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**SERVICE USERS' EXPLANATORY MODELS OF
PSYCHOSIS: THE DEVELOPMENT OF AN
INSTRUMENT FOR CLINICIANS.**

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ABSTRACT

The aims of this study were to explore the aetiological beliefs of mental health service-users who have experienced psychosis, and develop an instrument to assess those beliefs. Service-users from an Early Psychosis Intervention service within the Auckland region were asked about their psychotic experiences, and their understandings of them. Analysis of these interviews (n=14) revealed three sets of data, 'Experiences of Psychosis', 'Causes', and 'Service-Users' Feedback'. These findings, along with previous research findings about service-users understandings of their psychotic experiences were used to develop a draft instrument for clinicians to use when assessing service-users' causal beliefs. The draft instrument was presented to clinicians (n=13) for them to provide feedback regarding the relevance of the instrument's items to specific themes, thereby beginning to assess the instrument's face validity. The implications of this study include furthering the notion that service-users are experts of their own experiences, as well as developing a draft instrument that could be used clinically, and in turn potentially facilitate both treatment and recovery.

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CHAPTER ONE: INTRODUCTION

Traditionally accounts from people who have experienced psychosis have been largely ignored. However, there is growing evidence that 'service-users should be acknowledged as experts on their own experience' (British Psychological Society, 2000). Therefore this project aimed to investigate the accounts given by people who have experienced psychosis, and in particular their personal models of explanation and aetiological theories.

The primary intention was to develop an instrument that could be used by clinicians to explore the explanatory model(s) used by clients who experience psychosis. This differs from scales measuring symptoms or pathology. The purpose was to develop a map of the range of explanatory models employed in New Zealand by people who experience psychosis. The research was carried out with clients from an early intervention mental health service within the Auckland region. This was because their experiences are arguably less affected by the mental health system than people who have experienced psychosis for a longer period, and who have had a longer relationship with the mental health system.

This chapter will review literature in the area of 'schizophrenia' and psychosis, covering the following areas: Historical Understandings of Psychosis; Models and Treatment, including, biological/ biopsychosocial, psychological, psychosocial, and spiritual; Cultural Understandings; Lay Understandings; Understandings of People who Experience Psychosis, including international and New Zealand research. The aim is to present a broad overview finishing with the research that has been carried out in New Zealand to date, and the perspectives of service-users. Finally the chapter will situate the present study within the aforementioned context.

Historical Understandings of Psychosis

Firstly, what is psychosis? Psychosis is generally understood as experiencing either one, or a combination of, the following; hallucinations; delusions; and 'thought disorder', or as others put it 'madness' (Read, Mosher, & Bentall, 2004b). Approximately one in a hundred people are diagnosed with 'schizophrenia' (Read, Mosher, & Bentall, 2004b).

It is important that the history of psychosis is acknowledged in order to better understand the current context of psychosis. Despite the understanding of psychosis varying over time, it has been argued that three themes have remained constant throughout history in the understanding and treatment of psychosis. These are: the suppression of socially unacceptable behaviour, cognitions and emotions; 'treatments' often being ineffective or even damaging; and socio-political powers constructing such understandings in order to uphold the current dominant ideology, under the guise of 'treating' the powerless (Read, 2004a).

The variation in understandings of madness has included long periods in which spiritual understandings have dominated, for example four millennia ago madness was attributed to evil supernatural influences. Such beliefs continued for centuries, until a brief respite in the times of Ancient Greece, known as the 'Classical Era'. During this time observation and reasoning were prioritised, and Hippocrates put forward the first 'medical model' of madness (Read, 2004a).

However, supernatural understandings returned to power following the downfall of the Roman Empire and when Christianity was established as the official religion by the 4th century AD (Read, 2004a). However, with the Renaissance, and then Enlightenment, another shift occurred, this time from religious understandings towards 'scientific' and 'rational' understandings of psychosis. Unfortunately categorization and physiological

explanations for madness seemed synonymous with confinement; for example, the 1656 Edict which established the Hospital General in Paris, also locked away thousands of people (Read, 2004a).

There was a brief period of humane treatment in the 1800s known as, 'Moral Treatment', which according to Silver, Koehler, and Karon (2004) consisted of psychological treatment, and which accomplished a 70% discharge rate following first admissions. In contrast, the 'more scientific' treatments adopted by 1900 saw discharge rates fall to 20-30% (Alexander & Selesnick, 1996; Bockoven, 1972).

When Bleuler, a Swiss psychiatrist, first created the term 'schizophrenia' in 1908 he described 'splitting' of the psychic functions as one of its fundamental characteristics. He went on to introduce and explain his concept of 'schizophrenia' in the 1911 text; 'Dementia Praecox or the Group of Schizophrenias' (McNally, 2009). McNally (2009) argues that Bleuler's concept of 'schizophrenia' was muddied by subsequent generations of psychiatrists who attempted to simplify Bleuler's thinking to the 'Four As' mnemonic: "disturbances of *affect*, *associations*, *ambivalence*, and *autism*" (p. 43). According to McNally Bleuler's 'Four As' mnemonic first appeared in print in the 1960 book, 'Basic Psychiatric Concepts in Nursing'.

Lenzenweger (2006) has proposed that Paul Meehl's outline of a model for the aetiology and pathogenesis of schizophrenia developed in the early 1960s (later revised in 1990), was a major contributor to current understandings of schizophrenia. Lenzenweger (2006) further suggested Meehl's model:

"Embodied the core ideas of the diathesis-stressor framework that would come to dominate experimental and developmental psychopathology for the next 40 years...emphasized a genetically influenced aberration in neural transmission that could eventuate in clinical schizophrenia, non-psychotic schizotypic states, or apparent normalcy depending on the coexistence of other factors" (p. 195).

In more recent years there has been much criticism of the Diagnostic Statistical Manual (DSM) and its subsequent editions' diagnoses of the Schizophrenias. In addition, there is strong evidence for the construct's unreliability, for example Rosenhan's (1973) classic study in which a number of his 'normal' students were hospitalised and diagnosed with schizophrenia simply due to saying they heard the words 'thud', 'hollow', or 'empty'. It therefore follows that if the diagnosis of 'schizophrenia' is unreliable it must also be invalid (Read, 2004b). Factor analysis reveals that the symptoms of schizophrenia fall into three distinct clusters, that is, positive symptoms, negative symptoms, and cognitive disorganization (e.g., Andreasen et al., 1995). In addition to this there has also been strong criticism of the underlying biomedical ideology of the 'schizophrenia' construct, and the efficacy of its biomedical treatments (Mosher, Gosden & Beder, 2004; Read, 2004b; Ross & Read, 2004).

Models and Treatment

Biological.

There has been a diverse range of biological theories proposed to explain the aetiology of psychosis. The most prominent theories have implicated: genetics; biochemistry; neuroanatomical abnormalities; neurodevelopmental deficits; neuropsychology; and the use of drugs. Each of these theories will be briefly reviewed. Biopsychosocial models have also been proposed in attempt to explain the origins of psychosis, two of which will be presented, the 'Vulnerability-Stress' model and the 'Traumagenic Neurodevelopmental' model.

Genetics.

In attempt to account for a variety of physical and mental disorders genetic research has been prominent within medicine, and in turn psychiatry. Genetic theories of

schizophrenia posit that inherited genetic factors have a significant role in the causality of psychosis. This is based upon studies that have found higher rates of schizophrenia in the biological relatives of those with schizophrenia. Perhaps the most significant area of research in this field has been from adoption and twin studies.

Joseph's (2004) review of all schizophrenia twin studies published before mid-2001 (15 in total) found the overall pooled concordance rates for schizophrenia are 40.4% for mono-zygotic twins and 7.4% for dizygotic twins. If only looking at the more methodologically sound studies, that is, post 1962 these rates fall to 22.4% for mono-zygotic twins and 4.6% for dizygotic twins (Joseph, 2004). One could argue the difference in concordance rates between mono-zygotic and dizygotic twins represents the environmental differences rather than genetic differences, that is, identical twins are generally treated more similarly than non-identical twins.

According to Joseph, by 2004 there had been 6 major schizophrenia adoption studies, and of these the Finnish study (Tienari et al., 1987, 2000) was the most methodologically sound. Tienari et al. (2000) compared 164 index adoptees whose biological mother had what they termed either a 'narrow' spectrum (i.e., diagnosis of: schizophrenia or paranoid psychosis; or schizo-affective/ schizophreniform/ schizotypal personality disorders) or 'broad' spectrum disorder (same disorders as 'narrow' spectrum plus: paranoid personality/ schizoid personality/ delusional disorders/ bipolar psychosis/ depressive psychosis) with 197 control adoptees. They found the 'narrow' and 'broad' spectrum rates were significantly different compared to the controls, in other words the adoptees whose biological mother had either a 'narrow' or 'broad' spectrum diagnosis were significantly more likely to have a similar diagnosis compared to controls. Tienari et al. (1987, p. 482) also found "all adoptees who had been diagnosed either as schizophrenic or paranoid had been reared in seriously disturbed adoptive families". Furthermore, "the

likelihood that the adoptees' biological background influenced adoption placements is a major potentially invalidating factor" (Joseph, 2004, p. 76)

In fact, psychiatric geneticists have claimed "we can now conclusively reject the idea that there is one gene of major effect that causes schizophrenia" (Tsuang & Faraone, 2000, p. 1). Despite such claims, and a history of inconsistent findings within the genetic research, molecular geneticists have continued to investigate the relationship between specific genes and the aetiology of schizophrenia.

For example, Munafo, Bowes, Clark & Flint's (2005) meta-analysis investigated the relationship between the COMT Val allele and schizophrenia case status; their results did not support this relationship. The following year, a meta-analysis investigated the relationship between NRG1 with schizophrenia and found some support for an association. However, "firmly establishing the role of NRG1 gene in schizophrenia by genetic association requires much larger sample sizes than have hitherto been reported" (Munafo, Thiselton, Clark, & Flint, 2006).

A meta-analysis carried out by Chan, Xu, Heinrichs, Yu, & Gong (2010), of 11 independent studies, concluded there were large group differences in the prevalence of what they termed 'neurological soft signs' (NSS) between those diagnosed as having 'schizophrenia', their non-psychotic relatives, and 'healthy' controls. They further concluded their results to be "consistent with the argument that NSS are familial in nature, segregate with the illness and may be valid and useful endophenotypes" (p. 889).

In conclusion, Sanders et al. (2008) examined the theory of association, of schizophrenia, with common single nucleotide polymorphisms (SNPs), in 14 candidate genes (*RGS4*, *DISC1*, *DTNBPI*, *STX7*, *TAAR6*, *PPP3CC*, *NRG1*, *DRD2*, *HTR2A*, *DAOA*, *AKT1*, *CHRNA7*, *COMT*, and *ARVCF*). They concluded "it is unlikely that common SNPs

in these genes account for a substantial proportion of the genetic risk for schizophrenia, although small effects cannot be ruled out" (Sanders et al., 2008, p. 497).

Biochemistry.

The most influential biochemical explanation for the aetiology of psychosis is the 'dopamine hypothesis' (Matthysse, 1973) according to which schizophrenia is caused by an excess of dopamine or excess dopamine activity in the brain. This theory was based upon two observations: drugs initially used to treat psychosis, that is, neuroleptics, or 'major tranquillizers', were later found to be effective in blocking the dopamine system. Secondly, researchers found drugs that increase dopamine activity, such as amphetamines or L-DOPA, either cause or exacerbate psychosis (Read, 2004c).

Whilst early studies, which involved post-mortems on people diagnosed 'schizophrenic' found increased dopamine concentration in the brain it was concluded this could also be due to the use of neuroleptics, rather than being 'schizophrenic'. This theory was confirmed in later studies, which found 'schizophrenics' who had not used neuroleptics had 'normal' dopamine concentrations (Haracz, 1982). Consequently, "in spite of decades of extensive research, the causes and exact sites of the presumed dopamine-mediated hyperactivity remain elusive" (Gainetdinov, Mohn, & Caron, 2001, p. 527).

Neuroanatomical abnormalities.

Biological theories for the aetiology of psychosis have also posited that the structure of the brain has a causal role in the development of schizophrenia. The most prominent theory of this type implicates enlarged brain ventricles as being an important causal factor. This hypothesis is based upon the premise that the brains of 'schizophrenics' have enlarged ventricles compared to 'normals'. However, Copolov & Crook (2000, p. 109) reviewed over 90 computerized tomography studies and found "a

substantial overlap (approximately 60 percent) between the schizophrenic population and the control population". In addition, enlarged ventricles – one of the most cited neuroanatomical differences of schizophrenia, is also often found in other disorders, such as, depression and alcoholism (Copolov & Crook, 2000). Furthermore, as Laruelle (2000) conceded, although post-mortem and imaging studies found several differences in the neuroanatomy and function of schizophrenia brains, the primary nature of the pathological process which underlies this, remained elusive.

Neurodevelopmental.

More recently, neurodevelopmental theories for the aetiology of schizophrenia have implicated a neurological defect acquired early in life subtly affects neurodevelopment, which then manifests in adulthood in the form of schizophrenia (Bloom, 1993). Neurodevelopmental theories differ from previous neurological theories by proposing that the underlying biological defect is non-degenerative in nature. This is supported by studies, which have found that the brain abnormalities in early diagnosed 'schizophrenia' brains are comparable to the brain abnormalities of those with a longer history of schizophrenia (Jaskiw et al., 1994).

Drug Use.

The use of illicit drugs, specifically marijuana, has been causally implicated in the origins of psychosis. The predominant understanding of the relationship between marijuana use (and other illicit substances) and psychosis, is that the drug use acts as a trigger for an underlying vulnerability to psychosis. The most researched is the relationship between marijuana use and psychosis, which is now well recognized.

A recent review of 10 cohort studies, which investigated the causal relationship between marijuana use and psychosis found:

“Whilst the criteria for causal association between cannabis and psychosis are supported by the studies reviewed, the contentious issue of whether cannabis use can cause serious psychotic disorders that would not otherwise have occurred cannot be answered from the existing data” (McLaren, Silins, Hutchinsona, Matticka, & Hall, 2010,p. 10).

Biological Treatments.

Since the 1950s anti-psychotic medications have been the ‘first line of defence’ in the treatment of schizophrenia and the psychoses. Leucht et al.’s (1999) meta-analysis found a moderate difference in efficacy between atypical anti-psychotics and placebo, however Whitaker (2004) concluded:

“Although the standard of care in developed countries is to maintain schizophrenia patients on neuroleptics, this practice is not supported by the 50-year research record for the drugs. A critical review reveals that this paradigm of care worsens long-term outcomes, at least in the aggregate, and that 40% or more of all schizophrenia patients would fare better if they were not so medicated. Evidence-based care would require the selective use of anti-psychotics, based on two principles: (a) no immediate neuroleptisation of first-episode patients; (b) every patient stabilized on neuroleptics should be given an opportunity to gradually withdraw from them. This model would dramatically increase recovery rates and decrease the percentage of patients who become chronically ill” (p. 5).

Another biological treatment for psychosis is Electro-Convulsive Therapy (ECT). According to the American Psychiatric Association (APA, 2001) “schizophrenia and related conditions (schizophreniform and schizoaffective disorders) constitute the second most common diagnostic indications for ECT” (p. 85). However, Read and Bentall’s (2010) comprehensive review of the literature on the efficacy of ECT concluded that:

“Given the strong evidence of persistent and, for some, permanent brain dysfunction, primarily evidenced in the form of retrograde and anterograde

amnesia, and the evidence of a slight but significant increased risk of death, the cost-benefit analysis for ECT is so poor that its use cannot be scientifically justified” (p. 333).

Neuropsychology.

Neuropsychological theories for the aetiology of schizophrenia have connected biological and psychological factors. In other words, a brain-behaviour relationship has been proposed to account for the genesis of schizophrenia, which endeavours to identify the underlying biological or neurological impairments, as well as the associated deficits in cognitive functioning, such as information-processing and representation.

As a result of such theories many neuropsychological studies have recently been carried out in the field of schizophrenia. These have investigated a myriad of possible neuropsychological deficits. This field has only recently developed due to it previously being widely believed that ‘schizophrenia’ patients were not greatly affected by neuropsychological impairments, and if so, only as secondary to the symptoms of schizophrenia (Reichenberg & Harvey, 2007).

However, as Reichenberg and Harvey’s (2007) review concluded, there is now empirical evidence for, “the severity and profile of neuropsychological impairments in schizophrenia” (p. 833). Furthermore, following quantitative evaluation of the literature they found that:

“the most severe impairments are apparent in episodic memory and executive control processes...The neuropsychological impairments potentially represent genetic liability to the disorder, as similar, yet milder impairments are evident in schizophrenia patients even before the onset of psychotic symptoms, as well as in the non-psychotic relatives of schizophrenia patients” (Reichenberg & Harvey, 2007, p. 833).

Ventura, Thames, Wood, Guzik, & Helleman (2010) found that conceptual disorganization and bizarre behaviour was a distinct factor from the other positive symptoms of schizophrenia, that is, hallucinations and delusions. Due to inconsistent findings regarding whether disorganization or reality distortions were more strongly associated with neurocognitive impairments and poorer functional outcomes, Ventura et al. (2010) conducted a meta-analysis of 104 studies (n=8015) in order to investigate the magnitude of these relationships. They found the relationship between reality distortion and neurocognition to be weak ($r=-.04$, $p=.03$), and the relationship between disorganization and neurocognition to be moderate ($r=-.23$, $p<.01$).

Neuropsychology is also the focus for some researchers investigating a genetic predisposition or liability for schizophrenia. For example, the cortical mid-line structures (CMS) and insula are recognized as crucial for self-reflection, and “abnormalities in self-referential processing and its neural underpinnings have been reported in schizophrenia” (Modinos, Renken, Ormel & Aleman, 2011, p. 295). Modinos et al. (2011) “confirmed previous suggestions that this neuropsychological abnormality may be related to a vulnerability to psychosis” (p. 295).

Vulnerability-stress model.

The originators of the vulnerability-stress model proposed one may be made vulnerable to experiencing a mental health problem due to either a biological predisposition or from an acquired vulnerability, such as being exposed to psychosocial factors like trauma in early life (Zubin & Spring, 1977). According to this model, external stressors then trigger this underlying vulnerability, either innate or acquired (Zubin & Spring, 1977).

Traumagenic Neurodevelopmental Model.

Read, Perry, Moskowitz, & Connolly (2001) proposed what they have termed a 'Traumagenic Neurodevelopmental (TN) model of schizophrenia. One of the fundamental factors underlying this model is the similarities between the impact of experiencing severe trauma in early childhood on the developing brain and the neuroanatomical and other neurological abnormalities observed in individuals diagnosed with schizophrenia. These abnormalities include: "over-reactivity of the hypothalamic–pituitary–adrenal (HPA) axis; dopamine, norepinephrine, and serotonin abnormalities; and structural changes to the brain such as hippocampal damage, cerebral atrophy, ventricular enlargement, and reversed cerebral asymmetry" (p. 319).

Read et al. (2001) proposed and examined three possible hypotheses raised by the TN model. Firstly; "The neurological and biochemical abnormalities found in adult schizophrenia and cited as evidence of biogenetic aetiology are caused, in some schizophrenics, by child abuse via their long-lasting neurobiological effects" (p. 320). Secondly; "This is the case, specifically, for over-reactivity of the hypothalamic–pituitary–adrenal (HPA) axis, abnormalities in neurotransmitter systems, and structural brain changes, including hippocampal damage, cerebral atrophy, ventricular enlargement, and reversed structural cerebral asymmetry" (p. 320). And thirdly; "These trauma-induced neurobiological abnormalities may eventually contribute to our understanding of various aspects of schizophrenia, including over-sensitivity to stress, cognitive impairments, pathways to negative and positive symptoms, and the relationship between psychotic and dissociative symptomatology" (p. 320).

Read et al.'s (2001) model suggests we conduct methodologically sound research to explore whether severe traumatic experiences in early life may contribute, either separately or in combination with the effects of a genetic liability or perinatal factors

(Kunugi, Nanko, & Murray, 2001), towards the formation of a neurodevelopmental predisposition for 'schizophrenia'.

I will now turn to the growing body of evidence in support of psychological and psychosocial understandings and treatments for psychosis.

Psychological.

Psychological theories attempt to avoid pathologising and look to understandings of 'normal' human processes to explain abnormal behaviours, such as psychosis.

Consequently, there is a key difference in how psychosis is conceptualized within psychological models compared to biological. One such difference within psychology has been the preference to research and treat the subjective experiences of psychosis rather than a syndrome of putative symptoms (Liddle, 1987; Toomey, Faraone, Simpson, & Tsuang, 1998).

Cognitive model.

Recent cognitive theories are based upon four critical observations: firstly hallucinations vary across cultures in regards to rate, that is, are more common in developing versus developed countries (Jablensky et al., 1992), and are more valued in some cultures compared to others (Bourguignon, 1970). Secondly hallucinations occur more often during decreased or unpatterned periods of sensory stimulation (e.g., Gallagher, Dinan, & Baker, 1994). Thirdly, auditory hallucinations are related to subvocalization (e.g., Inouye & Shimizu, 1970). Lastly, when people who experience auditory hallucinations are busy with verbal activities e.g. reading, their voices are temporarily suppressed (e.g., Gallagher, Dinan, & Baker, 1995).

These observations suggest a relationship between hearing voices and inner speech, whereby those who hear voices are in fact miss-attributing their inner voice to an external source (Bentall, 2004). Studies have attempted to test this theory using source monitoring.

For example, in one study subjects spoke into a microphone then, after it had been electronically distorted, it was played back to them (Johns & McGuire, 1999; Johns et al., 2001). When asked whether or not the speech was their own participants who experienced hallucinations were more likely to say the voice belonged to another, especially if derogatory in nature. Waters et al.'s (2012) meta-analysis of studies from the last 30 years, found "consistent evidence for impaired self-recognition in schizophrenia, which was most pronounced in patients with auditory hallucinations" (p. 741). Furthermore, they concluded that the literature suggested "an association, which may be causal in nature, between this deficit and auditory hallucinatory experiences in schizophrenia" (Waters et al., 2012, p. 741).

Psychological research regarding delusions has studied the same processes that inform the formation of 'normal' beliefs and attitudes (Bentall, 2004). For example, an individual who has Capgras delusions may recognize a person intellectually but not emotionally, and the delusion develops to help explain this. Ellis et al. (2000) found people who experienced Capgras delusions do not have the same physiological reaction as 'normal' people when presented with a familiar face.

Other researchers have suggested experiencing delusions is caused by problems with probabilistic reasoning. For example, Garety, Hemsley, and Wessely (1991) and Huq, Garety, and Hemsley (1988) found individuals who experienced delusions were quicker at guessing on specific tasks and thus 'jumped to conclusions' more often than other individuals. Woodward et al. (2006) used the 'hindsight bias' or 'knew-it-all-along' (KIA) paradigm to investigate reports that people diagnosed with schizophrenia are disproportionately influenced by recently introduced information compared to previously acquired information. Their study found people with schizophrenia "displayed a KIA

effect that was significantly greater than in controls”, which they believe relates to the cognitive underpinnings of delusion formation (Woodward et al., 2006, p. 461).

Another line of research regarding delusions has investigated the content of a belief directly. Most people make an internal attribution for a positive event and an external attribution for a negative event. People who experienced paranoid delusions had an exaggerated version of this ‘self-serving bias’ compared to ‘normal’ people, for example, external-personal attributions for negative events such as ‘I lost my job because my boss hates me’ (e.g., Fear, Sharp, & Healy, 1996). There is also strong evidence that a person’s cognitive appraisal and coping style act as mediating effects in the causation of psychosis, especially following one’s first psychotic experience (Chadwick & Birchwood, 1994; Jackson & Birchwood, 2006; Morrison, 1998).

In more recent years, based upon the above findings, attempts have been made to develop comprehensive cognitive models of psychosis (Bentall, Corcoran, Howard, Blackwood, & Kinderman, 2001; Garety, Kuipers, Fowler, Freeman, & Bebbington, 2001; Morrison 1998a, 2001). Many have suggested it is the interpretation people give to their psychotic experiences rather than the experiences themselves that cause the distress (Morrison, 2004).

One example of a comprehensive psychological model of psychosis is that of Garety et al. (2001), which integrated the following factors into one coherent model: disturbances in automatic thought processes and dysfunctional conscious appraisals; delusions and hallucinations under one framework; emotion theorised as having a central function; social factors considered to have an aetiological role, as well as contributing to the maintenance and recurrence of psychotic experiences.

Garety et al. (2001) proposed two possible routes to the formation of delusions and hallucinations; one in the context of cognitive and emotional changes; and the other, in the

less common context of emotional disturbance alone. The disruption in automatic thought processes precipitated by a stressful experience may proceed in one of two ways. On the one hand, a stressful event could lead to deterioration of stored memories, as well as deterioration in the coherency or accessing, of such memories, in relation to an individual's current perceptions. This in turn could lead to confusion when interpreting unstructured sensory information, especially if simultaneously; an unintentional intrusion of information from memory came into consciousness.

Alternatively, a stressful event could lead to a disruption in self-monitoring ones' objectives and actions, which could in turn cause one to not recognise one's own objectives and actions, and thus experience them as being outside oneself. Most importantly, both of these conceptualisations of cognitive dysfunction emphasize that the disruption in cognitive functioning leads to irregular conscious experiences, such as sharpened perception, and thoughts appearing to come from outside of oneself. In other words they are either being broadcast or are experienced as hearing voices.

Changes in affect occur simultaneously, both as a direct response to the precipitating event as well as in response to the irregular experiences outlined above. These changes in affect then inform the moment-by-moment processing of the irregular experiences, and influence their content, for example, one may become anxious and depressed after losing one's job, as well as experience anxiety due to hearing voices, as a result one's voices may then become more malevolent; 'you are useless', 'you're never going to get another job now'.

Irregular experiences being both confusing and related to changes in affect, as well as seeming personally significant, then leads to one looking for an explanation to their origins. It is here that maladaptive conscious appraisal processes are critical such as those outlined above, that is, jumping to conclusions, externalising and personal attribution

biases, along with difficulties in both understanding social situations and theory of mind (Garety et al., 2001).

In addition it is likely these dysfunctional cognitive appraisals are exacerbated by negative affect. Furthermore, experiencing traumatic and adverse events in early life, which arguably lead to the development of enduring maladaptive schemas, also facilitate such attributions, as well as low self-esteem. Birchwood, Meaden, Trower, Gilbert, & Plaistow, (2000) proposed that experiencing traumatic and adverse events in early childhood lead to the development of core beliefs around social humiliation and subordination, which then fuel auditory hallucinations and paranoid delusions.

Garety et al. (2001) argued that being able to dismiss these dysfunctional externalising attributions acts as a protective factor, and prevents these irregular experiences developing into full-blown psychosis. In other words, it is possible to have what may be classified a psychotic experience without becoming clinically unwell. Garety et al. (2001) also argued that in a lesser number of cases the precipitating event leads only to a disturbance in emotion, which then directly activates biased attributions and maladaptive schemas, and in turn dysfunctional externalising attributions, that is, delusions, which occur independently of other positive symptoms.

Garety et al. (2001) hypothesised the factors that could maintain such psychotic appraisals. These included: (1) 'Reasoning processes' such as 'jumping to conclusions' bias, externalising attribution bias, difficulties with both understanding social situations and theory of mind. These reasoning processes may be perpetuated by social isolation. In addition, belief inflexibility and the 'normal' belief confirmation bias may have roles in maintaining one's psychotic beliefs. (2) 'Dysfunctional schemas and adverse social environments', i.e., psychotic thoughts may be more resistant to change if they are consistent with one's dysfunctional schemas, and in turn may confirm one's dysfunctional

schemas. (3) 'Emotion (e.g., anxiety, depression, anger, mania) and cognitive processes associated with emotion' such as information processing biases will substantiate and maintain psychotic beliefs, safety behaviours will prevent opportunities to experience disconfirming evidence, and meta-cognitive beliefs, e.g., 'my thoughts are uncontrollable'. (4) 'The secondary appraisal', that is, how one appraises the actual experience of psychosis, for example, if it is seen as stigmatising this may lead to depression and in turn exacerbate and maintain psychotic experiences. Garety et al. (2001) theorised that:

"CBT acts directly on psychological processes (this is after all its aim). In particular, it is most effective in treating psychosis when the key appraisal, of inner mental disturbance as externally caused, is reappraised as inner. In traditional terminology, 'good insight' is developed. This new schema is incompatible with its psychotic predecessor. Both symptoms and the risk of relapse are thereby reduced" (p. 192).

Cognitive/ Cognitive-Behavioural Therapy.

Cognitive therapy (CT) for psychosis follows the same principles as originally put forward by Beck for depression (Beck, 1976, cited in Beck, 1995). The process of CT for psychosis is the same as most evidence-based psychological therapy. It begins with an assessment, followed by collaboratively identifying problems and goals, then collaboratively establishing a shared psychological formulation, which guides and informs treatment. Interventions are then evaluated, which may result in needing to make adjustments to the formulation and, in turn, to treatment interventions. Towards the end of therapy, relapse prevention is carried out, in order to consolidate and maintain what has been gained (Morrison, 2004). Morrison (2004) argued:

"CT for psychosis focuses on generating less distressing explanations for psychotic experiences, rather than attempting to eliminate these experiences.

Indeed, CT should recognize that psychotic experiences may well serve a function for the person” (p. 292).

There is a growing body of research, including several meta-analytic reviews, which have demonstrated the efficacy of CT or Cognitive-Behavioural Therapy (CBT) for psychosis. An initial Cochrane Review questioned the efficacy of CBT for schizophrenia, compared to other treatments (Jones, Cormac, Silveira da Mota Neto, & Campbell, 1998), as did their more recent update, which included new clinical trials (Cormac, Jones, Campbell, & Silveira da Mota Neto, 2003). However, the initial Cochrane Review was based upon only 4 small clinical trials, and according to Gaudiano (2005) the updated meta-analysis included “interventions that could only loosely be classified as formal CBT” (p. 39).

In contrast, Rector and Becks (2001) meta-analysis of 7 randomised control trials and calculated effect-size estimates comparing CBT to a control condition, found large effects for CBT on positive and negative symptom measures of schizophrenia. They also found CBT had further benefits compared to routine treatment and supportive psychotherapy. Similarly, Gould, Mueser, Bolton, Mays, and Goff's (2001) meta-analysis of 7 clinical trials found large effect size changes, and follow-up analyses indicated that those receiving CBT continued to improve post-treatment. Another meta-analysis which analysed 14 CBT trials for schizophrenia also demonstrated the efficacy of CBT interventions for schizophrenia (Pilling et al., 2002).

Lastly, Wykes, Steel, Everitt, and Tarrrier's (2008) meta-analysis explored the effect sizes of 34 CBT trials including targeted and non-targeted symptoms, and found: “As in other meta-analyses, CBT had beneficial effect on positive symptoms. But perhaps more interesting is that this meta-analysis shows that CBT may have an effect on other

outcomes even if these were not the specific targets of the therapy”, including; negative symptoms, functioning, mood, and social anxiety” (p. 533).

Psychodynamic.

Psychodynamic or psychoanalytic explanations for the aetiology of psychosis, originated from Freud's model of the human psyche. Freud's model theorised that the 'self' is comprised of three distinct parts; the ego, id, and superego, and these then develop over time in response to a range of processes. One process that Freud paid particular attention to, was the role of 'defences'; these arise and progress in response to inner conflicts. Consequently, Freud basically understood psychological problems as a manifestation of conflicts caused by life experiences. More recent psychoanalysts have proposed various theories, to account for psychosis, adapted from Freud's earlier work, for example Karon and VandenBos (1981) suggested that the symptoms of schizophrenia are often expressions of "defences against chronic terror". Karon (1989) later proposed that paranoid delusions were (1) transferences to the world at large, (2) defences against the fear of pseudo-homosexuality (Freud, 1911), (3) family-unique meanings of concepts (Lidz, 1973), or (4) attempts to make organized sense out of one's self and world, despite unusual experiences. In addition, studies using the Thematic Apperception Test (TAT) have consistently found most parents of people diagnosed with schizophrenia had unconscious defences, of the kind which made it harder for their offspring to deal with (Karon & Widener, 1994).

Rosenfeld (1987) on the other hand, theorised that people suffering in the acute stages of schizophrenia, is caused by such individuals putting themselves so absolutely into objects that they lose themselves. This then leads to the disruption of ego functions, and specifically the ability to relate with others. Rosenfeld (1987) therefore proposed that if the analyst is able to carefully and correctly offer verbal interpretations for the patient's

behaviour and projections, as well as verbalise the patient's need to disclose these experiences, the level of violence in the patient's projections will slowly diminish, and a less fragmented ego will emerge.

Psychodynamic Therapy.

Karon and VandenBos, (1981) conducted outcome research which compared "chronic (but not medicated) inner-city schizophrenic patients" who were randomly assigned to one of three treatment groups: (1) psychoanalytic therapy with an average of 70 sessions, (2) combined psychoanalytic therapy and antipsychotic drugs, (3) support with medication. They found psychoanalytic therapy alone had the greatest efficacy followed by psychoanalytic therapy with medication, with the greatest improvement with psychotherapy compared to medication being with thought disorder (Karon & VandenBos, 1981).

Although, most outcome research has found little evidence for the efficacy of psychodynamic therapy in the treatment of psychosis, clients and their families have consistently reported psychotherapy to be one of the most respected interventions provided by clinicians (Gottdiener, 2004). Malmberg & Fenton's (2001) meta-analysis (of only four randomised clinical trials) concluded there was no evidence for the efficacy for psychodynamic therapy for people hospitalized with schizophrenia. However, Gottdiener & Haslam's (2002) meta-analysis of 37 studies found the opposite. Gottdiener (2004) concluded that when "the empirical literature is examined broadly; the data support the efficacy of individual psychotherapy for people diagnosed with schizophrenia" (p. 308).

Psychosocial.

There is a growing body of evidence that strongly supports psychosocial causes and in turn interventions for psychosis and 'schizophrenia'. In particular, the relationship between adverse life events (especially childhood abuse) and experiencing psychosis is

well documented (Hammersley & Fox, 2006; Jackson & Birchwood, 2006; Read, Goodman, Morrison, Ross & Aderhold, 2004a; Romme & Escher, 2006; Shevlin, Dorahy & Adamson, 2007). Other psychosocial factors have also been recognised as playing a role in the causation of psychosis, such as social deprivation, ethnicity and gender (Read, 2004e), as well as the family context and communication patterns (Read, Seymour & Mosher, 2004c).

Adverse life events.

Despite numerous studies having demonstrated the relationship between adverse life events, and in particular childhood abuse, with the experience of psychosis, as well as such events having an aetiological role in the origins of one's psychotic experiences, such theories still remain contentious. For example, Spataro, Mullen, Burgess, Wells, and Moss's (2004) large scale study concluded their results "do not support an association between child sexual abuse and psychosis". On the other hand other researchers have found that:

"Child abuse is related to severity of psychological disturbance however you measure it. Psychiatric patients subjected to child sexual abuse or child physical abuse have earlier first admissions and longer and more frequent hospitalizations, spend longer in seclusion, receive more medication, are more likely to self-mutilate, and have greater global symptom severity" (Read, Goodman, Morrison, Ross, & Aderhold, 2004a, p. 223)

Interestingly, several years after Spataro et al. (2004) concluded that their results "do not support an association between child sexual abuse and psychosis", they later found that, "child sexual abuse is a substantial risk factor for a range of mental disorders in both childhood and adulthood" (Cutajar et al., 2010, p. 813). Cutajar et al.'s (2010) study extended Spataro et al.'s (2004) study, and was based upon a much larger sample (n= 2759), that were followed for 43 years:

“Perhaps most importantly, this study adopts a case control methodology whereby rates of disorders in both cases and controls were established using identical methodologies” (p. 815).

Read et al.'s (2004a) review of psychiatric inpatient and outpatient studies found 69% of female psychiatric patients and 60% of male psychiatric patients, suffer either sexual or physical abuse as children. Holowka, King, Saheb, Pukall, & Brunet (2003) found, in a study of adult outpatients diagnosed with schizophrenia, that 35% reported being emotionally abused as children, 42% reported being physically neglected, and 73% being emotionally neglected.

People diagnosed with schizophrenia who had a history of childhood sexual or physical abuse, were more likely than others diagnosed with schizophrenia that did not have such a history, to experience auditory hallucinations commenting, and visual hallucinations (Ross, Anderson, & Clark, 1994). Read & Argyle's (1999) inpatient study found: 53% of those who had been sexually abused as children, experienced auditory hallucinations of some kind; 58% of those who had been physically abused as children also did; as did 71% of those who had been both sexually and physically abused. Similarly, Hammersley et al.'s (2003) study of adults diagnosed with bipolar affective disorder found those who had been sexually abused as children were twice as likely to hear voices, and six times more likely to hear voices commenting. Child abuse has also been found to affect the actual content of psychotic experiences. Ensink (1992) found individuals who had been subjected to childhood sexual abuse experienced hallucinations, which contained “flash-back elements and more symbolic representations of traumatic experiences”; for example, one person experienced visual hallucinations in which she/ he saw sperm in their food and drink.

Read, Agar, Argyle, & Aderhold (2003) did not find as strong a relationship (i.e., not statistically significant) between child abuse and delusions; 40% of the 200 outpatients who had been sexually abused during childhood experienced some form of delusion compared to 27% of those who had not been abused. In addition, 40% of those who had been sexually abused during childhood also reported experiencing paranoid delusions, which was significantly higher than the 23% of those who had not been abused (Read et al., 2003).

Whilst most studies exploring the relationship between childhood trauma and psychosis are correlational, and therefore do not prove causation, studies such as Mullen, Martin, Anderson, Romans, and Herbison (1993), found females who had been subjected to childhood sexual abuse, including penetration, were 12 times more likely to have been hospitalized, than those who had not been abused, even after controlling for possible mediating factors. Furthermore, some studies have employed more robust methodologies, such as prospective or longitudinal studies, in order to explore the relationship between childhood trauma and psychosis. For example, Janssen et al. (2004) investigated whether or not people from the general population (n= 4045) who had a history of child abuse, were at a greater risk of then having psychotic experiences, which may be described as the positive symptoms of 'schizophrenia'. Janssen et al. (2004) found that a history of "childhood abuse predicted development of positive psychotic symptoms associated with need for care" (p. 38). Furthermore, the relationship between childhood abuse and experiencing psychosis remained even after accounting for: demographic variables; other risk factors; and a history of a psychiatric diagnosis at baseline. Janssen et al. (2004) claimed:

"Results suggest that early childhood trauma increases the risk for positive psychotic symptoms. This finding fits well with recent models that suggest that

early adversities may lead to psychological and biological changes that increase psychosis vulnerability” (p. 38).

This was substantiated by Bak et al. (2005) who investigated whether being exposed to childhood trauma increased the risk of maladaptive responses to irregular psychotic experiences, and in turn led to the development of positive symptoms of psychosis (i.e. similar to the process outlined by Garety et al., 2001). Bak et al. (2005) carried out a ‘three-wave longitudinal general population study’ (n= 4045), some of whom had a history of childhood abuse, and some who did not, but at baseline none had a history of psychosis. The individuals were then interviewed 3 years later to assess whether or not they had had any psychotic experiences. Of the 4045 people, 36 individuals reported ‘incident psychosis’ 3 years later, with 50 separate observations of psychotic incidents, Bak et al. (2005) found in the 16 observed incidents in which there was no reported distress associated to the psychotic experience, only 6% (n=1) had a history of childhood abuse. Whereas in the 21 observed incidents, in which there was reported distress associated to the psychotic experience; 46% (n=9) had a history of childhood abuse. In addition, their ability to cope in the context of childhood trauma was associated with a perception of less control over the experience. Consequently Bak et al. (2005) concluded:

“Early experience of trauma may create lasting cognitive and affective vulnerabilities to develop clinical symptoms arising out of early, non-clinical psychotic experiences” (p. 360)

Re-traumatization has also been found to be a factor, in whether or not, survivors of childhood abuse, experience psychosis in adulthood. Read et al. (2003) explored the relationship between childhood abuse and abuse in adulthood, as predictors of psychotic symptoms, and found that childhood abuse, with no further re-traumatization, predicted hearing voices commenting, and tactile hallucinations. In contrast, childhood abuse,

followed by further abuse in adulthood, predicted hallucinations and delusions, as well as thought disorder and grandiose delusions (Read et al., 2003).

In summary, a recent meta-analysis of 18 case-control studies (n= 2048 psychotic patients and 1856 non-psychiatric controls), 10 prospective and quasi-prospective studies (n= 41 803), and 8 population-based cross-sectional studies (n= 35 546) found:

“There were significant associations between adversity and psychosis across all research designs, with an overall effect of OR= 2.78 (95% CI= 2.34–3.31). The integration of the case-control studies indicated that patients with psychosis were 2.72 times more likely to have been exposed to childhood adversity than controls (95% CI= 1.90–3.88). These findings indicate that childhood adversity is strongly associated with increased risk for psychosis” (Varese et al., 2012, p. 661).

Lastly, the loss of a parent in childhood can contribute to extreme psychological distress. For example, Friedman et al. (2002) found in an outpatient study loss of a mother significantly higher (55%) in those diagnosed with schizophrenia compared to other diagnoses (23%). In fact grief in general has been found to be associated to the predisposition for hearing voices in young people (Morrison & Peterson, 2003). In a study of over 1000 people, individuals who at the age of 3 had attachment relations described as ‘harshness towards the child; no effort to help the child’ were significantly more likely than others to have a diagnosis of schizophreniform disorder at the age of 26 (Cannon et al., 2002). In another study of 5362 children, individuals who had mothers described as having ‘poor parenting skills’ at the age of 4 were significantly more likely to be diagnosed with schizophrenia in adulthood than others (Jones, Rodgers, Murray, & Marmot, 1994).

Trauma Therapy.

Briere (2002) put forward an integrated approach for working with adult survivors of severe childhood abuse. His treatment approach is based upon the ‘self-trauma model’,

and incorporates trauma theory primarily with cognitive-behavioural theory but also aspects of psychodynamic and self-psychology (Briere, 2002). However, this model was specifically developed for survivors of childhood abuse (this often includes people with a diagnosis of Post Traumatic Stress Disorder; PTSD), not people living with or experiencing psychosis. This does not mean that Briere's 'self-trauma model', or aspects of it, are not suitable for people experiencing psychosis, merely that its efficacy with this population has not been studied. In Morrison's words; "The development of trauma-based interventions for people with psychosis is in its infancy" (Morrison, 2004, p. 303-304; e.g., Morrison, Frame, & Larkin, 2003).

In recent years, some have begun to theorise specific therapeutic models for working with people who have experienced psychosis, and who also have a trauma history. For example, Callcott & Turkington (2006) described a cognitive-behavioural therapy for working with what they call 'traumatic psychosis'. Larkin & Morrison (2006) also outlined a therapeutic model for working with this clinical population.

Social deprivation.

Faris & Dunham (1939) found those who lived in the poorest areas of Chicago, compared to those who lived in the most affluent areas, were seven times more likely to be diagnosed 'schizophrenic'. These findings, that is, the relationship between poverty and the diagnosis of 'schizophrenia' was replicated in nine other American cities (Clark, 1949). The New Haven study (Hollingshead & Redlich, 1958) determined class by education and profession, and found the poorest group, that is, 'unskilled, manual' eight times more likely than the wealthiest, that is, 'business, professional and managerial' to be diagnosed 'schizophrenic'. According to Kohn's (1976) review:

"There have been more than 50 studies of the relationship between social class and rates of schizophrenia. Almost without exception, these studies have shown

that schizophrenia occurs most frequently at the lowest social class levels of urban society” (p. 177).

Strauss, Kokes, Ritzler, Harder, & VanOrd (1978) research on first admissions in New York found the poorest class was 12 times more likely to be admitted into a psychiatric institution than the wealthiest class. Rushing & Ortega's (1979) research on first admissions in Tennessee also found that of all the mental disorders; 'schizophrenia' had the strongest inverse relationship to socio-economic status. Harrison, Gunnell, Glazebrook, Page, & Kwiecinski's (2001) study found underprivileged British children were eight times more likely to be diagnosed as 'schizophrenic' in adulthood than privileged children.

More recent research has focussed more on 'urban living' rather than 'class'. For example, the van Os, Hanssen, Bijl, & Vollebergh (2001) general population study found "the prevalence of abnormal mental states that facilitate development to overt psychotic illness increase progressively with level of urbanisation" (p. 663).

Poverty seems to also influence treatment, for example, a survey of almost 900 000 children and youths in the United States, found those whose families met criteria for Medicaid, that is, poor families, were 5.8 times more likely to be prescribed antipsychotic medications compared to youths, whose families could afford private health insurance (Zito et al., 2003). Furthermore, Bindman, Tighe, Thornicroft, & Leese (2002) found poverty was still the 'strongest and most consistent predictor' of compulsory psychiatric admission.

Ethnicity.

It has been found 'ethnic minorities' are significantly more likely to be diagnosed with schizophrenia compared to the dominant culture. For example, in New Zealand, Maori admitted to a psychiatric inpatient service, are twice as likely to be diagnosed with

schizophrenia compared to Europeans (Te Puni Kokiri, 1993). In the United States Strakowski, Shelton, and Kolbrener (1993) found when African Americans are hospitalised for the first time for psychosis they are seven times more likely to be diagnosed with schizophrenia than White Americans.

These differences may be partially attributed to racism, for example, Karlsen & Nazroo (2002) found ethnic minorities who thought their boss was racist were 1.6 times more likely to experience psychotic symptoms than their counterparts who did not believe their boss was racist. Furthermore, ethnic minorities who were subjected to racist verbal abuse during the previous year were 2.9 times more likely than others to experience psychotic symptoms, and those who were victims of a racist assault were 4.8 times more likely. Similarly Janssen et al. (2003) surveyed 4067 Dutch people 3 years after they had initially been surveyed, at which time they had been found symptom free of psychosis. Those who had experienced discrimination in the intervening time, in at least two domains, were three times more likely to be experiencing psychotic hallucinations, and five times more likely to be experiencing psychotic delusions, than those who had not.

On the other hand, diagnostic bias may play a role. Strakowski et al. (1993, 1995) found Black patients were more likely to be diagnosed with schizophrenia than White patients even when there were no differences in their presentation or co-morbid diagnoses. In turn ethnic minorities are more likely to be 'treated' differently compared to others from the dominant culture. For example, Read et al. (2003) found in a NZ study of 200 psychiatric outpatients non-European (predominantly Maori and Pacific Islanders) men were three times more likely than European men to have been treated forcibly, that is, received compulsory treatment, under the Mental Health Act.

In a more recent study Morgan et al. (2009) investigated "the prevalence and social correlates of psychotic-like experiences in a general population sample of Black and White

British subjects” (p. 226). Psychotic like experiences were more common in the Black Caribbean and Black African subjects compared to the White. Furthermore, Morgan et al. (2009) found the higher rate of psychotic like experiences in the Black Caribbean group was due to “high levels of social disadvantage over the life course” (p. 226).

Gender.

The most recognized gender difference for the diagnosis of schizophrenia was the age of onset. With men it generally occurs between the ages of 18 and 25, and with women between the ages of 25 and 30 (e.g. Castle, 2000, Goldstein & Lewine, 2000). Once in their thirties, the rates of new cases of schizophrenia are similar for both men and women, however once over the age of 40, women are twice as likely to be diagnosed with schizophrenia, and then once over the age of 60 four times as likely compared to men (Castle, 2000).

Men and women diagnosed with schizophrenia also tend to have different symptomatology, Goldstein & Lewine (2000) found the most replicated difference between men and women is that negative symptoms of psychosis are more common in men, and affective symptoms are more common in women. In addition, women are also more likely to experience depression, as well as express their emotions, often with explosive outbursts, and men often have more cognitive deficits (Read, 2004e). Women also “experience more auditory hallucinations, paranoia and persecutory delusions, while men have more grandiose delusions and ideas of reference” (Read, 2004e, p. 179). Lastly, women’s delusions often involve spiritual matters and interpersonal wrongs (Goldstein & Lewine, 2000), whereas men often experience symptoms related to drug or alcohol abuse (Seeman & Fitzgerald, 2000).

There are also differences between men and women in course and outcome, that is, women’s symptoms often remit faster than men's’, they generally respond better to

antipsychotics than men (Salem & Kring, 1998), and women generally have less and briefer hospital admissions than men (Angermeyer et al., 1989). Furthermore men have more neuroanatomical abnormalities than women, specifically larger ventricles and less hippocampus volume (Salem & Kring, 1998).

Family context and communication patterns.

Theories emphasizing the role of family, such as, systemic family theory, in the aetiology of psychosis and 'schizophrenia' were most prominent in the 1950s and 1960s. Gregory Bateson (Bateson, Jackson, Haley, & Weakland, 1956; Bateson, 1962) was a pioneer in the development of such theories, and argued that 'schizophrenia' was caused by an individual being raised within a particular family context, with a specific communication style. This communication style involves, a child being consistently subjected, to what Bateson termed, a 'double bind' situation, which renders the person vulnerable to experiencing psychosis. 'Double bind' communication works on at least two levels, and consists of conflicting information or directions, making it impossible for a person, to meet what is asked of them. Repeated exposure to such communication patterns leads to difficulties understanding the communications and motivations of others, then subsequent problems with metacommunication skills in regards to, understanding one's own behaviours, as well as others, which in turn causes the various behaviours and experiences characterized by 'schizophrenia'.

Although family theories became synonymous with the notion of 'family-blaming', and thus lost popularity, they still have an influence today, as demonstrated in their influence on current clinical practice, which emphasizes the role of communication styles within families, and as found in the literature on communication deviance and expressed emotion.

For several decades now research relating to families and schizophrenia has primarily focussed on the relationship between 'expressed emotion' and relapse. There are three aspects to expressed emotion (EE): 'hostility' component which assesses global criticisms and rejection; 'criticism' component which assesses negative comments about what the 'patient' does, thinks or feels; and the 'emotional over-involvement' component which assesses over-protectiveness, intrusiveness, emotional display, excessive praise, self-sacrifice and preoccupation (Vaughn & Leff, 1976). Kavanagh (1992) carried out a review of 23 studies that looked at the relationship between EE and relapse over 9 or 12 months, and found in 20 of these studies, 'patients' from high EE families had higher relapse rates, compared to those from low EE families. Two other studies found similar differences at 5 years and one other study found similar differences at 8 years (Weardon et al., 2000). Programs aimed at reducing parental criticism, hostility and emotional over-involvement decrease relapse rates, as demonstrated by Kavanagh's (1992) review of six studies that investigated the efficacy of medication versus the efficacy of EE-targeted interventions. Kavanagh (1992) found that normal treatment, that is, antipsychotic drugs, led to 71% experiencing relapse at 24 months, compared to 33% who received an EE-targeted intervention.

The UCLA Family Project (a 15 year prospective study) has also provided convincing evidence that EE precedes and may predict 'schizophrenia' (Doane, Falloon, Goldstein, & Mintz, 1985; Goldstein, 1987). The parents of 64 adolescents who were 'troubled' but symptom free (of psychosis) both currently and historically were assessed for EE. Fifteen years later, of those whose parents were assessed to have low EE only 6% had a diagnosis of 'broad-spectrum' schizophrenia, and 0% had neither diagnoses of 'narrow-spectrum' schizophrenia nor definite schizophrenia. In contrast, of those who had one parent assessed to have high EE 37.5% had a diagnosis of 'broad-spectrum', 12.5%

'narrow-spectrum', and 0% definite schizophrenia. And of those who had both of their parents assessed to have high EE 73% had a 'broad-spectrum' diagnosis, 45% a 'narrow-spectrum' diagnosis, and 36% a definite diagnosis of schizophrenia (Goldstein, 1987).

In addition, of those adolescents whose parents had 'negative' Affective Style (AS) 56% had 'schizophrenic spectrum' diagnoses compared to 4% whose parents had 'benign' AS (Goldstein, 1987).

Communication deviance (CD), which "measures the tendency to speak in a way that makes shared meaning difficult or impossible by failing to establish a shared focus" (Read et al., 2004c, p. 257) was also assessed. At the 15 year follow-up, of those whose parental CD was low, 9% had 'broader-spectrum' schizophrenia diagnoses, compared to 26% whose parents had intermediate CD, and 50% whose parents had high CD (Goldstein, 1987).

With de-institutionalization and many 'patients' returning home with their only ongoing treatment being medication, an unfortunate phenomenon developed; relapse every one or two years, and subsequent readmissions, and thus a 'revolving door'. This led to resurgence in psychosocial interventions, including the family therapies (Aderhold & Gottwalz 2004).

The initial resurgence in family work concentrated on relapse prevention through providing families with psycho-education packages that explicitly avoid any notion of 'family-blaming'. As a result of this specific denial, of families having any causative role, in a family member experiencing psychosis, "techniques of the 'traditional' (e.g., strategic or systemic) family therapies are therefore not applied" (Aderhold & Gottwalz 2004, p. 337). The more commonly used psycho-educational packages are comprised of two key components. The first involves 'educating' families about 'schizophrenia' according to the vulnerability-stress model, with an emphasis on the vulnerability being biological. The

second component involves skills training, which targets “communication, problem solving, stress management and crisis intervention”, in an effort to reduce high EE (Aderhold & Gottwalz 2004, p. 337). Conversely, Aderhold and Gottwalz (2004) argue:

“An open and honest dialogue about the guilt question, which will be different for different families, seems to be a better approach. The focus should be on the acceptance of responsibility, grieving and forgiveness” (p. 339).

Psychoanalytic family therapy focuses on family-conflicts. For example, in some families there may be conflict in regards to negotiating autonomy-dependence (Schwarz, 2000). Psychoanalytic family therapy also involves working on any diffuse and unclear patterns of communication in order to make communication within the family more transparent and clear (Aderhold & Gottwalz, 2004). Systemic family therapy has also begun, to be used again when working with families, who have a member diagnosed with ‘schizophrenia’.

“The essential goal of this treatment is the softening of the hardened and incompatible positions of the individual family members. Helping families learn new ways to manage conflict between members is crucial” (Aderhold & Gottwalz 2004, p. 340).

Some family therapists may work using a combination of the psychoanalytic and systemic family therapy models (Aderhold & Gottwalz, 2004). In addition, Burbach and Stanbridge (2006) in England, developed another form of family therapy for psychosis that involves a unique ‘cognitive interactional’ approach, in conjunction with a distinct collaborative therapeutic alliance. Burbach and Stanbridge’s (2006) family therapy model has provided further support for the efficacy of family interventions in the treatment of psychosis.

Early Interventions.

It is important to acknowledge the efficacy of early interventions in the treatment of psychosis (Johannessen, 2004). Early interventions are based on “the belief that psychotic disorders are dynamic, psychobiosocial, reversible processes, where the psychotic breakdown is only one stage in the illness process, which can be prevented, delayed modified and reversed” (Johannessen, 2004, p. 319). Johannessen (2004) believes there are three possible levels of prevention: primary prevention is during the premorbid stage and before prodromal stage, and thus is about decreasing the incidence of psychosis. Secondary prevention is during the prodromal and psychotic episode stages, and is therefore about reducing its prevalence. Whereas, tertiary prevention is during remission and before relapse, and thus about reducing the morbidity of psychosis, in other words improving prognosis (Johannessen, 2004). It is during tertiary prevention that most early psychosis intervention (EPI) services work. This work generally involves structured long-term treatment including psychosocial interventions involving family therapy, as well as individual psychotherapy, pharmacotherapy, and relapse prevention (Johannessen, 2004).

The Buckingham Study, which was carried out in England between 1984 and 1988, was groundbreaking in its demonstration, that early intervention in the prodromal stage can be highly beneficial (Falloon 1992). It involved training general practitioners (GPs) in the identification of the early signs of psychosis using the Diagnostic and Statistical Manual for Mental Disorders 3rd edition revised (DSM-III-R) prodromal signs. If a person was found to exhibit these signs they were then given immediate access to specialized services within the same building. These services involved:

“Comprehensive treatment, including assertive crisis treatment, carer-based stress management, cognitive-behavioural strategies, psycho-education and targeted

minimal dose medication". Whilst following this model "the expected annual incidence of schizophrenia was reduced ten-fold" (Johannessen 2004, p. 323).

In contrast, intervention in the psychotic phase occurs once a person is already experiencing psychosis and as soon as he or she comes to the notice of services. Consequently, there is a period known as the 'duration of untreated psychosis' (DUP), which has unfortunately been found to average 1-2 years (Johannessen 2001a). The early Treatment and Intervention in Psychosis (TIPS) project in Norway and Denmark investigated whether it was possible to develop an 'effective early detection system' (ED) based on providing the general population with information and providing simpler access to mental health services. In Rogaland county, Norway (the ED area) the average DUP decreased from 114 weeks to 26 weeks, in addition it seemed the symptoms were less when the 'patients' presented, and the method of referral was also significantly different, that is, 50% of referrals came from families and friends, as well as schools, rather than just GPs (Johannessen et al 2001; Larsen et al., 2001).

In a very recent study Morrison et al. (2012) investigated the efficacy of cognitive therapy, in preventing, either the worsening, or development of psychotic symptoms, in 'help seeking', but at risk young people. They found CT and monitoring combined, did not significantly decrease transition to psychosis, or distress related to the psychotic experience, however it did reduce the severity of psychotic symptomatology, in young people at high risk. New Zealand has developed a number of early psychosis intervention services (Edwards & McGorry, 2002; Turner, Nightingale, Mulder, & Maginness, 2002) based upon 'Integrated Mental Health Care', and a 'ground-breaking treatment program' in Melbourne.

Spiritual.

The modern age has witnessed a dichotomy, in the West, between spirituality and psychosis:

“In contemporary Western society, anomalous experiences such as seeing visions and hearing voices, while known to occur during intense spiritual experiences, are often viewed as symptoms of a psychotic disorder. People in the midst of such experiences have difficulty obtaining support from either the healthcare system or religion...When religion or spirituality are discussed in the same sentence as the words ‘schizophrenia’ or ‘psychosis’ in the mainstream mental health literature, it typically is in regard to symptomatology and aetiology of the disease (Phillips, Lukoff, & Stone, 2009, p.2).

Nevertheless, a small number of researchers and clinicians have theorized the aetiology of psychotic experiences within a spiritual paradigm. Contemporary spiritual theories for the aetiology of psychosis originated from Carl Jung (1995), perhaps due to his own personal experiences of psychosis. Jung (1936) who was strongly influenced by Eastern philosophies theorized that psychotic experiences were due to a fragmentation of the consciousness, in response to not recognizing the important effects of the spiritual realm on one's psyche. There has also been a recent return to spiritual understandings of psychosis, mainly with transpersonal psychologists, who have conceptualized psychosis, as a “natural developmental process with both spiritual and psychological components” (Phillips et al., 2009, p. 3). Transpersonal psychologists, Grof and Grof (1989) suggested that some instances of psychosis are in fact ‘spiritual emergencies’ in which, strong emotions, ‘abnormal’ thoughts and behaviours, and atypical perceptual experiences have resulted. Grof and Grof (1989) emphasized the use of psychological and spiritual methods in the treatment of ‘spiritual emergencies’. For example, Kornfield (1989) recommended the use of mindfulness, a practice based upon Eastern philosophies that encourages one, to be mindful of one's experiences, without fully identifying with the pain of them. This may

be achieved through techniques such as, grounding oneself, which involves turning one's attention away from the painful experience, to concentrating on one's breathing or surrounding environment, in the here and now.

Lukoff (2005) went further and proposed specific criteria for a differential diagnosis of what he termed a 'visionary spiritual experience' (VSE) from a psychotic disorder. A VSE is characterized by 'ecstatic' mood, a feeling of enlightenment, and delusions of newly gained knowledge, and delusions of a spiritual nature. Furthermore, unlike psychotic disorders, "VSEs have good pre-episode functioning, acute onset of symptoms during a period of three months or less, a stressful precipitant to the psychotic episode, and a positive, exploratory attitude toward the experience" (p. 242). There must also be no significant risk of harm to self or others for it to be a VSE. In turn, he suggested specific interventions for 'spiritual emergencies', including: normalizing such experiences; understanding the psychotic experience as positive and helpful; clarifying for the client that it is not a mental illness. Furthermore, a clinician practicing from this perspective should act as a 'therapeutic container'; in other words, demonstrate "empathy and appreciation for the process of the 'spiritual emergency' in order to prevent its stifling", as well as facilitate the client in finding the meaning from the experience (Phillips et al., 2009, p. 8).

Other spiritual theories have implicated: 'psychic sensitivity' in the aetiology of auditory hallucinations (de Bruijn, 1993). Alternatively Elferrich (1993) observed that in some instances the experience of hearing voices may be related to a near-death experience, and is perhaps evidence of a merge in the consciousness of the living and the dead. Lastly, Bosgo (1993) suggested such experiences could be due to an unawareness of one's own natural parapsychological abilities, or what may be termed telepathy.

Cultural Understandings

Across the world it has been found that people from ethnic minority groups compared to the dominant ethnic group are more at risk of being diagnosed with 'schizophrenia' (e.g., Feinstein & Holloway, 2002 in the United States, and Te Puni Kokiri, 1993 in New Zealand). In many studies it has also been found that ethnic minorities are subjected to: more compulsory hospitalizations, longer admissions, higher rates of readmission, as well as forensic sections compared to their counterparts from the dominant ethnic group (Coid, Kahtan, Gault, & Jarman, 2000; Te Puni Kokiri, 1993). These differences have been attributed to factors such as, poverty, isolation and discrimination.

It has also been found that people from ethnic minority groups may be diagnosed with 'schizophrenia' with less symptomatology, and be less severe in their presentation, compared to their counterparts from the dominant ethnic group. In New Zealand, Johnstone & Read (2000) found 11.3% of psychiatrists were racially prejudiced towards Maori; viewing Maori as genetically predisposed to mental illness. Furthermore, from a sample of 445 psychologists and 247 psychiatrists, 70% thought they were not adequately skilled to work with Maori (Johnstone & Read, 2000). An example where a cultural experience may be misunderstood is the Samoan 'ma i fasia', this involves experiencing hallucinations and exhibiting behaviour which is out of the ordinary for the individual (Tamasese, Peteru, & Waldergrave, 1997). Within Samoan culture 'ma i fasia' is attributed to being 'struck' by a spirit due to perhaps disrespecting spirits or gods, and 'treatment' requires finding the malevolent spirit, recognising the 'wrong' that has occurred, and then apologising or making amends for that grievance.

Over-representation of Maori in mental health statistics is a relatively recent phenomenon, which began in the 1970s (Durie, 1994). Before this time Maori rates of

psychiatric hospitalisations were only a third to half that of Pakeha. However, by 1993, Maori psychiatric hospitalisation rates were nearly twice that of Pakeha, and of these admissions the primary reasons were for drug and alcohol disorders and psychosis (Te Puni Kokiri, 1996). Consequently, when carrying out social science research in New Zealand, particularly in the field of mental health, it is important that the over-representation of Maori in the mental health system, due to the historical and ongoing impact of colonisation is acknowledged. In order to begin to redress the multiple and complex injustices and disadvantages that resulted from colonisation, the Treaty of Waitangi is now acknowledged as a living document between the Crown and tanga ta whenua – Maori. Hence, the principles of the Treaty have been incorporated into New Zealand legislation and government policies, and agencies such as healthcare.

A well known Maori model of hauora (wellbeing) is Te Whare Tapa Wha model (Durie, 1994) whereby the four walls of the house symbolise the four dimensions of hauora; Taha wairua (spirituality); Taha hinengaro (emotions and mind); Taha tinana (physical body); and Taha whanau (family and community). According to this model of hauora, a person is unwell because the four walls are out of balance; hence treatment would involve acknowledging the significance of all four dimensions and attempting to balance them all within a person's life.

Pere's (1988, 1991) Te Wheke model embodies the dimensions conceptualised within Te Whare Tapa Wha model (Durie, 1994). Te Wheke model includes: Wairua; Hinengaro; Tinana; and Whanaungatanga like Te Whare Tapa Wha model, along with: 'Mana Ake'; spiritually derived power, authority, uniqueness, 'Mauri'; life force or essence in all things, 'Whatumanawa'; heart, source of emotions, and 'Ha a koro ma a kui ma'; ancestral legacy, cultural heritage.

Love & Praat (2004) argued:

“Mana, mauri and wairua are intimately connected to ‘health’. Damage to mauri may be reflected in conventional health indicators. Upholding mana would include the ability to have a voice and to be heard and understood in the most appropriate way” (p. 20-21).

Taitimu (2007) carried out Kaupapa Māori research looking at Maori representations for understanding ‘extra-ordinary experiences’ (EOE), which in mainstream mental health are often understood as the positive symptoms of schizophrenia. Taitimu’s (2007) research involved carrying out interviews with 57 individuals, including: ‘tohunga’ (healers); ‘kaumatua/kuia’ (elders); clinicians; tangata whaiora; and kai mahi (mental health workers). Four meta-themes were identified, these included: ‘making sense of extra-ordinary experiences’; ‘what can we do?: pathways of healing from EOE’; ‘making sense of the statistics’; and ‘what can we do about the statistics?’ The first meta-theme identified is most pertinent to this current study, and is therefore explored in more detail. Taitimu (2007) identified 9 different ways Maori made sense of ‘extra-ordinary experiences’:

1. Some viewed their EOE as merely a common everyday experience, and accepted it as a part of everyday life, e.g. one community support worker (CSW) stated ‘for me hearing voices is like saying hello to your whanau in the morning it is nothing unusual’.
2. Whakapapa/ Tupuna were viewed by some as playing a significant role in making sense of EOE, e.g. negative EOE may be attributed to perhaps ‘hara’ (conflict) within a whanau.
3. Some understood experiencing EOE as ‘matakite’ i.e. being gifted.
4. Others understood such experiences as ‘mate Maori’ i.e. a Maori illness e.g. One Kaumatua stated: ‘I would put schizophrenia with the same thing as porangi, pohauhau, wairangi all those different states of confusion. My understanding of schizophrenia is like having two or three states of that confusion. Schizophrenia is so big, it’s one word but covers a lot of things. The same applies to porangi, pohauhau, wairangi, they cover a lot

of things in themselves. But those are Māori words that I know that cover those things that is mate Māori’.

5. Trauma was also identified as playing a role in making sense of EOE.
6. As was drug and alcohol abuse.
7. “It was apparent that two forms of boundaries were placed upon EOE discussed in the interviews. The first was a boundary between what would be considered mate Māori or matakite. The second was the boundary between a Māori illness and a Pākeha illness state” (p. 38).
8. The ‘schizophrenia’ construct was rejected by some as not being culturally applicable to Maori e.g. one tangata whaiora stated: ‘Now that I’ve looked at it and I’ve come to my own conclusion in a positive way, it’s not a curse its a blessing’.
9. Lastly, some “expressed apprehension around discussing their understanding and/ or experience with Pākeha” (p. 39). E.g. ‘When they asked me...I was like okay, I want to get out of here so I had better start talking their talk...’

Lay Understandings

Numerous studies have consistently found that members of the general public are more likely to endorse psychosocial rather than biological causes for mental illnesses, including schizophrenia. In a survey of American citizens 91% believed ‘Stressful circumstances’ were a cause of schizophrenia, while 85% thought ‘Chemical imbalance’, and 67% thought ‘Genetic or inherited’ (Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999). A British study found the most supported aetiological model for schizophrenia by the general public was ‘Unusual or traumatic experiences or the failure to negotiate some critical stage of emotional development’ (Furnham & Bower 1992). Similarly, Barry & Greene (1992) found when presented with a story illustrating positive symptoms people in

rural Ireland mostly believed stressful life events were the cause, and when presented with a story illustrating negative symptoms people mostly believed it was due to childhood problems.

In two New Zealand studies the item of the Mental Health Locus of Origin scale most supported by students was 'The mental illness of some people is caused by abuse or neglect in childhood' (Read & Harre, 2001; Read & Law, 1999). Similarly, Jorm et al. (1997) found in a survey of Australians 94% thought 'Day-to-day-problems such as stress, family arguments, difficulties at work or financial difficulties' the most likely reason for schizophrenia, and 88.5% thought 'Problems from childhood such as being badly treated or abused, losing one or both parents when young or coming from a broken home' a likely reason. In a German population survey the most frequently identified cause of schizophrenia was isolation (73%) compared to 45% who thought it to be heredity (Angermeyer & Matschinger, 1996). This support for psycho-social versus biological explanations was later replicated (Angermeyer & Matschinger, 1999).

Dietrich, Matschinger, & Angermeyer (2006) conducted a large-scale population survey (n= 5025), in which participants were given a short vignette, describing an undiagnosed psychiatric case history, portraying an individual with either 'schizophrenia' or 'major depressive disorder', and then interviewed about. They found that "endorsing biogenetic explanations decreases the likelihood of social acceptance of people with schizophrenia and major depression" (p. 166). Furthermore, stigmatizing responses, such as wishing for social distance from people with 'schizophrenia', were found to be due to associating biogenetic causal beliefs with unpredictability and dangerousness, which therefore leads to fearing such people (Dietrich et al., 2006).

Perhaps one of the most robust and up to date reviews of lay understandings of mental illness is that carried out by Schomerus et al. (2012). Schomerus et al. (2012)

wished to establish whether or not a greater awareness of 'biological correlates' for mental illness in previous years had translated into the public having a better understanding, and in turn more tolerant attitude towards mental illness. They conducted "a systematic review of all studies on mental illness-related beliefs and attitudes in the general population published before 31 March 2011" (p.440). In addition they investigated the time trends of attitudes, and carried out a meta-regression analysis of time trends on a subsample of studies that were methodologically comparable.

"Two major trends emerged: there was a coherent trend to greater mental health literacy, in particular towards a biological model of mental illness, and greater acceptance of professional help for mental health problems. In contrast, however, no changes or even changes to the worse were observed regarding the attitudes towards people with mental illness" (Schomerus et al., 2012, p. 440).

Understandings of people who experience psychosis

The body of research most relevant to the current study is that addressing how people understand their own psychotic experiences.

International literature.

'Research dealing with patients' own attributions for their illness has been virtually non-existent' (Molvaer, Hantzi, & Papadatos, 1992). However, as Shotter (1981) claimed: "In a moral world, no one but the person in question has the status, the authority, under normal conditions, to decide what his experience means to him". According to Jenkins and Barrett (2004, p. 7) 'the subjective experience of schizophrenia has been a neglected area of research in the latter part of the twentieth century'. Similarly, based upon a review of the previous two decades of research into schizophrenia Calton, Cheetham, D'Silva, and Glazebrook (2005) concluded research had predominantly used quantitative methodologies and ignored first-hand accounts. Strauss (2000) went further and claimed that it is

ignoring first-hand accounts, which has contributed to the current difficulties faced by psychiatry, and that qualitative methodologies would be helpful in investigating this gap in research.

“The path to finding the answer, I believe, starts with listening and observing more effectively, by noting what people with mental disorders are trying to tell us that does not fit with our diagnostic and conceptual frames of reference” (p. 23).

There is also evidence in Western and non-Western countries that dissonance between service-users' and clinicians explanatory models influences service-users' engagement with mental health services (Saravanan et al., 2007). A British study that investigated inpatients causal beliefs regarding the onset of their mental health problems and treatment expectations, as well as their relatives and clinicians, found:

“Those clients who had been admitted previously held significantly higher biological causal beliefs than those who had been admitted for the first time...The mean psychosocial views of relatives decreased significantly over the two-month period following an admission... Various correlations were found between causal beliefs and treatment expectations including one in the relatives' view between psychosocial causal beliefs and the importance assigned to family therapy. Indeed, there was a significant decrease in the family therapy rating over time given by relatives” (Whittle, 1996, p. 355).

Research that has explored first-hand accounts of psychosis has consistently found that service-users do have explanatory models for their experiences. Studies in Germany (Angermeyer & Klusman, 1988; Holzinger, Loffler, Muller, Priebe, & Angermeyer, 2002) and Britain (Pistrang & Barker, 1992) found service-users have strong psychosocial causal beliefs. For example, Angermeyer and Klusmann (1988) asked service-users with a diagnosis of schizophrenia if and how they made sense of their experiences. Of those interviewed 74% had some idea regarding what had caused their experiences, and when

given a checklist of possible causes 93% were able to identify possible causes. Dittmann and Schuttler (1990) found only 12% of the people they studied with a diagnosis of schizophrenia were unable to offer an explanation when asked about causes of their experiences.

McEvoy, Aland, Wilson, Guy and Hawkins (1981) studied the explanatory models of people who were hospitalised due to their psychotic experiences and found only 13% understood their experiences as an illness. Two common findings from research into service-users' understandings of psychosis were; multifactorial understandings were common, as were psychosocial understandings of psychosis. For example, Dittman and Schuttler (1990) found 30% of their sample identified stressful experiences as contributing to their psychotic experiences. Angermeyer and Klusmann (1988) found 82% identified recent psychosocial factors, such as unemployment and poverty as contributing to their psychotic experiences.

Weinstein's (1974) study of 500 psychiatric inpatients, two-thirds of whom had a diagnosis of schizophrenia, found that the most highly rated aetiological factors for their experiences were parental neglect and adult rejection.

Romme and Escher (1989, 1993) found voice-hearers adopt a diverse range of understandings of their experiences, including; metaphysical, mystical, medical, parapsychological and psychodynamic. In addition they found the level of distress experienced by voice-hearers was influenced by how they understood their experiences.

Jones, Guy and Ormrod (2003) investigated twenty voice-hearers' understandings of their experiences, and identified three overarching frameworks; biological, psychological, and spiritual. They concluded that 'understanding the range of beliefs that voice-hearers hold about their voices should therefore be of great importance to

researchers and clinicians and treatment options need to reflect these differences (Jones et al., 2003, p. 191).

Research into first-hand accounts of negative symptoms of schizophrenia (Selton, van der Bosch, & Sijben, 1998) found although such service-users may appear emotionally and cognitively dulled some reported experiencing intense emotions. This possible discrepancy between what observers may assume and what service-users may actually experience is what Jenkins and Barrett (2004) termed a 'failure of intersubjectivity'.

In the USA Jenkins (1997) interviewed 80 Latino and European service-users with diagnoses of schizophrenia and depression, and found only 16% explicitly understood their experiences as being a 'mental illness'. They also identified a cultural difference, in that service-users of European descent with a diagnosis of schizophrenia more often understood their experiences as being a kind of illness than service-users of Latino descent. Jenkins (1997) also found that being out of step 'with the rhythm of life' was a common theme identified by service-users accounts of psychosis.

Larsen's (2004) study of service-users' accounts from a Danish first episode psychosis service involved interviewing fifteen service-users three times across two years. Larsen (2004) found personal meaning about their experiences was essential to the service-users. Saravanan et al. (2007) explored the explanatory models of 131 First Episode Psychosis service-users in South India, and found 70% of the service-users causally implicated spiritual and mystical factors for the aetiology of their psychosis, and 22% had multifactorial accounts of their experiences.

A less formal source for subjective experiences of psychosis is 'first-hand' literature, which can be found in a range of mediums, including books, journals, anthologies, and the internet. For example, Nelson (2008) shared her first-hand account of living with psychosis in her book 'Unveiling Schizophrenia'. According to Glover's

(2011) review her book presented three key themes in relation to living with a serious 'mental illness'. Firstly, the importance of social support, secondly the therapeutic benefit of working towards a goal. Thirdly, 'understanding one's illness and triggers can improve the course of illness over time' (Glover, 2011, p. 75).

New Zealand Research.

Walton's (1995) New Zealand study, which involved in-depth interviews with ten long-term service-users diagnosed with schizophrenia, concluded the subjective experience of schizophrenia is best understood as a distinctive 'way of being in the world'. The NZ Mental Health Commission produced the 'Kia Mauri Tau!' report which was based upon interviews with 40 service-users who had recovered from mental health difficulties about their subjective experiences (Lapsley, Nicora, & Black, 2002). They found participants often attributed their mental health difficulties to psychosocial factors such as childhood abuse and feelings of abandonment or isolation. Similarly, a more recent study produced by the NZ Mental Health Commission investigated young adults' experiences of mental health problems, and identified adverse life experiences as central to participants' understandings of their experiences (Barnett & Lapsley, 2006).

Another interesting body of research has developed with voice-hearers, that is people who hear voices but are not clinically diagnosed or in contact with mental health services. Researchers who have investigated this group's understandings of hearing voices have termed this group; 'non-service users'. Furthermore, international research has suggested hearing voices is a relatively common experience found amongst the general population, and that such experiences can be experienced in diverse ways, that is, not only as negative and distressing.

Beavan (2007) specifically explored voice-hearers' explanatory models for hearing voices, through the analysis of 154 questionnaires, and 50 interviews. Beavan (2007)

found three major categories; biological, psychological and spiritual. Explanations within the biological category included: “references to brain dysfunction and the effects of both prescription and recreational drugs” (p. 4). Explanations within the psychological category included: “references to interpersonal trauma, abnormal cognitive processes and different aspects of the self” (p.4). Explanations within the spiritual category included: “being in communion with external entities, having psychic abilities, being more open to mystic or spiritual experiences, as well as general references to spirituality, such as intuitions and the existence of a spiritual realm” (p.4). Interestingly, participants that had a more biopsychological explanation for hearing voices generally did not endorse a spiritual explanation, and vice versa (Beavan, 2007). In addition, approximately three-quarters of Beavan’s (2007) questionnaire respondents believed to a certain degree that trauma was linked to their voice-hearing.

Other research carried out in New Zealand has investigated the aetiology of psychosis from the perspective of the service-users. Firstly, it should be noted that clients’ recovery styles following psychotic episodes have been defined as ‘sealing over’ or ‘integration’ (McGlashan, Levy, & Carpenter, 1975). Clients who ‘seal over’, that is, deem their psychotic experience as holding little relevance are more likely to experience depression compared to clients who ‘integrate’, that is, like to make sense of their psychotic experience (Drayton, Birchwood, Hallet, & Trower, 1998). As Geekie (2004) argued this in itself is evidence for the clinical need to attend to clients’ responses to experiencing psychosis.

Geekie (2004, 2006) found that clients who are diagnosed with schizophrenia, and including clients of first episode psychosis services, want to be active participants and authors in developing an explanatory model of their experience (Geekie, 2004, 2006). Geekie (2004, 2006) carried out qualitative research using his psychotherapeutic work

with first episode psychosis clients. The clients invited to take part in his research were already therapeutically engaged with Geekie, and already carrying out therapeutic work looking at their explanatory models of their psychosis. His research was based on 62 transcribed sessions with 15 clients. The 15 participants included 11 males and 4 females, 10 of who identified as European, 2 as Maori, and 1 as Pacific Islander (Geekie, 2004, 2006). His research methodology followed grounded theory, “which specifies procedures aimed to ensure that the analysis is based on, or ‘grounded’ in, the data” (Geekie, 2004, p. 151).

Firstly Geekie’s (2004, 2006) participants welcomed the chance to explore their psychotic experiences. Secondly he found his participants offered a broad diversity in the manner in which they understood their experiences; some adopted a concrete approach to how they expressed their understandings, whilst others adopted a more abstract approach (Geekie, 2004). Geekie (2004) conceptualized the way his participants spoke about their psychotic experiences in three broad categories: ‘The nature of the psychotic experience’; ‘The personal meaning of the experience’; and ‘Narrating experience’.

Geekie (2004) differentiated between ‘Causes of psychosis’ and ‘Explanations of psychotic process’, but conceptualized them as often overlapping domains and thus as subcategories of ‘The nature of the psychotic experience’. It is these two subcategories that are most pertinent to the current study. Geekie (2004) offered examples of how his participants explained how their psychotic experiences arose. For example, one of his participants understood “constitutional shyness and difficult experiences as a child” as causes of his psychosis, whilst another understood “impoverished communication at home when growing up” as a cause, and his psychotic thoughts as a process whereby he filled in gaps where verbal information was lacking (Geekie, 2004, p. 152).

Geekie (2004, p.154) also found most of his participants had “fairly well formed but flexible ideas about causality”. The clients expressed multiple, interweaving aetiological beliefs regarding their psychotic experiences, with five overarching causes categorised under: ‘psychological factors’; ‘development and experience’; ‘biological factors’; ‘spiritual factors’; and ‘functions of psychosis’, which in turn had subcategories of their own (Geekie, 2006). ‘Psychological factors’ included: ‘emotions’; ‘self’; and ‘information processing’. ‘Development and experience’ included: ‘general experience and history’; ‘isolation’; ‘abuse’; ‘interpersonal relationships’; and ‘becoming independent’. ‘Biological factors’ included: ‘drugs’; ‘brain’; ‘heredity’; and ‘sub-vocalization’. ‘Spiritual factors’ included: ‘other beings’; and ‘general spiritual matters’. ‘Functions of psychosis’ included: ‘expressing or avoiding painful emotions’; ‘giving voice to suppressed thoughts’; and ‘making sense of things’.

In summary, Geekie’s (2004, 2006) participants offered sophisticated accounts for the causes and processes of their psychoses. Importantly Geekie (2004, p. 158) proposed: “Following a first episode of psychosis, clients are no doubt in the process of building up their understanding of the experience, and it is at this point that clinicians may be able to contribute most to the client’s efforts to develop a useful explanatory model”. It is also perhaps at this point it may be beneficial to have an instrument that clinicians may use with their clients to assess their causal beliefs about their psychotic experiences. Such an instrument may help ‘get the ball rolling’, in beginning such a discussion, and may go towards developing a strong therapeutic alliance, as well as help inform formulation and treatment.

Situating the Current Study.

In light of the above context and literature regarding psychosis it seemed imperative that service-users were acknowledged as experts of their own psychotic experiences, and such accounts were investigated further.

Consequently, the two main questions of this research are:

1. What are the aetiological theories of people who have experienced psychosis?
2. Can a reliable and valid instrument be developed to assess clients' aetiological theories of their own psychosis?

Leading to the following specific aims:

- To provide further support for the notion that service-users are valid experts on their psychotic experiences.
- To further or investigate the causal beliefs found in recent qualitative research in New Zealand by Geekie (2006) and Beavan (2007).
- To use the data gathered from the interviews to formulate an instrument which assesses service-users' aetiological beliefs.
- To provide a valid and user friendly instrument that can be used in clinical settings and thus supply a tool that advocates the agency of service-users.

As previously mentioned, Strauss (2000) argued that qualitative methodologies were most suitable for exploring the gap in the research exploring service-users' understandings of their experiences. Although, qualitative methodologies can be traced as far back as Dilthey's (1977, originally published in 1894) work within the social sciences, contention remains between the quantitative and qualitative. Dilthey claimed that whilst quantitative methodologies may be appropriate for studying the natural world, studies within the social sciences need to focus on how people make sense of, and the meanings they give to their 'lived experience'.

The qualitative versus quantitative debate arguably stems from a fundamental difference in the basic assumptions or epistemological positions between the two methodologies. The positivist or essentialist epistemological position assumes the researcher is an objective, independent observer of the object under investigation, and that only quantification can provide true and absolute knowledge. In contrast, qualitative methodologies, and in particular critical qualitative believe, that the researcher is an active and subjective participant in the research process, who if not actually constructs the findings, at least influences the process. Consequently, qualitative researchers need to explicitly acknowledge their subjective position, and through critical reflexivity be explicit in making others aware of this role, in informing the research.

Another stark difference between the two methodologies, which stems from their opposing epistemological positions, is that of sampling. Qualitative research does not try to achieve a representative sample, or to avoid biases, or study a certain number of subjects, in order to achieve 'statistical power'. Instead, qualitative researchers select participants who offer a depth of insight into an area of study, from their own contextually rich position. Furthermore, unlike quantitative research, large numbers of participants are not required; qualitative research needs only enough participants to attain 'data saturation'. 'Data saturation' is when after a certain, but undetermined number of interviews, or whatever qualitative method is being employed to gather the data, is no longer gathering any further new information.

The most common criticism of qualitative methods is that such studies cannot be established as demonstrating reliability and validity. However, these constructs belong to the positivist epistemological position, which does not easily translate into qualitative processes. Nevertheless, rigorous and sound qualitative research can and needs to be conducted. Steps to ensure this involve demonstrating what has been called

'trustworthiness'. Merrick (1999) argued the importance of the researcher explicitly disclosing her subjective position to and within the research. Other steps to ensure 'trustworthiness' include; discussing the findings with others, through peer review, as well as with the participants (Stiles, 1993). Lincoln and Guba (1985) also suggested the use of an 'audit trail', whereby the researcher clearly documents the process of data analysis and interpretation.

In effort to conduct and produce a sound piece of research the current study employed thematic analysis. Braun and Clarke (2006) described thematic analysis as:

"A method for identifying, analysing and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail. However, frequently it goes further than this, and interprets various aspects of the research topic" (p. 79).

In addition to thematic analysis having the benefit of flexibility, Braun and Clarke (2006) provided a clear conceptualization for this type of analysis, as well as specific guidelines for conducting such research rigorously:

"With this paper, we hope to strike a balance between demarcating thematic analysis clearly – i.e., explaining what it is, and how to do it – and ensuring flexibility in relation to how it is used" (p. 78).

CHAPTER TWO: METHOD

Ethics Approval

Ethics approval was given by New Zealand's Northern Y Regional Ethics Committee for this research project. The details of this approval were included on the Participant Information Sheet and Consent Form (Appendices A, B).

Research Design

This research study was developed in the context of consultation with a consumer advisor from the Mind and Body organisation, as well as consultation with the Programme Manager for Maori Health, Planning and Funding, He Komaka Oranga, at Auckland District Health Board (ADHB), and with a Pacific Island Consultant Psychiatrist at Counties Manukau District Health Board (CMDHB).

The study had two stages. The aim of the first stage was to explore service users' causal beliefs for psychosis. This was done by carrying out individual semi-structured interviews with current service-users. The second stage involved using the data gathered from stage 1 of the study, in conjunction with Geekie's (2004, 2006) findings regarding his participants' causal beliefs for psychosis, to develop a draft instrument for clinicians to use when assessing their clients' causal beliefs for psychosis. Stage 2 of the study also began the first steps in establishing the draft instrument's face validity.

Stage 1.

Participants.

There were 14 participants, 6 female and 8 male. The age range was between 17 years old and 26 years old, with a mean age of 22. When the participants were asked

what culture they identified as, the responses were; 6 'New Zealand European'; 2 'Niuean'; 2 'Cook Island'; 1 'Tongan'; 1 'Samoan'; 1 'Maori'; and 1 'Vietnamese'.

Participants were recruited from CMDHB's Early Psychosis Intervention Service.

Participants were current users of this service that were well enough, as determined by their responsible clinician, to discuss their experiences of psychosis and give informed consent. Potential participants were firstly approached by staff and provided with the information sheet (Appendix A). If interested in participating he/ she could telephone the researcher for further discussion and if desired have a meeting in person with the researcher (support people and/ whanau could attend) at the service premises. Otherwise he/ she could give permission to a staff member for the researcher to contact him/ her. The researcher telephoned the service-user within one week and offered the same as above.

Potential participants had to be fluent in English and meet CMDHB's inclusion and exclusion criteria for the EPI service, which included:

Entry Criteria

- age 16 to 30
- primary presentation is psychosis or prodromal symptoms of psychosis
- no previous psychotic episode
- treatment of 1st episode psychosis had been ongoing for less than 3 months
- negotiated transfer from another EPI service.

Exclusion Criteria

- over age of 30
- psychosis secondary to organic brain injury/ other neurological illness
- substance intoxication as primary presenting diagnosis
- diagnosis of Schizophrenia already in place
- treated for psychotic illness for more than 3 months.

Of the 15 people identified by their clinicians as well enough to participate in the study, only one person when approached by his/ her clinician about the research, declined to participate. The other 14 agreed to either meet with me, or have me telephone them to discuss the research further. Following this, all 14 people agreed to participate. Before each of the interviews began, I went through the participant information sheet (Appendix A) with the participants, and gave them a written copy (if they had not already been given a copy by their clinician). Written informed consent (Appendix B) was acquired.

Procedure.

I carried out 14 individual semi-structured interviews with the participants. The interviews were conducted over the period from September 2008 until September 2011.

After a few administrative questions I told the participants; “I want us to talk about your understandings of psychosis, and especially what you believe caused you to experience psychosis...So can we begin with you telling me your story of this? Just start wherever you like and take as long as you need”. I then allowed pauses, and followed up with “what else?” (2 or 3 times) before moving on to the next question. The full interview schedule is presented in Appendix C.

The interviews were carried out either at the premises of the EPI service, or during a clinician's visit with the participant, on which I accompanied the clinician, for example at a café. Otherwise the interviews were carried out at the University of Auckland's Tamaki Campus. The interviews lasted between 15 minutes and 1 hour. As a small token of thanks each participant was given a twenty dollar voucher at the end of their interview. The interviews were tape recorded and then transcribed. Following this the transcripts were analysed using thematic analysis. The draft instrument was then developed.

Thematic Analysis.

I followed the method of thematic analysis outlined by Braun and Clarke (2006). Phase one involved 'familiarizing yourself with your data', which required reading and re-reading of the data, and noting any initial thoughts about the data. Phase two involved 'generating initial codes', which required systematically working through the entire data set, and coding relevant aspects of the data. Phase three involved 'searching for themes', which required collating codes under possible themes.

At this stage my supervisor reviewed a portion of the coding, along with the themes I had identified, which we then discussed. It was decided some of the data that had initially been coded was not relevant, and some of the themes needed to either be changed or redefined. I then proceeded to phase four of the analysis, which involved 'reviewing themes', and phase five, which involved 'defining and naming themes'. Following this my supervisor and I met again for a final review of the themes and their definitions. The last stage of analysis, phase six, involved 'producing the report'.

In addition to the review process with my supervisor I consistently reviewed my own analysis and development of the themes throughout the thematic analysis. This allowed me to be reflexive and reflect upon my own biases, and how my own expectations may have influenced the findings. This ensured that the data analysis was a valid representation of what the participants experienced and believed.

Stage 2.

Participants.

The Regional Auckland Psychosis (RAP) group is an interest group for clinicians working in the area of psychosis, which has a meeting the first Friday of each month. The attendants of the RAP group for December 2012 were possible participants. At the

beginning of the meeting this research was briefly explained to the attendants, and they were then invited to complete a questionnaire.

All 13 clinicians present at the meeting agreed to participate. Of the 12 who completed the first page of the survey, 3 were female, 9 were male, 7 identified as psychologists, 3 as nurses, 1 as a social worker, and 1 as an occupational therapist. The mean number of years working in mental health was 13.7, and the mean number of years working specifically in the area of psychosis was 10.8.

Procedure.

The clinicians completed a questionnaire, which asked them to rate the relevance of each item (from the draft instrument) developed in stage 1 to its domain, how often their clients talked about each of the overarching themes, and some professional demographics. See Appendix D for the draft instrument, and Appendix E for the questionnaire.

Analysis.

Descriptive statistics were calculated.

CHAPTER THREE: RESULTS

This chapter first presents the findings from stage one, including an analysis of three sets of data. The first set of data relates to the participants' 'Experiences of Psychosis', the second set of data relates to the 'Causes' identified by the participants, and the third set of data relates to 'Service-Users' Feedback'. Following this the development of the draft instrument is considered, and lastly the findings from stage 2 are presented. Table 1 provides a summary of the first two sets of data and their themes, as well as the number of participants who identified them. Names and other identifying features have been changed or omitted.

Considering 14 people participated in stage 1, and 11 themes were identified from the data in relation to service-users' understandings of the causes for their psychotic experiences, it is apparent from the number of participants who identified with each theme (summarised in Table 1) that participants often held multi-factorial accounts for the aetiology of their experiences.

The majority of the participants communicated with ease, and at times appeared eager to share their experiences. This was demonstrated in some of the participants spontaneously reporting that they had found talking about their experiences helpful.

Stage 1.

Experiences of Psychosis

Despite the participants not being directly asked to describe their psychotic experiences there was an abundance of discourse around the participants' individual psychotic experiences. Following some introductory questions regarding the participants' demographics each interview began with the same invitation: 'I want us to talk about your

Data Set	Theme	Description	Number of Participants
Experiences of Psychosis	Triggers	The participant identifies a specific trigger/s for the psychotic phenomena she experiences.	13
	Recognising the voices	Participant recognises the voices she hears.	9
	Hostile hallucinations and/ or delusions	Psychotic phenomena (e.g., voices or paranoid delusions) are of a hostile nature.	9
	Conscience	Voice appears to be one's conscience or a voice which commentates/ directs one's behaviour.	3
Causes	Drugs & Alcohol	Psychotic experiences due to drugs and/ or alcohol use.	8
	Adverse events	Psychotic experiences due to adverse events in early life.	8
	Pressure	Psychotic experiences attributed to either internal pressures individuals put on themselves and/ or external pressures.	7
	Feeling	Psychotic experiences due to negative feelings/ mood.	6
	Loss/ Grief	Psychotic experiences due to traumatic loss/ grief.	5
	Outsider	Psychotic experiences due to feeling isolated and/ or apart from others.	4
	Thinking	Psychotic experiences due to difficulty experiencing, managing/ processing, and expressing thoughts.	4
	Self-esteem	Psychotic experiences due to low self-esteem.	2
	Biological	Psychotic experiences due to biological factors e.g., genetic inheritance.	2
	Spiritual	Psychotic experiences due to communicating with spirits and/ or supernatural happenings.	2
Cultural	Psychotic experiences due to cultural worldview, and/ or a cultural conflict.	1	

Table 1: Frequency that participants identified themes for the data sets; 'Experiences of Psychosis' and 'Causes'.

understandings of psychosis, and especially what you believe caused you to experience psychosis... So can we begin with you telling me your story of this? Just start wherever

you like and take as long as you need'. Consequently, although the participants' narratives were diverse they all at some point talked about the content of their psychotic experiences.

Therefore, although the focus of this study was service-users' causal beliefs for psychosis, once analysis began it became apparent the research had elicited a rich data set pertaining to the participants' actual psychotic experiences. Consequently, this data set has been analysed and is presented below.

Triggers.

This theme included any talk, in which participants identified a trigger for their psychotic experiences. For instance, interviewee 1 first experienced auditory hallucinations whilst she was in the company of someone she did not trust, and who was associated to someone who had previously harmed her:

We were, one time we were with this man that I didn't trust and I started hearing like in his head like, "Yeah you little, yeah you little, you little bitch (unintelligible) fucken little," you know, all of this. And then I was like, "I know what you're thinking, what you're trying to do." And he goes, he started getting freaked out and dropped us off. So that's around when it started.

R: Okay. And kind of like going back to that first time, and you said that you didn't trust him?

P: Yep.

R: What was that about do you think?

P: Because his brother drugged me and my friend (Interviewee 1).

Interviewee 2 attributed his psychotic experiences to being 'obsessed' with a girl he had met:

It started at [college], like, oh like I met this girl. And... And yeah, and like I really liked her, like a lot. And when I left school, like I just left school, I didn't tell anyone. Like I started working at [bookstore] ... Started working. And then like sometimes at work, like I would like, I think I could like hear her voice on the

radio, like sometimes. And it was quite weird, because I thought maybe I was just like getting a bit of obsessive, but then I kept on hearing the voice a lot on the radio and on TV. And yeah, and that's what made me think that it was like really her and it was really going on (Interviewee 2).

Interviewee 3 believed that talking to himself (and potentially hearing voices) was a 'normal' experience for a truck driver. However, due to additional stressors he was unable to manage hearing voices:

P: Yeah. It's just a natural thing for a truck driver to go and talking to himself, you know?

R: Yeah.

P: Then what happened was the voices just started getting too strong, and then on top of the stress, the stress was on top of that (Interviewee 3).

Sleep deprivation and not eating were also talked about by some participants, such as interviewees 12 and 13, as being a trigger for experiencing psychosis:

And then at night I would, I just wouldn't get much sleep at all. And then there was my eating that wasn't going so well either. I wasn't eating enough or much. And yeah that all kind of, 'cause sleep, lack of sleep, I found out, and I was told, can do quite a bit to you. And that's when I started feeling or going funny in the head (Interviewee 12).

Okay. Well, I've had a problem with sleeping ever since I was a baby, like I used to just be lying there for ages and my mum and dad would have thought I was asleep then they'd just come near me and I would be awake. So they said I've always had that trouble sleeping, yeah it's just gotten worse since I've gotten older. Like when I used to go to school sometimes I'd have to, I wouldn't get to sleep at night and I'd still have to go to school in the morning anyway, so I'd be real tired in class. Yeah, I think my sleeping cycle just got worse. So I'm, how that episode happened was because I stayed awake for three or four days. I just couldn't get to sleep and I started to hear voices and I had really bad paranoia,

yeah. I was like, I was hearing things like people were coming to get me and stuff like that, yeah. Just stuff that wasn't true (Interviewee 13).

Recognising the voices

This theme included any talk around recognition of auditory hallucinations as belonging to either someone participants had previously known or currently knew. Alternatively participants may have recognised the voice/s as their own. All nine of the participants who reported experiencing auditory hallucinations talked about recognising the voices they heard, as either themselves or people they had known; perhaps loved and lost; or people who had perhaps abused or wronged them in some way. For example, interviewee 7 talked about how when he first began to hear voices (at about the age of 13-14) he thought it was his best friend who had recently died in a car accident:

Yeah. Well I'm not too sure but I used to think one of them was him, but yeah so that's why I listened, started listening to them... (Interviewee 7).

Another participant reported hearing her uncle's voice following the death of her grandfather, and which had caused conflict within her whanau regarding where he should be buried:

I was just hearing voices from my uncle and that wanting to kill me and my family and stuff, all because there's this thing when you bury a family member, two kinds of a family come in and then they start arguing, and that sort of what triggered it as well (Interviewee 11).

Hostile hallucinations and delusions

This theme included any talk about the psychotic phenomena, for example, auditory hallucinations or paranoid delusions, being of a derogatory or hostile nature. All 9 of the participants who experienced auditory hallucinations talked about at some stage

experiencing the voices they heard as hostile. This seemed to often follow the participant experiencing additional stressors in their life, either psychologically and/ or physically. For example, interviewee 1's behaviour began to be directly influenced by the hurtful nature of the voices she heard:

And then it got to the point where I was driving over to where the neighbours were and I'd have like weapons with me, just because I was so like hurt by what the voices were saying (Interviewee 1).

Interviewee 1 talked further about the hostile nature of her auditory hallucinations, and likened the experience to being bullied:

Yeah, not really harm, just like a group of like, if there were a group of bullies just taunting you, sort of like that. And telling you like, "Who do you think are?" and all that, all of this stuff, just like, yeah (Interviewee 1).

It was also a common experience for many of the participants to cope with auditory hallucinations for a period of time by acknowledging and perhaps responding to the voices they heard. However, often after a period of time this no longer seemed to be effective in managing the voices, therefore many of the participants talked about then trying to cope by ignoring the voices. This also often proved to be unsatisfactory, generally resulting in the voices escalating, and the psychotic experiences becoming more acute. Interviewee 2 made sense of his auditory hallucinations escalating as the voices becoming angry with him because he had tried to ignore them:

After a couple of months, like I never like said anything about it or even talked back to them, I reckon like they got angry. They started giving me a lot of shit after that. Yeah (Interviewee 2).

Similarly participants talked about other psychotic phenomena, such as paranoia, worsening after experiencing additional stressors. For example, interviewee 6 talked about becoming paranoid that his teachers were talking and laughing at him after he failed an exam:

It was about the middle of 2008 we were getting ready for exams and I just failed it and then I started getting paranoia about the tutors going into the office and laughing about me, talking about me...(Interviewee 6).

Some participants also talked about the voices becoming more hostile, as other psychotic phenomena they experienced escalated. Interviewee 7 likened his auditory hallucinations to people 'egging' him on, which then escalated as his paranoia increased:

Yeah 'cause I was already pretty paranoid about the fact that 'cause she'd go out and then she wouldn't come back and shit so I was pretty paranoid about the fact and that's when I noticed really badly that I was starting to get the voices and listening to them. They weren't nice, they were very violent to tell you the truth (Interviewee 7).

Alternatively, some talked about the voices they experienced as taunting them, perhaps regarding experiences or behaviours she was ashamed of. Interviewee 11 shared her experience of this:

Then about a period after that I just couldn't handle the voices. It seemed to be more about my past and what I've done, all the bad things and yeah, it wasn't too long after that I attempted suicide, yeah (Interviewee 11).

On the other hand, as was also the case for interviewee 11, some of the participants experienced auditory hallucinations that were hostile in nature because the voices belonged to people who had harmed them in the past:

P: Probably that, the fact that growing up I was probably (pause) molested a bit as well. That had part to do with it...

R: Okay, so you were hearing the voices were putting you down, yeah?

P: Yeah (Interviewee 11).

Conscience

This theme included any talk about the auditory hallucinations being similar to what might be considered a 'conscience', or a voice commentating/ directing one's behaviour. Some of the participants reported hearing only one voice, which they recognised as their own. Again, participants whose auditory hallucinations were consistent with this kind of experience talked about the voice at least initially being a positive experience, until it was exacerbated in some way. For example, the following participant talked about the voice he heard providing direction:

"Oh, you can do that thing better", "You can do this better", "Or if you can't, you can't do it that way, do it this way, or this way". "Or this way" you know, like they've come to help me, they helped me with work, they helped me with work. It was actually a good thing, and it got too much (Interviewee 3).

Another participant had developed his own understanding for the voice he heard, which he termed, 'contemplating'. The way in which this participant made sense of his psychotic experience provides an elegant insight into how service-users can be experts of their own experiences:

P: Well, I called it contemplating when I first came in.

R: Okay yeah, that's a good word. So kind of like we all have an inner voice, eh, but it became outside of you?

P: Yes, that's right.

R: You said more than one, more than one voice?

P: Yeah, same voice.

R: Same voice, so there's say one voice but said a lot of things?

P: Yeah (Interviewee 3).

Interviewees 6 and 13 had similar understandings of the auditory hallucinations they experienced:

... it was more just duties that I had to do (Interviewee 6).

It was just basic things like hearing a voice saying, "You're tired now, you have to go to sleep," and I'm trying to go to sleep and it's saying, "You have to go to sleep," over and over (Interviewee 13).

Causes

This section presents the findings related to one of the main aims of this study, to further investigate the aetiological theories of people who have experienced psychosis. Eleven themes were identified from this set of data in relation to service-users' understandings of the causes for their psychotic experiences (see Table 1).

Drugs & Alcohol

This theme included any talk in which the participants attributed their psychotic experiences to drug and/or alcohol use. For example, interviewee 1 talked about drug use (marijuana) as having potentially altered her brain, and thus caused her to experience psychosis:

I think the drugs did like sort of manipulate my brain, or alter my brain, because it was around that time where I just completely changed my way of thinking (Interviewee 1).

Some participants attributed experiencing psychosis to drug use almost because there did not seem to be any other reason it could be attributed to. This may simply be due to the need to make sense of things, find cause and effect, on the other hand it may be evidence of mental health professionals imparting their expert knowledge, that is; psycho education. Interviewee 3 demonstrated the first possible scenario:

R: When did you start smoking the pot?

P: When I was about fourteen.

R: So you think it was a good thing and it helped?

P: It helped, yeah.

R: Do you think it helped with the voices, or do you think it made it, kind of contributed to hearing voices?

P: I'd say it contributed, it would have had to, because where else do they come from? (Interviewee 3)

Interviewee 4 demonstrated the second possible scenario:

I guess I've been told that marijuana use has quite a strong influence on psychotic people, or people that were going to be psychotic, or having an influence on whether or not you're going to be psychotic. So I guess, a lot of my problems started off when I started smoking marijuana and I became quite paranoid. Yeah, I was very paranoid for quite a long time before I actually turned psychotic, probably about two to three years before becoming quite psychotic, I was having quite paranoid thoughts. Especially when smoking marijuana (Interviewee 4).

The possibility that participants' discourse around what they believe caused them to experience psychosis was not always entirely their own original beliefs but rather what they had been told, was further substantiated by the way in which interviewee 4 talked about benzylpiperazine (BZP) use having possibly caused her psychosis:

I was on a lot of those one night and I became extremely paranoid that night when I was on them. I hadn't been smoking marijuana, but I took quite a lot of them, like every weekend. I'm not sure if there's research to prove that they (unintelligible) cause paranoia or psychosis... Yeah, I guess they think what led to my psychosis is partly the stress of my father's death and the marijuana use. There is no family history of mental illness. I'm not sure if I'd have been psychotic if I hadn't smoked marijuana. I always thought I was a little bit eccentric, but (laughter) I don't think it would have gone that far. But, yeah, I think that's what they think (Interviewee 4).

Although some participants did not fully endorse drug use as having caused their psychosis, many did talk about it as having exacerbated their psychosis, and often in the context of having used drugs or alcohol as a way of self-medicating:

R: Do you think there was anything else that contributed to you beginning to hear voices and becoming paranoid?

P: Well I did try drinking some alcohol and stuff like that to try and get to sleep and it just ended up making it worse.

R: Yeah, is that spirits?

P: Yeah, it didn't help at all (Interviewee 13).

Yep. I tried smoking that but it didn't help either. Yeah, I think those things added to me hearing voices and things like that, 'cause when I was in hospital this girl said she smoked that Kronic and she ended up hearing voices telling her to hurt herself and stuff like that (Interviewee 13).

Adverse events

This theme included any talk in which the participants attributed experiencing psychosis to adverse events experienced in earlier life, such as physical or sexual abuse. In the context of talking about any earlier life experiences the participants thought may have led to them experiencing psychosis many adverse life events were put forward as possible causes. For example, interviewee 11 talked about how being sexually abused as a child contributed to her experiencing psychosis.

Probably that, the fact that growing up I was probably (pause) molested a bit as well. That had part to do with it (Interviewee 11).

In the direct context of having asked the participant whether she thought it was perhaps biological, psychological or spiritual factors that had caused her to experience psychosis, interviewee 1 shared how she thought being drugged and molested at the age of 14 had affected her psychologically, and in turn potentially caused her to experience psychosis:

P: I'm not sure. I just think that like sort of messed up my head a little bit, like just the way I thought was changed after that (unintelligible).

R: After that?

P: Like the way I felt about myself (Interviewee 1).

Interviewee 1 believed being emotionally abused by her peers and then a boyfriend also caused her to experience paranoia and auditory hallucinations:

R: So what else do you think maybe caused you to hear voices and to become paranoid?

P: Maybe emotional abuse.

R: Okay. So that would be the emotional abuse from...

P: The guy.

R: That guy you were seeing at eighteen?

P: Yeah. And even my friends, like throughout like my teenage years, my friends have been quite emotionally abusive (Interviewee 1).

Some participants talked about being abandoned or rejected by a parent as having contributed to them experiencing psychosis. For example, when asked directly if she believed anything in her childhood or adolescence had contributed to her experiencing psychosis one participant responded:

The only thing that comes to mind is my mother left us when I was quite young, which was kind of tough for me at first...(Interviewee 4)

Another participant talked about her birth father, and then later her step-father rejecting her as being factors in her experiencing psychosis:

When I was fifteen, well when I was, before I was born my parents split up and then I used to go and visit my dad in Australia, likes most Christmases and there was one time, I don't know he was quite drunk, and he said he regretted me ever being born and I ended up cutting off from him and I haven't seen him till probably this year (Interviewee 5).

I had an older brother yeah and I suppose when they split up, 'cause then they split us as well it was kind of like he didn't want anything to do with me or my older brother, it was really just his children, so yeah (Interviewee 5).

One participant talked about growing up feeling scared and unable to express himself due to the physical abuse he suffered, and which in turn he believed caused him to experience psychosis:

P: Well I don't know, but I think 'cause in [country of birth] we would get like smacked and I think that's what kept me so trained so I wouldn't ask questions. I remember I was really loud, and just being a kid and stuff but instead of getting told off you'll get the stick, you get slapped, punched or something like that. Yeah and just getting...

R: So maybe afraid to kind of voice anything after...

P: Yeah I mean I was the youngest in a family of eight and I remember my brothers would beat me up and stuff like that, but I guess everyone gets that, well I got it so... I was really scared because I would cry a lot but then I would get beaten up for it (Interviewee 6).

Being bullied was also talked about by one participant as being something that led to her becoming depressed, and possibly then led to her experiencing psychosis:

I had been homeschooled for about eight years or something, and then Mum all of a sudden dumped us in a state school and that was quite a shock to the system. And I never quite fit in, I got bullied. The worst bullying was my first school and that's how I started developing depression and just the stress and all the pressure. I started getting absences because I just couldn't... (Interviewee 12).

One's early family environment was also identified by some participants as being an important factor in them experiencing psychosis. For example, interviewee 13 talked about lying in bed awake at night as a young child, worrying about whether or not her step-dad was going to hurt her mum:

P: Well, my mum, she's separated from, I'll got a little brother and sister, they're twins, and she's separating from their father... Yeah. I think about that. I'm like feel sorry for them, they can't see their dad. But the reason that they split up was because he used to get violent a lot. Yeah, I think about stuff like that

R: Is that something that kept you awake at night, back when your mum was with their dad, him being violent?

P: Yeah, I guess so. I always thought about it (Interviewee13).

In the direct context of talking about his causal beliefs interviewee 3 talked about the effects his father's alcohol use had on him:

P: They're both quite fully stressed, full-on stressed. Arguing with each other and then I'd come in and then they'd be arguing with me. But it's mainly because of the alcohol but dad's not drinking anymore. (Interviewee 3).

Pressure

This theme included any talk in which the participants attributed their psychotic experiences to either internal and/ or external pressures they felt.

For example, interviewee 3 talked about the external pressure from stress at work, and the internal pressure of 'pushing' himself too hard, which he believed caused him to experience psychosis:

P: Well, the stress level from work, trying to push yourself to hard, that probably created it, a bit of mental

R: Pressure?

P: Pressure, yeah, that's a good word, yeah... Just pushing yourself too hard can cause it. So I've just had to relax and take it easy, one step at a time (Interviewee 3).

He also talked about the pressure he perceived from his parents possibly contributing to him experiencing psychosis:

A lot of pressure just to be, get out and get a job, get some money. My older brother he just started a business, great, good on him and it's finding what he wants to do. There's a lot of pressure for him because he wants to pay back mum from all the years that he's studied and that, he went to England and stuff, overseas. He's done a lot of stuff and there's a lot of pressure from mum and dad, that's how I feel, but being in the same family... (Interviewee 3).

Pressure from family to do well was also something interviewee 6 struggled with, and believed caused him to experience psychosis:

I was given, that's another thing when I was growing up is that I was, my uncle chose me to come to New Zealand so and they were all back in Tonga so I told myself I've got to try to be successful. But when I used to say that I used to...there was no fails, there was no way I could fail I have to do this for my family and it was always for my family. And after I started failing and stuff everything just didn't work out and I felt really, I don't know, I just felt like I was unworthy of being the chosen one, or the one to come to New Zealand (Interviewee 6).

Several of the participants attributed experiencing psychosis to having to cope with multiple stressors at the same time:

Okay, I think it happened mainly 'cause of a lot of stress. I was with a partner that was quite emotionally and physically abusive and then I finally decided to leave him and we were working together doing a travelling sales rep, that was quite stressful as well. And then I finally decided to leave and I came back to Auckland and I was moving back to my parents... So I think mainly a lot of stress and yeah... (Interviewee 5).

Yeah and I think I was quite distraught at that moment and I think it was in 2008 I had an exam and I failed that exam and so it was a lot of bad things just happening all at once. I think it was 2000 and, just before 2008 I crashed my car (Interviewee 6).

Feeling

This theme included any talk in which the participants attributed their psychosis to experiencing negative emotions or mood, such as feeling depressed or anxious. Nearly all of the participants talked about feeling depressed before they became psychotic, such as shared by interviewee 11:

Okay. So I became depressed for a while and it got to a point where I wouldn't go out of the house. Then it started from where it just got worse and I just didn't want to eat. So I wasn't eating, wasn't sleeping very well, wasn't going out doing anything. I'd just stay home in my room. Everything had to be black, like it had to be dark in my room (Interviewee 11).

Some went further and explicitly attributed their psychotic experiences to having been depressed:

I think it was just mainly I got real depressed that maybe that's why this psychotic stuff's started happening (Interviewee 5).

Some participants, such as interviewee 6, talked about not being able to process or express negative emotions as being the reason they experienced psychosis:

I didn't know how to cope with it, or handle it. I just to run away and just keep it for myself and hide it and sort of then bringing it back up and just chucking it away kind of thing. But I didn't know at the time I was sort of building up for something pretty bad, that it was stressful. So I was hiding quite a lot from my friends, familys that were really close to me and I think everything just came out and I was diagnosed in 2008 (Interviewee 6).

Loss/ Grief

This theme included any talk in which the participants attributed experiencing psychosis to having experienced a traumatic loss or due to grief, such as, the separation of

a family or the death of a loved one. For example, one participant talked about how her father's death caused her to experience psychosis:

What happened was, I was at my father's, my father had just passed away, that's when things started to become, I think it was the stress of that situation...that really sent me...quite psychotic (Interviewee 4).

Another participant talked about how her grandfather's death had similarly affected her:

Yeah. Family members passed away, close ones. I'm used to looking after ones that are sick... It was my papa that passed away and we were very close (Interviewee 11).

This same participant believed having an abortion also contributed to her experiencing psychosis:

My grandparents were telling me "Just have a sleep" and I'd just lie there and just hear voices. I think part of it too will be that I had an abortion as well, that added to it (Interviewee 11).

A number of participants also attributed their psychotic experiences to a relationship breakup, such as interviewee 7:

I was going out with this chick and she kind of really dicked me over, but the way that she went about it was a complete and epic mind game (Interviewee 7).

Outsider

This theme included any talk in which participants attributed experiencing psychosis to feeling isolated and/or apart from others. This is illustrated in the following extracts:

Yeah so I always felt like an outcast because of the family and my brother's got a bachelor in accounting, my sister's got a Masters I think in science and my dad and my mum, everyone's real intelligent, but I was always really scared because of what happened in Tonga and just knowing that my mum had to give me up (Interviewee 6).

Maybe because when I remove, like immigrate to New Zealand is feel like it's really difficult to like adapt to the new environment it's just like I have never thought of maybe internationally that like people from different country are that much different, it just I was kind of flabbergast when I move here...Because I wasn't prepared much but just my family just told me like one month before the date that we move here, so I never thought that I will like, move to New Zealand like permanently so it's quite a shock (Interviewee 10).

Interviewee 7 believed being a 'loner' made him vulnerable to experiencing psychosis:

I really don't know. I think it was more or less because I was sort of a loner, I don't really, I've got my friends but I keep to myself a lot and just the fact of being that is I got, I'd say I got pretty paranoid about people and yeah that's when it started. Yeah, going from there, 'cause that's where it would come from (Interviewee 7).

Thinking

This theme included any talk in which the participants attributed their psychotic experiences to difficulty experiencing, managing or processing, and expressing thoughts. For example, interviewee 12 talked about how 'overanalysing everything' caused her to experience psychosis:

Oh what was the, what's that word? I was overanalysing everything. Like every little thing (Interviewee 12).

Whereas, interviewee 6 and interviewee 10 attributed experiencing psychosis to not expressing themselves, and/ or not being able to effectively communicate:

Yeah just not asking the questions and not really talking and just keeping everything for myself kind of thing, not communicating well (Interviewee 6).

P: It make me feel kind of really angry because I don't want to be this (unintelligible) kind of stuff, I mean maybe we can study together but not because it just like, is like I'm becoming a real tutor to them and it's like taking a lot of my time for doing that. And at that time I have been sleeping problem as well so I'm...

R: So you felt that perhaps people were taking advantage and causing you more stress, is that kind of what you're saying?

P: Yeah and I don't know how to say no to them, that is a real big problem (Interviewee 10).

Self-esteem

This theme included any talk in which the participants attributed experiencing psychosis to having low self-esteem. For example, in the context of talking about causal beliefs interviewee 5 shared how low mood and low self-esteem perhaps caused her to experience psychosis:

I'm not sure it just, I was really, really down coming back to Auckland and being, breaking up as well and real low self esteem (Interviewee 5).

Despite only two of the 14 participants explicitly attributing their psychotic experiences to having low self-esteem, most attributed psychosis to something that would suggest they also had low self-esteem, even if not explicitly stated. For example, interviewee 3's suggestion that a hypothetical instrument should perhaps have a question regarding one's self-concept, perhaps demonstrated this:

R: Is there anything that you would advise that should be in a questionnaire like that? What should be asked?

*P: (pause). I reckon how they judge themselves. How do you judge yourself?
(Interviewee 3)*

Biological

This theme included any talk in which the participants attributed experiencing psychosis to biological factors, such as genetic inheritance. Only one of the participants, interviewee 12, believed her experiencing psychosis was due to some kind of genetic inheritance:

P: I think my mum might have passed something down to me, I kind of think that, yeah.

R: So tell me about that.

P: Um, (pause).

R: So you think biological, so you inherited it?

P: Yeah (Interviewee 12).

Another participant talked about having sleeping problems since she was an infant, which may provide some evidence that experiencing psychosis is influenced by biological factors. This is because the temperament one is born with is widely understood as being biologically influenced, if not determined. Therefore, being identified as an infant with a 'fussy' temperament and perhaps difficulty self-soothing and thus sleeping may then indicate a predisposition for anxiety and/ or sleeping problems. This in turn may potentially predispose such an individual to experiencing psychosis. Although only a hypothesis or theory, it is perhaps possible as the following participant demonstrated:

Okay. Well, I've had a problem with sleeping ever since I was a baby, like I used to just be lying there for ages and my mum and dad would have thought I was asleep then they'd just come near me and I would be awake. So they said I've

always had that trouble sleeping, yeah it's just gotten worse since I've gotten older. Like when I used to go to school sometimes I'd have to, I wouldn't get to sleep at night and I'd still have to go to school in the morning anyway, so I'd be real tired in class. Yeah, I think my sleeping cycle just got worse. So I'm, how that episode happened was because I stayed awake for three or four days. I just couldn't get to sleep and I started to hear voices and I had really bad paranoia, yeah. I was like, I was hearing things like people were coming to get me and stuff like that, yeah. Just stuff that wasn't true (Interviewee 13).

Even if the participants themselves did not attribute experiencing psychosis to biological factors, many still talked about it as something they had been told was a possibility:

P: I've got a half-brother, Liam, he's got (pause) schizophrenia. My dad reckons it comes from the mum's side. To see what he had to deal with must be hard.

R: So do you think there's some kind of biological thing as well, that caused you to have this?

P: It's hard to say, and I don't think, I think it's a no. I think mum, you know the family, because my half brother has schizophrenia, how did he get it? He does smoke a lot of weed though I heard, but it must have been to help him out too, yeah (Interviewee 3).

Spiritual

This theme included any talk in which the participants attributed experiencing psychosis to supernatural happenings and/ or communicating with spirits. Two of the participants thought something of a spiritual nature had played a role in causing their psychosis:

I just look back now and it's like it could be spiritual... (Interviewee 8).

Interviewee 14 talked about what her mother believed had caused her to experience psychosis. It was unclear whether or not this was something the participant also believed:

P: My mum thought it was spiritual.

R: Your mum says it's spiritual?

P: Yeah.

R: So her belief is it's spiritual? Like what kind of spiritual?

P: She reckons it's ghosts.

R: Ghosts?

P: Yeah (Interviewee 14).

Cultural

This theme included any talk in which the participants understood their psychotic experiences as being due to a cultural worldview, and/ or a cultural conflict, such as talked about by one of the participants:

P: No. I was just hearing voices from my uncle and that wanting to kill me and my family and stuff, all because there's this thing when you bury a family member, two kinds of a family come in and then they start arguing, and that sort of what triggered it as well.

R: So there was conflict within your whanau?

P: Yeah.

R: Like, after your, do you call him your papa?

P: Yeah, about where we were going to put him and stuff.

R: Was that because it was two different iwi or it was because it was pakeha and Maori?

P: Nah, nay, different iwi, yeah. (Interviewee 11)

Service-Users' Feedback

In response to being asked, 'do you have any advice for working with people with psychosis?' the participants talked about the importance of mental health staff listening to them and being interested in their perspective:

Not prejudging them and like trying to get a good, like understand their point of view sort of thing, like what they're going through, because it's not real sort of thing, but they believe it is (Interviewee 1).

They also talked about the importance of mental health staff being patient, reassuring them, and keeping them, and their information safe:

Yeah, being supporting and reassuring and patient, and all that sort of stuff that comes with dealing with other people I guess, yeah (Interviewee 4).

Yeah they have given me an environment that I can feel that I talk and not be scared about it and not being afraid about it, but they reassure of the safety of my information (Interviewee 6).

Don't push them to tell them everything at once 'cause it's taken me a while to open up fully and tell a lot things 'cause I admit I had to try and explain it without mentioning my ex or my mate who's going out with her and...(Interviewee 7).

Yeah, be an empowering person, yeah listen, being able to roll with their resistance, let them make their own choices (Interviewee 11).

'Service-Users' Feedback' also included data elicited in response to being directly asked, 'do you feel that your views are matched by the staff you have worked with here and/ or in other mental health services? Followed by, 'do you think it matters?' All of the participants thought it was important mental health workers had a shared understanding of what service-users believed caused them to experience psychosis. For example, interviewee 1 seemed to believe that having a shared understanding about what caused one's psychotic experiences potentially normalised the experience:

R: And do you think, 'cause to know more about it, do you think it's relevant for your recovery as well?

P: I think it's, it is relevant...because it, like justifies where the problems came from sort of thing, and like, yeah, I can't really explain it (Interviewee 1).

Some participants also talked about mental health workers understanding their causal beliefs as a tool to better enable mental health workers in their work with service-users:

I think it's important the doctor has to be because then they can diagnose, otherwise they can't diagnose what the client's talking about. I think it's very important that they understand what you're talking about, what I'm talking about (Interviewee 3).

Yeah. I think they should know 'cause like then they'll be able to figure out like ways to help you (Interviewee 2).

I think it's one of the best things 'cause it means that they actually know what I'm talking about properly. They know how I'm explaining it and they can kind of understand a bit better. They can then give the help or their advice when, I don't have to explain the situation I'm in, yeah (Interviewee 7).

In response to having the notion of an instrument that assesses service-users' aetiological beliefs explained, and then being asked, 'what do you think about this?' Two participants offered their thoughts regarding the concept of an instrument for clinicians to use when assessing service-users' causal beliefs:

I think it just helps other people to understand a little bit more about psychosis because we're people that have had that lived experience and you might be able to take a little bit out of it and be able to use it for good purposes and enhancing the mental health services (Interviewee 11).

Another participant suggested such an instrument should have an item that asks how the person perceives themselves:

I reckon how they judge themselves. How do you judge yourself? (Interviewee 3)

Stage 2

The findings from stage 1 of the study were similar to Geekie's (2004, 2006). The themes found in the second set of data, 'Causes' from stage 1 of the study map onto four of the causal factors identified by Geekie (2004, 2006), as illustrated in Table 2. Consequently, it was decided to create the draft instrument using the five causal factors identified by Geekie (2004, 2006) as a template, in order to compose the specific items making up the draft instrument. This is illustrated in the fourth column of Table 2.

During the development of the instrument I met with my supervisor to review and discuss both the format and items designed for the instrument. Amendments were also made to some of the individual items:

- Item 1, indicative of 'Biological', was changed from, 'because it runs in my family' to 'because it is genetic and runs in my family'.
- 'etc.' was added to the end of item 3.
- Item 4 was changed from, 'because I was too stressed and felt too much pressure' to 'because I was too stressed out'.
- The feeling, 'uncertain' was removed from item 5.
- Item 6 was changed from, 'because I was bottling things up and felt I could not share what I was feeling or thinking' to 'because I was bottling things up'.
- What was originally item 8, 'because I could not tell the difference between what I imagined and what was real' was removed.
- The item associated with 'development and experience; 'because I felt alone and like an outsider' had the word 'and' changed to 'or'.
- The item associated with 'development and experience'; 'because I was abused when I was a child' was changed to 'because I was abused as a child'.

Overarching Causes (Geekie, 2004, 2006)	Causes' Sub-categories (Geekie, 2004, 2006)	Themes identified in Stage 1 of this study	Items for Draft Instrument
Biological factors	Heredity	Biological	Because it is genetic and runs in my family.
	Brain		Because my brain works differently to other people.
	Drugs	Drugs	Because I used drugs, such as, 'marijuana' or 'P' or 'alcohol' etc.
	Sub-vocalization		
Psychological factors	Emotions	Pressure	Because I was feeling too stressed out.
		Feeling	Because I was feeling bad, e.g., depressed/ worried/ scared/ guilty/ jealous.
			Because I was bottling things up.
	Self	Self-esteem	Because I had lost sense of whom I was and what I believed.
Information processing	Thinking	Because I was thinking too much and could not handle all the thoughts in my head.	
Development and Experience	General experience and history	Loss/ Grief	Because I have gone through a lot of difficult times.
	Isolation	Outsider	Because I felt alone or like an 'outsider'.
	Abuse	Adverse events	Because I was abused as a child.
			Because I was neglected as a child.
	Interpersonal relationships		Because of a relationship breakup.
			Because someone close to me died.
Becoming independent		Because of financial problems.	
Functions of psychosis	Expressing or avoiding painful emotions		Because it was my way of coping with things.
	Making sense of things		Because it helped me make sense of things.
	Giving voice to suppressed thoughts		Because it gave voice to things I found hard to acknowledge.
Spiritual factors	General spiritual matters	Cultural	Because I was struggling with cultural issues.
	Other beings	Spiritual	Because I have a spiritual gift.
			Because ghosts or spirits were communicating with me.

Table 2: Table illustrating how findings from stage 1 of this study match Geekie's (2004, 2006) findings.

- The item, 'because I was neglected as a child' was added, and is currently item 12.
- Item 15 was changed from, 'because I lost my job or home and am struggling to pay my bills' to 'because of financial problems'.
- Item 16 was changed from, 'because it was my way of coping with painful emotions or thoughts' to 'because it was my way of coping with things'.
- Item 17 was changed from 'because it helped me make sense of things I found confusing' to simply, 'because it helped me make sense of things'.
- What is currently item 18 and the third item associated with 'Functions of Psychosis' was added; 'because it gave voice to things I found hard to acknowledge'.
- What is currently item 19, 'because I was struggling with a cultural conflict' was altered to, 'because I was struggling with cultural issues'.
- What was item 20, 'because something supernatural was happening' was replaced with 'because I have a spiritual gift'.

The full draft instrument (Appendix D) consisting of the items listed in Table 3 was then presented in a questionnaire format (Appendix E) at the Regional Auckland Psychosis (RAP) group's December 2012 meeting. This questionnaire asked the clinicians who attended to rate the relevance of each item (from the draft instrument) to its corresponding theme, as well as how often their clients talked about each of the overarching themes. The responses of the 13 clinicians who chose to complete the questionnaire are presented in Tables 3 and 4. Item 3; 'Because I used drugs, such as 'marijuana' or 'P' or 'alcohol' (M=1.77, SD=0.83) had the lowest mean rating for relevance to its corresponding theme; 'Biological'. However, the mean rating clinicians gave this item still fell in the 'Relevant' category.

Themes and corresponding items		Clinician Responses													Response M		SD
		1	2	3	4	5	6	7	8	9	10	11	12	13			
Biological																	
1	Because it is genetic and it runs in my family	1	1	2	3	3	3	2	3	3	2	2	0	1	Relevant	(2.00)	1.00
2	Because my brain works differently to other people	1	2	3	1	2	3	2	3	3	1	2	0	2	Relevant	(1.92)	.95
3	Because I use drugs, such as marijuana or P or alcohol	2	2	3	1	3	2	2	2	2	0	1	1	2	Relevant	(1.77)	.83
Psychological																	
4	Because I was feeling too stressed out	2	2	3	3	3	3	3	3	3	2	2	3	2	Very Relevant	(2.62)	.51
5	Because I was feeling bad, e.g. depressed / worried / scared / guilty / jealous	2	2	3	3	3	3	3	3	3	2	2	2	2	Very Relevant	(2.54)	.52
6	Because I was bottling things up	2	2	3	2	3	2	3	3	3	2	1	2	3	Relevant	(2.38)	.65
7	Because I had lost all sense of who I was and what I believed	2	1	3	3	3	0	3	3	3	2	2	2	3	Relevant	(2.31)	.95
8	Because I was thinking too much and could not handle all the thoughts in my head.	2	1	3	2	3	3	3	3	3	2	1	2	2	Relevant	(2.31)	.75
Development & Experience																	
9	Because I have gone through a lot of difficult times	3	2	2	3	3	3	3	3	3	2	2	2	2	Very Relevant	(2.54)	.52
10	Because I felt alone or like an outsider	3	2	2	3	3	1	3	3	3	0	2	2	2	Relevant	(2.23)	.93
11	Because I was abused as a child	3	2	3	3	3	2	3	3	3	3	3	3	2	Very Relevant	(2.77)	.44
12	Because I was neglected as a child	3	3	3	3	3	2	3	3	3	3	3	3	2	Very Relevant	(2.85)	.38
13	Because of a relationship breakup	2	1	2	1	3	0	2	3	3	2	3	1	2	Relevant	(1.92)	.95
14	Because someone close to me died	2	2	3	2	3	1	2	2	3	2	3	2	2	Relevant	(2.23)	.60
15	Because of financial problems	2	2	2	1	2	1	2	2	3	2	2	1	2	Relevant	(1.85)	.55
Functions of Psychosis																	
16	Because it was my way of coping with things	2	1	2	2	3	1	2	3	3	2	2	2	2	Relevant	(2.08)	.64
17	Because it helped me make sense of things	2	2	2	2	3	1	3	3	3	1	2	2	2	Relevant	(2.15)	.69
18	Because it gave voice to things I found hard to acknowledge	2	2	2	2	2	1	3	2	3	2	2	2	2	Relevant	(2.08)	.49
Spiritual & Cultural																	
19	Because I was struggling with cultural issues	3	2	3	2	3	1	2	2	3	2	3	2	2	Relevant	(2.31)	.63
20	Because I have a spiritual gift	1	1	2	2	2	2	2	2	3	2	3	2	2	Relevant	(2.00)	.58
21	Because ghosts or spirits were communicating with me	3	0	2	2	2	3	2	1	3	2	3	2	2	Relevant	(2.08)	.86

Table 3: Table summarising clinicians' ratings for each item's relevance in relation to its corresponding theme (0=not at all relevant, 1=slightly relevant, 2=relevant, 3=very relevant)

Item 12; 'Because I was neglected as a child' (M=2.85, SD=0.38) had the highest mean rating for relevance to its corresponding theme; 'Development and Experience'. This means the mean rating clinicians gave this item fell in the 'Very Relevant' category.

Four of the thirteen clinicians rated seven of the items as 'Not relevant at all' to their corresponding themes (see Table 3). No items elicited 'a not relevant at all' response from more than one clinician.

The mean frequency for how often the clinicians reported their clients talked about each of the domains/ aetiological themes identified in the draft instrument fell in the 'often' range. The 'Psychological' domain's mean frequency (M=2.31, SD=0.85) was slightly higher than the other four domains (see Table 4).

Themes	Clinician Responses													Frequency M	SD
	1	2	3	4	5	6	7	8	9	10	11	12	13		
Biological	2	2	3	2	3	3	2	3	2	1	1	1	1	Often (2.00)	.82
Psychological	2	2	3	2	3	3	3	1	3	3	1	3	1	Often (2.31)	.85
Development & Experience	2	2	2	1	3	3	3	1	2	3	0	3	1	Often (2.00)	1.00
Functions of Psychosis	2	1	2	2	3	1	3	0	3	1	1	1	1	Often (1.62)	.96
Spiritual & Cultural	1	1	2	1	2	1	2	3	2	2	1	3	1	Often (1.69)	.75

Table 4: Table summarising the clinicians' ratings for how often their clients talk about each of the overarching themes (0=not at all, 1=sometimes, 2=often, 3=very often).

CHAPTER FOUR: DISCUSSION

This chapter will first discuss the findings from stage 1, including possible interpretations, and how these findings fit with previous research. Possible reasons for the similarities and differences compared to previous research will also be offered. The draft instrument was then designed based upon both the findings from stage one, as well as other similar research, including Geekie's (2006) findings. This provides the rationale for stage 2 of the study, which will then be examined. The initial feedback provided by clinicians from the Regional Auckland Psychosis meeting will be considered, including how they rated the relevance of the items to their associated domains, and what these preliminary findings may mean. Following this, the challenges to carrying out the study and, in turn, its strengths and limitations will then be discussed. Possible research and clinical implications will be considered, before the final conclusions will be offered.

Findings from Stage 1

In stage one of this study, three sets of data were analysed. These were: 'Experiences of Psychosis', 'Causes', and 'Service-Users' Feedback'. Unlike causal beliefs, the process of participants talk about their psychotic experiences had initially not been considered a central part of this study. However, in the early stages of analysis it became evident the interviews had elicited rich data about the nature of the service-users' psychotic experiences. Consequently, this was analysed and reported. Thus, although talk within this set of data was not explicitly about what participants thought had caused their psychosis, it potentially provided secondary evidence supporting psychosocial understandings of psychosis. This set of data is arguably related to causal beliefs. One of the five causal factors identified by Geekie (2006) was 'Functions of Psychosis'. His study found that people who experienced psychosis causally implicated the functions that

their psychosis served as having an explicit role in the aetiology of their psychotic experiences.

'Experiences of Psychosis' was comprised of the following themes:

- Triggers
- Recognising the voices
- Hostile hallucinations and delusions
- Conscience

As described in the previous chapter, the 'Triggers' theme included any talk, in which the participant identified a specific trigger for their psychotic experiences. For this theme it could be argued that the psychotic experiences described by the participants appeared understandable, within the specific context it occurred, and when taking into account other possible external triggers and/ or exacerbating factors. In other words, when the person's psychosocial factors were considered it was understandable that they experienced psychosis.

For all except one of the participants, at least some aspects of their psychotic experiences appeared to be an understandable response to specific psychosocial factors. For example, as presented in the previous chapter, one of the participants reported first experiencing auditory hallucinations when in the company of an individual who had, if not perpetrated, been present during an incident in her past in which she was drugged and sexually assaulted. It could be argued that in this situation, the first time she heard voices served as a warning function, to tell her that she was in potential danger. This example, is also, perhaps, evidence for 'Functions of Psychosis' being a causal factor as observed by Geekie (2006). In other words, in this specific situation, the participant's experience of hearing voices could be interpreted as her subconscious giving voice to thoughts and/ or feelings that she was unable to consciously acknowledge. It may also be likened to what

Geekie (2006) described as 'giving voice to suppressed thoughts', under the causal factor he identified as 'Functions of Psychosis'.

However, as previously acknowledged subjective accounts of psychotic experiences, such as the fore mentioned example, were not explicitly reported by the participants in the present study as having a causal role in their psychotic experiences. Consequently, it is important that interpretations, such as that just offered, acknowledge this, and the researcher does not assume that the analyses and interpretations discussed are 'right' and the participant is simply 'unaware'. Such assumptions would counter one of the main aims of the study; to value service-users' own understandings of their psychotic experiences, and contradicts the underlying notion that service-users are experts on their own experiences.

Despite, the analyses and associated interpretations discussed being just that – interpretations, possible reasons for the differences in findings between the present study and Geekie's (2006) regarding 'Functions of Psychosis' needs to be discussed. One possible reason for the difference in findings could be due to the participants in the present study simply not verbalising thoughts they may have had regarding their 'Experiences of Psychosis' being a causal factor in their psychotic experiences. This may be because the structure of the interviews did not easily elicit such talk; once it seemed like the participants had finished telling their story, and it seemed the participants were not going to spontaneously report further causal understandings, the researcher then put to the participant findings from previous studies. In such scenarios the researcher would summarise findings from similar research in respect to: biological; psychological/ psychosocial; and spiritual, then ask the participant if they identified with any of these factors.

Such a process does not readily facilitate participants talking about 'Functions of Psychosis' having a role in causality. Another possible reason participants did not identify 'Functions of Psychosis' as a causal factor, is that perhaps for some of the participants it was the first time they had thought about their own understandings of their psychotic experiences, as for some it was reportedly the first time they had been asked about their understandings. Whereas, the participants in Geekie's (2006) study were also his therapy clients, who were identified to be potential participants because they were already in the process of exploring their understandings of their psychotic experiences in their therapy work. It therefore makes sense that Geekie (2006) found some of his participants had a clear understanding of their psychotic experiences as having a function, which in turn potentially caused their psychosis, and that the participants in the present study were more tentative to offer such interpretations. However, despite participants from this study not explicitly talking about their psychotic experiences as being due to problems managing their emotions, it can not be assumed they did not think this nor that they may come to think this if they were given the opportunity to explore their understandings further, such as in the context of therapy.

Participants also often talked about 'Recognising the voices' they heard as belonging to either themselves or someone they knew. Psychotic experiences of this nature provided additional evidence for 'Functions of Psychosis'. For example, interviewee 7 talked about first hearing voice/s in his early teens following the death of his best friend. It could be argued that the function of this psychotic experience was this young man's way of coping with the grief of losing his friend, which he later stated to be the case. This may be similar to what Geekie (2006) described as the function of 'making sense of things'.

The third theme of 'Experiences of Psychosis' was 'Hostile hallucinations or delusions', which included any talk about the psychotic phenomena being of a derogatory or hostile nature. Participants talked about such experiences as often being in the context of experiencing additional stressors in their lives. Therefore, it could be argued that in such cases one's psychotic experiences were perhaps a way of coping, and therefore served a function. Alternatively, such experiences could be caused by what Geekie (2006) categorised as 'giving voice to suppressed thoughts'. For example, one participant talked about the voices she heard as belonging to people from her past that had harmed her.

The final theme identified under 'Experiences of Psychosis' was 'Conscience'. As stated in the previous chapter some of the participants reported hearing only one voice, which they recognised as their own. Perhaps initially this voice had been an internalised voice or 'conscience', however, possibly due to stressors or some kind of emotional and/ or cognitive processing issue, the internal voice became externalised. As fore mentioned, participants often heard voices in the context of experiencing additional stressors in their lives. Therefore, the possible externalisation of one's own internal voice could be precipitated or caused by such stressors, and/ or in turn difficulties processing either the associated cognitions and/ or emotions of this experience. This is congruent with the cognitive model developed by Garety et al. (2001), and which is discussed in chapter one. Garety et al. (2001) argued that a stressful event could lead to a disruption in self-monitoring ones' objectives and actions, and in turn cause one to not recognise one's own objectives and actions, and thus experience them as being outside oneself.

This is perhaps best illustrated by one of Geekie's (2006) participants who understood his psychosis as 'reflecting', and which he explicitly thought was his 'own way of expressing or avoiding painful emotions'. Similarly, a participant in the present study, interviewee 3, termed his hearing voices as 'contemplating'. Although, he did not

explicitly identify his 'contemplating' as serving a function, which he then understood to be a causal factor for his psychosis, it was possible his process of 'contemplating' had become externalised as a way to manage difficult emotions and/ or thoughts.

Causes

'Causes' was comprised of the following themes: 'drugs & alcohol'; 'adverse events'; 'pressure'; 'feeling'; 'loss/ grief'; 'outsider'; 'thinking'; 'self-esteem'; 'biological'; 'spiritual'; and 'cultural'. In the following section, the themes will be discussed in relation to what could be described as broader themes or potential causal subfactors, that is: psychosocial; psychological; biological; and spiritual.

Psychosocial factors

The themes: 'adverse events', 'loss/ grief', and 'outsider' causally implicated by participants for the origins of their psychotic experiences, may be considered psychosocial factors. There is substantial research evidence for the role of psychosocial factors in the aetiology of psychosis. Geekie (2006) described the psychosocial factors his participants reported as causally related to their psychosis under 'Development and Experience'. This included: 'general experience and history', 'isolation', 'abuse', 'interpersonal relationships', and 'becoming independent', all of which were identified by his participants as contributory factors in the genesis of their psychosis.

Adverse events

The 'adverse events' theme included participants' talk that attributed adverse events experienced earlier in life as having a causal role in the genesis of their psychosis. Eight participants identified 'adverse events' as being causally related to their experience of psychosis, for example one participant believed being molested as a child contributed to her experiencing psychosis.

There is now a large body of research evidence that supports 'adverse events', and specifically trauma as having a role in the aetiology of psychosis. For example, Cutajar et al.'s (2010) study, which followed a large cohort (n= 2759) for 43 years found that, "child sexual abuse is a substantial risk factor for a range of mental disorders in both childhood and adulthood" (p. 813). Furthermore, Bak et al.'s (2005) 'three-wave longitudinal general population study' (n= 4045) concluded that:

"Early experience of trauma may create lasting cognitive and affective vulnerabilities to develop clinical symptoms arising out of early, non-clinical psychotic experiences" (p. 360).

In addition to the general research having found an aetiological relationship between childhood abuse and experiencing psychosis, so too has the research exploring voice-hearers' explanatory models for their experiences. One such study found voice-hearers in the general public had psychological explanatory models for their experiences, which included "references to interpersonal trauma" (Beavan et al., 2007, p. 4). Geekie (2006) also found 'abuse' to be a subfactor in participants' 'Development and Experience' that they identified as having a causal role in the genesis of their psychotic experiences.

Loss/ Grief

The 'loss/ grief' theme included participants' talk that causally implicated either some kind of traumatic loss or grief to the origins of their psychosis. Six participants identified 'loss/ grief' as contributing to them having psychotic experiences. For example, one participant attributed the death of her father to her having experienced psychosis, and another to her mother 'leaving' when she was 'quite young', whilst another participant attributed the dissolution of her relationship. There is evidence in the literature that the loss of a parent in childhood can contribute to extreme psychological distress. For example, Friedman et al. (2002) found in an outpatient study loss of a mother significantly

higher (55%) in those diagnosed with schizophrenia compared to other diagnoses (23%). Whereas, Morrison and Peterson (2003) argued that grief in general has been found to be associated to the predisposition for hearing voices in young people.

Previous studies exploring first-hand accounts have also found experiences of loss and grief contributed to the aetiology of psychosis. The NZ Mental Health Commission's 'Kia Mauri Tau!' report which was based upon interviews with 40 service-users about their subjective experiences, found participants often attributed their mental health difficulties to psychosocial factors, including 'feelings of abandonment' (Lapsley et al., 2002). Geekie (2006) also found his participants reported similar experiences to the participants in the present study. One of the examples he gave for the subfactor, 'interpersonal relationships', which was categorised under the causal factor; 'development and experience', "pondered the possibility that a failed past relationship rendered her unwell" (p. 242).

Outsider

The 'outsider' theme included talk from 4 participants, in which they causally implicated feelings of isolation and/ or being apart from others, for the origins of their psychotic experiences. For example, one participant thought being a 'loner' made him vulnerable to experiencing psychosis. Similarly, the NZ Mental Health Commission's 'Kia Mauri Tau!' report found that service-users attributed their mental health difficulties to 'feelings of isolation', as did the service-users that participated in Geekie's (2006) study: "An experience which was notable in participants' stories was having spent prolonged periods of time feeling, and being, socially isolated... the general notion here was that participants saw their loneliness as creating a vacuum which was filled by the psychosis" (p. 244).

Psychological

'Pressure', 'feeling', 'thinking', and 'self-esteem' were all identified by participants as possible 'causes' for their psychosis, and may be considered psychological factors in the aetiology of psychosis.

Pressure

Seven participants identified 'pressure' as a factor that contributed to their psychotic experiences. The 'pressure' theme included both internal pressures a person may place upon themselves, as well as external pressures a person may face. According to Garety et al.'s (2001) cognitive model of psychosis one of the possible routes to the formation of delusions and hallucinations is in the context of cognitive and emotional changes. According to this model a stressful experience could precipitate a disruption to a person's automatic thought processes, which then may proceed in two ways, both of which lead to psychotic experiences. It could be argued that the internal 'pressure' identified by participants as an aetiological factor in their psychosis, is part of the cognitive process which Garety et al.'s (2001) model proposed. Alternatively, the external pressures participants identified as having an aetiological role in their psychosis could be likened to the stressful event in Garety et al.'s (2001) model, which he proposes is the precipitator for the cognitive processes that lead to psychotic experiences.

Like the aetiological factor identified by participants in the present study as 'pressure', Geekie's (2006) participants identified 'bottling things up' and 'stress' as being psychological causal factors for their psychotic experiences. Other studies exploring first-hand accounts have had similar findings. For example, Beavan et al. (2007) found that voice-hearers in the general public had psychological explanatory models for their experiences, which included references to 'abnormal cognitive processes'.

Feeling

The 'feeling' theme related to psychotic experiences being attributed to negative feelings or mood. Six participants causally implicated their feelings or mood, as part of the origins of their psychosis. For example, some participants reported experiencing low mood and feelings of guilt, as having contributed to their psychosis. Garety et al.'s (2001) cognitive model of psychosis could potentially explain how these negative feelings led to psychotic experiences. For example, Garety et al. (2001) proposed that changes in affect occur simultaneously, both as a direct response to the precipitating event as well as in response to the irregular experiences (e.g., hearing voices), which then inform how the irregular experiences are processed, as well as influence their content. Therefore, perhaps the participants experienced low mood or feelings of guilt in response to stressful or adverse life events, which then caused what were previously benign, or not clinically psychotic, irregular experiences to escalate, resulting in the participants becoming acutely psychotic.

As previously mentioned other studies investigating first-hand accounts have also found that voice-hearers and service-users have psychological explanatory models for their experiences (e.g., Jones et al., 2003; Beavan, 2007). Furthermore, Geekie's (2006) participants also identified 'emotions', such as 'low mood' and 'guilt', as having a role in the cause of their psychosis.

Thinking

The 'thinking' theme related to psychotic experiences being attributed to difficulties experiencing, managing or processing, and expressing one's thoughts. Four participants identified their 'thinking' as a factor that contributed to their psychosis. As already mentioned, Garety et al. (2001) developed a comprehensive cognitive model for psychosis, which arguably conceptualises the participants' difficulties with 'thinking',

which they believe had a causal role in their psychosis. Also as already discussed, other studies exploring voice-hearers' and service-users' subjective experiences have found psychological understandings to be one of the central frameworks from which voice-hearers and people who experience psychosis make sense of their experiences.

The 'thinking' theme may also be compared to 'information processing', a subfactor Geekie (2006) categorised as psychological. In other words, service-users believed that how they processed information played a role in their psychosis. This included, what Geekie (2006) described as 'cognitive overload', that is, 'the idea that having too many, or too intense thoughts can cause psychosis' (p. 240). Another aspect of information processing attributed by some of Geekie's (2006) participants for contributing to their psychotic experience was 'metacognition'. Geekie explained; 'in some ways related to the notion that too many thoughts caused psychosis was the view that thinking about one's own mental processes (or 'metacognition') causes psychosis. For instance, one of his participants claimed:

"I'm sure that if I didn't notice it, I'd be fine because that's how started getting into it. I started noticing things, and I started getting deeper and deeper in thought as I noticed more and more things..."

This may be compared to a participant from the present study, who believed her 'overanalysing everything' contributed to her experiencing psychosis. Therefore, the 'thinking' theme may be likened to aspects of the psychological factor; 'information processing', which Geekie (2006) found to be implicated by some as having a part in the aetiology of their psychosis.

Self-esteem

'Self-esteem' was another theme identified by participants as contributing to their psychosis. Two participants attributed their psychotic experiences to low self-esteem.

Low self-esteem may be understood as a psychological factor that has a role in the aetiology of psychosis. Other studies have reported similar findings. For example, as previously mentioned, 'psychological' factors were identified in both Jones et al.'s (2003) and Beavan's (2007) studies as one of the three overarching frameworks from which voice-hearers made sense of their experiences. Beavan (2007) reported that explanatory models within the psychological category included: "references to interpersonal trauma, abnormal cognitive processes and different aspects of the self" (p.4). Furthermore, previous to the present study, Geekie (2006) also found 'self-esteem and confidence' to be one of the psychological factors identified by service-users for contributing to their psychotic experiences.

Biological

Only two of the participants had a 'biological' understanding of their psychosis. One of the participants believed she had inherited a genetic predisposition from her mother to experience mental health problems. The other participant, who arguably had a biological understanding of her psychotic experiences, was a young woman who attributed these experiences to sleeping problems. She had reportedly experienced difficulties sleeping since an infant, and had been identified to be an infant with a 'fussy' temperament and problems self-soothing, which affected her sleeping, and thus predisposed her to mental health problems such as anxiety, and in turn psychosis.

While only two participants reported biological understandings of their psychotic experiences; other participants who did not themselves believe biological factors had a role in the aetiology of psychosis, were still aware of, and talked about such aetiological theories. This is possibly due to service-users being exposed to such beliefs through the psychiatric system or from family members and other members of the general public who have received psycho education about schizophrenia and/ or mental illness. Psycho

education programs for family members, as well as the general public attempt to destigmatize 'mental illness' through 'educating' lay people that such problems are just like any other kind of medical illness. Unfortunately, however, many studies have now demonstrated such programs often have the opposite effect.

Nevertheless, biological aetiological theories should not be discounted. Firstly, because some service-users themselves do understand their psychotic experiences as being caused by biological factors. In addition, there is empirical evidence for biological understandings amongst voice-hearers and people who experience psychosis. For example, both Jones et al. (2003) and Beavan (2007) identified 'biological' as one of the three overarching frameworks from which voice-hearers understood their experiences. Beavan's (2007, p. 4) biological category included: "references to brain dysfunction and the effects of both prescription and recreational drugs" (p. 4). Geekie (2006) also found that service-users had biological understandings of their psychotic experiences. His research identified the following biological factors as playing a role in the aetiology of psychosis: drugs, brain, heredity, sub-vocalisation. The 'heredity' factor identified by Geekie (2006) is similar to the 'biological' theme found in stage one of this study (outlined above), and the 'drugs' factor the same as the 'drugs and alcohol' theme, which will now be discussed.

Drugs & Alcohol

'Drugs & Alcohol' was a theme causally implicated by eight of the participants as having a causal role in the origins of their psychotic experiences. There is a large body of empirical evidence on the biological affects the use of drugs, such as marijuana and 'P', and alcohol' have on the human brain, and thus the biological role 'drugs and alcohol' have in the aetiology of psychosis (e.g., review by McLaren et al., 2010). More recent research, exploring first-hand accounts, has also found that voice-hearers' themselves

believe drug and alcohol use had an aetiological role in their experiences. For example, both Jones et al.'s (2003) and Beavan's (2007) studies explored voice-hearers' explanatory models of psychosis, and found biological explanations to be one of the three overarching frameworks identified by participants. Beavan's (2007) biological category included: "references to brain dysfunction and the effects of both prescription and recreational drugs" (p. 4).

Although 'drugs and alcohol' were found by participants to have a contributory role in their psychotic experiences, some participants appeared to have acquired these views since being in contact with mental health services, and having been 'educated' about the effects of drugs and alcohol. In addition, some participants did not think the use of drugs and alcohol was necessarily the root cause of their psychotic experiences, but rather, either triggered or exacerbated their psychotic experiences. Similarly, researchers still have questions about the actual nature of the relationship between drug use and psychosis. For example, McLaren et al. (2010) reviewed 10 cohort studies, investigating the causal relationship between marijuana use and psychosis, and concluded that:

"Whilst the criteria for causal association between cannabis and psychosis are supported by the studies reviewed, the contentious issue of whether cannabis use can cause serious psychotic disorders that would not otherwise have occurred cannot be answered from the existing data" (p. 10).

Furthermore, as others have already considered the use of drugs and alcohol is more complex than it just being the ingestion of a biological substance, which affects your physiology, but it is also a sociologically and psychologically influenced behaviour (Geekie, 2006). However, these aspects of drug use have not been incorporated into current aetiological theories about drug use and psychosis. Therefore, in summary, both service-users and researchers still have questions regarding the actual structure and significance of this relationship.

Spiritual

Similarly, although only two participants attributed their psychotic experiences to something of a spiritual nature, and did so only tentatively, such understandings are still a distinct belief about causality that must be acknowledged. Furthermore, recent studies have reported people from both the general population and users of mental health services, who hear voices or have psychotic experiences, often make sense of such experiences from a spiritual perspective.

Romme and Escher's (1989, 1993) classic study found voice-hearers adopt a diverse range of understandings of their experiences, including; metaphysical, mystical, medical, parapsychological and psychodynamic. In addition they found the level of distress experienced by voice-hearers was influenced by how they understood their experiences. Since then several studies have found that the understandings voice-hearers have of their experiences informs the associated level of distress. For example, Jones, Guy and Ormrod's (2003) study, which investigated twenty voice-hearers' understandings of their experiences, identified spiritual as one of the three overarching frameworks. They also found that those who understood their experiences within a spiritual framework generally experienced less distress than those who were clients of mental health services. This is congruent with what many cognitive theorists have suggested, that is, it is the interpretation people give to their psychotic experiences rather than the experiences themselves that causes the distress (Morrison, 2004).

A New Zealand study that investigated the understandings of voice-hearers from the general population also found 'spiritual' to be one of the three main explanatory models participants used to make sense of their experiences (Beavan, 2007). The 'spiritual' explanatory model included; "being in communion with external entities, having psychic abilities, being more open to mystic or spiritual experiences, as well as

general references to spirituality, such as intuitions and the existence of a spiritual realm” (Beavan, 2007, p.4). Taitimu's (2007) Kaupapa Maori research found that Maori made sense of 'extra-ordinary experiences' (EOE) by understanding EOE as being due to 'matakite' or 'being gifted'.

However, whilst many seemed to understand voice-hearing or psychotic experiences as being caused by positive spiritual events, such as being 'gifted', others attributed their psychotic experiences to malevolent spiritual influences. For instance, Samoan culture has an experience called 'ma i fasia', which is when an individual experiences hallucinations and behaves due to being 'struck' by a spirit, possibly because they disrespected the spirits or gods (Tamasese, Peteru, & Waldergrave, 1997).

Although only one of the participants understood their psychotic experiences as being due to a 'cultural worldview, and/ or a cultural conflict' it seemed a distinct and important understanding of psychosis, with others having reported similar findings. For example, one of the 9 different ways Taitimu (2007) found that her participants made sense of 'extra-ordinary experiences' (EOE) was the significant role 'Whakapapa/ Tupuna' played. One of the examples, Taitimu offered to illustrate this understanding was how a 'negative EOE may be attributed to perhaps 'hara' (conflict) within a whanau'.

In summary, the participants had diverse and often multifactorial accounts for understanding their psychotic experiences. These accounts may be categorised under four aetiological factors, including, psychological, psychosocial, biological, and spiritual factors. The psychosocial factors: 'adverse events' (8); 'loss/ grief' (5); and 'outsider' (4) were arguably the most causally implicated by participants for the origins of their psychotic experiences. Second to this were probably psychological factors: 'pressure' (7); 'feeling' (6); 'thinking' (4); and 'self-esteem' (2). Followed by biological factors:

'biological' (2); and 'drugs & alcohol' (8), then lastly spiritual factors: 'spiritual' (2); and 'cultural' (1).

The frequency with which the participants identified the range of aetiological factors as having a causal role in their psychosis was similar to previous New Zealand studies, which explored the subjective experiences of voice-hearers and service-users. For example, Beavan et al. (2007) categorised the range of explanatory models voice-hearers from the general population had for their experiences into three major categories: biological, psychological and spiritual. Beavan et al. (2007) "found that the least favoured category of explanations was biological" (p. 4), and the most frequently endorsed explanation was from the psychological category. This explanation ('the voices are a consequence of traumatic or stressful life events'), which approximately 75% of all questionnaire respondents understood as having some causal role in their hearing voices, would be described in the present study as a psychosocial factor rather than psychological. In contrast, to the present study Beavan (2007) found that:

"Spiritual frames of reference were also very commonly reported. For example the most frequently (42.9%) endorsed explanation from the questionnaire was 'I am having a spiritual experience'" (p. 5).

The difference in frequency with which spiritual factors were recognised by participants in the present study compared to Beavan's (2007) study as having a causal role in their experiences is most likely due to the fundamental difference between the participants from the two studies. Beavan (2007) explored the first-hand accounts of voice-hearers from the general population, and as other research has found:

"Respondents in the present study who tended towards a more positive emotional response to their voices were significantly more likely to endorse spiritual explanations for their experiences" (p.5).

It makes sense that people who hear voices in the general population, and who have not had to use mental health services, have most likely experienced hearing voices as positive. Furthermore, they have most likely made sense of the experience as being due to something positive, such as a spiritual gift, rather than a pathological phenomenon, due to either one's own negative actions or inherent deficits. In contrast, participants from the current study were service-users from an Early Psychosis Intervention service. Therefore, most of the participants not only heard voices but also had other anomalous experiences, which due to various factors had caused their irregular experiences to become psychotic experiences. Consequently, the participants in the present study most likely did not make sense of their experiences as being caused by something positive, such as a spiritual gift, or due to spiritual enlightenment.

The participants from Geekie's (2006) study were also service-users' from an Early Psychosis Intervention service, and similar to the present study only a few causally implicated something of a spiritual nature for the origins of their psychotic experiences. Also similar to the present study only two of Geekie's (2006) participants believed the 'brain' or 'heredity' had a causal role in their psychosis. However, like the present study many talked about drug use in relation to psychosis, but also like the present study many were unsure of the actual nature of the relationship between drug use and their psychotic experiences. Lastly, as in the present study Geekie's (2006) participants often made sense of their psychotic experiences as being related to psychosocial factors, (or what he described as 'Development & Experience'), and psychological factors.

This preponderance of psychosocial and psychological explanations for psychosis is consistent with large-scale surveys of the public. For example, Jorm et al. (1997) found in a survey of Australians 94% thought 'Day-to-day-problems such as stress, family arguments, difficulties at work or financial difficulties' the most likely reason for

schizophrenia, and 88.5% thought 'Problems from childhood such as being badly treated or abused, losing one or both parents when young or coming from a broken home' a likely reason. Similarly, a German population survey the most frequently identified cause of schizophrenia was isolation (73%) compared to 45% who thought it to be heredity (Angermeyer & Matschinger, 1996).

Service-Users' Feedback

I specifically asked participants near the end of their interviews if they had any advice for working with people who experienced psychosis. I also asked about whether or not they thought they had a shared understanding with their clinicians about their psychotic experiences, and if they thought this was important. Lastly, I explained the notion of an instrument which would ask service-users' about their causal beliefs, and what they thought about this.

I found this part of the interview did not flow as well as the rest of the interview, perhaps this was because this part of the interview was more structured, and the questions were more specific. Despite, these difficulties, the research elicited data in response to these questions, which was presented in the previous chapter under, 'Service-Users' Feedback'. 'Service-Users' Feedback' included any general advice or comments participants had regarding mental health services, as well as talk about the importance of clinicians understanding their subjective experiences, and how they made sense of this.

The views shared by service-users in regards to clinicians understanding their subjective experiences, not only provided further evidence that service-users' are willing authors of their own experiences, but also that they themselves believe their stories can be of benefit to mental health services. In other words, people who experience psychosis want to inform and actively participate in the treatment and recovery process. For

example, several participants talked about the importance of having a shared understanding with their clinicians, regarding what caused their psychotic experiences, in order to normalise such experiences, as well as facilitate their recovery.

In summary, participants had multi-factorial understandings of their psychotic experiences, which they were willing and able to talk about with ease. Therefore, the study provided further evidence for the notion that service-users' are 'experts' of their own experiences, with often sophisticated understandings, which could be of benefit to clinicians when working with service-users, and in turn potentially improve treatment outcomes.

Development of Draft Instrument

In light of these findings from stage 1 of the study, and in the context of the literature regarding the aetiology of psychosis I designed the draft instrument (Appendix D). Previous research exploring voice-hearers' and service-users' understandings of psychosis was central to the development of the draft instrument, particularly the study carried out by Geekie (2006). Geekie's research was particularly important because it was the most similar to the present study. Although Geekie's (2006) study employed qualitative methods it was conducted with a transparency that explicitly acknowledged the subjective position of the researcher, and which enabled the researcher to be critically reflective regarding his findings and interpretations. Furthermore he sought interpretative agreement through consultation with other clinicians and researchers, and attempted to acquire and incorporate feedback from participants.

As previously mentioned Geekie (2006) was a clinical psychologist working within an EPI service, and his participants were his clients who were already established in a therapeutic relationship with him, which included exploring their subjective

understandings of their psychotic experiences. Whilst the participants in the present study were also clients of an EPI service, the researcher had no previous clinical relationship with the participants. This difference between the two studies was arguably another benefit to basing the draft instrument on findings from both studies, as well as findings from the broader literature, and hopefully improved the draft instrument that was developed. This is because designing the draft instrument based upon findings from multiple studies rather than just the present better enabled the design of an instrument that was coherent and comprehensive, and which would facilitate clinical assessments and in turn treatment and recovery. It was not only important that the draft instrument reflected, the diverse range of aetiological understandings that have been identified by service-users in this and previous studies, but also that it was a suitable length and simple to use.

The five causal factors Geekie (2006) identified provided a comprehensive framework which included the themes found in the present study. Therefore, the five causal factors and their related subfactors, as put forward by Geekie (2006) were used as a template for designing the draft instrument. The relationship between the causal factors identified by Geekie's (2006), findings from stage 1, and the 21 items developed for the draft instrument is illustrated in Table 2 (chapter 3, p. 84). As can be seen in Table 2, not all of the subfactors identified by Geekie (2006) had an associated item in the draft instrument. For example, the 'sub-vocalization' subfactor identified by Geekie (2006) did not have an item related to it in the draft instrument.

Decisions regarding which causal factors had items created to reflect their specific subfactors or themes was based upon the degree and breadth of evidence for them, within the literature, particularly research regarding first person accounts. Such decisions were also influenced by the need for a potential item in relation to the overall length of the instrument, and the ease of understanding it. The draft instrument endeavoured to balance

this tension between creating a comprehensive instrument that could enable evidence-based practice, and accurately translate research findings into clinical practice, whilst at the same time being a user-friendly instrument for clinicians, to facilitate communication, and in turn improve treatment and recovery. Striking the right balance between these influencing factors was enabled through reviewing and discussing the proposed items for the draft instrument with my supervisor. Consultation with clinicians from the RAP meeting, and the initial feedback they provided regarding face validity further substantiate this. The results of this are discussed below.

Findings from Stage 2

The findings from stage 2 of the research are presented in chapter 3 (p. 83). As summarised in Table 3, the mean rating of relevance for 5 of the 21 items in relation to their associated domains fell in the 'very relevant' range. These items included: 'Because I was feeling too stressed out' ($M=2.62$, $SD=0.51$); and 'because I was feeling bad, e.g., depressed/ worried/ scared/ guilty/ jealous ($M=2.54$, $SD=.52$), both of which were associated with the 'Psychological' domain. The other three items that were rated by clinicians as 'very relevant' were all associated to the domain, 'Development and Experience'. These included: 'Because I have gone through a lot of difficult times' ($M=2.54$, $SD=0.52$); 'because I was abused as a child' ($M=2.77$, $SD=0.44$); and 'because I was neglected as a child' ($M=2.85$, $SD=0.38$).

The mean rating of relevance for all the remaining items in relation to their associated domains fell in the 'relevant' range. Although only a small sample ($n=13$) of clinicians, and only an assessment of initial face validity, the basic descriptive statistics that were calculated suggest that the items, which make up the draft instrument, at least appear relevant to the themes, or causal factors, they are intended to represent. Although

four of the thirteen clinicians rated seven of the items as 'not relevant at all' to their associated domain or corresponding theme, no items elicited a 'not relevant at all' response from more than one clinician. Overall, the items were found to be either 'relevant' or 'very relevant' to the causal factors that they were designed to assess, and thus basic face validity was established.

The clinicians also rated how often their clients talked about the five causal factors, upon which the draft instrument was based. The mean frequency for each of the five causal factors fell in the 'often' range: 'Psychological' (M=2.31) was the highest followed by: 'Development and Experience' (M=2.00); 'Biological' (M=2.00); 'Spiritual and Cultural' (M=1.69); and lastly 'Functions of Psychosis' (M=1.62). This suggests that the aetiological theories of the relatively small sample of 14 may be broadly representative of the hundreds of clients seen by the 13 clinicians.

Challenges

Clients from an Early Psychosis Intervention (EPI) Service were invited to participate in this study, rather than long-term service-users who have experienced psychosis. This was due to the notion that long-term users of mental health services have had more exposure to the biomedical framework which underpins psychiatric services, and this in turn has arguably informed their causal beliefs to a greater extent than users of first episode psychosis services. In other words, it may be argued that investigating the understandings of clients who attend an EPI service potentially provided a truer sense of the *original* aetiological beliefs held by people who experience psychosis.

On the other hand, however, this population brought its own challenges. For example, some of the participants seemed to still be adjusting to the effects of antipsychotics. Also some of the participants were adolescents, which may be viewed as a

potentially more difficult age group to communicate with. In addition, many of the participants had never talked about their psychotic experiences in detail before, or their understandings of them. Despite these potential challenges the participants seemed eager to discuss their psychotic experiences, and offer their accounts of how they made sense of them.

At times it was a challenge during the interviews for the author to maintain the position of researcher, and not cross into the role of psychologist. Consequently, it was difficult at times to not use micro-counselling skills such as summarising and reflecting back, which in a research situation may appear to be leading questions. There was also a fine line between following up on what a participant shared for research purposes versus clinical purposes, which can become second nature to a trainee clinician. Similarly, when risk issues arose during some of the interviews, there was a fine line between managing the risk as an ethical researcher and managing the risk as a clinician. However, I believe these challenges were addressed by seeking supervision, as well as through being critically reflective in my research practice. In other words I consciously acknowledged these challenges, reflected on how they had perhaps influenced the research process, as well as how I might do things differently.

There were also challenges that all qualitative researchers encounter, that is, ensuring that the qualitative methodology they use is conducted in a systematic and comprehensive way. The explicit and detailed outline proposed by Braun and Clarke (2006) for using thematic analysis was very valuable, and was returned to throughout the research process. Although, the researcher followed a systematic process, the 'subjective' position of the researcher can not be ignored, as it informs both the research process itself, as already touched upon in regards to the structure and process of the actual interviews, as well as analysis. The researcher's subjective position influences analysis, including the

interpretations, in fact according to some qualitative researchers, constructs the findings.

An example of how a researcher does this is through what is chosen from the data set to be analysed and interpreted, another is what those actual interpretations were, and the process by which they were made. I practised critical reflection across the research process, and examples of this were discussed earlier in the chapter. However, three stages of critical reflection were practised: awareness; critical analysis; and new perspective (Thorpe, 2004).

In addition, to being critically reflective I also practised transparently, and sought interpretive agreement as is demonstrated earlier in this chapter, as well as the previous chapters. I sought interpretive agreement from the beginning stages of the research process through consultation, with key stakeholders. I also sought interpretive agreement from my supervisor during the analysis process, in regards to the coding and the identification, then clarification of the themes. Interpretive agreement and consultation was also provided by my supervisor during the design stage of developing the draft instrument, and then from the clinicians at the RAP meeting.

In summary, there were challenges in carrying out the study, as there is in conducting any research project. These challenges were acknowledged, critically reflected upon and in turn informed the research, and potentially made it richer.

Limitations and Strengths

The limitations of the study were common to all qualitative research. The two main limitations were the generalisability of the findings, and the influence of the researcher's subjective position upon analysis. In respect to generalisability; it is clear that findings based upon research with 14 participants can not be assumed applicable to all people who experience psychosis, nor even to all New Zealanders who experience

psychosis, nor all EPI service-users. However, when the similarity of the findings to other research is considered, the robustness of the findings is perhaps demonstrated. The effects of the researcher's subjective position were discussed in the previous section.

The development of the draft instrument was based upon findings from stage 1, as well as previous research, specifically Geekie's (2006) study. Consequently, what the draft instrument was based upon, that is, a breadth and depth of research, rather than just one study is a strength. This in turn leads to the primary strength of the study, that is the development of a draft instrument for clinicians to use when assessing service-users causal beliefs. Most importantly the draft instrument developed was based upon service-users' understandings of psychosis, and thus facilitates both clinical work, as well as the agency of service-users.

Clinical and Research Implications

There are clear clinical implications in that the draft instrument was designed for clinicians to use when assessing service-users' causal beliefs. Therefore, one of the key clinical implications is that the findings from stage 1, and most importantly the draft instrument, could be used to facilitate: communication, understanding, assessment, formulation, and, in turn, treatment and recovery.

A pilot study in the United Kingdom explored the use of psychological formulations in changing psychiatric staffs' appraisals of people with psychosis (Berry, Barrowclough, & Weardon, 2009). The UK study proposed that by changing psychiatric staffs' appraisal of service-users with psychosis, the therapeutic relationship could be improved, and in turn treatment and recovery. They found:

“There was a significant increase in staff perceptions of the degree of control service users and themselves had over problems, an increase in the degree of effort they felt service users were making in coping, reductions in blame, and more

optimism about treatment. Staff also reported an increase in understanding of service users' problems, more positive feelings towards service users, and an increase in confidence in their work" (Berry et al., 2009, p. 39).

The draft instrument could potentially facilitate similar changes within the MDT setting, and at the very least facilitate discussion about service-users causal beliefs.

There are also clear research implications for the present study, particularly in relation to the draft instrument. The next stage in development of the instrument would involve carrying out a large pilot study of the instrument, and then quantitative analyses, including: item analysis, factor analysis, as well as other reliability and validity correlations.

Once a pilot study and its subsequent quantitative analyses are completed, and validity and reliability are established, the instrument can be used for large population studies, cross-cultural studies, and many other research studies, to quantitatively determine service-user's aetiological beliefs.

Conclusions

The study's findings further substantiate the premise, that service-users are willing co-authors of their subjective experiences, and how they make sense of them, including their aetiological theories. There is also a large body of empirical evidence that supports the aetiological theories put forward by the service-users in this study, which arguably demonstrates that service-users are experts of their own experiences, and if listened to can inform mental health services. As a result, a draft instrument for clinicians to use when assessing service-users' causal beliefs has been developed, and initial face validity has been established.

APPENDIX A.

PARTICIPANT INFORMATION SHEET.**Stage 1 of Study.**

Project Title: Service Users' Explanatory Models of Psychosis.

Researcher: Jamie Kampen.

Dear Potential Participant,

My name is Jamie Kampen from the Department of Psychology at the University of Auckland. I am currently undertaking a study titled "Service Users' Explanatory Models of Psychosis: the development of an instrument for clinicians' to use when assessing clients' understandings of their experiences of psychosis". This study and its findings will form part of my Doctor of Clinical Psychology thesis. The other members of the research team are my supervisors – Associate Professor John Read and Dr Claire Cartwright, who are both staff members in the Department of Psychology. I would like to invite you to be a participant in this study.

About the Study

This study will investigate service users' accounts of psychosis in order to provide further support for client-driven approaches to understanding and treating psychosis. The study will involve interviewing people who have experienced psychosis and are currently clients of a mental health service in Counties Manukau about what they believe caused their psychosis.

The findings from the interviews along with recent findings from other researchers will be used to begin developing an instrument that assesses service users' causal beliefs of psychosis.

Participation

You are invited to participate in this study but you are under no obligation to do so. Participation is voluntary (your choice), and you may withdraw up to 2 weeks after the interview. Participation/ non-participation will not affect your treatment within the Mental Health Service in any way.

If you express interest in participating in this study you may contact me at your convenience. Alternatively, if you give permission to a member of your service's clinical staff for me to contact you I will endeavour to phone you within approximately one week after. If you wish, I may then meet with you face to face to discuss the research further before you decide whether or not you wish to participate. You may have support people and/ or whanau present at the face to face meeting and/ or the interview (should you decide to participate).

If you agree to participate, this would involve being interviewed in person by me. Consent may be provided in writing before the interview begins. At the interview, you may also be asked by me whether or not you are willing to take part in Stage 2 of the research by rating items in the draft instrument for clarity and relevance. Agreeing to participate in the study by being interviewed does not in any way mean that you must also agree to take part in Stage 2 of the research.

Each interview will be audio taped and the tapes will later be transcribed (into a written format). Transcripts will be made available to you upon request. Audiotapes may be switched off at any time at your request. The interviews should not take longer than 1.5 hours and will be carried out at either University of Auckland premises or the premises of your Mental Health Service, whichever you prefer. The interviews will occur at a time of your convenience within the usual opening hours of your mental health service or the

University of Auckland (i.e. Monday-Friday; 9am-5pm). We are unable to supply interpreters; therefore the ability to converse in English is a requirement of participation.

Storage of Information

The tapes of the interviews will be stored securely while transcription is underway, and then will be kept in a locked filing cabinet in either the researcher's office or secure storage at the University of Auckland for a period of ten years, before being destroyed. The consent forms will be stored securely in a place separate from other material. They and all other printed material will be shredded ten years beyond the completion of this project. Electronic records (computer files, discs etc.) will also be deleted at that time.

Confidentiality

All the information you provide will remain confidential and any research assistants employed (e.g., transcribers) will be required to sign a confidentiality agreement to this effect. This means that if any of the information you provide is reported or published, it will be done in a way that does not identify you as its source.

Withdrawal

You are free to withdraw from the project up until two weeks after your interview without giving reasons. In this case please contact me, and any documents related to you will be shredded.

Risks and Benefits of Participation

Your participation will provide insight into service-users' causal beliefs so that clinicians may be more aware of their clients' pathways to psychosis. Your participation will also provide the foundations for a user-friendly (and whanau-friendly) instrument that assesses service-users' causal beliefs.

It is possible that the interview may raise issues upsetting to you. If you become distressed during or following the interview, the researcher and/ or her supervisors will work with you to seek support from your mental health service. If you become distressed after leaving the interview you may phone the researcher and/ or her supervisor so that support may be accessed. If a situation arises where the researcher has concerns for your safety (but you do not) your mental health team will be informed with your knowledge.

Thank you for your time and help in making this study possible. If you have any questions or would like to discuss participation, please contact any of us at the addresses/ phone numbers below:

CONTACTS

The primary investigator **Jamie Kampen** can be contacted at **0800 458 001**, or e-mail at jkam007@ec.auckland.ac.nz, or by mail at Department of Psychology (Tamaki Campus), The University of Auckland, Private Bag 92019, Auckland.

The primary supervisor is **Associate Professor John Read**, (09) 3737599 x 85011, j.read@auckland.ac.nz, Department of Psychology (Tamaki Campus), The University of Auckland, Private Bag 92019, Auckland.

Another supervisor is **Dr Claire Cartwright** (09) 3737599, c.cartwright@auckland.ac.nz, Department of Psychology (Tamaki Campus), The University of Auckland, Private Bag 92019, Auckland.

Head of Department: **Associate Professor Fred Seymour** (09) 3737599 x 88414, f.seymour@auckland.ac.nz, Department of Psychology, The University of Auckland, Private Bag 92019, Auckland.

If you have any questions or concerns about your rights as a participant in this research study you can contact an independent Health and Disability Advocate. This is a free service provided under the Health and Disability Commissioner Act. Telephone (NZ wide): 0800 555 050

Free Fax (NZ wide): 0800 2787 7678 (0800 2 SUPPORT)

Email (NZ wide): advocacy@hdc.org.nz

APPENDIX B

CONSENT FORM**Stage 1 of Study.**

(This consent form will be stored for a period of ten years)

Project Title: Service Users' Explanatory Models of Psychosis

Researcher: Jamie Kampen

I have read and understood the Participant Information Sheet (Stage 1) for this project for volunteers taking part in the study designed to investigate service-users accounts of psychosis and begin to develop an instrument that assesses service-users' causal beliefs of psychosis. I have had the opportunity to ask questions and have them answered and have been given time to consider whether to take part. I understand that taking part in this study is voluntary (my choice) and that I am free to withdraw myself and any information traceable to me, at any time up to two weeks after participation without giving a reason.

- I understand that my participation or non-participation will not affect my treatment with the Mental Health Service.
- I understand that my interview will be audio-taped and that I have the right to turn off the tape at any time.
- I understand that this consent form will be stored separately to any other data related to me. These will be stored in a locked filing cabinet in either Jamie Kampen's office or secure storage at the University of Auckland for a period of ten years after which all information relating to me will be securely destroyed.
- I understand that if I disclose any issues of safety to myself and/ or others the researcher/s will inform my Mental Health Service and/ or support me in accessing the appropriate Mental Health Service.

I am willing to take part in Stage 2 of the research by rating items in the draft instrument for clarity and relevance.

Yes

No

NAME:

SIGNED:

DATE:

APPENDIX C

INTERVIEW SCHEDULE

1. Introduction and engagement, including:
 - PIS and signing of consent form
 - Agenda and thanks
 - Age
 - Culture
 - Family, and where do you come from?
 - How long have you been coming to the service?
2. I want us to talk about your understandings of psychosis, and especially what you believe caused you to experience psychosis... So can we begin with you telling me your story of this? Just start wherever you like and take as long as you need. (From this point on the language used by the participant to describe the experiences will, as far as possible, be adapted and used by the researcher).
Allow pauses, and follow up with 'what else?' (2 or 3 times) before moving on to the next question.
3. Can you tell me about the problems that led to you coming to this service? (Only if hasn't already been discussed).
4. What do you think caused these experiences? (Again only if hasn't already been discussed).
 - Prompts and probes depending upon where the interviewee leads, and if necessary put to the participant aetiological beliefs found in previous research e.g. spiritual/ psychological/ biological – Do you think what caused you to have these experiences may be included under one of these things? (NB/ but only once the question has been fully explored).
5. Do you think there is anything else earlier in your life that may have also contributed?
6. Back when you first became unwell, what did you think was going on/ causing it?
7. Now that you are well/ in recovery what do you think?
8. Do you feel that your views are matched by the staff you have worked with here and/or in other mental health services?
9. Do you think it matters?
10. Do you have any advice for working with people with psychosis?
11. Explain the notion of an instrument that assesses service-users' aetiological beliefs – what do you think about this?
(Participants will be asked if they are willing to take part in Stage Two of the research by rating items in the draft instrument for clarity and relevance).

APPENDIX D

Service Users' Causal Beliefs for Psychosis.

Please use the scale given from 1 to 6 to rate the following statements.

1 very strongly disagree	2 strongly disagree	3 disagree	4 agree	5 strongly agree	6 very strongly agree
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I experienced psychosis...

- 1) Because it is genetic and it runs in my family.
- 2) Because my brain works differently to other people.
- 3) Because I used drugs, such as, 'marijuana' or 'P' or 'alcohol'.
- 4) Because I was feeling too stressed out.
- 5) Because I was feeling bad, e.g., depressed/ worried/ scared/ guilty/ jealous.
- 6) Because I was bottling things up.
- 7) Because I had lost sense of who I was and what I believed.
- 8) Because I was thinking too much and could not handle all the thoughts in my head.
- 9) Because I have gone through a lot of difficult times.
- 10) Because I felt alone or like an 'outsider'.
- 11) Because I was abused as a child.
- 12) Because I was neglected as a child.
- 13) Because of a relationship breakup.
- 14) Because someone close to me died.
- 15) Because of financial problems.
- 16) Because it was my way of coping with things.

- 17) Because it helped me make sense of things.
- 18) Because it gave voice to things I found hard to acknowledge.
- 19) Because I was struggling with cultural issues.
- 20) Because I have a spiritual gift.
- 21) Because ghosts or spirits were communicating with me.

APPENDIX E

Please rate the item's RELEVANCE to the theme it comes under.

BIOLOGICAL: factors that attribute psychosis to something of a biological nature, e.g., genetic or physiological.

1) Because it is genetic and it runs in my family.

Not at all relevant	Slightly relevant	Relevant	Very relevant
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2) Because my brain works differently to other people.

Not at all relevant	Slightly relevant	Relevant	Very relevant
----------------------------	--------------------------	-----------------	----------------------

3) Because I used drugs, such as, 'marijuana' or 'P' or 'alcohol'.

Not at all relevant	Slightly relevant	Relevant	Very relevant
----------------------------	--------------------------	-----------------	----------------------

PSYCHOLOGICAL: factors that attribute psychosis to aspects within a person, e.g., their way of thinking, feeling, or other parts of self.

4) Because I was feeling too stressed out.

Not at all relevant	Slightly relevant	Relevant	Very relevant
----------------------------	--------------------------	-----------------	----------------------

5) Because I was feeling bad, e.g., depressed/ worried/ scared/ guilty/ jealous.

Not at all relevant	Slightly relevant	Relevant	Very relevant
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6) Because I was bottling things up.

Not at all relevant	Slightly relevant	Relevant	Very relevant
----------------------------	--------------------------	-----------------	----------------------

7) Because I had lost sense of who I was and what I believed.

Not at all relevant	Slightly relevant	Relevant	Very relevant
----------------------------	--------------------------	-----------------	----------------------

8) Because I was thinking too much and could not handle all the thoughts in my head.

Not at all relevant	Slightly relevant	Relevant	Very relevant
----------------------------	--------------------------	-----------------	----------------------

DEVELOPMENT AND EXPERIENCE: factors that attribute psychosis to a person's psychosocial background.

9) Because I have gone through a lot of difficult times.

Not at all relevant	Slightly relevant	Relevant	Very relevant
----------------------------	--------------------------	-----------------	----------------------

10) Because I felt alone or like an 'outsider'.

Not at all relevant	Slightly relevant	Relevant	Very relevant
----------------------------	--------------------------	-----------------	----------------------

11) Because I was abused as a child.

Not at all relevant	Slightly relevant	Relevant	Very relevant
----------------------------	--------------------------	-----------------	----------------------

12) Because I was neglected as a child.

Not at all relevant	Slightly relevant	Relevant	Very relevant
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13) Because of a relationship breakup.

Not at all relevant	Slightly relevant	Relevant	Very relevant
----------------------------	--------------------------	-----------------	----------------------

14) Because someone close to me died.

Not at all relevant	Slightly relevant	Relevant	Very relevant
----------------------------	--------------------------	-----------------	----------------------

15) Because of financial problems.

Not at all relevant	Slightly relevant	Relevant	Very relevant
----------------------------	--------------------------	-----------------	----------------------

FUNCTIONS OF PSYCHOSIS: factors that attribute psychosis to a psychological function.

16) Because it was my way of coping with things.

Not at all relevant	Slightly relevant	Relevant	Very relevant
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17) Because it helped me make sense of things.

Not at all relevant	Slightly relevant	Relevant	Very relevant
----------------------------	--------------------------	-----------------	----------------------

18) Because it gave voice to things I found hard to acknowledge.

Not at all relevant	Slightly relevant	Relevant	Very relevant
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SPIRITUAL/ CULTURAL: factors that attribute psychosis to either a cultural or spiritual understanding.

19) Because I was struggling with cultural issues.

Not at all relevant	Slightly relevant	Relevant	Very relevant
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20) Because I have a spiritual gift.

Not at all relevant	Slightly relevant	Relevant	Very relevant
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21) Because ghosts or spirits were communicating with me.

Not at all relevant	Slightly relevant	Relevant	Very relevant
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How often do your clients talk about each of these themes?

BIOLOGICAL

Not at all	Sometimes	Often	Very often
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PSYCHOLOGICAL

Not at all	Sometimes	Often	Very often
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DEVELOPMENT AND EXPERIENCE

Not at all	Sometimes	Often	Very often
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FUNCTIONS OF PSYCHOSIS

Not at all	Sometimes	Often	Very often
-------------------	------------------	--------------	-------------------

SPIRITUAL/ CULTURAL

Not at all	Sometimes	Often	Very often
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Please use the space below for any further comments you may have.

Profession:

Gender:

Years working in mental health:

Years working with psychosis:

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