (2011). Personality traits in early psychosis: relationship with symptoms and coping treatment outcomes. *Early Intervention in Psychiatry*, *5*, 33-40.

- Bebbington, P. E., Bhugra, D., Brugha, T., Singleton, N., Farrell, M., Jenkins, R., et al. (2004). Psychosis, victimisation and childhood disadvantage: Evidence from the second british national survey of psychiatric morbidity. *British Journal of Psychiatry*, 185, 220-226.
- Bechara, A. (2005). Decision making, impulse control and loss of willpower to resist drugs: A neurocognitive perspective. *Nature Neuroscience*, 8(11), 1458-1463.
- Beck, A. T. (1976). *Cognitive therapy and the emotional disorder*. New York, NY: International Universities Press.
- Beck, J. C., & Van der Kolk, B. A. (1987). Reports of childhood incest and current behaviour of chronically hospitalized psychotic women. *American Journal of Psychiatry*, 144, 1474-1476.
- Beck-Sander, A., Birchwood, M., & Chadwick, P. (1997). Acting on command hallucinations: A cognitive approach. *British Journal of Clinical Psychology*, 36, 139-148.
- Bentall, R. P., (1990). The illusion of reality: A review and integration of psychological research on hallucinations. *Psychological Bulletin*, 107, 82-95.
- Bentall, R. P. (2004). *Madness explained: Psychosis and human nature*. London, England: Penguin.
- Bentall, R. P., & Slade, P. D. (1985). Reality testing and auditory hallucinations. *British Journal of Clinical Psychology*, 24, 159-169.
- Bevan, A., Oldfield, V. B., & Salkovskis, P. M. (2010). A qualitative study of the acceptability of an intensive format for the delivery of cognitive-

- behavioural therapy for obsessive-compulsive disorder. *British Journal of Clinical Psychology*, 49(2), 173-191.
- Birchwood, M. J. (2010). Cognitive therapy to reduce compliance with commanding hallucinations without changing voice activity: The MRC command trial. *Schizophrenia Research*, 117, (2-3), 159
- Birchwood, M. J., Meaden, A., Trower, P., Gilbert, P., and Plaistow, J. (2000). The power and omnipotence of voices: Subordination and entrapment by voices and significant others. *Psychological Medicine*, 30, 337-344.
- Blanchard, J. J., Brown, S. A., Horan, W. P., & Sherwood, A. R. (2000). Substance use disorders in schizophrenia: Review, integration, and a proposed model. *Clinical Psychology Review*, 20(2), 207-234.
- Bleuler, E., (1950). *Dementia praecox or The group of schizophrenias*. 1857-1939 ; translated by Joseph Zinkin. New York, NY: International Universities Press.
- Bogenschutz, M. P., & Siegfried, S. L. (1998). Factors affecting engagement of dual diagnosis patients in outpatient treatment. *Psychiatric Services* 49, 1350-1352.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.
- Boyle, M. (2002). *Schizophrenia: A scientific delusion?* (2<sup>nd</sup> ed.). Hove, England: Routledge.
- Boyle, M. (2007). The problem with diagnosis. *The Psychologist*, 20, 209-292.
- Bradley, S. (2006). *Engagement in assertive outreach: Compliance or alliance?* Retrieved October 15, 2010 from <http://go.warwick.ac.uk/wrap/1168>.

- Braham, L. G., Trower, P., & Birchwood, M. (2004). Acting on command hallucinations and dangerous behavior: A critique of the major findings in the last decade. *Clinical Psychology Review, 24*(5), 513-528.
- Brandon, T. H., Herzog, T. A., Irvin, J. E., & Gwaltney, C. J. (2004). Cognitive and social learning models of drug dependence: implications for the assessment of tobacco dependence in adolescents. *Addiction, 99*, 51-77.
- Brannen, J. (1992). Combining qualitative and quantitative approaches: an overview. In Brannen, J. (Ed.), *Mixing methods: Qualitative and quantitative research*. Aldershot, England: Avebury.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology, *Qualitative Research in Psychology, 3*, 77-101.
- Brown, G. K., & Nicassio, P. M. (1987). Development of a questionnaire for the assessment of active and passive coping strategies in chronic pain patients. *Pain, 31*, 53-64.
- Bryman, A. (1988). *Quantity and quality in social research*. London, England: Unwin Hyman.
- Bryman, A. (1992). Quantitative and qualitative research: further reflections on their integration. In J. Brannen (Ed.), *Mixing methods: Qualitative and quantitative research* (pp. 27-40). Aldershot, England: Avebury.
- Cain, M. & Finch, J. (1981). Towards a rehabilitation of data. In P. Abrams, R. Deem, J. Finch, & P. Rock (Eds.), *Practice and progress: British sociology, 1950-1980* (pp. 76-95). Winchester, England: Allen and Unwin.
- Campbell, P. (2007). Hearing my voice. *The Psychologist, 20*, 298-299.
- Carlsmith, J. M., & Gross, A. E. (1969). Some effects of guilt on compliance. *Journal of Personality and Social Psychology, 11*, 232-239.

- Carter, D. M., MacKinnon, A., & Copolov, D. L. (1996). Patients' strategies for coping with auditory hallucinations. *Journal of Nervous and Mental Diseases, 184*, 159-164.
- Carver, C. S., Weintraub, J. K., & Scheier, M. F. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*, 267-283.
- Casey, P., & Kelly, B. (2007). *Fish's clinical psychopathology: Signs and symptoms in psychiatry* (3<sup>rd</sup> ed.). London, England: Gaskell.
- Chadwick, P., & Birchwood, M. J. (1994). The omnipotence of voices: A cognitive approach to auditory hallucinations. *British Journal of Psychiatry, 165*, 190-201.
- Chadwick, P., & Birchwood, M. J. (1995). The omnipotence of voices II: The beliefs about voices questionnaire (BAVQ). *British Journal of Psychiatry, 166*, 773-776.
- Chadwick, P., & Birchwood, M. J. (1996). Cognitive therapy for voices. In G. Haddock, P. D. Slade (Eds.), *Cognitive-behavioural interventions with psychotic disorders* (pp. 75-85). London, England: Routledge.
- Chadwick, P., Birchwood, M. J., & Trower, P. (1996). *Cognitive therapy for delusions, voices and paranoia*. Chichester, England: John Wiley and Sons.
- Chadwick, P., Lees, S., & Birchwood, M. J. (2000). The revised beliefs about voices questionnaire (BAVQ-R). *British Journal of Psychiatry, 177*, 229-232.

- Chadwick, P., Sambrooke, S., Rasch, S., & Davies, E. (2000). Challenging the omnipotence of voices: group cognitive behavior therapy for voices. *Behaviour Research and Therapy*, 38(10), 993-1003.
- Close, H., & Garety, P. (1998). Cognitive assessment of voices: Further developments in understanding the emotional impact of voices. *British Journal of Clinical Psychology*, 37, 173–188.
- Coffey, D. (2003). Connection and autonomy in the case management relationship. *Psychiatric Rehabilitation Journal*, 26(4), 404-412.
- Cooper, M. L. (2006). Does drinking promote risky sexual behaviour? A complex answer to a simple question. *Current Directions in Psychological Science*, 15, 19-23
- Cooper, M. L., Frone, M. R., Russell, M., & Mudar, P. (1995). Drinking to regulate positive and negative emotions: A motivational model of alcohol use. *Journal of Personality and Social Psychology*, 69, 990-990.
- Cooper, M. L., Russell, M., & George, W. H. (1988). Coping, expectancies, and alcohol abuse: A test of social learning formulations. *Journal of Abnormal Psychology*, 97(2), 218-230.
- Covell, N. H., Frisman, L. K., & Essock, S. M. (2003). Rates of refusal to participate in research studies among men and women. *Psychiatric Services*, 54(11), 1541.
- Curran, C., Byrappa, N., & McBride, A. (2004). Stimulant psychosis: Systematic review. *British Journal of Psychiatry*, 185, 196-204.
- Davidson, L., Andres-Hyman, R., Bedregal, L., Tondora, J., Frey, J. & Kirk Jr., T. A. (2008). From “Double Trouble” to “Dual Recovery”: Integrating models

- of recovery in addiction and mental health. *Journal of Dual Diagnosis*, 4(3), 273- 290.
- Degenhardt, L., Hall, W., & Lynskey, M. (2001). Alcohol, cannabis and tobacco use among Australians: a comparison of their associations with other drug use and use disorders, affective and anxiety disorders, and psychosis. *Addiction*, 96(11), 1603-1614.
- Denzin, N. K. (1970). *The research act*. Chicago, IL: Aldine.
- Denzin, N. K. (1989). *Interpretive biography*. London, England: Sage Publications.
- Dixon, L. (1999). Dual diagnosis of substance abuse in schizophrenia: prevalence and impact on outcomes. *Schizophrenia Research*, 35, 93-100.
- Ellis, A. (1962). *Reason and emotion in psychotherapy*. New York, NY: Lyle Stuart.
- Engel, G. L. (1980). The clinical application of the biopsychosocial model. *American Journal of Psychiatry*, 137, 535-544.
- England, S. L., & Evans, J. (1992). Patients' choices and perceptions after an invitation to participate in treatment decisions. *Social Science & Medicine*, 34(11), 1217-1225.
- Farhall, J., & Gehrke, M. J. (1997). Coping with hallucinations: Exploring stress and coping framework. *British Journal of Clinical Psychology*, 36, 259-261.
- Fisher, D. (1997). Informed choice: The importance of personal participation in the healing process. In Blackwell, B. (Ed.). *Treatment compliance and the therapeutic alliance* (p.17-33). Amsterdam, The Netherlands: Harwood Academic Publishers.

- Fleming, M. (2004). Gender difference in schizophrenia: The need for a psychosocial and formulation based analysis? *Clinical Effectiveness in Nursing*, 8, 156-160.
- Flick, U. (1998). *An introduction to qualitative research*. London, England: Sage.
- Folkman, S., & Lazarus, R. S. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology*, 48, 150-170.
- Folkman, S., & Lazarus, R. S. (1988). The relationship between coping and emotion: Implications for theory and research. *Social Science & Medicine*, 26, 309-317.
- Ford, C. A., Millstein, S. G., Halpern-Felsher, B. L., & Irwin Jr, C. E. (1997). Influence of physician confidentiality assurances on adolescents' willingness to disclose information and seek future health care: a randomized controlled trial. *Journal of the American Medical Association*, 278(12), 1029.
- Foss, C. & Ellefsen, B. (2002). Methodological issues in nursing research: The value of combining qualitative and quantitative approaches in nursing research by means of method triangulation. *Journal of Advanced Nursing*, 40(2), 242-248.
- Frith. C. D. (1992). *The cognitive neuropsychology of schizophrenia*. Hove, England: Lawrence Earlbaum.
- Frith, H., & Gleeson, K. (2004). Clothing and embodiment: Men managing body image and appearance. *Psychology of Men and Masculinity*, 5(1), 40-48.



- Garcelan, S. P., & Rodriguez, A. G. (2002). Coping strategies in psychotics: Conceptualisation and research results. *Psychology in Spain*, 6, 26-40.
- Garety, P. A., Kuipers, E., Fowler, D., Freeman, D., & Bebbington, P. E. (2001). A cognitive model of the positive symptoms of psychosis. *Psychological Medicine*, 31(2), 189-195.
- Gerbert, B. (1999). When asked, patients tell: Disclosure of sensitive health-risk behaviours. *Medical Care*, 37(1), 104-111.
- Gilbert, B. O. (1991). Physiological and nonverbal correlates of extraversion, neuroticism, and psychoticism during active and passive coping. *Personality and Individual Differences*, 12 (12), 1325-1331.
- Glass, D. C., McKnight, J. D., & Valdimarsdottir, H. (1993). Depression, burnout, and perceptions of control in hospital nurses. *Journal of Consulting and Clinical Psychology*, 61(1), 147-155.
- Graham, H. L., Copello, A., Birchwood, M. J. & Mueser, K. T. (Eds.). (2003). *Substance misuse in psychosis: Approaches to treatment and service delivery*. Chichester, England: Wiley.
- Graham, H. L., Copello, A., Birchwood, M. J. & Mueser, K. T., Orford, J., McGovern, D. et al. (2004). *Cognitive-behavioural integrated treatment (C-BIT)*. Chichester, England: Wiley.
- Greenberger, D. & Padesky, C. (1995). *Mind over mood*. Basingstoke, England: Guilford.
- Greene, M. G., Majerovitz, S. D., Adelman, R. D., & Rizzo, C. (1994). The effects of the presence of a third person on the physician-older patient medical interview. *Journal of the American Geriatrics Society*, 42(4), 413-419.

- Greenfield, S. F., Strakowski, S. M., Tohen, M., Batson, S. C., Kolbrener, M. L. (1994). Childhood abuse in first-episode psychosis. *British Journal of Psychiatry, 164*, 831-834.
- Gregg, L., Barrowclough, C., & Haddock, G. (2007). Reasons for increased substance use in psychosis. *Clinical Psychology Review, 27*, 494-510.
- Gregg, L., Barrowclough, C., & Haddock, G. (2009). Development and validation of a scale for assessing reasons for substance use in schizophrenia: The ReSusS scale. *Addictive Behaviours, 194*, 152-157.
- Grilly, D. M. (2002). *Drugs and human behaviour* (4<sup>th</sup> ed.). Boston, MA: Allyn and Bacon.
- Guba, E. G., & Lincoln, Y. S. (2005). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (3<sup>rd</sup> ed.) (pp. 191-216). Thousand Oaks, CA: Sage.
- Hacker, D., Birchwood, M. J., Tudway, J., Meaden, A., & Amphlett, C. (2008). Acting on voices: Omnipotence, sources of threat and safety-seeking behaviours. *British Journal of Clinical Psychology, 47*, 201-213.
- Haddock, G., McCarron, J., Tarrier, N., & Faragher, E. B. (1999). Scales to measure dimensions of hallucinations and delusions: The psychotic rating scale (PSYRATS). *Psychological Medicine, 29*, 879-889.
- Hambrecht, M., & Häfner, H. (2003). Temporal order and aetiology. In H. L. Graham, A. Copello, M. J. Birchwood, & K. T. Mueser (Eds.), *Substance misuse in psychosis: Approaches to treatment and service delivery* (pp. 24 – 42). Chichester, England: John Wiley and Sons.

- Hayward, M., Denney, J., Vaughan, S., & Fowler, D. (2008). The voice and you: Development and psychometric evaluation of a measure of relationships with voices. *Clinical Psychology and Psychotherapy*, 15, 45-52.
- Hides, L., Lubman, D. I., & Dawe, S. (2004). Models of co occurring substance misuse and psychosis: are personality traits the missing link? *Drug and Alcohol Review*, 23(4), 425-432.
- Hoare, J. (2010). Extent and trends in illicit drug use. In J. Hoare & D. Moon (Eds.) *Drug misuse declared: Findings from the 2009/10 British Crime Survey: England & Wales* (p.5-15). London, England: Home Office
- Horowitz, M. J. (1975). A cognitive model of hallucinations. *American Journal of Psychiatry*, 132(8), 789-794.
- Iacono, W. G., Malone, S. M., & McGue, M. (2008). Behavioral disinhibition and the development of early-onset addiction: common and specific influences. *Clinical Psychology*, 4(1), 325.
- Janin, I. L., & Mann, L. (1977). *Decision making: A psychological analysis of conflict, choice and commitment*. New York, NY: The Free Press.
- Jay, M. (1999). Editorial: Why do people take drugs? *International Journal of Drug Policy*, 10, 5-7
- Jenner, J. A., Nienhuis, F. J., Wiersma, D., & Van De Willige, G. (2004). Hallucination focused integrative treatment. *Schizophrenia Bulletin*, 30(1), 133-145.
- Jones, P. B., Bebbington, P., Foerster, A., Lewis, S. W., Murray, R. M., Sham, P. C., et al. (1993). Premorbid social underachievement in schizophrenia. Results from the Camberwell collaborative psychosis study. *British Journal of Psychiatry*, 162, 65-71.

- Jones, C., Cormac, I., Silveira da Mota Neto, J. I., & Campbell, C. (2004). Cognitive behaviour therapy for schizophrenia. *Cochrane Database of Systematic Reviews*, 4., Retrieved November 17, 2009, from [http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD000524/pdf\\_standard\\_fs.html](http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD000524/pdf_standard_fs.html)
- Jones, G., Huckle, P., & Tanaghow, A. (1992). Command hallucinations, schizophrenia and sexual assaults. *Irish Journal of Psychological Medicine*, 9, 47–49.
- Junginger, J. (1990). Predicting compliance with command hallucinations. *American Journal of Psychiatry*, 147, 245-247.
- Junginger, J. (1995). Command hallucinations and the prediction of dangerousness. *Psychiatric Services*, 46(9), 911-914.
- Khantzian, E. J. (1990). Self-regulation and self-medication factors in alcoholism and the addictions: Similarities and differences. In M. Galanter (Ed.). *Recent Developments in Alcoholism* Vol. 8 (p. 255–271). New York, NY: Plenum
- Kessler, R. C. (1994). The national comorbidity survey of the United States. *International Review of Psychiatry*, 6(4), 365-376.
- Koob, G. F., & Nestler, E. J. (1997). The neurobiology of drug addiction. *Journal of Neuropsychiatry and Clinical Neurosciences*, 9(3), 482.
- Laing, R. D. & Esterson, A. (1964). *Sanity, Madness and the Family*. London, England: Penguin Books
- Lambert, M. J. (1992). Psychotherapy outcome research: Implications for integrative and eclectic therapists. In J. C. Norcross & M. R. Goldstein

- (Eds.), *Handbook of psychotherapy integration* (pp. 94–129). New York, NY: Basic Books
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.
- Lecomte, T., Spidel, A., Leclerc, C., MacEwan, G. W., Greaves, C., & Bentall, R. P. (2008). Predictors and profiles of treatment non-adherence and engagement in services problems in early psychosis. *Schizophrenia Research, 102*, 295-302.
- Lee, P. W., Lieh-Mak, F., Yu, K. K., & Spinks, J. A. (1993). Coping strategies of schizophrenic patients and their relationship to outcome. *British Journal of Psychiatry, 163*, 177-182.
- Leigh, B. C. (1990). The relationship of substance use during sex to high-risk sexual behavior. *Journal of Sex Research, 27*(2), 199-213.
- Lieberman, J. A., Stroup, T. S., McEvoy, J. P., Swartz, M. S., Rosenheck, R. A., Perkins, D. O., Keefe, R. S. E. et al. (2005). Effectiveness of antipsychotic drugs in patients with chronic schizophrenia. *The New England Journal of Medicine, 353* (12), 1209 -1223.
- Lysaker, P. H., Johannesen, J., Lancaster, R. S., Davis, L. W., Zito, W., & Bell, M. D. (2004). Assessing coping in schizophrenia – A rationally devised scoring scheme to assess coping in schizophrenia. *International Journal of Psychosocial Rehabilitation, 8*, 73-83.
- Maxcy, S. J. (2003). Pragmatic threads in mixed methods research in social sciences: The search for multiple modes of inquiry and the end of the philosophy of formalism. In A. Tashakkori & C. Teddlie (Eds.), *Handbook*

- of mixed methods in social and behavioural research* (pp. 51-90).  
Thousand Oaks, CA: Sage.
- McEvoy, P., & Richards, D. (2006). A critical realist rationale for using a combination of quantitative and qualitative methods. *Journal of Research in Nursing, 11*(1), 66-78.
- Mertens, D. M. (2010). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (3<sup>rd</sup> ed.). Thousand Oaks, CA: Sage.
- Miles, H., Johnson, S., Armstrong-Afuwape, S., Finch, E., Leese, M., & Thornicroft, G. (2003). Characteristics of subgroups of individuals with psychotic illness and comorbid substance use disorder. *Psychiatric Services, 54*, 554-561.
- Milgram, S. (1974). *Obedience to authority: An experimental view*. New York, NY: Harper & Row
- Mojtabai, R., Nicholson, R. A., & Carpenter, B. N. (1998). Role of psychosocial treatments in management of schizophrenia: a meta-analytic review of controlled outcome studies. *Schizophrenia Bulletin, 24*(4), 569.
- Morrison, A. P., Haddock, G., & Tarrier, N. (1995). Intrusive thoughts and auditory hallucinations: a cognitive approach. *Behavioural and Cognitive Psychotherapy, 23*, 265-280.
- Morrison, A. P., Renton, J. C., Dunn, H., Williams, S., & Bentall, R. P. (2004). *Cognitive therapy for psychosis: A formulation-based approach*. Hove, England: Brunner-Routledge.
- Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research, 40*(2), 120.

- Mueser, K. T., Drake, R. E. & Noordsy, D. L. (1998). Integrated mental health and substance abuse treatment for severe psychiatric disorders. *Journal of Practical Psychiatry and Behavioural Health*, 4, 129-139.
- Mueser, K. T., Drake, R. E. & Wallach, M. A. (1998). Dual diagnosis: A review of etiological theories. *Addictive behaviours*, 23, 717-734.
- Mueser, K. T., Rosenberg, S. D., Goodman, L. A., Trumbetta, S. L. (2002). Trauma, PTSD, and the course of severe mental illness: an interactive model. *Schizophrenia Research*, 53, 123-143.
- Nuechterlein, K. H., Parasuraman, R., & Jiang, Q. (1983). Visual sustained attention: Image degradation produces rapid sensitivity decrement over time. *Science*, 220, 327-329.
- O'Brien, C. P., Childress, A. R., McLellan, T., & Ehrman, R. (1990). Integrating systematic cue exposure with standard treatment in recovering drug dependent patients. *Addictive Behaviors*, 15(4), 355-365.
- Oyebode, F. (2008). *Sim's symptoms of the mind: An introduction to descriptive psychopathology* (4<sup>th</sup> ed.). Philadelphia, PA: Elsevier.
- Paley, G., & Shapiro, D. A. (2002). Lessons from psychotherapy research for psychological interventions for people with schizophrenia. *Psychology and Psychotherapy: Theory, Research and Practice*, 75(1), 5-17.
- Pearsall, J. (2002). *Concise Oxford English Dictionary* (10th ed.). Oxford, England: Oxford University Press.
- Pilgrim, D. (2002). *The biopsychosocial model in anglo-american psychiatry: Past, present and future?* Retrieved November 17, 2009, from <http://www.critpsynet.freeuk.com/Pilgrim.htm>

- Pilling, S., Bebbington, P., Kuipers, E., Garety, P., Geddes, J., Orbach, G., et al. (2002). Psychological treatments in schizophrenia: I. Meta-analysis of family intervention and cognitive behaviour therapy. *Psychological Medicine*, 32(05), 763-782.
- Pollack, M. H., Penava, S. A., Bolton, E., Worthington, J. J., Allen, G. L., Farach, F. J. et al. (2002). A novel cognitive-behavioral approach for treatment-resistant drug dependence. *Journal of Substance Abuse and Treatment*, 23, 335-342.
- Potter, J., & Wetherell, M. (1987). *Discourse and social psychology: Beyond attitudes and behaviour*. London, England: Sage Publications.
- Read, J. (2004). Poverty, ethnicity and gender. In J. Read, L. Mosher, & R. Bentall (Eds.) *Models of Madness* (pp. 161-195). Hove, England: Brunner-Routledge.
- Richtand, N. M., Welge, J. A., Logue, A. D., Keck, P. E., Strakowski, S. M., & McNamara, R. K. (2007). Dopamine and serotonin receptor binding and antipsychotic efficacy. *Neuropsychopharmacology*, 32, 1715 – 1726.
- Rogers, R., Gillis, J. R., Turner, R. E., & Frise-Smith, T. (1990). The clinical presentation of command hallucinations in a forensic population. *American Journal of Psychiatry*, 147(10), 1304.
- Rollins, A. L., Bond, G. R., & Lysaker, P. H. (1999). Characteristics of coping with the symptoms of schizophrenia. *Schizophrenia Research*, 36, 30.
- Romme, M., & Escher, A. (1989). Hearing voices. *Schizophrenia Bulletin*, 15, 209-216.



- Romme, M., & Escher, S. (2000). *Making sense of voices: The mental health professional's guide to working with voice-hearers*: London, England: Mind Publications.
- Ross, M. (1989). Relation of implicit theories to the construction of personal histories. *Psychological Review*, 96(2), 341-357.
- Rudnick, A., & Martins, J. (2009). Coping and schizophrenia: A re-analysis. *Archives of Psychiatric Nursing*, 23, 11-15.
- Schneider, K. (1959). *Clinical psychopathology*. New York, NY: Grune & Stratton.
- Schneier, F. R., & Siris, S. G. (1987). A review of psychoactive substance use and abuse in schizophrenia: Patterns of drug choice. *Journal of Nervous and Mental Disease*, 175, 641-652.
- Seeman, P., Weinshenker, D., Quirion, R., Srivastava, L. K., Bhardwaj, S. K., Grandy, D. K. et al. (2005). Dopamine supersensitivity correlates with D2 high states implying many paths to psychosis. *Proceedings of the National Academy of Science*, 102(9), 3513-3518.
- Serretti, A., Rietschel, M., Lattuada, E., Krauss, H., Schulze, T. G., Muller, D. J. et al. (2001). Major psychoses symptomatology: factor analysis of 2241 psychotic subjects. *European Archives of Psychiatry and Clinical Neuroscience*, 251, 193-198.
- Shepherd, G. M. (2009). *Creating modern neuroscience: the revolutionary 1950s*. New York, NY: Oxford University Press
- Sim, J., & Sharp, K. (1998). A critical appraisal of the role of triangulation in nursing research. *International Journal of Nursing Studies*, 35(1-2), 23-31.

- Simpson, A. (1999). Creating alliances: the views of users and carers on the education and training needs of community mental health nurses. *Journal of Psychiatric and Mental Health*, 6(5), 347-56
- Sims, A. C. P. (1991). An overview of the psychopathology of perception: first rank symptoms as a localizing sign in schizophrenia. *Psychopathology*, 24, 369-374.
- Slade, P. D. (1976). An investigation of psychological factors involved in the pre-disposition to auditory hallucinations. *Psychological Medicine*, 6, 123-32.
- Slade, P. D., & Bentall, R. P. (1988). *Sensory deception: A scientific analysis of hallucination*. London, England: Croom-Helm.
- So, S. H. W., & Wong, C. W. (2008). Experience and coping with auditory hallucinations in first-episode psychosis: Relationship with stress coping. *Hong Kong Journal of Psychiatry*, 18, 115-121.
- Sorlie, T., & Sexton, H. C. (2001). The factor structure of 'The ways of coping questionnaire' and the process of coping in surgical patients. *Personality and Individual Differences*, 30, 961-975.
- Spence, W., Mulholland, C., Lynch, G., McHugh, S., Dempster, M., Shannon, C. (2006). Rates of childhood trauma in a sample of patients with schizophrenia as compared with a sample of patients with non-psychotic psychiatric diagnoses. *Journal of Trauma and Dissociation*, 7, 7-22.
- Stickley, T. (2006). Should service user involvement be consigned to history? A critical realist perspective. *Journal of Psychiatric and Mental Health Nursing*, 13(5), 570-577.

- Strauss, A. L., & Corbin, J. M. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. London, England: Sage Publications
- The NHS Information Centre, Lifestyle Statistics. (2010). *Statistics on alcohol in England*. Retrieved November 1, 2010, from [http://www.ic.nhs.uk/webfiles/publications/alcohol10/Statistics\\_on\\_Alcohol\\_England\\_2010.pdf](http://www.ic.nhs.uk/webfiles/publications/alcohol10/Statistics_on_Alcohol_England_2010.pdf)
- Thomas, N., McLeod, H. J., & Brewin, C. R. (2009). Interpersonal complementarity in responses to auditory hallucinations in psychosis. *British Journal of Clinical Psychology, 48*(4), 411-424.
- Thompson, S. C. (2002). The role of personal control in adaptive functioning. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology*. (p.202-214) New York, NY: Oxford University Press.
- Thurmand, V. A. (2001). The point of triangulation. *Journal of Nursing Scholarship, 33*(3), 253-258.
- Tien, A. (1991). Distributions of hallucinations in the population. *Social Psychiatry and Psychiatric Epidemiology, 26*, 287-292.
- Trower, P., Birchwood, M., Meaden, A., Byrne, S., Nelson, A., & Ross, K. (2004). Cognitive therapy for command hallucinations: randomised controlled trial. *The British Journal of Psychiatry, 184*(4), 312.
- Turkington, D., Kingdon, D., & Weiden, P.(2006). Cognitive behavior therapy for schizophrenia. *American Journal of Psychiatry, 163*(3), 365–373.
- Turkington, D., Kingdon, D., & Chadwick, P. (2003). Cognitive-behavioural therapy for schizophrenia: filling the therapeutic vacuum. *The British Journal of Psychiatry, 183*(2), 98.

- Wermuth, L. (2000). Methamphetamine use: Hazards and social influences. *Journal of Drug Education, 30*, 423-433.
- Willig, C. (2008). *Introducing qualitative research in psychology*. Berkshire, England: Open University Press
- Wilson, T. D., Hodges, S. D., & LaFleur, S. J. (1995). Effects of introspecting about reasons: Inferring attitudes from accessible thoughts. *Journal of Personality and Social Psychology, 69*, 16-16.
- Wilson-Cohn, C., Strauss, S. M., & Falkin, G. P. (2002). The relationship between partner abuse and substance use among women mandated to drug treatment. *Journal of Family Violence, 17*(1), 91-105.
- Wise, R. A. (1998). Drug-activation of brain reward pathways. *Drug Alcohol Dependency, 51*(1), 13-22.
- Yardley, L. (1997). Introducing discursive methods, In L. Yardley (Ed.), *Material discourses in health and illness* (pp.25-49). London, England: Routledge.
- Yardley, L. (2008). Demonstrating validity in qualitative psychology. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods* (2<sup>nd</sup> ed.) (pp. 235-251). London, England: Sage.
- Young, R., Oei, T. P. S., & Knight, R. G. (1990). The tension reduction hypothesis revisited: n alcohol expectancy perspective. *British Journal of Addiction, 85*(1), 31-40.
- Zigmond, A. S., & Snaith, R. P. (1983). The hospital anxiety and depression scale. *Acta Psychiatrica Scandinavica, 67*, 361-370.

## Appendices

### 3.1 Ethical approval



## National Research Ethics Service

### Derbyshire Research Ethics Committee

1 Standard Court  
Park Row  
Nottingham  
NG1 6GN

Telephone: 0115 8839461  
Facsimile: 0115 9123300

23 February 2010

Miss Lucy Redstone  
Trainee Clinical Psychologist  
Lincolnshire Partnership NHS Foundation Trust  
University of Lincoln,  
Court 11, Satellite Building 8  
Brayford Pool, Lincoln  
LN6 7TS

Dear Miss Redstone

**Study Title:** How do people with psychosis use substances to alter their relationship and compliance with voices?  
**REC reference number:** 10/H0401/5  
**Protocol number:** 1

Thank you for your letter of 18 February 2010, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

#### Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

#### Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

#### Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

For NHS research sites only, management permission for research ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.  
*Where the only involvement of the NHS organisation is as a Participant Identification*

This Research Ethics Committee is an advisory committee to East Midlands Strategic Health Authority.  
*The National Research Ethics Service (NRES) represents the NRES Directorate within the National Patient Safety Agency and Research Ethics Committees in England.*

Centre, management permission for research is not required but the R&D office should be notified of the study. Guidance should be sought from the R&D office where necessary.

Sponsors are not required to notify the Committee of approvals from host organisations.

**It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).**

#### **Approved documents**

The final list of documents reviewed and approved by the Committee is as follows:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Covering Letter		
Protocol	1	18 December 2009
REC application	34797/85096/1/800	23 December 2009
Investigator CV	1	18 December 2009
CV - for David Mark Gresswell	1	18 December 2009
Care Co-ordinator Information Sheets - For STEP Teams	1	18 December 2009
Care Co-ordinator Information Sheets - For Recovery Teams	1	18 December 2009
Evidence of insurance or indemnity	2.0	06 August 2009
Assignment Feedback Sheet		
Interview Schedules/Topic Guides	1	18 December 2009
Participant Information Sheet: STEP Teams	2	04 February 2010
Participant Information Sheet: Recovery Teams	2	04 February 2010
Participant Consent Form	2	04 January 2010
BAVQ-R		
Response to Request for Further Information		18 February 2010

#### **Statement of compliance**

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

#### **After ethical review**

Now that you have completed the application process please visit the National Research Ethics Service website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document "*After ethical review – guidance for researchers*" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email [referencegroup@nres.npsa.nhs.uk](mailto:referencegroup@nres.npsa.nhs.uk).

**10/H0401/5**

**Please quote this number on all correspondence**

Yours sincerely



**Mr Phil Hopkinson/Mrs Lisa Gregory  
Chair/Committee Coordinator**

Email: [lisa.gregory@nottspct.nhs.uk](mailto:lisa.gregory@nottspct.nhs.uk)

*Enclosures:  
Copy to:*

*"After ethical review – guidance for researchers" SL- AR2  
Dr Mark Gresswell, University of Lincoln  
R&D office for NHS care organisation at lead site - [REDACTED]*

[REDACTED]st



## National Research Ethics Service

Derbyshire Research Ethics Committee

1 Standard Court  
Park Row  
Nottingham  
NG1 6GN

Tel: 0115 8839461  
Fax: 0115 9123300

14 April 2010

Miss Lucy Redstone  
Trainee Clinical Psychologist  
Lincolnshire Partnership NHS Foundation Trust  
Trainee Clinical Psychologist  
University of Lincoln,  
Court 11, Satellite Building 8  
Brayford Pool, Lincoln  
LN6 7TS

Dear Miss Redstone

**Study title:** How do people with psychosis use substances to alter their relationship and compliance with voices?  
**REC reference:** 10/H0401/5  
**Amendment number:** 1  
**Amendment date:** 12 March 2010

The above amendment was reviewed on 12 April 2010 by the Sub-Committee in correspondence.

### Ethical opinion

The members of the Committee taking part in the review gave a favourable ethical opinion of the amendment on the basis described in the notice of amendment form and supporting documentation.

### Approved documents

The documents reviewed and approved at the meeting were:

Document	Version	Date
Interview Schedules/Topic Guides	2	04 March 2010
Participant Consent Form	4	13 April 2010
Notice of Substantial Amendment (non-CTIMPs)	1	12 March 2010

### Membership of the Committee

The members of the Committee who took part in the review are listed on the attached sheet.

This Research Ethics Committee is an advisory committee to East Midlands Strategic Health Authority  
The National Research Ethics Service (NRES) represents the NRES Directorate within the  
National Patient Safety Agency and Research Ethics Committees in England



**R&D approval**

All investigators and research collaborators in the NHS should notify the R&D office for the relevant NHS care organisation of this amendment and check whether it affects R&D approval of the research.

**Statement of compliance**

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

<b>10/H0401/5:</b>	<b>Please quote this number on all correspondence</b>
--------------------	---

Yours sincerely



**Mr Apostolos Fakis**  
**Committee Vice-Chair**

E-mail: [lisa.gregory@nottspct.nhs.uk](mailto:lisa.gregory@nottspct.nhs.uk)

*Enclosures: List of names and professions of members who took part in the review*

*Copy to: Dr Mark Gresswell, University of Lincoln  
R&D office for NHS care organisation at lead* [REDACTED]

**Lucy Redstone (06088772)**

---

**To...**

**Cc...**

**Bcc...**

**Subject:** FW: Ethics submission

**Attachments:**

---

**From:** Emile van der Zee  
**Sent:** Fri 12/03/2010 15:22  
**To:** Lucy Redstone (06088772)  
**Subject:** RE: Ethics submission

Dear Lucy, many thanks for your thorough and clear answers. This is to confirm that you have ethical approval for your project from today. Good luck with your project, all my best,

Emile

Emile van der Zee PhD  
Principal Lecturer in Psychology  
Coordinator MSc in Child Studies  
Department of Psychology  
University of Lincoln  
Lincoln LN6 7TS  
evanderzee@lincoln.ac.uk  
<http://www.lincoln.ac.uk/psychology/staff/683.asp>

The information in this e-mail and any attachments may be confidential. If you have received this email in error please notify the sender immediately and remove it from your system. Do not disclose the contents to another person or take copies.

Email is not secure and may contain viruses. The University of Lincoln makes every effort to ensure email is sent without viruses, but cannot guarantee this and recommends recipients take appropriate precautions. The University may monitor email traffic data and content in accordance with its policies and English law. Further information can be found at: <http://www.lincoln.ac.uk/legal>.

**Lucy Redstone (06088772)**

---

**To...**

**Cc...**

**Bcc...**

**Subject:** FW: Ethics amendment

**Attachments:**

**From:** Emile van der Zee  
**Sent:** Tue 01/06/2010 09:43  
**To:** Lucy Redstone (06088772)  
**Subject:** RE: Ethics amendment

Dear Lucy, there is no problem with the updated consent form; the ethical approval remains in place. Good luck with your research, all my best,  
Emile

Emile van der Zee PhD  
Principal Lecturer in Psychology  
Programme Coordinator MSc in Child Studies  
School of Psychology  
Brayford Campus  
University of Lincoln  
Lincoln LN6 7TS

[evanderzee@lincoln.ac.uk](mailto:evanderzee@lincoln.ac.uk)

<http://www.lincoln.ac.uk/psychology/staff/683.asp>

The information in this e-mail and any attachments may be confidential. If you have received this email in error please notify the sender immediately and remove it from your system. Do not disclose the contents to another person or take copies. Email is not secure and may contain viruses. The University of Lincoln makes every effort to ensure email is sent without viruses, but cannot guarantee this and recommends recipients take appropriate precautions. The University may monitor email traffic data and content in accordance with its policies and English law. Further information can be found at: <http://www.lincoln.ac.uk/legal>.

<https://email.lincoln.ac.uk/exchange/06088772/Drafts/FW:%20Ethics%20amendment...> 21/11/2010



[REDACTED]

8 June 2010

Lucy Redstone  
Trainee Clinical Psychologist  
Trent Doctorate in Clinical Psychology  
University of Lincoln  
Court 11, Satellite Building 8  
Brayford Pool  
LINCOLN  
LN6 7TS

Dear Ms Redstone

**Re: Trust Approval for Research Study titled: Substance-use and experiences of hearing voices**

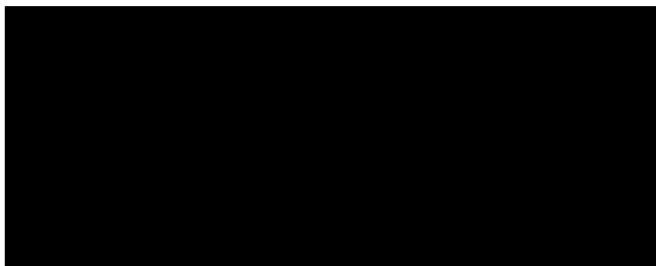
**REC Reference: 10/H0401/5**

In addition to your approval by the **Derbyshire Research Ethics Committee** (14 April 2010), we are pleased to notify you that Trust approval has now also been granted. We are pleased to inform you that you may now commence your research. Please retain this letter to verify that you have Trust approval to proceed.

We may contact you from time to time to monitor progress with your work. If the research is terminated or you complete this work, please let the Research and Effectiveness Department know so they can amend their records.

Do contact us if you require any further advice. We wish you every success with your work.

Yours sincerely



Enc: Data Protection Guidance on the transportation of personal identifiable data

## **Participant Information Sheet**

Researcher: Lucy Redstone

Study Title: Substance use and the experiences of hearing voices.

I'm a trainee clinical psychologist conducting some research to complete my doctorate. I would like to invite you to take part in my research. You may wish to talk to other people about taking part. Please take time to read the information carefully. Ask me if anything is unclear or if you need more information. You will be given time to decide if you wish to take part.

- **What is the study for?**

- I want to understand how people use drugs and alcohol to cope with hearing voices that tell them what to do. I want to find out:
  - How do drugs or alcohol help people cope with their voices?
  - What effect do drugs or alcohol have on the relationship with the voice?
  - How do drugs or alcohol make it harder or easier to do what the voice tells them?
- The study is part of my training to become a clinical psychologist. It is sponsored by the University of Lincoln.

- **Why have I been chosen?**

- You have been identified as someone who has heard voices that others can't hear. You have also been identified as someone who has used drugs or alcohol within the last two years to help you cope with hearing voices.

- **Do I have to take part?**

- No – it is up to you to decide. If you do want to take part you will sign a consent form to show you agree. You can change your mind about taking part at any time. You do not have to give a reason. The standard of care you receive will not be affected.

- **What will happen if I take part?**

- You will meet once with me. The first part of the meeting will be an interview, lasting up to 50 minutes. The interview will ask you questions about:
  - Your experiences of hearing voices that tell you to do something.
  - Your experiences of using drugs and alcohol to cope with hearing voices.
  - The relationship you have with your voice.
- The second part of the meeting is a brief questionnaire. There are 35 questions that ask how you are feeling about your voices. This questionnaire will take between five and ten minutes to complete.

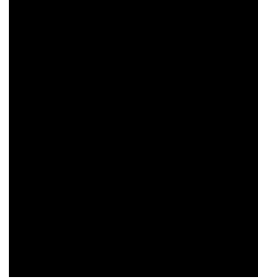
- The interview will be audio recorded and later transcribed. All the recordings and data will be stored securely at the University of Lincoln. The data will only be accessible by the research team.
- **Will my taking part be kept confidential?**
  - All information which is collected about you during the course of the research will be kept confidential. All your data from the study will use a unique code so that you cannot be identified.
  - As part of the report I intend to use direct quotes from the interviews. However, I will only use quotes that do not contain any information that could be used to identify you.
  - If you tell me that you are going to harm yourself or someone else, by law I have to pass this information on.
  - I will ask your permission to inform your Care co-ordinator that you are taking part in the study. I would like to inform them so they can give you extra support if you need it after the study.
- **What are the possible risks and benefits of taking part?**
  - It is possible that discussing these topics could be upsetting. You should consider this before agreeing to take part. Any complaint about the way you have been dealt with during the study or any possible harm you might suffer will be addressed.
  - I cannot promise the study will help you but the information from this study will help improve knowledge about using drugs and / or alcohol to cope with voices.
- **What if I change my mind about taking part?**
  - If you tell me you want to withdraw from the study, I will remove all your data from the study.
- **What if there is a problem?**
  - If you are concerned about the study you should contact me, Dr De Boos or your care-coordinator who will try to answer your questions or concerns. If you wish to make a formal complaint you can contact the local NHS complaints manager. These details can be obtained through your service.
- **What will happen to the results?**
  - I intend to publish the results of the study. If you would like to know the results of the study let me know.

This study has been approved by the University of Lincoln and the Derbyshire Local Research Ethics Committee. This aims to protect your wellbeing.

For further information about the study please contact myself / Dr. Danielle De Boos:

Lucy Redstone  
Trent Doctorate in Clinical Psychology  
University of Lincoln  
Court 11, Satellite Building 8  
Brayford Pool  
Lincoln  
LN6 7TS

Dr Danielle De Boos  
Clinical Psychologist



01522 837076 – Please leave a message  
and your contact details on the answer-phone.

If you are unhappy with the study you could also talk to your care co-ordinator or the Lincolnshire Patient Advice and Liaison Service (PALS) on **0845 602 4384**.  
Thank you for your time.

## Participant Information Sheet

Researcher: Lucy Redstone

Study Title: Substance use and the experiences of hearing voices

I'm a trainee clinical psychologist conducting some research to complete my doctorate. I would like to invite you to take part in my research. You may wish to talk to other people about taking part. Please take time to read the information carefully. Ask me if anything is unclear or if you need more information. You will be given time to decide if you wish to take part.

- **What is the study for?**

- I want to understand how people use drugs and alcohol to cope with hearing voices that tell them what to do. I want to find out:
  - How do drugs or alcohol help people cope with their voices?
  - What effect do drugs or alcohol have on the relationship with the voice?
  - How do drugs or alcohol make it harder or easier to do what the voice tells them?
- The study is part of my training to become a clinical psychologist. It is sponsored by the University of Lincoln.

- **Why have I been chosen?**

- You have been identified as someone who has heard voices that others can't hear. You have also been identified as someone who has used drugs or alcohol within the last two years to help you cope with hearing voices.

- **Do I have to take part?**

- No – it is up to you to decide. If you do want to take part you will sign a consent form to show you agree. You can change your mind about taking part at any time. You do not have to give a reason. The standard of care you receive will not be affected.

- **What will happen if I take part?**

- You will meet once with me. The first part of the meeting will be an interview, lasting up to 50 minutes. The interview will ask you questions about:
  - Your experiences of hearing voices that tell you to do something.
  - Your experiences of using drugs and alcohol to cope with hearing voices.
  - The relationship you have with your voice.



- The second part of the meeting is a brief questionnaire. There are 35 questions that ask how you are feeling about your voices. This questionnaire will take between five and ten minutes to complete.
  - The interview will be audio recorded and later transcribed. All the recordings and data will be stored securely at the University of Lincoln. The data will only be accessible by the research team.
- **Will my taking part be kept confidential?**
    - All information which is collected about you during the course of the research will be kept confidential. All your data from the study will use a unique code so that you cannot be identified.
    - As part of the report I intend to use direct quotes from the interviews. However, I will only use quotes that do not contain any information that could be used to identify you.
    - If you tell me that you are going to harm yourself or someone else, by law I have to pass this information on.
    - I will ask your permission to inform your Care co-ordinator that you are taking part in the study. I would like to inform them so they can give you extra support if you need it after the study.
- **What are the possible risks and benefits of taking part?**
    - It is possible that discussing these topics could be upsetting. You should consider this before agreeing to take part. Any complaint about the way you have been dealt with during the study or any possible harm you might suffer will be addressed.
    - I cannot promise the study will help you but the information from this study will help improve knowledge about using drugs and / or alcohol to cope with voices.
- **What if I change my mind about taking part?**
    - If you tell me you want to withdraw from the study, I will remove all your data from the study.
- **What if there is a problem?**
    - If you are concerned about the study you should contact me, Dr McGrath or your care-coordinator who will try to answer your questions or concerns. If you wish to make a formal complaint you can contact the local NHS complaints manager. These details can be obtained through your service.
- **What will happen to the results?**
    - I intend to publish the results of the study. If you would like to know the results of the study let me know.

This study has been approved by the University of Lincoln and the Derbyshire Local Research Ethics Committee. This aims to protect your wellbeing.

For further information about the study please contact myself or Dr. Noel McGrath:

Lucy Redstone  
Trent Doctorate in Clinical Psychology  
University of Lincoln  
Court 11, Satellite Building 8  
Brayford Pool  
Lincoln  
LN6 7TS

Dr Noel McGrath  
Clinical Psychologist



01522 837076 – Please leave a message  
and your contact details on the answer-phone.

If you are unhappy with the study you could also talk to your care co-ordinator or the Lincolnshire Patient Advice and Liaison Service (PALS) on **0845 602 4384**.  
Thank you for your time.



UNIVERSITY OF  
LINCOLN

## Substance use and the experiences of hearing voices.

Researcher: Lucy Redstone

Dear colleague,

I am a trainee clinical psychologist, conducting some research for the completion of my doctorate.

The purpose of the research is to understand the experiences of people with psychosis who hear voices. I am particularly interested in people who experience a voice giving them instructions or commands. I want to identify how people use substances and alcohol to cope with these voices. This research may provide further understanding about how people with psychosis use substances or alcohol to affect their relationship with the voice. This may have an impact on complying or resisting the voice's command. This may be of particular use in therapeutic contexts or when considering risk.

Participants will be asked to meet the researcher once for about one hour. However this may be adjusted to their needs. This meeting will take place at your service's team base.

The research involves conducting a semi-structured interview, asking about their experiences of hearing voices and using substances and / or alcohol. This is anticipated to last for around 50 minutes. Participants will also be asked to fill out a questionnaire called the Beliefs About Voices Questionnaire (Revised). This should take between five and ten minutes.

Clients are under no obligation to take part in the study. If they do wish to take part their information will be kept confidential so no-one would be able to identify that they took part. It will be made clear to participants that confidentiality may be breached if they indicate they or another person is at risk of harm. Participants are free to withdraw their consent at any time and their results will be destroyed.

We are looking for participants who:

- **In the last two years, have reported hearing voices that give them commands or instructions. AND**
- **In the last two years, have reported using substances or alcohol to cope with the voices.**

Please think about the clients that are on your caseload and if they fit the above criteria, please inform Dr. Danielle De Boos, Clinical Psychologist (details below) who will then liaise with you to approach your client to introduce the research. She will give the client the information sheet to read and take away with them. If the client expresses interest in participating, Dr. Danielle De Boos will arrange a meeting between the potential participant and the researcher. They may be

given time to consider participation further but may approach you to discuss their involvement.

If you have concerns about a client's ability to give informed consent to the study, please contact the researcher for further clarification. If clients are distressed in the study or are unhappy with the study, we may advise them to discuss things with you as their identified worker or seek their permission to contact you.

This study has gained ethical approval from the University of Lincoln Ethics Committee and the Derbyshire Local Research Ethics Committee.

Thank you for your time, if you have any questions or want more information please contact the researcher (address below).

Yours sincerely,

Lucy Redstone

Trent Doctorate in Clinical Psychology  
University of Lincoln,  
Court 11, Satellite Building 8,  
Brayford Pool,  
Lincoln  
LN6 7TS

07759841718 – Please leave your name and contact details.

[06088772@students.lincoln.ac.uk](mailto:06088772@students.lincoln.ac.uk)

Dr. Danielle De Boos  
Clinical Psychologist





UNIVERSITY OF  
LINCOLN

## Substance use and the experiences of hearing voices.

Researcher: Lucy Redstone

Dear colleague,

I am a trainee clinical psychologist, conducting some research for the completion of my doctorate.

The purpose of the research is to understand the experiences of people with psychosis who hear voices. I am particularly interested in people who experience a voice giving them instructions or commands. I want to identify how people use substances and alcohol to cope with these voices. This research may provide further understanding about how people with psychosis use substances or alcohol to affect their relationship with the voice. This may have an impact on complying or resisting the voice's command. This may be of particular use in therapeutic contexts or when considering risk.

Participants will be asked to meet the researcher once for about one hour. However this may be adjusted to their needs. This meeting will take place at your service's team base.

The research involves conducting a semi-structured interview, asking about their experiences of hearing voices and using substances and / or alcohol. This is anticipated to last for around 50 minutes. Participants will also be asked to fill out a questionnaire called the Beliefs About Voices Questionnaire (Revised). This should take between five and ten minutes.

Clients are under no obligation to take part in the study. If they do wish to take part their information will be kept confidential so no-one would be able to identify that they took part. It will be made clear to participants that confidentiality may be breached if they indicate they or another person is at risk of harm. Participants are free to withdraw their consent at any time and their results will be destroyed.

We are looking for participants who:

- **In the last two years, have reported hearing voices that give them commands or instructions. AND**
- **In the last two years, have reported using substances or alcohol to cope with the voices.**

Please think about the clients that are on your caseload and if they fit the above criteria, please inform Dr. Noel McGrath, Clinical Psychologist (details below) who will then liaise with you to approach your client to introduce the research.

He will give the client the information sheet to read and take away with them. If the client expresses interest in participating, Dr. Noel McGrath will arrange a meeting between the potential participant and the researcher. They may be given time to consider participation further but may approach you to discuss their involvement.

If you have concerns about a client's ability to give informed consent to the study, please contact the researcher for further clarification. If clients are distressed in the study or are unhappy with the study, we may advise them to discuss things with you as their identified worker or seek their permission to contact you.

This study has gained ethical approval from the University of Lincoln Ethics Committee and the Derbyshire Local Research Ethics Committee.

Thank you for your time, if you have any questions or want more information please contact the researcher (address below).

Yours sincerely,

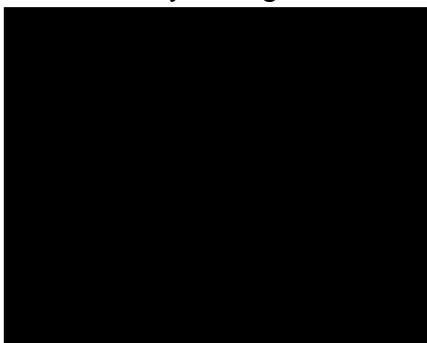
Lucy Redstone

Trent Doctorate in Clinical Psychology  
University of Lincoln,  
Court 11, Satellite Building 8,  
Brayford Pool,  
Lincoln  
LN6 7TS

07759841718 – Please leave your name and contact details.

[06088772@students.lincoln.ac.uk](mailto:06088772@students.lincoln.ac.uk)

Dr. Noel McGrath  
Clinical Psychologist





UNIVERSITY OF  
LINCOLN

Patient Identification Number for this study:

**CONSENT FORM**

Title of Project: Substance use and experiences of hearing voices

Name of Researcher: Lucy Redstone

Please initial box

- 1. I confirm that I have read and understand the information sheet dated 04.02.10 (version 2) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
  
- 2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected. My data can be destroyed up until the time of publication of the results.
  
- 3. I understand that data collected during the study, may be looked at by authorised individuals from University of Lincoln, the research team and regulatory authorities, where it is relevant to my taking part in this research. I give permission for these individuals to have access to this data.
  
- 4. I agree to my Care co-ordinator being informed of my participation in the study.
  
- 5. I understand that as part of the research my interview will be audio recorded.
  
- 6. I agree to direct quotes from my interview being used in the final report. I understand that the researcher will ensure that the quotes used do not reveal information that could identify me.
  
- 7. I understand that the data generated from the study will be stored securely at the University of Lincoln. The data will only be viewed by members of the research team.

8. I agree to take part in the above study.



\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Date

.....  
Signature

\_\_\_\_\_  
Name of Researcher  
taking consent

\_\_\_\_\_  
Date

.....  
Signature

\_\_\_\_\_  
Name of Witness

\_\_\_\_\_  
Date

.....  
Signature



## Interview Schedule

### General Introduction Questions

- How did you find it getting here today?
- What were your thoughts about coming here today?
- How long have you been with the xxx team?

“As you know, I’m interested in your experience of hearing voices and the effect of using drugs or alcohol when the voice tells you to do something. We’ve got around an hour today but let me know if you need a break or want to stop.”

### Voices

- What does it mean for you to hear voices?
  - o How long have you been experiencing voices?
  - o Do you hear more than one voice?
  - o What do you feel when you hear you voice?
  - o What goes through your mind when you hear the voice?
- What is your voice / are your voices like?
  - o What do they say?
  - o Do you recognise the voice?
  - o Is the voice kind or not kind?
  - o When are you most likely to hear your voice?
- How would you describe your relationship with your voice?
  - o Are you and your voice equal? How do you know?

### Commands

- When your voice tells you to do something what kind of things would it say?
  - o What is it like for you when the voice tells you what to do?
  - o Can you give me an example?
  - o What goes through your mind when the voice tells you to do something?
- How do you react when you hear the voice telling you what to do?
  - o In what way do you do what the voice wants you to do?

### Coping strategies

- Have you used alcohol / drugs to cope with your voices?
- Did you use alcohol / drugs to help you cope with life’s pressures before you heard voices?
- Do you sometimes use alcohol/drugs to help you cope even when you do not hear voices?
- How do drugs or alcohol affect how you cope?
  - o What does this mean for you when you use them?
  - o What does this mean for your voice when you use them?

- Does your voice change after you have taken drugs or alcohol?
  - o Can you give me an example of that?
  - o Do you feel differently towards your voice after using drugs or alcohol?
  
- When you use alcohol / drugs, are you more or less likely to do what the voice tells you?

### 3.3 Analysis

Excerpt from reflective research journal

Participant	Reflection on interview process	Reflection on initial ideas, patterns	Reflection on self
Adie	<p>Interview was much longer than the first one.</p> <p>I found this one easier to follow the interview schedule and didn't need as many verbal encouragers.</p>	<p>Participant had a sense of voice being implied control.</p> <p>Possible link with benevolent voice.</p> <p>Will be interesting to see if implied control shows lower score on BAVQ-R.</p> <p>Seemed to be a sense of wanting 'real' relationships.</p>	<p>Wanted to explore pre-voice functioning and experiences.</p> <p>Found it hard to stay in role of 'researcher' when used to being clinician.</p> <p>Consider impact of similar age on rapport-building.</p>
Julie	<p>Felt a bit stilted at first, worried initially about P being late meaning she didn't want to come.</p> <p>Settled into schedule well, seemed to build rapport.</p>	<p>Interested in giving a name to the voice as not seen in previous interviews.</p> <p>Contradictions between choosing to drink and having to drink?</p>	<p>Felt very comfortable in presence of participant.</p> <p>What was the impact of both of us being female compared to previous participants being male?</p>

### Data Transcript Key

- (.) Pause
- < > Non-verbal information
- / Overlap or interruption
- \*\*\* Omitted information

Example coded transcript (Ben – lines 212-233)

Quotes used in paper underlined

P	It does me head in.	
INT	We only need to talk about what you're comfortable.	
P	Well, I like to talk about it now and again, but I can't, see, because I cared so much. I've got another sister, I don't see her, I grew up with her, we were close, she was my mum's daughter, my closest thing I've got. But I don't know her, I don't know her anymore, I don't. It's pretty sad to be honest.	Loss of friendship / relationship
INT	And quite a hard time with dreams and that effects things day-to-day.	
P	I plod on, I put on a brown brave face, I smile, you know what I mean, come in reception I'm, I'm alright. I might be alright, I'm just (.)	Secrecy
INT	Have you kind of ever used drugs or alcohol to cope with hearing voices?	
P	(.) Yeah, cannabis is one of the bains of my life. I don't know whether you need to know this or what not, but I'm getting some in a bit, I can't wait to have a, a good joint to myself, I can relax. If I do have the voices in my head, and I'm, I'm half the time sat there saying, 'piss off,' you know what I mean, I know what I'm, I know how, I'll try and deal with it anyway. <u>If I can have a joint, you know what I mean, three or four drags of a good joint I can just go, &lt;snuffs&gt; you know what I mean, just don't care what they say even if they are there.</u>	Substances to change emotion  Participant in control  Emotionally uninvolved
INT	So they're still there when you (.) No, no, not all the time. Quite often it can get rid of them (.)	
P	Yeah.	
INT	(.) it does get rid of them, cannabis does.	Substance stops voices

Example coded transcript (Nick – lines 575-599)

Quotes used in paper underlined

P	That's what, how I see things, you know, I'm getting a bit slower now. But erm, I have been through a few fights as well. Like erm, the voices will say, you know, I'll be arguing, I'll be in a situation, the voice will come and say, 'hit him,' and you know, like an intrusive thought thing again, and then that triggers the thought, and the thought becomes reality, if you know what I mean. And erm, you know, and then afterwards you think, oh dear, what have I done? <chuckles>	Cognitive understanding  Impulsive  Lack of choice, agency
INT	Do you feel, or did you feel differently about your voices when you've been drinking?	
P	Erm (.)	
INT	What did you think about them?	
P	Er, that's a difficult question 'cause er, when I've been drinking I'm not really erm, er, erm, not really, no. I think about the same. But erm, er, that's a difficult question 'cause, 'cause when you're drunk you know, your thought patterns, you can't explain it, can you, it's just, it's (.) No, about the same really.	Emotional  disengagement
INT	<u>OK. And the last question I had to ask was kinda when you, you used alcohol, were you more or less likely to do what the voices /</u>	
P	<u>I'd say more likely.</u>	Compliance
INT	<u>/ told you?</u>	
P	<u>When I've been drinking I've been more likely to react on it, erm, which is kinda stupid.</u>	Impulsive
INT	<u>Can you give me any, could you give me an example?</u>	
P	<u>The self-harm thing.</u>	

Example of code cluster - Theme - Control

Code	Theme	Sub-themes
Active coping	Control	Participant in control  Passive / lack of control  Substances in control (medication)  Voices in control
Alcohol as allied with voices		
Alcohol as giving up		
Alcohol decreased frequency		
Alcohol lessens P control initially		
Ambivalence about control		
Apathy		
Authorities in control		
Choice, agency – lack of		
Command / control		
Drug control mood		
Drugs lessen voice's control		
Emotion in control		
Emotional consequences		
Emotional reaction		
Fixed, no change		
Medication in control		
Medication reduces voice frequency		
P more control		
Passive, uninvolved		
Power		
Relationship with drug		
Responsibility for thought		
Voice overpowers alcohol		
Voices control mood		
Voices difficult to manage in past		
Voices in control		
Vulnerability		

Theme document extract – Sub-theme 'substances in control'

..... Quotes used in paper () Line reference numbers

Ben

P: It has been a bit more controlled like lately 'cause of my olanzapine I think. But I'm meant to have them at night times like, I mean 'cause they knock you out, they do. And sometimes if I do have it in the day and it does me head in, I'll have one in the day, 'cause I'm allowed to sleep and then I can forget about it all, you know what I mean, I don't have the problem with the voices and that. (164-169)

P: Cannabis is, <sighs> it does my bloody head in to be honest, it's ... I'm in the situation now, this, you'll think I'm a mug to myself here, I've got an alright stereo, it's in Cash Converters at the moment, I need to pay the difference tomorrow which is £9 so can get it back in a couple of more weeks, or else I'll lose it. Well, I'm getting a tenner in a bit, and I've decided I think I'm going to get some weed. <sighs> So I've lost my stereo just for a little bit of weed. I think I'm still going to do it (278-284)

Thomas

P: Erm, I dunno really, just try and stay positive I guess. Just make sure you take your medication and that I, I think. Yeah, medication helps quite a lot. (171-172)

Julie

P: I think that's because like I'm not drinking, because the drink does affect F a lot, it soon sends him on one. (412-413)

Mark

LR: OK. Erm, so how, how do drugs or alcohol, how do they help with the coping with the voices? Is it just numbing or is it ...

P: It just numbs and makes me forget on what I'm actually thinking. It's like a dream state, well cannabis is like a dream state, and it just makes you forget, whereas alcohol heightens, it sort of makes the problem bigger. (223-225)

Nick

P: But now it's gone vice versa, it's you know, the more drink the less the tablets work, the more the paranoia comes in. And the hallucinations as well, I get quite a few of them when I'm drunk. (285-288)



BAVQ-R items

	JOEY	ADIE	SAM	BEN
<b>Malevolence -total (18)</b>	<b>4</b>	<b>1</b>	<b>12</b>	<b>8</b>
My voice is punishing me for something I have done	2	1	1	3
My voice is persecuting me for no good reason	2	0	2	1
My voice is evil	0	0	3	2
My voice wants to harm me	0	0	2	0
My voice wants me to do bad things	0	0	3	0
My voice is trying to corrupt or destroy me	0	0	1	2
<b>Benevolence - total (18)</b>	<b>2</b>	<b>9</b>	<b>0</b>	<b>2</b>
My voice wants to help me	1	2	0	1
My voice wants to protect me	0	2	0	0
My voice is helping to keep me sane	0	1	0	0
My voice is helping me to develop my special powers or abilities	1	1	0	0
My voice is helping me to achieve my goal in life	0	2	0	1
I am grateful for my voice	0	1	0	0
<b>Omnipotence - total (18)</b>	<b>13</b>	<b>8</b>	<b>3</b>	<b>10</b>
My voice is powerful	3	2	0	3
My voice seems to know everything about me	3	3	2	3
My voice makes me do things I don't really want to do	3	0	0	2
I cannot control my voices	3	2	1	2
My voice will harm or kill me if I disobey or resist it	0	0	0	0
My voice rules my life	1	1	0	0
<b>Resistance - emotional - total (12)</b>	<b>10</b>	<b>2</b>	<b>8</b>	<b>9</b>
My voice frightens me	3	0	2	?
My voice makes me feel down	3	1	2	3
My voice makes me feel angry	2	0	2	3
My voice makes me feel anxious	2	1	2	3
<b>Resistance - behaviour - total (15)</b>	<b>12</b>	<b>4</b>	<b>15</b>	<b>11</b>
I tell it to leave me alone	2	0	3	2
I try to take my mind off it	3	1	3	3
I try to stop it	2	2	3	3
I do things to prevent it talking	3	1	3	3
I am reluctant to obey it	2	0	3	0
<b>Resistance - total (27)</b>	<b>22</b>	<b>6</b>	<b>23</b>	<b>20</b>

<b>Engagement - emotional - total (12)</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>5</b>
My voice reassures me	0	0	0	2
My voice makes me happy	0	3	0	0
My voice makes me feel calm	0	1	0	2
My voice makes me feel confident	0	2	0	1
<b>Engagement - behaviour - total (12)</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>5</b>
I listen to it because I want to	0	1	0	2
I willingly follow what my voice tells me to do	0	3	0	0
I have done things to start to get in contact with my voice	0	2	0	0
I seek the advice of my voice	0	2	0	0
<b>Engagement - total (24)</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>7</b>

BAVQ-R items cont.

	THOMAS	MICHAEL	JULIE	MARK	NICK
<b>Malevolence -total (18)</b>	<b>2</b>	<b>16</b>	<b>14</b>	<b>5</b>	<b>14</b>
My voice is punishing me for something I have done	0	3	2	3	3
My voice is persecuting me for no good reason	2	3	3	0	2
My voice is evil	0	3	3	0	2
My voice wants to harm me	0	1	1	2	2
My voice wants me to do bad things	0	3	2	0	2
My voice is trying to corrupt or destroy me	0	3	3	0	3
<b>Benevolence - total (18)</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>4</b>
My voice wants to help me	2	0	0	3	1
My voice wants to protect me	0	0	0	3	0
My voice is helping to keep me sane	1	0	0	2	1
My voice is helping me to develop my special powers or abilities	0	0	0	3	2
My voice is helping me to achieve my goal in life	0	0	0	3	0
I am grateful for my voice	0	0	0	3	0
<b>Omnipotence - total (18)</b>	<b>8</b>	<b>16</b>	<b>5</b>	<b>12</b>	<b>12</b>
My voice is powerful	1	3	0	3	2
My voice seems to know everything about me	0	3	2	3	3
My voice makes me do things I don't really want to do	2	3	3	0	1
I cannot control my voices	3	3	0	3	3
My voice will harm or kill me if I disobey or resist it	0	1	0	0	2
My voice rules my life	2	3	0	3	1
<b>Resistance - emotional - total (12)</b>	<b>6</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>11</b>
My voice frightens me	0	3	3	0	3
My voice makes me feel down	2	3	2	3	3
My voice makes me feel angry	2	3	2	3	3
My voice makes me feel anxious	2	2	3	3	2
<b>Resistance - behaviour - total (15)</b>	<b>6</b>	<b>13</b>	<b>15</b>	<b>9</b>	<b>7</b>
I tell it to leave me alone	2	2	3	0	?
I try to take my mind off it	3	3	3	3	?
I try to stop it	0	3	3	0	3
I do things to prevent it talking	0	2	3	3	3

I am reluctant to obey it	1	3	3	3	1
<b>Resistance - total (27)</b>	<b>12</b>	<b>24</b>	<b>25</b>	<b>18</b>	<b>18</b>
<b>Engagement - emotional - total (12)</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>1</b>
My voice reassures me	2	0	0	3	0
My voice makes me happy	2	0	0	3	0
My voice makes me feel calm	2	0	0	3	1
My voice makes me feel confident	2	0	0	3	0
<b>Engagement - behaviour - total (12)</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>12</b>	<b>5</b>
I listen to it because I want to	0	0	0	3	1
I willingly follow what my voice tells me to do	2	3	0	3	1
I have done things to start to get in contact with my voice	1	0	1	3	2
I seek the advice of my voice	0	0	0	3	1
<b>Engagement - total (24)</b>	<b>11</b>	<b>3</b>	<b>1</b>	<b>24</b>	<b>6</b>

## Substance use and experiences of hearing voices

Thank you for taking part in my study over the past few months. I am writing to you to with an overview of my findings from the interviews.

In total, nine participants were interviewed as part of the study to investigate people's experiences of hearing voices and using drugs and alcohol in response to hearing voices. I particularly wanted to explore:

- How do drugs and alcohol affect the relationship between the voices and person who hears the voices?
- How do drugs and alcohol affect compliance when a voice tells the person what to do?

### **Results:**

#### **1. Control**

Most participants viewed their voices as trying to control them. This could be by controlling participants' thoughts, feelings or actions. Some participants described drugs and alcohol as helping them to have more control over the voices. Often, this was achieved by drinking or using drugs to disengage from their feelings when they were distressed about their voices. Some participants, who had stopped using drugs or alcohol (at the time of the interview), thought that these substances made the voices worse. They felt that using drugs and alcohol had given them less control over the voices.

Other participants felt that drugs and alcohol took control away from the voices, making them less powerful. At times participants reported that they felt this was the only way to reduce the impact of their voices. It seemed that for some participants, drugs and alcohol enabled them to avoid arguments and confrontation with the voices. Participants also reported that medication also helped to take control away from the voices.

#### **2. Emotions**

The interviews found that participants would use drugs and alcohol to manage their emotional experience in two ways. Firstly, sometimes participants would use drugs and alcohol to connect with their voices and feel more positively towards them. Secondly, participants would sometimes use drugs and alcohol to "escape" from their emotions and "not care" about the voice. Some participants described using drugs and alcohol in both these ways.

### **3. Relationships**

It was identified that participants described different relationships with their voices. Some participants could see characteristics in the voice that were similar to significant people from their past and present lives. The use of drugs and alcohol did not seem to completely change their opinion of the voices. For example, participants who did not like their voices in general, would not change to like the voices after using drugs or alcohol.

Relationships in participants' lives often influenced the relationship with the voices and the decision to use drugs and alcohol. For example, often conflicts with family or friends affected the distress caused by the voices. In turn, this could make some participants more likely to use drugs or alcohol.

### **4. Participants' views of self**

Some participants viewed their voices as part of them and part of their thoughts. Other participants saw the voices as separate to themselves with different characteristics. Many participants described some shame associated with hearing voices, especially when they first began to hear them. Some participants reported they had 'accepted' the voices and felt more confident to manage their voices now.

### **5. Understanding of hearing voices**

Participants had different views about what had caused their voices. Some felt they had started because of previous drug or alcohol use. Others thought that difficult events from the past may have triggered the voices. Participants thought of the voices as being biological and due to "chemicals" and the "wiring" of the brain. Some participants thought that the voices were like thoughts. They reported that drugs and alcohol made them think differently about lots of things including their voices.

### **6. Drugs and alcohol to cope with voices and to comply with the voices**

At times participants described using drugs and alcohol to cope with hearing voices. At other times, participants used drugs and alcohol because the voices had told them to. Some participants would use drugs and alcohol in both these ways in different situations.

### **Conclusions:**

The results from the study have identified different ways that drugs and alcohol affect the experience of hearing voices. Whilst there were only a small number of participants on the study, it is hoped that services that work with people who hear voices will consider the following key findings:

- People who use drugs and alcohol in response to hearing voices may be using them to feel more in control of the voice or to escape from the emotional distress of the voice.
- Some participants may be using drugs and alcohol because they are complying with the voices, rather than coping with the distress of hearing voices.

It may be important for clinicians to understand the reasons that people use drugs and alcohol in order to help them find alternative, less harmful ways to manage their voices.

I would like to thank you again for taking part in my research. If you have any questions, please do not hesitate to contact me on the details below.

Yours sincerely,

**Lucy Redstone (Trainee Clinical Psychologist)**

Trent Doctorate in Clinical Psychology  
University of Lincoln  
Court 11, Satellite Building 8  
Brayford Pool  
Lincoln  
LN6 7TS

01522 837076 – Please leave a message  
and your contact details on the answer-phone.

### 3.4 British Journal of Clinical Psychology – Manuscript requirements

The **British Journal of Clinical Psychology** publishes original contributions to scientific knowledge in clinical psychology. This includes descriptive comparisons, as well as studies of the assessment, aetiology and treatment of people with a wide range of psychological problems in all age groups and settings. The level of analysis of studies ranges from biological influences on individual behaviour through to studies of psychological interventions and treatments on individuals, dyads, families and groups, to investigations of the relationships between explicitly social and psychological levels of analysis.

The following types of paper are invited:

- Papers reporting original empirical investigations
- Theoretical papers, provided that these are sufficiently related to the empirical data
- Review articles which need not be exhaustive but which should give an interpretation of the state of the research in a given field and, where appropriate, identify its clinical implications
- Brief reports and comments

## 1. Circulation

The circulation of the Journal is worldwide. Papers are invited and encouraged from authors throughout the world.

## 2. Length

Papers should normally be no more than 5000 words (excluding abstract, reference list, tables and figures), although the Editor retains discretion to publish papers beyond this length in cases where the clear and concise expression of the scientific content requires greater length.

## 3. Submission and reviewing

All manuscripts must be submitted via our [online peer review system](#). The Journal operates a policy of anonymous peer review.

## 4. Manuscript requirements

- Contributions must be typed in double spacing with wide margins. All sheets must be numbered.
- Tables should be typed in double spacing, each on a separate page with a self-explanatory title. Tables should be comprehensible without reference to the text. They should be placed at the end of the manuscript with their approximate locations indicated in the text.



- Figures can be included at the end of the document or attached as separate files, carefully labelled in initial capital/lower case lettering with symbols in a form consistent with text use. Unnecessary background patterns, lines and shading should be avoided. Captions should be listed on a separate sheet. The resolution of digital images must be at least 300 dpi.
- For articles containing original scientific research, a structured abstract of up to 250 words should be included with the headings: Objectives, Design, Methods, Results, Conclusions. Review articles should use these headings: Purpose, Methods, Results, Conclusions. Please see the document below for further details:

 [British Journal of Clinical Psychology - Structured Abstracts Information](#)

- For reference citations, please use APA style. Particular care should be taken to ensure that references are accurate and complete. Give all journal titles in full.
- SI units must be used for all measurements, rounded off to practical values if appropriate, with the imperial equivalent in parentheses.
- In normal circumstances, effect size should be incorporated.
- Authors are requested to avoid the use of sexist language.
- Authors are responsible for acquiring written permission to publish lengthy quotations, illustrations, etc. for which they do not own copyright.

For guidelines on editorial style, please consult the [APA Publication Manual](#) published by the American Psychological Association.

## 5. Brief reports and comments

These allow publication of research studies and theoretical, critical or review comments with an essential contribution to make. They should be limited to 2000 words, including references. The abstract should not exceed 120 words and should be structured under these headings: Objective, Method, Results, Conclusions. There should be no more than one table or figure, which should only be included if it conveys information more efficiently than the text. Title, author name and address are not included in the word limit.

## 6. Publication ethics

All submissions should follow the ethical submission guidelines outlined in the documents below:

 [Ethical Publishing Principles – A Guideline for Authors](#)

 [Code of Ethics and Conduct \(2006\)](#)

## 7. Supplementary data

Supplementary data too extensive for publication may be deposited with the [British Library Document Supply Centre](#). Such material includes numerical data, computer

programs, fuller details of case studies and experimental techniques. The material should be submitted to the Editor together with the article, for simultaneous refereeing.

## **8. Copyright**

On acceptance of a paper submitted to a journal, authors will be requested to sign an appropriate assignment of copyright form. To find out more, please see our [Copyright Information for Authors](#).