Attitude, coping and outcome in schizophrenia

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Declaration

This thesis was undertaken in the School of Psychology, University of Natal, Pietermaritzburg. This work has not been submitted to another university and is entirely a result of my own efforts unless indicated to the contrary.

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Abstract

This study examines the relationship between attitude and outcome of 30 schizophrenic out-patients. Attitude is measured using the modes of response to psychosis proposed by Mayer-Gross in 1920 and operationalised into questionnaire form by Soskis and Bowers (1969) and McGlashan and Carpenter (1981). The outcome is defined by the number of rehospitalizations since the first diagnosis of schizophrenia.

Results show a significant relationship between attitude and outcome. Positive attitude toward the illness and positive attitude toward the future were both significantly correlated with a positive outcome (lower rate of rehospitalization). Similarly, both negative attitudes toward the illness and negative attitude toward the future were significantly correlated with a negative outcome (higher rate of rehospitalization). There was a stronger correlation between positive attitudes and positive outcome than between negative attitudes and negative outcome.

The relationship between attitude and outcome in schizophrenia is used to suggest alternative ways of conceptualizing and managing the condition. The findings of this study are also used to develop recommendations for further research.

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CHAPTER ONE

Introduction

Schizophrenia has long been considered one of the most chronic, debilitating and costly mental illnesses. Wyatt (1996) reports that schizophrenia affects one percent of the population, accounts for a fourth of all mental health costs and takes up one in three of psychiatric hospital beds. In the U.S.A. schizophrenia is reported as consuming about $65 billion annually (ibid.), of this amount only an estimated 30 % ($19 billion) is involved in direct treatment (Weiden & Olsten, 1995), the rest is absorbed by societal and family costs such as lost time from work for patients and care-givers, social services, and criminal justice resources. In the U.K. schizophrenia accounts for more expenditure related to health care utilization, unemployment and family burden than any other single psychiatric illness (Davies & Drummond, 1994, in Schooler, 1997).

Similarly, in South Africa, figures from the Department of Health indicate that schizophrenia is one of the country's most common and costly mental illnesses (Department of Health, 1998). The treatment of schizophrenia uses up an inordinate amount of the mental-health budget and institutional resources in direct treatment expenses and in broader national consequences of the illness.

Such expenditure highlights the wide-ranging negative outcomes of schizophrenia. These include employment difficulties or insecure and transient employment, poverty, imprisonment, social isolation, homelessness, repeated hospitalizations, poor physical health, increased mortality and

suicide risk (Harding, 1988). This economic burden also impoverishes professional resources, Harding (1988) reflects that:

> Clinicians see a stream of chronically ill patients who need more than anti psychotic drugs and psycho social treatment; their lives are in total disarray. They need food, clothing, shelter and treatment for physical illnesses. They often require help in obtaining a source of income and dealing with personal and legal problems. Many clinicians find their case loads are too large and their training is insufficient to deal with these patients. The paperwork is burdensome. There is no payment for extra time spent on ancillary activities. Clinicians often feel overwhelmed, and find it hard to believe that these patients could improve, much less recover. (p.140)

The intermeshed economic, resource, and personal burdens on state, clinician and patient suggest a bleak future for the financing, managing and treatment of schizophrenia. Recent research and developments in psychopharmacology, relapse prevention and public awareness-raising, however, suggest a more optimistic possibility.

While early studies create a bleak impression of the long-term prognosis of schizophrenia, recent research has challenged this impression, concurring that more than half of the people hospitalized with chronic schizophrenia recover or significantly improve. Favourable outcomes have been estimated for 21-57% of people with schizophrenia (Davidson, 1992). Harding and Zahniser (1994), who studied 508 patients for more than two years, before the era of the new drugs, reported that "... schizophrenia may not be a disease of slow progressive deterioration. Even in the second and third decades of illness, there is still potential to full recovery" (p. 140).

Psychopharmacological developments in the last decade have given schizophrenia sufferers and their families renewed hope. In the Diagnostic and Statistical Manual of Mental Disorders (APA,

1994) the newer drugs like Clozapine and Risperdal are asserted for being more effective than previous pharmacology in dealing with the negative symptoms of the condition without the adverse side-effects of the older generation drugs.

The development of these drugs has also seen a rise in public awareness programmes (e.g. Epstein, Sage & Wedding, 1995) and psycho educational interventions to complement them. Psycho educational interventions generally seek to reduce the noncompliance with medication traditionally associated with relapses in schizophrenia (Kissling, 1991; Weiden & Oltson, 1995). Companies such as Lundbeck have funded well-prepared and widely disseminated programmes aimed at educating patients and their families about schizophrenia in the hope of increasing compliance with this new generation of medication. Their efforts are reported as successful, reducing the relapse rate of schizophrenia by up to 20% in twelve months (Kissling, Bauml & Pitschel-Walz, 1995).

Taken together, these research findings suggest reason for optimism by healthcare professionals and schizophrenia sufferers. Why then, as Harding (1988) suggests, is this not their experience?

One reason for this gap between research and clinical experience might be that, believing in the chronic, deteriorating nature of schizophrenia, clinicians have not actively focussed on recovery in schizophrenia. Harding and Zahniser (1994) suggest certain revisions of budget, training and research, which focus more on the possibility of recovery of schizophrenic patients. They argue that such revisions might help a clinical experience that begins to approach the optimism of the

latest research findings.

Other researchers suggest that practitioners have not focussed sufficiently on the individual suffering from schizophrenia, believing that a recovery-based approach would benefit from such a focus. Davidson (1992) argues that it might be because the individual suffering from schizophrenia has not been sufficiently included in their own treatment. He suggests that the diversity of outcomes in schizophrenia depend on the attitudes held by the schizophrenic individual and that the individual might be able to play an active role in influencing and managing the outcome of his or her condition. He cites longitudinal studies concluded in the last 10-15 years that have challenged

> the adequacy of traditional models that focussed primarily on pathology to the exclusion of processes of coping and recovery. They have also suggested some factors that facilitate the improvement process that appear to have more to do with the person struggling with their illness than with the illness itself. Factors such as hope, courage and will, may play a crucial role in improvement. (p.4)

At a time in South Africa characterised by marked changes in approach to mental health at a governmental and legislative level (Department of Health, 1998), these findings seem crucial. It is important that sufferers and their families be able to share in the optimism that these new pharmacological, psycho educative and therapeutic developments offer. Current budget cuts and policy changes at South African psychiatric hospitals and clinics have seen the relapsing of individuals, even after long periods of stability, because of changes in their medication that the institutions and clinics can no longer afford. This suggests the need for interventions that extend beyond mere facilitation of compliance with medication to include social and psychological factors. If national healthcare policy is attempting to reduce the institutionalization of

schizophrenic individuals, it would seem important to explore ways in which individuals suffering from schizophrenia could be more actively involved with their communities in health programmes geared towards recovery. The objective of this research is to explore such alternatives.

This introduction has briefly outlined the implications of current management of schizophrenia. Internationally both the economic, social and professional burden of managing schizophrenia seems widespread and inordinate (e.g., Weiden & Olsten, 1995). Such burdens are counterbalanced by recent, more hopeful, research and developments. While it has traditionally been argued that only 1/3 of all schizophrenic individuals is able to return to a more integrated lifestyle (APA, 1994), recent research offers a more optimistic 50% of schizophrenic individuals who are able to recover fully (Harding & Zahniser, 1994). In addition, recent introduction of new, allegedly more-effective medication; the development of public awareness and psycho-educational programmes, seem to promise a more optimistic outcome in schizophrenia. Taken together, both the widespread economic demands of schizophrenia and recent developments would suggest the value of developing an integrated psychological management of schizophrenia that might enhance recovery and reduce economic burdens by compounding these pharmacological and psychological advances. One way of approaching this might be in the more effective use of the individual's own resources in their treatment plan. Davidson (1992), for instance, argues that such a strategy might achieve a more optimistic recovery rate in the management of schizophrenia. One of the objectives of this research is to explore this assertion.

The next chapter outlines and critically examines some of the ways in which schizophrenia has

been conceptualised and managed psychologically. Chapter 3 outlines the dangers of limited interventions, and Chapter 4 asserts the benefits of a more integrated intervention into schizophrenia. Arising out of the integrated models, the area of coping is offered as a useful area of exploration in the development of such an integrated intervention. Chapter 5 explores literature dealing with coping and health more generally, particularly looking at the research into coping and chronic illness. Chapter 6 focuses more closely on research dealing with coping and schizophrenia. Chapter 7 examines more closely two such studies that explore attitude and outcome in schizophrenia. These studies form the basis for the current study. Chapter 8 outlines the details of the implementation of this study. Chapter 9 sets out the results of the current study and Chapter 10 discusses these findings. Chapter 11 looks more carefully at the comparison between the findings of the current study and the two studies that it replicated. Chapter 12 critiques these findings, Chapter 13 explores the implications of such findings and Chapter 14 sets out a conclusion.

CHAPTER TWO

Schizophrenia and psychological interventions.

2.1 Definition

In the western tradition of mental health, descriptions of the schizophrenic syndrome have undergone many changes since Emil Kraepelin first combined catatonia, hebephrenia and paranoia into a disease category called dementia praecox. As Zubin and Spring (1977) argue, it is important to distinguish description of schizophrenia from valid understandings of schizophrenia. In terms of the description of schizophrenia, they suggest that written descriptions of disordered behavior, characteristic of what we know as schizophrenia, have been available since the earliest records of Ayurvedic elders 34 centuries ago.

Although psychologists and psychiatrists around the world seem able to consensually recognize a syndrome that we call schizophrenia, there remains a lack of consensus around understanding of schizophrenia in terms of its prognosis, aetiology and treatment (ibid). Historically various disciplines and areas of research have, for diverse ideological, social, political, epistemological and economic reasons, presented seemingly authoritative approaches to the definition and management of schizophrenia (See Zubin & Spring, 1977 for a more complete overview).

Such a situation seems to result in a fragmentation of authority in the field of research, with diverse, seemingly exclusive approaches being adapted. Recently, however, there has been an attempt to recognise both the lack of authority and consensus about schizophrenia in a more inclusive conceptualisation of schizophrenia. For instance the DSM IV (APA, 1994)

acknowledges the descriptive nature of the construct "schizophrenia" by saying:

> Although schizophrenia is discussed as if it were a single disease, the diagnostic category can include a variety of disorders that present with somewhat similar behavioural symptoms. Schizophrenia probably comprises a group of disorders with heterogenous causes and definitely includes patients whose clinical presentations, treatment responses, and courses of illness are varied (p. 463).

The recognition of the heterogeneity of schizophrenia in terms of its presentation, prognosis, and aetiology represents a conceptual shift that deviates from the tradition of, for instance, the definition of infectious diseases that require a more precise and standardised definition and understanding. In this way the recognition of the heterogeneity of schizophrenia seems also to encourage heterogeneity in terms of its treatment. Such treatment models will be discussed in more detail below after examining the prognosis, aetiology and treatment of schizophrenia in more detail.

2.2 Prognosis

Given that prognosis is one of the central criteria used in establishing a valid definition of an illness (Gift, Strauss, Kokes, Harder & Ritzler, 1980) it would seem important to have clarity around the prognosis of schizophrenia. Kraepelin, in his definition of the condition he called *dementia praecox,* the precursor of the condition we now know as schizophrenia, suggested that it was largely characterised as having a long-term deteriorating course (APA, 1994). The central distinction in differentiating dementia praecox from manic depressive psychosis was a deteriorating course (Zubin & Spring, 1977). He did acknowledge, however, that 4% of his patients had complete recoveries and that 13 percent had significant remissions from *dementia praecox*. Nevertheless, in introducing the term schizophrenia, Eugen Bleuler proposed that the

major distinction between it and Kraepelin's *dementia praecox* was that schizophrenia did not necessarily have a deteriorating course (ibid.).

Although the DSM III (APA, 1981) included deteriorating course as one of the criteria for the diagnosis of schizophrenia, more recently, the DSM IV amends this by eliminating in the diagnostic criterion "the word 'deterioration' in acknowledgement of the variable course of schizophrenia among patients." (APA, 1994, p. 470).

Recent findings that challenge the chronic deteriorating nature of schizophrenia (e.g., Davidson, 1992) also, therefore support this amendment. If it is indeed possible to recover from schizophrenia, as these researchers suggest, then it is no longer appropriate to define and manage schizophrenia as a chronic and deteriorating illness.

2.3 Aetiology

Theories about the aetiology of schizophrenia abound. Research has, nevertheless, been unable to convincingly pinpoint its origins in an unimodal path of action. Various theories have ascribed the cause of schizophrenia to, amongst others, genetic predispositions (e.g., DSM IV), neurological complications (e.g., Levin, Yurgelun-Todd & Craft, 1989), autoimmune complications (APA, 1994), viral infections (APA, 1994), attention deficit (e.g., Bellak, 1994).

Researchers have suggested that the aetiology of schizophrenia lay in early developmental deficits (e.g., Federn; Mahler, all in APA, 1994). Other researchers explored the possible

sociopsychological striving underlying illness, presenting mental illness as profound problem-solving experiences. Clinicians have argued that schizophrenia was a response to a stressful environment (e.g., Federn, Fromm-Reichman, and Laing) or interpersonal difficulties (e.g., Sullivan, in DSM IV, 1994) maturational striving (e.g., French & Kasanin, 1941; Boisen, 1962; Bowers, 1965, all in Soskis & Bowers, 1969), an interaction between psycho- social stress and organic factors (APA online) and learnt behaviour (APA online). Attempts have also been made to define certain interaction patterns that might prove schizophrenogenic, these include, for example, Bateson's Double Bind theory and Lidz's conceptualisation of schisms and the skewed family (APA, 1994).

Environmental stressors such as low socioeconomic status, disorganisation in the social milieu, crowding and minority status (Zubin & Spring, 1977) have been presented as aetiological theories. Poverty and emotional and physical abuse has been incorporated in a *downward drift hypothesis* and a *social causation hypothesis* (APA, 1994).

Still other researchers have attempted to present these disparate and seemingly exclusive theories into more integrated models of conceptualising the aetiology of schizophrenia. After exploring trends in the treatment of schizophrenia, these will be discussed more fully below.

2.4 Treatment

Historically, the treatment of schizophrenia has parallelled the multifarious theories regarding its definition, aetiology and prognosis. In the absence of psychopharmacological symptom relief, early interventions seem to have been more psychological and social than pharmacological. The early history of schizophrenia is characterised by a pronounced empirical-phenomenological focus, beginning shortly after the publication of Kraepelin's taxonomy in 1898. Davidson (1992) cites a comprehensive list of such historical figures:

> Beginning with the pioneering efforts of Karl Jaspers (1913/ 1964) and spanning the course of the past hundred years, phenomenologists such as Mayer-Gross (1924), Minkowski (1927), Wyrsch (1940, 1942), Binswanger (1944-45/1958, 1957/1963), Laing (1960, 1961), Boss (1963), Macnab (1966), De Waelhens (1978), Borgna (1981), Van den Berg (1982), Kimura (1982), Sass (1987, 1990) and Corin (1990) have taken descriptive data as their point of departure for structural analyses of both disease and recovery processes (p. 5).

In America, Sullivan argued that schizophrenia was an extrapolation of a normal human experience. In 1930 he said "We have found in the most disorganised people (schizophrenic)...a continuation of very much that is simply human" (in Brody, 1995, p. 193). In 1940 he said "everyone and anyone is much more simply human than otherwise, more like everyone else than different, and the data of interpersonal phenomena which may be derived in participant observation with him are relevant" (ibid, p.193). Most of these clinicians were attempting to uncover their patients' experience of psychopathology, "to make some representation of what is really happening to our patients, what they are going through, how it strikes them, how they feel" (Jaspers, 1964, in Brody, 1995, p. 4).

Yet, although these psychological models provided grounds for much debate, they did not result

in standardised, cost-effective or empirically-validated treatments. For instance, in their examination of the efficacy of various psychological interventions for schizophrenia, Scott and Dixon (1995) conclude that, of the variety of psychological approaches, psycho- social skills training needs better research designs and that dynamic, insight-oriented psychotherapies seem to be ineffective and sometimes harmful for patients with schizophrenia. They conclude that supportive psychotherapies demonstrate certain effectiveness, such as reduced symptomatology, reduced rehospitalization and an improvement in social and vocational adjustment for patients with schizophrenia. Debates around the definition and efficacy of supportive psychotherapy will be examined below.

2.4.1 Supportive psychotherapy

In a review article, Conte (1994) suggests that supportive psychotherapy lacks an agreed upon definition, a fundamental theory and sufficient controlled studies to give it research backing. He argues that some authors believe supportive therapy to be a specific modality of treatment; while others believe it to be a collection of generic techniques that, to a larger or lesser extent, represent components of any psychotherapy (ibid.).

Although advocating supportive psychotherapy as one of the more effective psychotherapies in managing schizophrenia, Scott and Dixon (1995) similarly argue that a clearer definition of supportive therapy is necessary to test appropriate comparison interventions. "In particular, it will be especially important to distinguish supportive psychotherapy from the types of supportive and monitoring interventions that take place as part of case management or pharmacotherapy" (p.10).

They argue that "supportive" psychotherapy should include more than support alone to be effective, and that any supportive psychotherapeutic intervention should incorporate both social and cognitive models in targeting specific problems and deficits that arise from schizophrenia itself.

One of the primary distinctions between supportive psychotherapy and other psychotherapies lies in its approach to unconscious defences. Supportive interventions focussing, as they do, on conscious material and on improving an individual's adaptation are indicated for situations in which individuals have issues around trust and impaired object relations, low frustration tolerance, unstable affect and difficulty with reality testing (Dewald, 1994). Supportive psychotherapy purports to operate purely at the conscious level without the overt goal of breaking down defences. Perhaps it is for this reason that such an approach appears less like specialised psychotherapy, and more like general case management "counselling", as Scott and Dixon (1995) suggest. One of the specific problems that supportive management of schizophrenia has focussed on is medication compliance (Kates & Rockland, 1994) which will be explored below.

2.4.2 Medication compliance

Research shows that non-compliance with drug treatment is associated with many relapses in schizophrenia (Goldstein, Rodnick, Evans, May & Sternberg, 1978; Kissling, 1991, 1994; Lindgens, 1993, in Schooler, 1997; Weiden & Oltson, 1995). These relapses contribute to the chronicity and deterioration labels associated with schizophrenia.

Interventions focussing on relapse prevention generally focus their efforts on psycho-education. Such interventions have met with reasonable success. For example Kissling (1991, in Schooler, 1997) found that psycho-education reduced readmission by 20% in one year, leading to a cost saving of approximately $350, 000 per year for 100 patients. Research into compliance has examined issues such as attitudes towards medication, physiological side-effects, attitudes by individuals and their families towards medication (Buchanan, 1992), the effects of education about the condition, medication compliance and family attitude (Beardslee, Wright & Rothberg , 1996).

This chapter explored some of the debates around the definition of schizophrenia, outlining the wide range of beliefs regarding its prognosis, aetiology and treatment. Supportive psychotherapy was offered as one of the recommended psychological treatments of schizophrenia (Scott & Dixon, 1995). In the absence of clarity around the underlying processes of schizophrenia, such an approach might seem expedient. The extreme economic and personal burdens by both sufferers and institutions would, however, suggest the need for a less superficial approach to schizophrenia.

Many supportive and psycho-educative interventions could be critiqued for their exclusive focus on symptoms and on a narrow concern with medication compliance (e.g., Beardslee, Wright & Rothberg, 1996; Buchanan, 1992; Kates & Rockland, 1994). Such limitations break with the tradition of phenomenological investigation that marked schizophrenia research in the beginning of the century. Given Davidson's (1992) assertion that the individual has an important role to play in their own recovery, it seems that a psychological intervention could do more than merely

enhance a biological intervention focussed on symptom alleviation.

Seen in this light, the positive impact of supportive and psycho-educative interventions would, at best, seem unsustainable or superficial, dealing merely with symptom relief. At worst, such limitations can be argued to be damaging for the schizophrenic individual. The next chapter outlines some of the dangers of limited interventions before exploring more inclusive interventions of schizophrenia.

CHAPTER THREE

IMPLICATIONS OF LIMITED INTERVENTIONS

The previous chapter outlined some of the difficulties around agreement on a specific aetiology or pathophysical process in schizophrenia. Within such a context, supportive psychotherapy facilitating medication compliance through psycho-education was argued to be a limited intervention. This chapter explores some of the consequences of the lack of agreement around the definition of schizophrenia. In particular it examines the effects of interventions that operate from erroneously authoritative and limited ways of understanding and managing schizophrenia.

One of the areas of intervention in which such ambiguity about the definition of schizophrenia impacts most clearly is in the psycho-education of schizophrenic individuals and their families. While it is understandable that the schizophrenic individual and their family might benefit from some form of explanation about schizophrenia, the lack of agreement about the condition renders this task difficult.

In spite of the recognition that schizophrenia is more a syndrome with a broad range of presentation and prognosis, many interventions still seem to present schizophrenia as a "disease" or "disorder" (Weiss, 1990). One of the dangers of offering such erroneously authoritative explanations of schizophrenia is that they might not parallel or predict the experience of the individual or their family. This has certain implications. This represents one of the primary dangers of a psycho-educational intervention, its influence and impact on an individual's meaning-making.

In 1964, Jaspers distinguished between the meaningfulness of the patient's experience and the meaninglessness of the causal processes underlying this experience and behaviour. "He argued that, in addition to explaining (*Erklaeren)* and controlling the causal processes at work in disease, the physician must also appreciate and interpret the meaning of the patient's experiences and actions" (in Schwartz & Wiggins, 1986, p. 1218). In a similar vein Schwartz and Wiggins (1986) warn of "the breach between causal and meaningful processes" (p. 1218) in managing individuals suffering from mental illness.

The breach between causal and meaningful processes by interventions could be argued to contribute to the failure of "historicity" which Mendel (1974) considers to be the primary existential difficulty of schizophrenia along with failure of anxiety management and failure of interpersonal relationships. The failure of historicity disturbs the way an individual is able to make sense of themselves in terms of their personal and cultural history and leaves "the person in a vacuum of the present without recourse to the experiences of the past or hopes for the future" (Bellak & Goldsmith, 1984, p. 248).

This suggests that interventions that present limited and authoritative explanations of schizophrenia may aggravate the schizophrenic individual's isolation by ignoring the individual, cultural and historical contexts that provide them with meaning. It would therefore seem important for interventions dealing with education about schizophrenia to attempt to present a range of possible causal processes as well as eliciting and exploring predominantly sociopsychological meaningful processes in their approach. These meaningful processes might

include social and individual attitudes and attributions.

Al-Issa (1973), in looking at sociocultural factors in hallucinations, argues that interventions dealing with schizophrenia need to examine whether a patient finds the schizophrenic experience explainable or controllable and whether the patient has a belief in the reality of the experience. He argues that, unlike in western cultures, where social beliefs around hallucinations could promote anxiety, tension and shame, certain non-western cultures actively encourage the development and reporting of hallucinations. In the non-western case the spontaneous symptoms seem ultimately to be brought under the control of social structures, whereas in the western case social structures seem to aggravate the condition that is ultimately brought under control by medicine.

Similarly DSM IV (APA, 1994) describes how some schools of thought propose the notion of a schizophrenogenic culture, arguing that certain cultures, especially more developed ones, are more prone to a higher prevalence of schizophrenia than are less developed cultures. This is explained in terms of the culture's (negative) perception of mental illness and the nature of the patient role, the availability of social support and the complexity of social communication in that culture.

Such cross-cultural research findings suggest the potential for healing in dimensions other than physiological, for instance, in the recognition of the powerful contribution that individual and social attitudes might have in mobilizing recovery in schizophrenic individuals.

Standardised psychiatric descriptions of schizophrenia also run the risk of overpathologising the schizophrenic experience, focussing on the dysfunctional symptomatology and jargonised labels of the symptomatology, rather than on the individual's experience of the schizophrenic process (Silverman, 1978, in Keefe & Magaro, 1980; Zubin & Steinhauer, 1988; Weiss, 1990). Since the presentation of an authoritative definition of schizophrenia is not possible, it seems that a more modest approach that elicited more from the individuals and their families might be useful.

Another of the consequences of such a failure of historicity, besides isolation and anxiety, might be a reduction in help-seeking behaviour. Fisher and Farina (1979) assert that an overly biological understanding of schizophrenia is associated with a reduction in help-seeking behaviour and an increase in substance abuse as a way of coping with schizophrenia.

It would seem understandable that an explanation presenting schizophrenia as an exclusively chemical or organic condition would result in the reduction of attempts at psychological or interpersonal mediation by a schizophrenic individual and an increase in their use of prescribed and non-prescribed substances. Given that social withdrawal has historically been recognised as one of the central characteristics of schizophrenia (Mishlove & Chapman, 1985) an overly biological understanding of schizophrenia could aggravate this tendency. In chronic illness generally, Carver, Scheier and Weintraub (1989) present the seeking of social support as one of the essential components of coping. It is thus important to recognise that an exclusively biological explanation of schizophrenia in a psycho-educative intervention might result in a reduction of coping by the individual suffering from schizophrenia.

It is necessary to counterbalance such assertions about the psycho-social limitations of such approaches by recognizing the potential harm of interventions which are psycho-socially biased. For instance, in the 1970's when schizophrenia was still recognized as a "functional disorder" rather than a condition with certain (heterogenous) organic deficits, the concept of the *schizophrenogenic mother* could be argued to have had more detrimental than beneficial consequences on the mental health of schizophrenic individuals and their families. Such limited theories led many families to the simplistic perception that the illness was their fault (Amis, 1990). In addition, it is recognized that in a condition involving an impairment of ego functioning, depth-psychology interventions might not be therapeutic, especially in cases where they have sealed over their psychotic experiences (APA, 1994).

In summary, in the previous chapter supportive psychotherapy was offered as the preferred treatment for schizophrenia. One aspect of supportive therapy is the facilitation of treatment compliance, largely through psycho-education. This chapter presented the dangers of interventions which focus on symptomatology, based on authoritative standardized descriptions of the schizophrenic experience where no such agreement exists. In doing so, it is argued that, such interventions: (1) limit the opportunity for a more holistic reexamination of the current definition of schizophrenia; (2) disallow the opportunity for individuals to find appropriate ways of describing and understanding the trauma of their experiences within the heterogenous intra-personal and interpersonal contexts that provide them with meaning and support, thereby resulting in anxiety, alienation and maladaptive coping and (3) do not contribute towards the development

of a more integrated multifaceted model for the management of schizophrenia. The next chapter explores the historical tension between models of managing schizophrenia and suggests possible components of a more integrated model.

CHAPTER FOUR

The need for a more integrated management of schizophrenia.

The previous chapter outlined some of the difficulties arising in the management of a condition about which there is little agreement regarding its definition, aetiology and prognosis. These difficulties seemed to result in the use of models that present limited ways of conceptualising schizophrenia. It was recognised that such a model might be overly psychological or overly biological, and it was asserted that either model had dangerous implications in the way in which it might alienate an individual from their own personal and social constructs which provided them with meaning. This chapter explores the tension between biological and psychological models of understanding and managing schizophrenia and examines various attempts to develop more integrated models.

The tension between the medical and psychological models of understanding and managing illness generally seems to parallel cultural thinking regarding the dichotomy between mind and body. Although such thinking is deeply entrenched, it seems important to be aware of the degree to which social and particularly professional trends in understanding health and illness impact on intervention. Al-Issa (1973) highlights this point by saying that:

> One of the most basic differences between the organic and the sociocultural approaches to hallucinations, with implications for treatment, is whether they indicate an underlying disease process or whether they are subjective experiences with true individual and social significance (p.174).

The vacillation between these two ways of conceptualising health and illness can be traced historically in what Brody (1995) refers to as "the fluctuating tendencies between proponents of

psycho- social and neurobiological approaches to illness" (p. 193). He clearly dichotomizes the two schools as follows:

> Proponents of the former have given the subjective life and personal relationships of the whole person greater centrality in their thinking than the latter, which is more focussed on objective data and the relationships between chemic-physical elements at a neural level (p.193).

More recently, psycho-education and supportive psychological interventions in schizophrenia could be argued to be operating between these two models. They are not operating entirely within the traditional medical infection model that, in its focus on infections diseases, downplays the importance of psychological variables while focussing on physiological variables. Nor are they operating entirely within a psychological model, which regards the individual experience as critical. Psychologically-based interventions that focus their efforts primarily on symptom alleviation and treatment compliance do not necessarily contribute to the development of a more integrated model of understanding schizophrenia.

It is possible that these fluctuations between psychological and medical models (Brody, 1995) are related to the development of new drug treatments. To some extent psychologically based interventions, in their energy and time-consuming nature, may have come to represent a "default" option in conditions for which no clear causality exists, or for which no comprehensive pharmacological treatment has been developed.

Early schizophrenia research was characterized by its phenomenological focus. In the broader health sector this is most clearly seen in reaction to the predominance of chronic illnesses where,

in the absence of clear definitions and comprehensive psychopharmacological cures, recent research has also tended to examine more closely the nature of psychological variables in relationship to chronic illnesses like cancer, cardiovascular conditions and HIV/AIDS (e.g., Kiecolt-Glaser & Glaser, 1995; Taylor, 1990).

Arising out of such a context, the relatively new field of psychoneuro- immunology seems to represent an integration of both psychological and medical models, offering a more inclusive model of conceptualising and managing illness and health. Psychoneuro-immunology makes the direct link between human variables and the physiological condition of an individual (Kiecolt-Glaser & Glaser, 1995), taking into account more than mere biological variables in conceptualising illness. There is a growing body of research examining the relationship between psychological processes, physiological processes and outcome in chronic illness (Beardslee, Wright, & Rothberg, 1996).

In terms of mental health generally, the need for a more integrated approach has been recognised for some time (e.g., Engel, 1977). Historically, certain models have conceptualised schizophrenia in a more integrated way, for instance the stress-diathesis model proposes that :

> The net result of a dynamic combination of genetic and environmental sources of liabilities and assets determines whether an individual with the necessary, but not sufficient genetic predisposition crosses a threshold to clinical schizophrenia (Gottesman & Shields, 1972, in Hanson, Gottesman & Heston, 1976, p. 149).

In 1981, Zubin and Steinhauer suggested that interventions dealing with schizophrenia should not be focused on curing the symptoms or the disorder, arguing that the symptoms of schizophrenia are self-limiting. Interventions should reduce both the suffering and the underlying vulnerability which might bring about both the initial occurrence and the recurrence of the symptoms of schizophrenia. In this way, by reducing the underlying vulnerability, schizophrenic episodes might be reduced and even prevented.

Vulnerability is presented in the form of markers which integrate diverse models of the aetiology of schizophrenia. These include environmental considerations (field theories), as well as behavioural and biological considerations. Vulnerability is argued to be subject to triggers and moderating variables dealing with the nature of the individual's social network, personality and ecological niche. Amongst specific moderating variables are pre-morbid competence and coping (Zubin & Steinhauer, 1981).

Zubin and Steinhauers' (1981) model suggests ways in which psychological interventions could have a more substantial impact on the prevention and rehabilitation of schizophrenia. For instance, effective psychological interventions might work actively with the individual in discovering vulnerability markers and exploring what contingencies trigger episodes in order to be able to predict the occurrence and recurrence of schizophrenic episodes in those individuals identified as vulnerable to schizophrenia. In response to such vulnerability markers, triggers, and moderating variables, psychologists might develop strategies to reduce vulnerability. One of these strategies may involve enhancing the individual's competence and coping.

In keeping with Zubin and Steinhauer's (1981) suggestion that interventions focus more on underlying vulnerability than on symptom reduction, more recently Weiss (1990) asserts that focussing on symptom alleviation creates the situation where a non-psychotic person is diagnosed as being 'in remission' where, Weiss argues, "the underlying processes are not all "in remission", but, rather, continue to be an active problem"(p. 22). He suggests that clinicians need a conceptualization and scientific body of knowledge upon which to base clinical management of schizophrenia that provides more than mere symptom relief.

Various researchers, like Zubin and Steinhauer (1981) and Weiss (1990) present arguments for interventions that do not focus merely on symptom reduction in schizophrenia. They present specific ways of implementing such interventions. While there seems to be more support recently for interventions that are not symptom-focussed, nevertheless certain interventions (e.g., Kates & Rockland, 1994), while asserting themselves as being primarily psychological still seem to be essentially medication- and symptom-focussed. As such, certain exponents of supportive therapy still seem to operate between models rather than integrating the fullest developments of each. Even conscious material that could provide the basis for more comprehensive psychological interventions, such as individual attitudes and coping strategies, seems not to be receiving attention. This highlights the need for a system of diagnosis that is less symptom focussed and for rehabilitation-focussed management that deals with more than mere symptom relief. More specifically it highlights the way in which interventions like supportive psychotherapy, which focuses on conscious material, could more effectively use strategies that enhance coping in

individuals that suffer from schizophrenia. Such efforts could, by involving the individual in their own management, develop interventions that were more recovery-focussed.

Currently, the DSM IV (APA, 1994) argues for integrated management of schizophrenia, acknowledging that most schizophrenic patients benefit from a combination of anti-psychotic and psycho- social treatment. It advises that the treatment approach should be carefully tailored to the "unique individual, familial and social psychological profile" (p. 481) of the patient and that a psycho- social treatment should be integrated with, and support, the drug treatment.

Like Davidson (1992), Scott and Dixon (1995), Herz (1996) also proposes that management of schizophrenia should integrate biopsychosocial factors into the programme. This would mean an approach that includes an attempt to understand and intervene in biological, interpersonal, social and cultural factors affecting an individual's adjustment to society.

Similarly, in assessing the outcome and costs of psychological treatments of schizophrenia, Brenner and Pfammatter (1998) argue that effective treatments must modify at least one of four hypothetical constructs presumed to influence outcome in schizophrenia. According to the stress-diathesis model these might be (1) biological competence, (2) environmental stress, (3) coping skills, and (4) social competence. Interventions focussing on compliance with medication would be limited to ensuring variable one (biological competence), with the focus being on reducing side-effects, attempting to guarantee regular out-patient attendance, and by educating individuals and families around medication and the warning signs of relapses.

Against the background of the early phenomenological research tradition in schizophrenia, Zubin and Steinhauers' vulnerability model (1981), Weiss's (1990) contentions about the limitations of symptom-focussed interventions and Herz's (1996) biopsychosocial programme, it seems that psychological interventions might have an influential contribution to make to an integrated management and improved prognosis of schizophrenia than mere improvement of medication compliance.

If one considers Davidson's (1992) assertion that interventions could be enhanced by the active involvement of the individual, and that interventions could be enhanced by a more participative (Kinsella, Anderson & Anderson ,1996), and culturally-sensitive (Al-Issa, 1973) approach, then it seems that eliciting, examining and enhancing appropriate coping skills (Zubin & Steinhauer, 1981; Dewald, 1994; Brenner & Pfammatter, 1998) might be a useful starting point in the development of such an approach. In order to explore the possible contribution that the enhancing of coping skills might make to the development of a more integrated strategy that focussed on the individual's vulnerability and recovery, the next section examines the literature around coping skills. It begins by examining coping and attitude in relation to the broader field of health psychology before examining the literature dealing with attitude and coping in schizophrenia more specifically.

CHAPTER FIVE

COPING AND HEALTH

The previous chapter suggested some of the historical bases of the tensions between limited models of understanding and managing schizophrenia. It presented more integrated ways of conceptualising both chronic illness and schizophrenia. Among the components that Brenner and Pfammatter (1998) propose for inclusion in such an integrated model are coping skills. This section explores coping more closely, beginning by briefly examining the literature dealing with chronic illness and then looking, in the next chapter, at the research dealing with coping in schizophrenia.

Problem-focussed and emotion-focussed coping.

The absence of comprehensive "cures" for chronic illnesses has seen much research into individuals' coping with chronic illness. Nevertheless, there is some debate around the concept of coping. Some researchers have questioned whether coping is an important determinant of people's emotional well-being or whether it is merely an epiphenomenon (McCrae & Costa, 1986). Some use coping style to highlight an underlying disposition and others refer to a situational-specific coping process (Lazarus, 1993). Still others regard coping as an important mediator in the relation between stress and adaptation (ibid.). While many issues around coping are being debated, with many new dimensions of coping being introduced, coping largely refers to the sense of the definition offered by Lazarus (1993) as:

> Ongoing cognitive and behavioral efforts to manage specific external and/or internal

> demands that are appraised as taxing or exceeding the resources of the person (Lazarus, 1993, p. 237).

Lazarus (1993) makes the distinction between problem-focussed coping and emotion-focussed coping. The former, problem-focussed coping, is aimed at changing the troubled person-environment relationship by acting on the environment or on oneself. The latter, emotion-focussed coping, is aimed at changing either the way the stressful relationship with the environment is attended to (e.g., vigilance or avoidance, Cohen and Lazarus, 1973) or the relational meaning of what is happening. (e.g., acceptance or denial).

Researchers contend that chronic (or long-term) illness is associated with emotion-focussed coping, since emotion-focussed coping is a response to a stressor that needs to be endured rather than changed (Carver, Scheier & Weintraub, 1989; Lazarus, 1993). Intervention is characterised by an alteration of the individual interpretation, and response to the stressful relationship, facilitation of a positive reinterpretation and an alteration of the responses of acceptance or denial.[1]

The Cope inventory (Carver, Scheier & Weintraub, 1989), outlines four scales of emotion-focussed coping: (1) seeking of emotional social support,

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[1]There seem to be similarities between what Lazarus (1993) calls emotion focused coping and what other researchers call "attitude". For instance, Chaplin (1970) describes attitude as being a relatively stable tendency to interpret and respond in a certain way towards persons, objects, institutions or issues. While it is recognised that there is a large body of research concerned with the definition of and the relationship between attitude, coping and specifically attribution (e.g., Mikulincer, 1984), in the two studies which this current study is replicating, attitude, coping and attribution are subsumed under the title "attitude". For this reason then, this study is compelled to use the term "attitude" interchangeably with, what might otherwise be called, emotion-focused coping or attribution.

(2) positive reinterpretation, (3) acceptance and (4) denial.

Examined in turn, psycho-educative and public awareness-raising interventions around chronic illness could be seen to be addressing the first of these variables of emotion-focussed coping: seeking of social support. By informing the public about mental illness it is possible that not only will general prejudice be reduced, but also that public receptivity and assistance about mental health will be facilitated. Another intervention that has implications for both public awareness-raising and help-seeking are such national institutions as mental health day/week. Reservations about such interventions, which focus on mere medication compliance, were covered in the previous chapter.

Positive reinterpretation (Cope inventory's second variable), the selective ignoring of the unpleasant aspects of a situation and the concentrating on positive aspects, could be termed optimism or positive attitude. The ability to reinterpret a situation positively or to construe meaning from an adverse experience is argued to be particularly adaptive when direct control is unlikely (Taylor, Lichtman & Wood, 1984) and is associated with reduced levels of anxiety and depression one year after diagnosis of cancer (Morris, 1984 in Jarrett, Ramirez, Richards & Weinman, 1992). Of course, this interpretation of an experience is not entirely an individual experience and is subject to prevailing societal world views to do with health and illness, as outlined above (see Al-Issa, 1973).

Cope's third and fourth variables, acceptance and denial, are quite complex. Acceptance can take the form of actively antagonistically engaging with the diagnosis ("fighting spirit") or actively incorporating the diagnosis into a world view (Friedman et al., 1988). Denial seems to involve more passivity and disengagement. In a sense then, the acceptance/denial variable of emotion-focussed coping investigates a movement towards the illness ("fighting spirit" or acceptance) or a movement away from the illness (denial, disengagement or avoidance). In a number of studies examining adaptation to cancer, "fighting spirit" has been associated with better adaptation and avoidance has been associated with an increase in distress (ibid.).

This chapter has presented a brief introduction to the research into coping and illness outlining the distinction between problem-focussed and emotion-focussed coping. It has examined components of the latter: seeking of social support, positive reinterpretation, acceptance and denial of a chronic condition. The next chapter looks more closely at research on the relationship between these components and schizophrenia.

CHAPTER SIX

COPING AND SCHIZOPHRENIA

Much research suggests the benefits of enhancing coping in developing psychological interventions in schizophrenia (Berner, 1996; Bradshaw, 1996; Corin & Lauzon 1992 ; Falloon and Tarbot, 1981; Herz, 1996; McNally & Goldberg, 1997; Penn & Mueser, 1996; Tarrier, Harwood, Yukopoff, & Ugareburu, 1990; Wahass & Kent, 1997).

Tarrier, Harwood, Yukopoff and Ugareburu (1990) have researched a standardised intervention called Coping Skills Enhancement (CSE). This intervention is intended to build on natural coping strategies employed by a patient experiencing residual symptoms of schizophrenia. It consists of nine well-defined steps including analysis of behaviour and consequences of symptoms, eliciting of coping methods used, followed by the practising of these coping methods. Their research found CSE to be effective in dealing with residual positive symptoms but not effective in dealing with mood, negative symptoms or social functioning. Changes were not sustained over a long period.

Herz (1996) developed a programme where 41 patients were assigned to weekly sessions on coping skills and biweekly multi-family group therapy. Findings suggested that participants had fewer rehospitalization days than the 41 controls who received standard monitoring and supportive therapy.

These findings suggest the general benefits of coping interventions with individuals suffering from

schizophrenia. The next section examines ways in which specific coping styles have been related to outcome. For this purpose both problem-focussed and emotion-focussed coping will be examined in turn, with the understanding that the focus of this research is on emotion-focussed coping.

6.1 Problem-focussed coping strategies

Much research has shown the benefit of problem-focussed coping on mental disorders. However, the results are ambiguous (Vollrath, Alnaes & Torgerson, 1996). In certain studies problem solving coping was seen to produce an increase in anxiety and feelings of threat (e.g., Carver & Scheier, 1994). To a certain extent, disparity in results is understandable in terms of differences in outcome measures (Vollrath, Alnaes & Torgerson, 1996).

A Japanese study (Takai, Uematsu, Kaiya & Inoue, 1990) found that self-reported coping methods by 62 chronic schizophrenic patients were predominantly focussed on problem-solving (behavioural change, withdrawal-avoidance and strategic intervention). Approaches using diversion as a tactic to ignore symptoms were found to correlate negatively with hospitalization and symptoms. The problem solving style without any effective results (called "struggle") was positively correlated with hospitalization and symptoms.

Carter, Mackinnon and Copolov (1996) found that patients with psychotic disorders may play an active and useful role in managing distressing symptoms of their psychotic illness. Their research uncovered a range of problem-focussed coping strategies that individuals used to deal with

auditory hallucinations including auditory stimulation, speech (vocal and sub vocal), relaxation and distraction. Of the 100 participants, 69% of the people who had coping strategies reported partial success from their use.

As discussed earlier, Lazarus (1993) introduced the distinction between problem-focussed and emotion-focussed coping, arguing that the latter was more appropriate for situations that could not be changed, particularly chronic illness. In light of the fact that many researchers are currently arguing that, for the majority of individuals diagnosed as such, suffering from schizophrenia is not chronic, one might ask whether these are appropriate coping strategies to employ with schizophrenia? Some researchers suggest that the schizophrenic individual be more actively involved (Davidson, 1992) in their management. Others suggest the management of schizophrenia address underlying vulnerability and recovery rather than symptomatology (Zubin & Steinhauer, 1981). In terms of these suggestions emotion focussed coping strategies are asserted as being useful for schizophrenic individuals in improving their recovery. The next section examines the use of emotion-focussed coping in schizophrenia research.

6.2 Emotion-focussed coping strategies.

In the early part of the twentieth century Mayer-Gross (1920, in Soskis & Bowers, 1969) implied that patients demonstrated relatively fixed attitudes about having been ill, which, in part defined and determined subsequent course and outcome (McGlashan & Carpenter, 1981). The responses were defined as the following:

(1) denial of the future or despair,

(2) (delusional) creation of a "new life" after the illness,

(3) denial of the psychotic experience itself (sealing over),

(4) "melting" of the illness into a continuous set of life values (integration) (in Soskis & Bowers, 1969).

Mayer-Gross's responses partially overlap with the COPE (Carver, Scheier & Weintraub, 1989) categories of emotion-focussed coping: Positive reinterpretation and acceptance/denial. These aspects of emotion-focussed coping will be examined in turn in the following section.

6.2.1 Positive and Negative attitudes

It could be hypothesized that a positive attitude would be associated with a better outcome in most situations. In terms of coping and attribution, it has been suggested that a positive attitude towards schizophrenia would represent certain attributions about the condition that would, in turn, reflect and enhance perceptions about resources and coping strategies (Mikulincer, 1989). As regards schizophrenia it is debatable whether the equation is as simple.

Soskis and Bowers (1969) found that a positive attitude towards illness was significantly related to better outcome. They offer the caveat, however, that

> ...this does not mean that all schizophrenic experiences are constructive in nature; no clinician who has worked with schizophrenic patients could justifiably make such an assertion. We suggest that the schizophrenic experience be viewed as one of several disruptive and unusual events to which individuals may react in various ways (p.448).

Likewise McGlashan and Carpenter (1981), suggest that the disruptive nature of the schizophrenic experience does not facilitate the possibility of having a simple positive attitude towards it. In addition they assert that a simple negative attitude would not necessarily have any advantages for the schizophrenic individual either. Rather, the findings of their study suggest that an attitude that was neither negative or positive was more significantly correlated with a better outcome. They suggest that a more neutral attitude could be expected even from an individual who could understand the value of their psychosis.

In assessing individuals' beliefs about hallucinations in terms of their beliefs about the purposes served by hallucinations and the adverse effects of hallucinations, Miller, O'Connor and DiPasquale (1993) found that the majority of patients reported some positive effects of hallucinations. The ability by individuals to predict the occurrence of hallucinations was significantly related to valuing hallucinations, suggesting that predictability may reduce the distress associated with the symptoms. Of the patients who continued to hallucinate after treatment, most maintained the same or more positive attitudes toward hallucinations. This suggests that:

> ..subjects unable to rid themselves of a symptom may find rationales to value that symptom as part of an adaptation to the illness. This may be particularly true in patients who have been ill for a long time, as in this study; a group of patients who has just begun to hallucinate might be expected to be considerably more frightened and to value the symptoms less (Miller et al., 1993, p. 588).

Various researchers problematize the possibility of schizophrenic individuals holding positive attitudes. McGlashan and Carpenter (1981) propose that such an attitude might be evidence of denial, or "unrealistic transformation of facts" (p.800), while Miller et al. (1993) suggest that it

might be a form of adapting to an experience which does not seem able to be changed.

Although Miller et al. (1993) did not examine the relationship between these attitudes and outcomes, their results suggest that a positive attitude towards hallucinations might be a response to, and therefore associated with, chronicity. In other words, the longer a person had been ill, the more likely it might be that they would have developed certain rationales to "value" their symptomatology. Such a complex relationship between chronicity and the construction of a positive attitude would seem to echo the relationship between chronic illness and emotion-focused coping referred to by Taylor, Lichtman & Wood (1984), and Lazarus (1993), which suggests that emotion-focused coping is appropriate for situations beyond one's control.

6.2.1.1 Co-morbid considerations

It would also seem important to be aware of the relationship of these attitudes to other symptoms of schizophrenia. Attitudes towards illness could, for instance, be influenced by either the negative symptoms associated with the illness itself, the medication, side-effects or with co-morbid affective disorders.

The distinction between positive and negative symptoms has been the guiding framework in schizophrenia for about ten years (Van Der Does, Dingemans, Linszen, Nugger & Scholte, 1995). In 1980, for instance, Crow (1980, in APA, 1994) proposed the classification of schizophrenic patients into two types, Type I and Type 2, in terms of the predominance of positive or negative symptoms, respectively. These types are argued to be related to severity and prognosis. An

individual presenting with mostly positive symptoms (loose associations, hallucinations, bizarre behavior and increased speech), Type 1, is argued to have a better response to treatment than that of a more negatively dominated symptomatology (affective flattening, lack of motivation, social withdrawal, poverty of speech and cognitive defects) Type 2 (ibid.).

Although recent researchers contend that such an approach is too simplistic (Van Der Does, Dingemans, Linszen, Nugter & Scholte, 1995), the distinction between positive and negative symptomatology and the conclusions drawn from certain clinical presentations are especially interesting when viewed against the backdrop of pharmacological history and developments. It has been argued, for instance, that while earlier medication aggravated the negative symptomatology of schizophrenia, the new atypical neuroleptics ameliorate negative symptoms and reduce side-effects (APA, 1994). This suggests that a Type 1 or Type 2 schizophrenic's response to treatment might reflect more the efficacy of the treatment than the state of the individual per se.

Presenting attitude as a component of a certain type of presentation of schizophrenia further complicates the relationship between attitude and outcome. As long as negative attitudes are construed as symptoms of schizophrenia it is difficult to define them as attitudes towards schizophrenia. By arguing that negative symptomatology is associated with poor response to treatment, negative symptomatology (and attitude) is associated with poor outcome in schizophrenia. More recently, as mentioned above, researchers like Van Der Does et al. (1995) assert that symptom dimensions are dependant on an individual's phase of illness. Their study finds

that these two dimensions of positive and negative symptomatology, even when bolstered by two more dimensions of disorganization and depression, represent artificially created dichotomies.

Linked to the discussion about the role of negative symptoms in schizophrenia, is the debate concerning the recognition of co-morbid affective disorders in schizophrenia. Although 10-15% of people with schizophrenia commit suicide (Rappaport, 1998), fewer than half of the schizophrenics who also present with depression receive antidepressant medication (Rappaport, 1998). The current DSM IV (APA, 1994) definitions of schizophrenia incorporate symptoms characteristic of affective disorders, and in so doing complicate the diagnosis and treatment of an underlying affective disorder (e.g., Gift, Strauss, Kokes, Harder & Ritzler, 1980). Hoffman and McGlashan (1998) argue that sub-diagnostic affective disorders in schizophrenia are associated with a more positive outcome than when such co morbid disorders are not present. This is puzzling when compared with the conclusions about Type 1 and Type 2 presentations that suggest that negative symptoms of schizophrenia are less amenable to treatment than positive symptoms (APA, 1994). Once again such apparently contradictory conclusions could reflect more on pharmacological developments than on schizophrenia itself.

Nevertheless, sub-diagnostic affective disorders have to be diagnosed and treated as such before the allegedly positive outcome, suggested by Hoffman and McGlashan (1998) is realised. This is the contention that researchers like Rappaport (1998) seem to be making, that such a sub-diagnosis is not being recognised. It appears as if present definitions of schizophrenia would complicate the distinctions between symptomatology of schizophrenia and symptomatology of sub

diagnostic affective disorders resulting in the under diagnosis and treatment of, for example, depression in schizophrenia. The diagnosis of co-morbid conditions, of course, is only useful in terms of its consequent intervention. This raises questions about how such a sub-diagnosis of an affective disorder would influence not only pharmacological interventions but also psychological interventions.

The relationship between attitudes towards illness and their effect on outcome is thus complicated. It is problematic to examine such attitudes without taking into account the origins of such attitudes. The diversity of factors underpinning positive and negative attitudes towards schizophrenia, outlined above, highlights the fact that such attitudes cannot be regarded in isolation. This underscores the importance of obtaining personalized information from the individual regarding not only their attitudes towards schizophrenia but also their personal and social attributions and their beliefs regarding the cause and function of the condition.

As regards the benefits of a positive, negative or neutral attitude for the outcome of schizophrenia, the complex relationship between attitudes and other variables such as chronicity, beliefs and attribution make simple conclusions unlikely. Attitudes appear to be influenced by symptomatology, medication, co morbidity, diagnosis and duration of illness. For this reason it is debatable whether simple cognitive therapy techniques (e.g., Tarrier, Harwood, Yukopoff & Ugareburu, 1990) are sustainable, because attitudes are interrelated with these other factors. What can be proposed, however, is that a positive attitude is beneficial in terms of treatment compliance. In a study focusing on treatment compliance Buchanan (1992) found that a general

attitude of optimism, a belief that medication helped and a stated willingness to take treatment after discharge were all associated with treatment compliance. In addition, the nature of the schizophrenic individual's attitude towards illness would seem to remain potentially informative of the quality of their condition. An examination of the relationship between attitude and outcome would still, therefore, seem valuable even if attitude is recognised as multi-determined.

6.2.2 Attitudes of acceptance and denial

In the literature on coping, the attitudes of acceptance and denial sometimes form part of emotion-focussed coping strategies, and are sometimes presented as a separate category of coping. These are difficult attitudes to examine, not least because of the lack of standardisation of terminology in dealing with them. In the schizophrenia literature, researchers seem to be exploring similar attitudes in their research while calling them *integration and isolation* (Mayer-Gross, 1920 in Soskis & Bowers, 1969), *insight* (McEvoy et al., 1989), *detachment, exclusion,* (Corin & Lauzon, 1992) *sealing over* (APA, 1994), *avoidance* (Vollrath, Alnaes & Torgerson, 1996). The present study, a replication of Soskis and Bowers (1969), is restricted to using the terms *isolate* and *integrate* in referring to variables that might have acquired other terms since Mayer-Gross proposed them.

Mayer-Gross likened the process of integration of illness to a "melting of the illness into a continuous set of life values" (cited in Soskis & Bowers, 1969, p. 444), suggesting an integration of the illness into an individual world view. Soskis and Bowers (1969) found that an *integration* of schizophrenia was correlated with better outcome in schizophrenic individuals than those that

isolated the condition.

Using the same measures in a replication study, McGlashan and Carpenter (1981) find no such correlation between integrate/isolate and outcome. Once again, as in the discussion on positive and negative attitude above, the debate arises regarding the extent to which such acceptance / denial or integration/isolation is a defence mechanism. McGlashan and Carpenter (1981) suggest that such a measure corresponds to an individual's "particular constellation of defensive/coping mechanisms such as denial, repression, compartmentalisation, sublimation and regression in the service of the ego" (p. 800). They argue that such mechanisms operate at a more unconscious level than conscious attitude and are therefore more difficult to access. The same argument can be raised about Lazarus's emotion-focussed coping (1993), in terms of the degree of defendedness considered adaptive in schizophrenia. As has been argued for positive and negative attitudes towards schizophrenia, the denial of schizophrenia could also be argued to be evidence of healthy adaptation, rather than a deterioration of ego functioning, in terms of the very real and personal consequences of having schizophrenia.

In terms of denial or isolation, McEvoy et al. (1989) highlight the fact that individuals suffering from schizophrenia are often unwilling to acknowledge that they are ill and need treatment, to the extent that this is almost one of the identifying signs of the condition. The acknowledgement and accepting of the condition is referred to as *insight* and seems to refer to the individual's verbal reporting of this acknowledgement. Behaviour that indicates insight does not seem to be taken into account. In the study of McEvoy and colleagues (1989), individuals who referred themselves

to hospital and complied with medication were still considered as having no insight if they did not report that they were suffering from schizophrenia. Researchers found no correlation between insight and number of rehospitalizations or degree of disturbance, before or after treatment, but they note that the lack of insight makes schizophrenic individuals more likely to relapse, due to non-compliance with medication, after being discharged from hospital.

Other research suggests a better prognosis for schizophrenics who accept and understand their condition, mostly in terms of the recognition of the signs and symptoms of schizophrenia and in recognising the value of treatment (Cuffel, Alford, Fischer, & Owen, 1996). Awareness and acceptance of mental illness is central to theories of help-seeking behaviour (e.g., Anderson & Newman, 1973; Cleary, 1989; Pecsolido, 1991, 1992, all in Cuffel et al., 1996).

Some authors argue that insight is multidimensional and that research which treats insight as a unitary concept fail to address its complexities (Amador et al., 1993). Some of the suggested dimensions of insight are awareness and attribution.

This raises the point that just as in the examination of positive and negative attitudes toward schizophrenia, one cannot examine the acknowledgment and accepting of one's illness without also recognizing the nature of that illness and the nature of the perceived consequences of accepting the illness. For example, it is possible that the introduction of medication without the associated side-effects could bring about an increase in "insight" (self-reporting). Similarly an alternative diagnosis that did not stigmatise an individual in the way a diagnosis of schizophrenia

does might also bring about an increase in insight (self-reporting). In other words such attitudes cannot be simply ascribed to the individual.

While the medical profession might have a certain way of understanding schizophrenia, the condition might have very different implications for the individual in terms of beliefs, attributions, perception of resources, and prognosis. Without eliciting such information from the individual it would seem to be difficult to understand or evaluate attitudes that integrate or isolate schizophrenia. As referred to above, a purely physiological explanation of schizophrenia itself might influence these attitudes by reducing individual's propensity to seek social support and increase physiological coping through substance use (Fisher & Farina, 1979). This reduction of social help-seeking might be interpreted as lack of insight in the individual where, in fact, it might be a natural consequence of a biological explanation of schizophrenia by mental health professionals.

Instead of the self-reporting of attitudes, or help-seeking behaviour, more recent studies in the related area of avoidance have focussed on the reporting of cognitive strategies used by individuals suffering from schizophrenia. Avoidance coping is a heterogenous class of coping including such cognitive strategies as wishful thinking and daydreaming, distractive activities, detachment and blaming self (Vollrath, Alnaes & Torgerson, 1996). Avoidance coping has been found to be consistently related to the exacerbation of symptoms of mental disorders (ibid.). In the health psychology literature it is considered to be maladaptive and a risk factor for psychological adjustment by many authors (Carver, Scheier & Weintraub, 1989).

In a study of avoidance in schizophrenia, Corin and Lauzon (1992) found that of 45 male schizophrenic patients, those that had developed an attitude of detachment had higher rates of rehospitalization than those who developed an attitude of exclusion. These attitudes appear to be related to attributions. A detached attitude seems to place agency within the individual while an attitude of exclusion seems to place the agency externally, equivalent to internal and external loci of control to some degree. From their results emerged the use of cultural or religious signifiers as ways of maintaining either of these two positions.

Farhall and Gehrke (1997) found that the coping strategies used by individuals suffering from schizophrenia were distinct in terms of their hallucination-specific and more general effects. They found that acceptance coping strategies were related to control of hallucinations whereas more passive coping strategies were used to reduce distress, and that resistant coping failed to reduce distress. These findings suggest that different coping strategies might be more efficient at regulating different aspects of the psychotic experience, hallucinations and distress being two of the components. As different components of the illness predominate some attitudes might be more or less appropriate and prominent than others.

In exploring acceptance and denial coping many, ostensibly similar, constructs have been parallelled in this section and this is problematic, suggesting the usefulness of standardising such constructs in the research literature. What emerges, nevertheless, is the extent to which such attitudes of acceptance or denial of illness are inter-related with various belief systems and

attributions. Findings highlight the complex nature of attitudes of acceptance and denial, how such attitudes can be related to beliefs. These might be about personal resources, religious beliefs, beliefs about the nature of illness and the nature of one's society. Other beliefs influencing attitudes of acceptance and denial might relate to the perceived efficacy of medication, beliefs about mental health or mental health professionals and institutions. The next section examines attribution more closely.

6.2.3 Attribution

Although Heider presented his influential work on attributional theory in 1958, the two studies that this work is replicating (Soskis & Bowers, 1969; McGlashan & Carpenter, 1981), do not refer to his work, and include attribution under *attitudes* of blame self, blame events and blame family.

These attitudes, which explore the ways in which individuals understand and explain their condition, could be seen to influence other attitudes most strongly. The way in which an individual perceives the relationship between themselves, others and schizophrenia would seem to have an influence over whether a person was able to have a positive or negative attitude towards schizophrenia and to whether they were able to integrate or isolate their condition into their world views.

More importantly, the degree to which an individual considered themselves, events, or others responsible for their illness might reveal the extent to which an individual felt in control of their

illness. Particularly for schizophrenia, which so clearly involves a loss of control of ego functioning, it might be important to examine whether an individual ascribes the illness to internal or external processes and how such beliefs are related to outcome. Such beliefs about the cause of the condition might also suggest an appropriate intervention. These implications of responsibility and agency have possible negative consequences for the individual suffering from schizophrenia.

In terms of attributions and beliefs about mental illness, Fisher and Farina (1979) propose representing these on a continuum. At the one end, mental illness is seen as a disease, caused by physiological processes; at the other end of the continuum, mental illness is seen to be a consequence of social learning. They cite earlier research that asserts that a "disease" belief produced apathy in patients whereas a "social learning" belief about a condition encouraged analysis and modification of behavioural circumstances. The former facilitated heavier reliance on medication and even substance abuse as a method of coping. Such research, although dated, suggests that different beliefs that patients have about their condition facilitate different coping strategies.

The research into coping strategies with hallucinations, referred to above, suggested that predictable hallucinations increased the possibility of the patient valuing the hallucinations and experiencing less distress associated with hallucinations (Miller, O'Connor & DiPasquale 1993). Such predictability could be related to the controllability of symptoms, suggesting that an attribution style that included some degree of control of the condition might reduce stress and enhance recovery. Farhall and Gehrke (1997), associate control of hallucinations with the attitude

attitude of acceptance, and control of distress with an attitude of denial.

Some approaches have applied cognitive behavioural techniques of verbal challenge and reality testing to the reduction of delusional beliefs. Chadwick and Lowe (1994, in Penn & Mueser, 1996) attempted to convince patients of the internal source of their hallucinations by having them wear heavy industrial earmuffs. This unconventional intervention resulted in reduced conviction in, and preoccupation with, delusional beliefs for most of the participants, with some participants rejecting their delusions outright. While such a novel approach seems questionable in terms of the findings of Miller, O'Connor and DiPasquale (1993) that hallucinations are not seen as entirely useless by certain sufferers, Chadwick and Lowes' (1994) intervention does demonstrate the extent to which attributions seem modifiable.

In a similar way, Bentall and colleagues (1994, in Penn & Mueser, 1996) set out to address the fundamental misattribution of schizophrenia, viz., the attribution of hallucinations to an external source. Their cognitive behavioural interventions led to reductions in the frequency and distress related to auditory hallucinations for 50% of their participants. The research does not indicate if such changes were sustained.

The area of attribution seems multilayered in schizophrenia. On an intra-psychic level, hallucinations are suggested as being primarily about misattribution. On a broader scale, social and societal attribution regarding schizophrenia and mental health would seem to wield a powerful influence on individual attitudes (e.g., positive/negative; integrate/isolate). Interventions involved

in psycho- education might be seen to be influencing attribution on both personal and social levels and, it was argued earlier, that the consequence of such an alteration, without uncovering existing personal and sociocultural attributions, was potentially harmful to the individual. Such an alteration, without having been contextualized within personal and sociocultural attributions, had the potential for aggravating the individual's sense of isolation and alienation (Bellak & Goldsmith, 1984; Mendel, 1974) and result in a reduction of help-seeking behaviour (Fisher & Farina,1979).

Although beyond the scope of this study, an examination of attitude would not be complete without reference to the various contexts of attitudes. The next section briefly examines the influences that sociocultural beliefs and attitudes might have on the attitudes of the schizophrenic individual.

6.3 Sociocultural attitudes

6.3.1 Attitudes of families

The work on expressed emotion (EE) in families is amongst the most widely researched areas in schizophrenia (Jenkins & Karno, 1992). This research, developed in the early 1950's by Brown and his colleagues, has examined the relationship between various family attitudes towards illness, incapacity and outcome. Studies have indicated that patients returning from hospital to live with family who talk about them in a critical, hostile over-emotional, over-involved way (high EE) tend to relapse more often than patients whose relatives do not interact with them in this way (low EE) (Weisman, Lopez, Karno & Jenkins, 1993). Such results also seem to be supported cross-culturally (Karno et al., 1987).

In terms of attitude, EE can be seen to include negative attitudes, and perhaps what could be construed as denial. In terms of attribution, Hooley (1987, in Weisman, Lopez, Karno & Jenkins, 1993) was the first to consider the relationship between EE and a relative's perception of the patient's control over his or her disorder (in Weisman, Lopez, Karno & Jenkins, 1993). Weisman et al. (1993) found that high EE families viewed the illness and associated symptoms as residing within the patient's personal control, more so than did low EE families. They also found that family members who perceived the patient as having control over their symptoms tended to express greater anger and annoyance towards the patient than did family members who viewed the symptoms as beyond the patient's control. While the construct of EE is still heavily debated, it seems generally accepted that family attitudes or "culturally constituted features of kin response to an ill relative is the overarching mediator of EE" (Jenkins & Karno, 1992, p. 16).

Just as family attitude can be argued to influence the schizophrenic individual, these attitudes are not necessarily different from the various contexts in which the family find themselves. These contexts mould the attitudes of the family either in terms of their number (society) or in terms of their authority (e.g., religious, political, legal contexts). One such context that is able to influence the attitude of the family is the attitude of the medical/psychiatric institution.

6.3.2 Attitude of institutions

In France, Francq and Roelandt (1991) tracked the evolution of the medical establishment's attitude towards psychiatric illness by comparing the treatment of a group of 60 female, schizophrenic patients during two different 10-year periods. They found that the attitude of the

medical establishment had not changed as much as had been expected and that, like the attitude of society, it remained one of exclusion.

In South Africa, the department of health reports that people still tend to attach a stigma to mentally-ill patients and even to those who work with them (Department of Health, 1998). It seems likely that the burden of this prejudice has resulted in rigid attitudes by the mental health institutions. This is a possible reason for the attitude of the medical establishment not to have changed, as Franq and Roelandt (1991) argue.

While the relationship between family attitude and individual attitude in schizophrenia seems an obvious one, what is less obvious is the influence of institutional and professional attitudes towards schizophrenia on an individual's attitude. When one considers that, until recently the DSM IV (APA, 1981) presented schizophrenia as being a chronic and deteriorating condition, it seems worth considering how the professional's management displayed a positive or negative attitude towards the schizophrenic individual and how the individual's attitudes were altered by such a relationship. Harding and Zahniser (1994) argue, accordingly, that rehabilitation of schizophrenia should begin immediately in the course of treatment of schizophrenia.

6.3.3 Sociocultural attitude towards schizophrenia

As mentioned above, sociocultural attitudes can influence the attitudes of the individual, the family and institutions. The consequences of these attitudes are complicated and diverse, deciding not only what is moral but also what is healthy. Deviance from sociocultural attitudes and beliefs

regarding morality or health has consequences for the individual in terms of that particular society's form of societal control and protection. These might include whether an hallucinating person was hospitalized or not, and might also dictate to what extent a schizophrenic person relinquished their rights as a member of that society.

As mentioned earlier, Al-Issa (1973) cites research showing that hallucinations are reciprocally augmented by anxiety. He argues that differing cultural beliefs about the positive and negative evaluation of hallucinations can contribute to anxiety. This suggests the very real, psycho-physiological consequences of cultural attitudes, especially when considering the association made, in other chronic illnesses, between stress and illness (Kiecolt-Glaser & Glaser, 1995), and the fact that a number of immunological abnormalities have been associated with certain schizophrenic patients (APA, 1994).

Other research has investigated the heterogenous course of schizophrenia cross-culturally. Sartorius (1978, in Karno et al., 1987) asserts that schizophrenia diagnosed in India, Columbia and Nigeria had more favourable, non-disabling courses and outcomes than schizophrenia diagnosed in London, Moscow, Prague and Washington. Karno et al. (1987) argue that cultural attitudes towards illness affect the strength of family bonds, the family's attitude towards schizophrenic family members, and the expectations for independent achievement by that family member. These cultural attitudes influence stigmatisation, incompetence and anxiety felt by the family member.

One component of sociocultural beliefs is religion. These beliefs can influence the attitudes of individuals, families and societies about the symptoms of schizophrenia. Corin and Lauzon (1992) argue that religious beliefs can facilitate certain reframing of the schizophrenic experience. Wahass and Kent (1997), researching cross-cultural strategies to cope with auditory hallucinations in schizophrenia, found that Saudi Arabian patients were more inclined to use strategies based in their religion whereas English patients were more inclined to use distraction or physiologically based approaches. The way in which such cultural and religious attitudes are argued to mediate conditions like schizophrenia is recognised by the inclusion in the DSM IV of a religious or spiritual problem as a diagnosis (Turner, Lukoff, Barnhouse & Francis, 1995).

This chapter examined some of the debates and research dealing with problem-focussed and emotion-focussed coping in schizophrenia. More specifically, it examined the subcategories of emotion-focussed coping: positive and negative attitudes, acceptance and denial, and attribution. It also acknowledged the influence of larger social contexts and institutions on these attitudes. Attitudes were seen to be complex in terms of definition and standardization, and, generally-speaking, research seems unclear about the nature of attitudes, their influence on outcome and the sustainable benefits of interventions dealing with attitude. For this reason, given arguments proposing psychological interventions that enhance recovery and reduce vulnerability by mobilizing the schizophrenic individual, it was decided to examine two studies in this area more closely. The next chapter focusses closely on two studies that examined the relationship between attitude and outcome in the schizophrenic individual.

CHAPTER 7

TWO STUDIES

This research uses as its primary point of departure, two studies that contextualize their work within the pioneering research into the phenomenology of the schizophrenic experience. Soskis and Bowers (1969) examined the relationship between attitude and post-hospital adjustment of people diagnosed as suffering from schizophrenia. McGlashan and Carpenter (1981) partially replicated this study. The earlier study suggested that a positive, integrating attitude was significantly related to better outcome in a schizophrenic individual while the latter study contests this. The replication study finds that better outcome is related more significantly to an absence of negative attitude than to the presence of positive attitude. These two studies are reviewed below.

7.1 Soskis and Bowers (1969)

Soskis and Bowers (1969) refer to Mayer-Gross who, in 1920, produced a phenomenological classification consisting of four possible modes of responding to psychosis. These were mentioned earlier as:

(1) denial of the future or despair
(2) (delusional) creation of a "new life" after the illness
(3) denial of the psychotic experience itself (sealing over)
(4) "melting" of the illness into a continuous set of life values (integration)

Soskis and Bowers (1969) used these four modes to produce a questionnaire that was administered to 32 schizophrenic patients, three to seven years after admission, and correlated this with their post-hospital adjustment.

7.1.1 Measurement

Their 55-item questionnaire (see appendix D) was organised into 11 scales of attitude, each measured by five statements. The 11 scales of attitude examined:

1. Positive or negative attitude towards the illness
2. Positive or negative attitude towards the future
3. Positive or negative attitude towards insight
4. The degree to which the illness was integrated into the patient's life (integrate or isolate)
5. Whether the illness was perceived as being internally or externally caused. (Blame self, family or events)

The details of these attitudes, and the questions used to elicit them, will be examined more closely in the next section.

In addition to the 11 clusters, Soskis and Bowers (1969) combined eight of the clusters into four summary clusters that combine the positive and negative scores on certain attitudes to produce a graded rather than a categorical score. Such composite scores, therefore, produce an overall score of attitude towards illness, insight, and the future as well as a graded score of the integrate/isolate attitude.

1. Positive minus negative attitude toward illness
2. Integrate illness minus isolate illness
3. Positive minus negative attitude towards insight
4. Positive minus negative attitude towards the future

Adjustment was operationalized by measuring:

1. Number of hospitalisations
2. Brief follow-up ratings
3. Two forms of the Katz adjustment scales (KAS1 and 2)

7.1.2 Findings

The study found that former schizophrenic out-patients who showed a positive, integrating attitude toward their illness, and who valued personal insight, had significantly better post-hospital adjustment than those without these attitudes. No significant correlation was found between attribution and post-hospital adjustment.

7.2 McGlashan and Carpenter (1981)

In 1981, McGlashan and Carpenter partially replicated Soskis and Bowers' (1969) study. Their amendments of the original study included a shorter follow-up period, a contrasting treatment approach and different measures of outcome. They administered the Soskis and Bowers (1969) questionnaire to 30 schizophrenic patients, between 18 and 60 years of age, with good pre-morbid functioning, 12 months after admission. In addition, they investigated pre-morbid personality, global psychopathology and other prognostic indicators both on admission and 12 months after admission. Treatment during admission was psychologically focussed with pharmacotherapy used sparingly. Psychological interventions were psychoanalytically based psychotherapy, group and family psychotherapy, occupational and recreational therapy. Patients also participated in ward functions that were part of an active therapeutic milieu.

7.2.1 Measurement

Attitude was classified as the original study had done:

1. Positive or negative attitude towards the illness
2. Positive or negative attitude towards the future
3. Positive or negative attitude towards insight
4. The degree to which the illness was integrated into the patient's life (integrate or isolate)
5. Whether the illness was perceived as being internally or externally caused (blame self, family or events)

Composite measures:

1. Positive minus negative attitude toward illness
2. Integrate illness minus isolate illness
3. Positive minus negative attitude towards insight
4. Positive minus negative attitude towards the future

Outcome measures included :

1. Quantity and quality of useful work
2. Frequency and quality of social relations
3. Duration of non-hospitalisation
4. Absence of symptoms
5. Ability to meet needs
6. Two global measures of functioning

7.2.2 Findings

The study found a significant correlation between attitude and post-hospital adjustment. In particular, optimism about one's future was associated with good outcome on multiple measures. In general they found that "...outcome functioning correlated far more frequently with measures of attitude towards illness and the future than with measures of pre morbid prognostic status" (p.799). Global psychopathology did not correlate with attitude at any assessment period and clusters of integrate and isolate were not significantly correlated with outcome (except that

integration was associated with more time spent in hospital). The relationship between attribution and outcome was not discussed in the findings and was presumably not significant.

They discovered significant differences between their results and those of the original study which highlight certain discrepancies in the original study's analysis of their results. These are more clearly elucidated if we examine each variable in turn, exploring its definition and measurement. The next section explores these variables more closely and summarises the findings of the two studies.

7.3 Comparison of the results of the two studies.

7.3.1 Positive/Negative Variable.

This variable elicits positive or negative attitude towards schizophrenia by the schizophrenic individual. Reporting takes the form of the participant marking, as true or false, 10 statements, five of which represent positive attitudes towards the condition, and the other five represent negative attitudes towards the illness. Examples of statements representing positive attitudes are: "The illness was a turning point in my life-since then things have got better", (Item 1) " I think that the illness made me into a better person"(Item 39) and, an example of a statement representing a negative attitude towards the condition: "It's very hard for me to find anything good about the illness"(Item 53) (see Appendix D).

Examining each study in turn, Soskis and Bowers (1969) found that certain attitudes tended to cluster. In one cluster were a positive, affirming attitude towards the illness itself, an attitude that integrated the experience into the rest of the individual's life, as well as a valuing of insight in solving problems. A positive, integrating attitude was associated with a better level of post-hospital adjustment.

McGlashan and Carpenter's (1981) study, on the other hand, found that the major component of the relationship between attitude and adjustment was that between negative attitude and outcome, for which there was a negative correlation. This suggests that:

> ....*the less negative patients were about their future the better outcome they had.* A positive attitude towards their future seemed less important than the *absence of a negative attitude* (original emphases, ibid, p. 799).

They argue that even in the original (1969) study, negative attitude about the future was actually a stronger negative correlate of outcome than positive attitude was a positive correlate. These results are understandable, they argue, in terms of the fact that while the psychotic experience might have the potential to facilitate psychic reorganisation and positive change, the experience still represents a painful and embarrassing experience of maladaptation.

McGlashan and Carpenter (1981) question the possibility of ever being able to have a positive attitude towards psychosis:

> Although a psychotic episode may contain the seeds for positive change or ultimately prove to have catalysed a necessary reorganisation of psychic forces, it is still basically a pathological state and maladaptive solution, a failure of more sophisticated coping strategies rather than a successful negotiation of conflict (p. 800).

For this reason it is argued that patients might find it difficult to frame the experience in a positive

way, and in fact, as argued earlier, a positive framing of the experience might be more an indication of denial than healthy adjustment.

In terms of the negative attitude, McGlashan and Carpenter (1981) caution that while this might be an accurate representation of the individual's perceived lack of resources in the experience, it might also be a long-standing perception that predates the experience of psychosis and might be more a function of pre-morbid personality than a response to a disruptive, isolated experience. However this is mere speculation on their part, as the pre-morbid personality and prognostic variables did not correlate with either outcome or attitude.

7.3.2 Integrate/isolate variable.

As discussed earlier, the integrate/isolate variable seems similar to attitudes described in the emotion-focussed literature as acceptance and denial and in other literature as avoidance, detachment, exclusion, "fighting spirit", or "sealing over". Essentially this variable seems to explore the extent to which an individual is able to incorporate the symptoms of their condition into their integrated world view.

Mayer-Gross (1920, in Soskis & Bowers, 1969), described the integration of illness as a "..'melting' of the illness into a continuous set of 'life values'" (p. 444). He regarded this variable as the ".. .most hopeful, feeling that it best met the all-important 'challenge of continuity'" (ibid, p. 444).

The questions that Soskis and Bowers (1969) used to operationalize this variable highlight an attempt by the patient to normalise the psychotic experience socially and individually (e.g., "Although it may not put them into hospital, most people have an experience like I had at some stage in their life" (Item 35); " I can see now that the illness developed out of problems that I had all along" (Item 42); "Now that I look back on it, it seems to fit in with the rest of my life" (Item 2), (see Appendix D).

Looking at both studies, in the original 1969 study Soskis and Bowers emphasise that the integration of the psychotic experience does not comment on the nature of the experience itself. They argue that integration does not imply that the schizophrenic experience is necessarily adaptive or not adaptive, rather it highlights the attitude or capacities of the individual. Various individuals may thus respond to disruptive and unusual experiences in different ways, whether they are deemed to be constructive or not. McGlashan and Carpenter (1981) point out that such responses might be innate and in so doing echo Zubin and Steinhauer's (1981) notion of vulnerability in schizophrenia.

What the integrate/isolate variable may be exploring is the individual's capacity to reduce the trauma of the psychotic experience by attempting to make sense of it, and by contextualizing it in some socially or personally appropriate way. It is conceivable that, as in Post-Traumatic Stress Disorder, the trauma of psychosis may result in intrusive thoughts, rumination, inability to concentrate, solipsism and social alienation (definitive symptoms of the schizophrenic condition itself). What is uncertain about the integrate variable is how it would relate to, for example, the

"fighting spirit", which is suggestive of active isolation of illness. In cancer fighting spirit has been associated with a better outcome (Friedman et al., 1988).

The Soskis and Bowers (1969) study found that individuals who isolated their illness from the rest of their lives had significantly lower scores on two measures of social adjustment. This suggests that the isolation of the condition is parallelled by social isolation, which was correlated with lower social adjustment. In terms of inter-correlations between variables and demographic data, they found that participants with a diagnosis of paranoid schizophrenia diagnosis had significantly lower scores on the integrate variables than those without this diagnosis. They also found that integrate scores correlated significantly with statements which saw the cause of the illness as being internal (self) rather than external (family, circumstances). This internal causation was associated with significantly longer hospital stays than those with external causation.

Despite the correlation found between post-hospital adjustment and both the integrate/isolate variable and the positive/negative variable, no significant correlation was found between the integrate/isolate variables and the positive/negative variables:

> With this fact in mind we can view the significant correlations between post-hospital adjustment and the integrate-isolate set of variables as reflections of a real relationship and not as manifestations of a non-specific optimistic attitude (p. 449).

This counterintuitive lack of relationship between the two variables suggests that these two variables are two distinct constructs.

McGlashan and Carpenter (1981) found that the integrate/isolate variable was not significantly

associated with outcome. They minimised the analysis of the original study arguing that, although it found that the isolate variable correlated with two measures of outcome, it found no other correlations between any variable and outcome.

Their findings also suggest that the integrate/isolate variable is distinct from the positive/negative variable. The authors suggest that this variable relates more to an individual's unconscious defensive functioning and is consequently inaccessible to this type of enquiry, being independent from the conscious attitude and opinion under investigation.

7.4 Summary

In summary, both these studies examined the relationship between the attitude of schizophrenic individuals to their conditions and how such attitudes were related to their post-hospital adjustment. The original study found a correlation between positive attitude and outcome while the second study found a stronger inverse correlation between negative attitude and outcome. The original study associated integration of illness with self-blame, longer hospital stay and better post-hospital adjustment than isolation of the illness. While the second study found a correlation between integration of illness with longer hospital stay, it found no other correlation between the integrate variable and outcome, arguing that this variable is unconscious and consequently unavailable to conventional methods of eliciting information for research.

The economic, social and personal consequences of schizophrenia were outlined in section 6.3 and current psychological interventions were questioned in terms of their contribution to the potential of recovery in schizophrenia. Interventions that limit their focus to one model or to the alleviation of symptoms and enhancing of treatment compliance were critiqued, and the need for a more integrated model that dealt with both symptom relief and underlying vulnerability was asserted. One feature of such an integrated model was suggested as being the area of individual coping. The literature dealing with coping in both health psychology and schizophrenia was then examined and, from the coping literature, two studies were chosen which explored the relationship between attitude and outcome in schizophrenia. The difference between the findings of these studies, carried out several years apart, raised certain questions about which attitudes were more significantly related to a better outcome in schizophrenia.

The differences between the findings and interpretations of these two studies seem to contain important implications for the understanding and management of schizophrenia. If the dangers of a symptom/medication-based intervention and the limitations and dangers of supportive and psycho-educative interventions are agreed upon, then the development of a supportive psychotherapy that actively deals with emotion focussed coping may be a possible solution. Such an intervention seems likely to protect the individual from the dangers of the limited approaches, presented above, and have the potential for compounding the benefits of recent advances in psychopharmacology and treatment compliance. Such an approach might then represent the more active role that psychology might play in an integrated intervention aiming at enhancing the recovery rate in schizophrenia.

If an intervention were to deal more closely with vulnerability through emotion focussed coping then it seems important to know what specific coping strategies and attitudes of the individual are associated with better outcomes in schizophrenia. It would seem important to know whether better outcomes are facilitated by enhancing a positive attitude or by reducing a negative attitude towards the condition. It would also seem important to be able to make an informed decision about whether to encourage "the fighting spirit" or a more passive acceptance of the condition by the patient. As regards attribution, it would seem important to elicit these attributions from an individual and to recognise that certain interventions might be better suited to certain types of attribution.

Both the studies (Soskis & Bowers, 1969; McGlashan & Carpenter, 1981) have shown that there is an important and significant relationship between attitude and outcome in schizophrenia. The nature of this relationship remains unclear. One of the major distinctions between their findings is in terms of whether a better prognosis in schizophrenia is more significantly correlated to the presence of a positive attitude towards schizophrenia or to the absence of a negative attitude towards schizophrenia. Other debates concern the utility of the integrate/isolate variable in terms of its ability to be reported and in terms of its relationship to outcome. In response to the differences in their results, this study replicates the previous studies in an attempt to clarify the relationship between attitude and outcome in schizophrenia.

The following section, then, presents a replication of the two studies by Soskis and Bowers (1969) and McGlashan and Carpenter (1981). The replication study was undertaken to explore the relationship between attitude and outcome in schizophrenia further in an attempt to clarify how, within a more integrated model of management, interventions dealing with emotion-focussed coping in schizophrenia might best focus their efforts. The details of this research are presented in the next chapter.

CHAPTER EIGHT

PRESENT STUDY

8.1 Aims

The present study is a replication of two earlier studies by Soskis and Bowers (1969) and McGlashan and Carpenter (1981) which examined the relationship between attitude, based on Mayer-Gross's (1921) phenomenological (in Soskis & Bowers, 1969) outline of possible responses to psychosis, and outcome. This study has the general objective of exploring the possible relationship between attitude and outcome in schizophrenia. It has the more specific objective of exploring the distinction in the findings of the previous studies as regards the positive/negative attitude and the integrate/isolate attitude. In terms of the positive/negative attitude this study seeks to explore whether the absence of negative attitude is more highly correlated with good outcome than presence of positive attitude as McGlashan and Carpenter (1981) argue. In terms of the integrate/isolate attitude it seeks to explore whether or not this attitude shows any relationship to outcome and whether it is amenable to a research method involving conscious self-report, or whether it is more unconscious in nature as McGlashan and Carpenter (1981) suggest.

8.2 Hypotheses

Alternate hypotheses to the null hypotheses investigated by the measures of inferential statistics include:

1.1 There is a significant relationship between positive attitude and outcome

1.2 There is a significant relationship between negative attitude and outcome

2.1 There is a significant relationship between integrating attitude and outcome

2.2 There is a significant relationship between isolating attitude and outcome

3.1 There is a significant relationship between positive attitude towards insight and outcome.

3.2 There is a significant relationship between negative attitude towards insight and outcome.

4.1 There is a significant relationship between positive attitude towards the future and outcome.

4.2 There is a significant relationship between negative attitude towards the future and outcome.

5.1 There is a significant relationship between attribution (blame-self) and outcome.

5.2 There is a significant relationship between attribution (blame-family) and outcome.

5.3 There is a significant relationship between attribution (blame-events) and outcome.

In terms of the study's aim of differentiating between the two studies which it is replicating, another null hypothesis would center on the relative strengths of correlation between the variables. The alternate hypothesis is :

6. There is a difference between the correlation between outcome and positive attitude towards illness and the correlation between outcome and negative attitude towards illness.

8.3 Methodology

8.3.1 Design

This study did not involve the manipulation of an independent variable. A quasi-experimental design was employed, sampling 29 participants according to the study's inclusion criteria. The Soskis and Bowers (1969) questionnaire was administered and the scores on this questionnaire were correlated with scores on outcome. The outcome scores were obtained by creating a single score using the number of rehospitalizations and the number of years since the first diagnosis of schizophrenia. Thus, the score or rate was calculated by dividing the number of rehospitalizations since the first diagnosis of schizophrenia by the number of years since the first diagnosis.

8.3.2 Sample

A sample of 29 schizophrenic patients was drawn, according to the study's inclusion criteria, from

local out-patient clinics. The participants are of varying ages, living conditions, and periods of hospitalization and these will be presented in the results section. The Soskis and Bowers (1969) questionnaire was administered, and a correlational analysis was conducted on the results in order to clarify the relationships between attitudes, outcome and other variables.

8.3.2.1 Inclusion criteria

Participants for this study were obtained from the Pietermaritzburg catchment area and inclusion criteria for the participants of this study were that they:

(1) had received a diagnosis of schizophrenia based on DSM IV criteria.
(2) were between the ages of 18 and 35
(3) were English speaking
(4) had no history of organicity
(5) had no grossly handicapping physical illness
(6) had received no more than six months of continuous hospitalization.

The rationale for using these criteria was firstly to approximate the sampling of the two previous studies, secondly to facilitate self-report with a questionnaire in English, and thirdly to control for certain variables that might have complicated either the diagnosis, (e.g., institutionalization and organicity), or attitude (e.g., age, institutionalization) all of which could have compromised the validity of the research.

8.3.2.2 Sampling

On the basis that the two previous studies had restricted themselves to small sample sizes of 32 and 30 respectively, the sample size of this study was also restricted to 29. Given the restrictions of the criteria used for participants it was difficult to improve sample size in the time available.

It was decided that the sample would be obtained from the clinics in Pietermaritzburg in terms of availability. Permission was obtained from the superintendent of the local psychiatric hospital to access outpatients and their files for this research (see Appendix A). Having received this permission the researcher addressed a meeting of psychiatric clinic nurses at a local clinic where the project was outlined and criteria for appropriate participants were given. This list of criteria was also given to the psychiatrists and psychologists working in Midlands Health hospitals.

Most of the sources reported not having participants that met the inclusion criteria for this study, in terms of functioning or language. Most appropriate out-patients seemed to be attending one mental health clinic in a peri-urban area. Here, participants were found either from the groups of patients routinely attending the clinic or from the patients' files. In the latter case the outpatient was either telephoned to discuss their participation in this research or else they were earmarked for discussion when they next presented at the clinic.

8.3.3 Measuring Instruments

8.3.3.1 Attitude

This study used Soskis and Bowers' (1969) self-report questionnaire which comprises of 55 statements that participants were required to mark as true or false according to whether they believed the statement reflected their experience or not. The questionnaire used five statements to measure each of 11 attitudes. These are:

Attitude towards illness

1. Positive attitude towards illness
2. Negative attitude towards illness

Integrate/isolate illness

3. Integrate illness
4. Isolate illness

Attribution

5. Blame self
6. Blame family
7. Blame events

Attitude towards insight

8. Positive attitude towards insight
9. Negative attitude towards insight

Appraisal of future

10. Positive attitude towards the future
11. Negative attitude towards the future

Composite scales were also calculated by:

12. subtracting negative attitude towards the illness from positive attitude towards the illness.
13. subtracting isolate illness from integrate illness
14. subtracting negative attitude towards insight from positive attitude towards insight.
15. subtracting negative attitude towards the future from positive attitude towards the future.

These scales were used by Soskis and Bowers (1969).

For each attitude a numerical score was computed, based on the number of statements that the participant felt applied to them. The positive-negative, integrate-isolate and insight statements composite scores were calculated by subtracting the negative from the positive scores.

Although the questionnaire designed by Soskis and Bowers (1969) was used for the replication study by McGlashan and Carpenter (1981), no reference is made to the standardization of this questionnaire, or to its validity or reliability in either of the two studies or in reference material.

8.3.3.2 Outcome

Outcome was assessed in terms of rate of rehospitalization in the years since the condition was first diagnosed, i.e. years since first diagnosed over number of hospitalizations.

8.3.4 Procedures

8.3.4.1 Administration of questionnaire

Each volunteer was seen in a private office, where the research and the candidate's participation in it was explained and described. The research was described in broad terms relating attitude to mental health without referring directly to the diagnosis of schizophrenia. If the volunteer agreed to participate in the study, they were asked to sign a consent form (see Appendix B). This included the fact that they were voluntarily participating and that they gave informed consent for the information to be used for research on the understanding that their personal information would remain anonymous and confidential. Thereafter the researcher proceeded to record a brief history

that included the participant's description of the problem, their education and work history, family constellation, personal relationships and medical history (see Appendix C).

The participant was presented with the questionnaire to complete without the researcher intervening in any way. The results of the first two questionnaires conducted in this way contained many contradictory responses and the researcher was unsure whether these represented invalid responding or whether this was a function of the true/false questionnaire. The researcher then decided that it would be more informative and humane to participate more in the completion of the questionnaire, reading each item out aloud and eliciting responses and allowing the participants to express any difficult decisions they had in choosing an accurate response. It became evident that the contradictions had been a function of the form of the questionnaire and this will be discussed later in the critique of this research. Previous studies did not indicate exactly how the questionnaire had been administered.

8.3.4.2 Data analysis

The completed questionnaires were then coded and entered on a spreadsheet (see Appendix E) on a personal computer. Correlational analysis was employed to explore the relationship between the variables of attitude and outcome in a sample of 29 Schizophrenic out-patients. Multiple Regression analysis was used to examine which attitude seemed the most useful in predicting outcome and the Kruskal-Wallis H-test was used to distinguish various groups of participants in terms of how they scored on attitude and outcome. This test was chosen to clarify to clarify the debate arising from the previous studies regarding the relationship between positive/negative

attitudes and outcome.

To assess this, the results on these variables were rescored according to whether they were high or low and four groups were constructed: those that scored high or low on both and those that scored high on one and low on the other variable. These were then analysed using the Kruskal-Wallis H-test.

CHAPTER NINE

RESULTS

In this section the demographic data are presented, followed by descriptive statistics of the questionnaire. After this, the inferential statistics that explore the results between the variables are presented.

9.1 Descriptive Statistics

9.1.1 Demographic Information

The total sample size was 29. The sex distribution was skewed in favour of males (females 17.25%; males 82,75%). The race distribution was skewed in favour of Indian people. The sample consisted of 3 "white" people, (10%) 2 "Coloured"people (6,8%) 2, and 24 Indian people (82,75%)[2]

The mean age of the sample was 29 years (s = 3.78 years) with an average education level of standard eight (i.e., 9 years of formal education).

Most of the sample were dependent on their family, with 4 individuals living at a hostel (13%), two living with an intimate other (7%) and one person living independently (4%). The average duration of longest employment was 2 years (sd: 25,2).

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[2]Although these classifications are potentially offensive, in terms of the way that psychiatric hospitals in South Africa have classified and managed people according to such categories, race categories remain a potentially valuable variable in the South African context.

In terms of intimate relationships most of the sample were single (65,5 %) one person was divorced (4 %) and nine people were married (31 %).

In terms of diagnosis the average time since first diagnosis of schizophrenia was 8.11 years (sd: 4.83). The average number of rehospitalizations was 2.37 (sd: 1.19) with an average rate of rehospitalizations since first diagnosis of 0.431 (sd 0.390)

9.1.2 Questionnaire

The item yielding the most amount of true responses related to the value of insight (Item 29): "Now that I understand more about myself I find that I can understand other people too and get along better with them.") The item which yielded the least amount of true responses from the participants attributed the illness to self. (Item 3: " It was almost as if I were asking for the illness to happen"). The response rates to each question are presented in Appendix F.

When the questionnaire results were grouped according to the 11 attitude categories (see Table 1) the means of the responses ranged between 2.6 and 4.6 with standard deviation ranging from 0.8 to 1.7. Positive attitude towards insight yielded the highest mean (4.6) and lowest standard deviation (0.7). The second and third highest means were, respectively, blame events (mean= 4.6; sd=1.3) and isolate illness (mean= 4; Sd= 0.8).

Blame family yielded the lowest mean of 2.6 (sd= 1.7). The next lowest score examined to what degree participants had a negative attitude about the future. (mean=2.9, sd= 1.3). (See Table 1)

TABLE 1 : Means of Attitude

Attitudes	Mean	Standard Deviation
illness: positive	3.4	1.7
illness: negative	3.3	1.3
integrate illness	3.8	1.1
isolate illness	4	0.8
blame self	3	1.1
blame family	2.6	1.7
blame events	4.2	1.3
insight: positive	4.6	0.7
insight: negative	3.9	1.1
future: positive	3.9	1.2
future: negative	2.9	1.3

Of the composite scores (see Table 2), the means ranged between-0.259 and 1.07. Again, positive minus negative attitude elicited the highest mean and integrate minus isolate the lowest mean. These composite scores use the subtraction of positive attitude from negative attitude to compare responses in each pair of attitudes on a scale rather than in separate categories. The highest mean (positive minus negative attitude towards the future) suggests therefore that positive attitude towards the future was substantially higher than negative attitude towards the future, in fact more different than the difference between any other pair of attitudes. This implies that, even taking into account their negative attitudes towards the future, participants seemed to report a predominantly positive attitude towards the future.

The lowest mean of the composite attitudes was that of integrate minus isolate suggesting that there were more responses in support of an isolating attitude than there were integrating responses. The participants tended towards the isolating pole of the scale.

TABLE 2 : Means of Composite Attitudes

Composite attitudes	Mean	Standard Deviation
Attitude towards illness (pos-neg)*	0.185	1.296
Integrate-Isolate	-0.259	1.264
Insight (pos-neg)	0.629	1.127
Future (pos-neg)	1.07	2.12

* (pos-neg): Negative scores subtracted from the positive scores

9.2 Inferential statistics

9.2.1 Correlation Results

Correlation analysis is used to detect the existence of a relationship between variables in terms of their covariance. It measures the degree of relationship between variables expressing it in a correlation coefficient. Correlation does not imply causation yet significant findings can become the basis for further research to uncover causality. The feasibility of manipulating the suspected independent variable or of assessing the time order amongst the variables determines whether significant results from correlational research can be researched further (Bless & Achola, 1988). In this research, correlation analysis was chosen to investigate the possibility of a relationship between attitude and outcome generally, and then more specifically to examine what attitudes were most significantly associated with the rate of rehospitalization (see Appendix G).

Two significant correlations were found between attitude and rate of rehospitalization (outcome). These were between positive and negative attitude towards illness (negative and positive correlations respectively) and between positive and negative attitudes towards the future and outcome (Likewise, negative and positive correlations) (see Table 3).

Table 3 : Correlation Between Attitude and Rate of Rehospitalization

	Rate of rehospitalization	Level of significance
illness: positive	-0.54	$p < 0.01$
illness: negative	0.41	$p < 0.05$
integrate illness	0.01	
isolate illness	-0.1	
blame self	-0.18	
blame family	0.11	
blame events	0.15	
insight: positive	-0.27	
insight: negative	-0.056	
future: positive	-0.38	$p < 0.05$
future: negative	0.42	$p < 0.05$

Both positive attitudes towards illness and the future were negatively correlated with the rate of rehospitalization, at a significance level of 1% and 5% respectively. This suggests that a higher score on positive attitudes towards illness and the future was significantly related to a better outcome (lower rate of rehospitalization). Similarly, both negative attitude towards illness and negative attitude towards the future were found to correlate significantly with the rate of rehospitalization at a significance level of 5%, suggesting that the presence of negative attitudes towards illness and outcome were significantly related to a poorer outcome (higher rate of rehospitalization). No significant correlation was found between other components of attitude and outcome.

Table 4: Correlation Between Composite Scores and Rate of Rehospitalization

	Rate of rehospitalization	Level of significance
Positive-negative	-0.54	r >0.46 and p <0.01
Integrate-isolate	0.09	
pos/insight-neg/insight	-0.12	
pos/future-neg/future	-0.46	r >0.32 and p< 0.05

Of the composite scores, similarly, significant correlations were found between positive minus negative attitude towards the illness and positive minus negative attitude towards the future (see Table 4). These findings demonstrate the correlation between attitudes and outcome even when attitude is placed on a continuum rather than dichotomized. So, when positive and negative attitude toward illness are placed on a continuum, the composite attitude has a significant correlation with rate of rehospitalization at a significance level of 1%. The correlation is negative suggesting that the closer to positive the attitude was, the lower the rate of rehospitalization. Likewise the composite attitude consisting of positive and negative attitude towards the future is significantly correlated with rate of rehospitalization at a significance level of 5%. This correlation is also negative suggesting that rate of rehospitalization decreased as attitude became more positive about the future. Findings of this study do not suggest a correlation between scores on the composite attitude integrate/isolate variable or attitudes towards insight and outcome.

9.3.2 Correlation between variables

Although the hypotheses of this research focus on the relationship between attitude and outcome,

correlation analysis revealed several significant relationships within the attitude variables with some significant correlations between these variables and demographic information. Examination of these results is useful in terms of the validity of the questionnaire and for highlighting the nature of the reported attitudes under examination (see Appendix H).

These findings demonstrate a number of relationships between attitudes which help to explore the nature of these attitudes. The main trend of these inter-correlations was that the positive and negative responses tended to cluster, for instance positive attitude towards illness is correlated with other positive attitudes towards insight and the future. Secondly the responses tended to cluster in poles, for example negative attitudes towards illness and the future are inversely correlated with positive attitude towards illness and the future respectively.

Variables which could not cluster and divide in this broad optimism/pessimism spectrum were those that dealt more closely with attribution (blame self, family, events) and demographic variables. The correlation between these variables and attitude variables assists in deconstruction the nature of the attitudes being used. The implications of these correlations will be explored in the discussion section below.

9.4 Multiple Regression

Multiple regression may be used to identify the subset of independent variables most useful for predicting a dependent variable, to develop an equation that summarizes the relationship between a dependent variable and a set of independent variables, and to predict values for a dependent

variable from the values of independent variables (Norusis, 1985). Mathematically, it describes the law underlying the relationship. A multiple regression procedure was chosen to elaborate on the correlation analysis to establish what quality of attitude best-predicted outcome.

Regression analysis suggested that all attitudes were equally important in predicting outcome, with only a small variation in the scores of their coefficient (see Table 5, Appendix I). This is to be expected in a study in which the sample is so small. Although not significantly different, positive attitude towards illness, isolate illness and positive attitude towards illness were slightly better able to predict the rate of rehospitalization than the other variables, with 57% accuracy.

TABLE 5 : Regression Analysis of Attitudes

Attitudes	Co-efficient
illness : positive	0.07
illness : negative	0.09
integrate illness	0.09
isolate illness	0.1
blame self	0.08
blame family	0.05
blame events	0.08
insight : positive	0.16
insight : negative	0.09
future : positive	0.1
future : negative	0.07

Similarly the composite variables seemed to be equally accurate in predicting outcome. Once again, although not significant, positive attitude towards insight was slightly more accurate in predicting the rate of rehospitalization at 42%.

TABLE 6 : Regression Analysis of Composite Attitudes

Composite attitudes	Co-efficient
Positive-negative	-0.08
Integrate-isolate	0.1
pos/insight-neg/insight	0.04
pos/future-neg/future	-0.04

9.5 Kruskal -Wallis

The Kruskal-Wallis H test is a non-parametric, distribution-free test used on three or more independent groups in order to assess whether these groups arise from the same population and whether the differences between them cannot be explained by chance factors alone (Bless & Achola, 1990).

The difference in the scores, although not significant, suggested an interesting relationship between the overlap of scores on positive and negative attitudes (see Table 7, Appendix J). The rate of rehospitalization seemed to grade according to the juxtaposition of scores on positive and negative attitude towards illness. An individual who scored low on positive attitude and high on negative attitude was more likely to be rehospitalized sooner than an individual who scored high

on positive attitude towards illness and low on negative attitude towards illness.

Once again, although not significant, it suggests that while positive attitude towards illness is related to a better outcome in schizophrenia, an even better outcome is associated with presence of a positive attitude in combination with an absence of a negative attitude towards illness in Schizophrenia.

TABLE 7 : Kruskal-Wallis Test :

Positive And Negative Attitude Towards Illness And Outcome

		Negative Attitude towards illness	
		Low	High
Positive Attitude towards illness	Low	0	8
	High	10	9

The results in Table 7 suggest that high positive/low negative scorers were likely to be rehospitalized within an average of 3 years 8 months, high positive/ high negative in 2 years 6 months and low positive/high negative in 1 year 6 months.

CHAPTER TEN

Discussion

This study examined the relationship between attitude towards illness and outcome in schizophrenia. Attitude consisted of 11 variables: positive and negative attitudes towards illness, insight, and the future respectively, integrate/ isolate attitudes and causal attribution to self, family and events. Outcome was operationalized as the rate of hospitalization since initial diagnosis.

In the sample of 29 participants a significant relationship between certain of these attitudes and outcome was found and all of the attitudes seemed equally important in predicting outcome.

10.1 Hypotheses

In terms of the study's hypotheses it was found that:

1.1 There is a significant relationship between positive attitude and outcome

1.2 There is a significant relationship between negative attitude and outcome

2.1 No significant relationship was found between integrating attitude and outcome

2.2 No significant relationship was found between isolating attitude and outcome

3.1 No significant relationship was found between positive attitude towards insight and outcome.

3.2 No significant relationship was found between negative attitude towards insight

and outcome.

4.1 There is a significant relationship between positive attitude towards the future and outcome.

4.2 There is a significant relationship between negative attitude towards the future and outcome.

5.1 No significant relationship was found between attributions (self) and outcome.

5.2 No significant relationship was found between attributions (family) and outcome.

5.3 No significant relationship was found between attributions (events) and outcome.

Thus, of the hypotheses, four are confirmed and seven remain unproven. Significant relationships were found between outcome and positive/negative attitudes towards illness and the future. The details of these relationships will be discussed below.

10.2 Demographic information

The sample was skewed in favour of males of Indian descent living in circumstances in which the participants were dependent either on their families or on professional help. Although such sampling is critiqued below in terms of the limited conclusions that can be drawn from such a sample, the fact that such a sample best fitted the criteria for participation suggests the possibility that variables of gender, culture and social support were mediating both attitude and outcome with these participants. These variables were outlined in the literature review (see Section 6.3).

10.3 Descriptive statistics

Of the 55 item questionnaire, 46 items were marked true by more than 50 percent of the participants, showing marked agreement among the participants. The item yielding the highest consensus that it was true was related to the value of insight and the question that yielded the lowest number of true responses attributed the cause of the illness to self.

That a group of persons suffering from schizophrenia should most unanimously agree on the value of insight is perhaps not surprising considering the nature of the schizophrenic experience. What does seem interesting is the fact that this is countered at the opposite pole of response rate by the lack of attribution of the condition to self. Taken together, these two sets of responses probably best characterise the schizophrenic experience as being one where individuals experience a lack of insight into an experience that they feel to be predominantly beyond their control.

Such a constellation of responses by the sample also suggests, in terms of Fisher and Farina's (1979) continuum of beliefs about mental disorders, that this sample predominantly conceptualised their condition as a disease. The consequences of such beliefs, according to Fisher and Farina (1979), are a reduction in help-seeking behaviour and an over-reliance on drug use, whether prescribed or not. In one subject this was clearly represented in the question asking whether or not they thought that they would again be rehospitalized in the future (i.e., positive or negative attitude towards the future, item 40) to which they could not respond unequivocally true or false saying "I don't know, it depends on the drugs."

The source of such beliefs is debatable. On the one hand a disease conceptualisation of schizophrenia might represent the least threat to a schizophrenic individual; on the other hand such a belief could merely be echoing the belief system of health practitioners who, as Weiss (1990) suggests, still regard schizophrenia as a disease rather than a syndrome. It seems likely, however, that given a belief that schizophrenia is a disease by both sufferer and health worker, a psychological intervention would probably be seen as a useful support to a primarily biological intervention rather than as an essential intervention to facilitate recovery.

In terms of the composite scores, it is noteworthy that (positive minus negative) attitude towards the future has a 50% response rate followed by (positive minus negative) attitude towards insight (29.31%). This suggests an optimistic sample who were hopeful about the future and who valued the benefits of insight in their recovery.

When the results are taken together according to the 11 categories, the difference between their means is not marked, suggesting that the attitudes might not be very distinct. This will be discussed below. Nevertheless positive attitude towards insight continues to yield the highest mean while blame family yields the lowest mean. Once again this supports the proposal above, that the sample had a predominantly disease-based belief system about schizophrenia rather than a social learning-based belief system (Fisher & Farina, 1979). This suggests that an intervention which addressed family dynamics might not be seen as appropriate by the participants.

When one considers that most of the participants were dependant on their families, perhaps it is

not surprising that the participants do not see the family as being responsible for their illness. It would be interesting to explore to what extent such beliefs were a function of EE in the family. Perhaps this lack of attribution to the family is one of the intra-psychic consequences of high EE. As a consequence, the schizophrenic individual is likely to become less inclined to explore a social-learning conceptualisation of schizophrenia.

The second and third highest means were blame events and isolate illness. It is interesting to consider how all these attitudes might work together: a positive attitude towards the value of insight in assisting recovery (positive attitude towards insight), supported by an attribution to events (blame events) as well as a conceptualisation of the illness as not being of oneself (isolate). Once again these results produce a clear picture about the nature of the schizophrenic experience, with the individuals recognising that insight might bring about recovery at the same time as believing that the condition is not their fault, and is rather a result of events. Such results taken with the low score on blame family also evoke, to some degree, the sense of alienation and confusion that is characteristic of schizophrenia.

Of the composite scales, positive minus negative attitude towards the future has the highest mean (1.07), followed closely by positive minus negative attitude towards insight (0.629), and positive minus negative attitude towards the illness (0,185). Such results reconfirm that, even on a continuum of positive to negative, rather than a binary model, participants present themselves as being more optimistic than pessimistic about the future and about the condition, still valuing insight as a means of recovery.

The negative score of the integrate minus isolate variable suggests once again that subjects tended to isolate their illness while simultaneously maintaining positive attitudes towards the illness, their future, and the value of insight in their recovery. This raises an important issue about recovery in schizophrenia: to what degree is it really possible to integrate the condition, as Mayer-Gross (1920, in Soskis & Bowers, 1969) suggests, and retain optimism. To some degree, as McGlashan and Carpenter (1981) argue, it seems unlikely that the intensely negative experience of schizophrenia could be integrated without a depletion of personal resources and a heightening of pessimism.

10.4 Inferential statistics

10.4.1 Correlation results

10.4.1.1 Correlation between attitude and outcome

As Table 3 shows, significant correlations were found not only between outcome and both positive and negative attitudes towards illness, but also between outcome and both positive and negative attitudes towards the future. These significant correlations are also found between outcome and the composite attitudes of these variables.

The results show a stronger inverse correlation between positive attitude towards the illness and positive outcome than negative attitude towards illness and positive outcome. This is contrary to McGlashan and Carpenter's (1981) finding which suggested that the negative attitude was the

major component of this score, using this to justify an argument suggesting that absence of negative attitude was more important than presence of positive attitude.

The results also show that a positive attitude towards the illness is more strongly related to outcome than negative attitude towards illness and negative attitude towards the future or positive attitude towards the future.

Such findings suggest the importance of the individual in determining the efficacy of an intervention, especially affirming Davidson's (1992) contention that "Factors such as hope, courage and will...play a significant role in improvement" (Davidson, 1992, p. 4). This is especially borne out in the significant relationship found between positive attitude towards the illness and positive attitude towards the future that could be argued to be aspects of hope.

These results, however, do not establish linear causality between attitude and outcome in schizophrenia and cannot clarify the debates around whether a positive attitude towards schizophrenia is a cause or a result of a better prognosis. The findings cannot establish whether a positive attitude is "an unrealistic transformation of facts" (McGlashan & Carpenter, 1981, p.800) and, if so, if there are any benefits to such a delusion. Neither do these results establish whether such an attitude facilitates or is a result of a sense of resourcedness (Mikulincer, 1989) by the individual or whether it results in or is a response to a greater sense of control (Miller, O'Connor, & DiPasquale, 1993). Such debates would have to be examined by future research.

What these results do suggest is that a positive attitude to the illness and to the future is significantly related to a better outcome. The results therefore support arguments that suggest that an attitude of general optimism is related to improved treatment compliance (Buchanan, 1992), This is important when considering that the latest medication is argued to deal with the negative symptomatology of schizophrenia in a more effective way than did previous medication. Such results have even more interesting ramifications when considering the claims of researchers (Hoffman, 1998; Rapaport, 1998) that sub- diagnostic affective mood affective disorders are under-diagnosed. These results suggest that any treatment reducing negative attitude towards schizophrenia and the future, while encouraging positive attitudes, would have a beneficial effect.

It is also acknowledged, once again, that these individual attitudes do interact with the attitudes of larger or more influential organisations of individuals. By the same argument, therefore, although positive attitudes cannot be said to cause a better outcome, the adoption of more positive attitudes towards schizophrenia and its prognosis by these organisations could be argued to result in a reduction of stress and anxiety in the individual (Al-Issa, 1973). This in turn could offer a greater possibility for recovery (Kiecoldt-Glaser & Glaser, 1995).

The results did not show a significant relationship between either integrate/isolate variales and outcome or the attribution variables (Blame self, family, events) and outcome. Such findings suggest one of three things. Either they suggest that outcome in schizophrenia is not related to acceptance or denial of the condition or to attributional styles; or they suggest that such attitudes are more difficult to elicit from the schizophrenic individual, either because they are unconscious,

as McGlashan and Carpenter (1981) suggest, or because such attitudes have important consequences for the individual in terms of their dependence on family or institution for survival. Thirdly, such results might point to an inadequacy in the questionnaire itself. As discussed above, perhaps insight is assessed better by examining help-seeking behaviour or by exploring cognitive strategies, rather than by self-report. It is rather paradoxical, after all, to encourage someone to accept that they have not accepted their condition and to report this.

Another possible interpretation of these results involves considering Fisher and Farina's (1979) continuum of beliefs about mental disorders, with disease and social learning beliefs on either pole. It is likely that most participants, in regularly attending a psychiatric clinic, adhered to a disease belief. As such it might have been difficult to incorporate schizophrenia as being either "of themselves" or " not of themselves". It could be argued that a "disease" paradigm sets up this ambiguity. For instance, anyone infected with a flu virus might quite readily acknowledge that their condition was a part of them (their bodies) without being part of them (their psyche). Such an ambiguous relationship to the accepting or denial of a condition would seem to have, as a natural consequence, a lack of clarity in attribution.

These interpretations, however, are speculative. Future research, by examining, for instance, the relationship between such beliefs and attributions and the ability to integrate illness into a personal world view, might help to clarify such speculations.

10.4.1.2 Correlation between variables

Although this study set out primarily to examine the correlation between attitude and outcome in schizophrenia, the correlations between the variables produced more interesting results. Firstly, the way in which the correlations clustered and polarized rationally suggest the questionnaire's validity in measuring what it set out to measure. Positive attitudes grouped together and were counterbalanced by negative correlations with their negative counterparts.

This clustering of correlations analysis also suggest that the attitude measures could be evaluating a more general attitude of optimism or pessimism. This is reinforced by the results of the multiple regression analysis which suggests that all variables are equally important in significantly predicting outcome.

In terms of the likelihood of being able, simultaneously, to integrate the condition and hold a positive attitude towards the condition, results do not demonstrate this relationship between the variables. The integrate variable was, however, correlated with positive attitude towards insight and negatively correlated with negative attitude towards insight. This suggests the belief by individuals that the possibility of integration of the illness was related to the possibility of insight, which seems realistic in the case of schizophrenia.

Results also revealed ways in which the attitudes could be distinct. Level of education, for instance, was significantly correlated with the isolate variable and significantly correlated with integrate minus isolate (at a significance level of 5%). This suggests that some kind of cognitive

impoverishment is mediating this variable. While the results of this research do not suggest the outcome consequences of either integrating or isolating the illness, these correlations between variables do suggest that the integrate/isolate variable is more amenable to analysis than the previous studies suggest.

Other noteworthy relationships between variables deal with attribution. Blame family was significantly correlated with negative attitude towards the illness. Such a correlation is valuable, suggesting the relationship between the individual and the family in terms of emotional coping methods. It would be interesting to incorporate such a finding into the EE research to discover if, for instance, blame family (negative attitude towards illness) was in any way related to a family scoring high on EE (negative attitude towards illness) by the family.

Unexpectedly, blame self and blame events were significantly correlated, disputing the distinction between internal and external attribution. Both blame self and blame events were significantly correlated with integrate illness. This suggests that such attributions facilitated integration of the illness into an individual's world view. Blame self was slightly more strongly related to integrate illness than blame events and this seems to make sense.

In addition, blame self was significantly correlated with positive attitude towards insight while blame events was significantly correlated with negative attitude towards insight. These are quite clear results suggesting that although at one level blame self and blame events are melded and distinct from blame family, or blame events, they nevertheless polarize in an expected way as

regards insight. Such findings support the continuum model proposed by Fisher and Farina (1979), mentioned earlier, which had at its one end a belief that schizophrenia is caused by physiological processes and at its other end the belief that schizophrenia is a result of social learning.

The significant relationship between years since diagnosis and positive attitude towards the future highlights the suggestion made by Miller, O'Connor and Pasquale (1993), that a positive attitude towards hallucinations might be an adaptive response related to the length of time the individual suffered from schizophrenia.

10.4.2 Multiple Regression

As mentioned above, multiple regression analysis suggested that all attitudes were equally important in predicting outcome, with only a small variation in the scores of their co-efficient. Although this is to be expected in a sample of 29 participants, it does demonstrate the possibility of the questionnaire to predict outcome in the schizophrenic individuals who made up the sample.

10.4.3 Kruskal-Wallis Analysis

The findings of the present study also demonstrate the possibility, in a larger sample, of using attitude to predict outcome in schizophrenia. By ranking the scoring and analyzing the results using the Kruskal-Wallis H-test, the findings were able to suggest when next an individual might be rehospitalised. Such information would seem to be useful for the individual, their families and especially the team managing the case in terms of the timing of preventative interventions. This

suggests that an individual's attitudes towards schizophrenia are a potentially useful resource in determining the course of their condition. The findings of this particular analysis need to be qualified however in terms of their lack of significance, and future research might elaborate on this proposal with a larger sample.

Taken as a whole these results represent a partial replication of the findings of the two previous studies (Soskis & Bowers, 1969; McGlashan & Carpenter, 1981) on which the study was based, with certain modifications. The present study's results will be compared below with each of the earlier studies before discussing the implications of these similarities and differences.

CHAPTER ELEVEN

Comparison of Present findings with two previous studies

11.1 Soskis and Bowers (1969)

11.1.1 Similarities

In comparison with the findings of Soskis and Bowers (1969) this study also found significant relationships between positive, negative and positive minus negative attitudes towards the illness and outcome. The present study, however, found a more significant relationship between positive attitude and outcome ($p< 0.01$) than negative attitude and outcome ($p< 0.05$) in contrast to Soskis and Bowers' (1969) study for whom the significance was the other way around.

This study, like Soskis and Bowers (1969), also found a significant relationship between attitude towards the future (positive, negative and positive minus negative) and outcome. Unlike the earlier study, all significance levels of this relationship in the present study were at five percent, while Soskis and Bowers (1969) found a more significant relationship between positive attitude towards the future and outcome.

This study also found no significant relationship between attribution (blame self, family or events) and outcome.

11.1.2 Differences

Unlike Soskis and Bowers' (1969) study the present study found no significant relationship between integrating or isolating style or attitude and outcome (rate of rehospitalization). Soskis and Bowers found a significant inverse correlation between isolate and outcome, measured as social adjustment, at a significance level of one percent. It is unclear why such differences should occur. Possibilities might include the 30 year time lapse between that study and this one, as well as different sociocultural and medical conditions.

This study found no significant relationship between attitude towards insight and outcome while Soskis and Bowers (1969) found a significant inverse relationship between a negative attitude towards insight and outcome (symptomatology and social adjustment measures).

11.2 McGlashan and Carpenter's (1981)

11.2.1 Similarities

Like the study of McGlashan and Carpenter (1981) this study found a significant relationship between attitude towards the illness and outcome.

Both this study and that of McGlashan and Carpenter (1981) found a significant relationship between attitude towards the future and outcome.

Both this study and that of McGlashan and Carpenter (1981) found no significant relationships

between either the integrate/isolate variable and outcome or attribution and outcome.

11.2.2 Differences

Overall the most important difference between the finding of this study and the findings of McGlashan and Carpenter's (1981) study is that the present study reintroduces the relationship between positive attitude and outcome in schizophrenia.

While McGlashan and Carpenter (1981) found that the relationship between attitude towards illness and outcome was limited to negative attitude and positive minus negative attitude, the findings of the present study suggest a significant relationship between both positive and negative attitudes and outcome. Similarly, where McGlashan and Carpenter's (1981) study suggests a significant relationship between only a negative attitude towards the future and outcome (as well as positive minus negative attitude towards the future and outcome), the findings of the present study suggest a significant relationship between both positive and negative attitudes towards the future and outcome. Once again the findings of the study cannot explain why such differences should occur. One possibility might be that, in the HIV/AIDS era, and the advances in Psychoneuro-immunology (PNI), that more importance has been given, both in professional and popular literature, to the benefits of positive attitudes. Such beliefs might, in turn, affect prognosis, PNI suggests.

Although not statistically significant, the results suggest that a high score on positive attitude towards illness was assisted by a low score on negative attitude towards illness in predicting a

better outcome for an individual. Nevertheless the difference between outcome on high positive/ low negative and high positive/ high negative did not seem substantial enough to support McGlashan and Carpenter's (1981) claim that it was more important not to have a negative attitude towards the illness than it was to have a positive attitude towards the illness.

Unlike the findings of McGlashan and Carpenter the present study found no significant relationship between its measure of outcome and positive or negative attitude towards insight. Possibly, in a condition like schizophrenia, which involves such a palpable loss of executive function, the valuing of insight may not necessarily cause insight in the individual. As mentioned earlier, this could be described as one of the central tensions of the condition.

In summary, the findings of the present study generally confirm the findings of the two studies that it replicated. Broadly speaking all studies found a significant relationship between a schizophrenic individual's attitudes and the outcome of their condition.

In terms of the debate regarding the relationship between good outcome and positive, negative or neutral attitudes, the results of this replication study tend towards the conclusion of the earlier (Soskis & Bowers, 1969) study that argues the relationship between positive attitude towards illness and a more favourable outcome. In that the findings of the present study do not suggest a relationship between the integrate/isolate variable and outcome, they cannot support Soskis and Bowers' (1969) complete conclusion that a positive *integrating* attitude is correlated with a more favourable outcome.

Within the limitations of the present study, which will be discussed in more depth below, the findings of the present study dispute McGlashan and Carpenter's (1981) proposal that the absence of negative attitude towards illness and the future is more closely related to outcome than the presence of positive attitudes. The findings of the present study not only suggest a significant relationship between both positive and negative attitudes (towards the illness and towards the future) and outcome but in fact suggest a stronger correlation between positive attitude and outcome than negative attitude and outcome.

McGlashan and Carpenter (1981) use the absence of any significant relationship between positive attitudes and outcome to present an interesting argument suggesting that the absence of negative attitude is more important in determining outcome than a positive attitude. They suggest that a positive attitude towards the difficulties of schizophrenia may represent "an unrealistic transformation of facts" (p. 800). This "pathology", however, could be argued to be the essential substance of adaptive defences and one that might offer an individual suffering from schizophrenia some benefit.

CHAPTER TWELVE

CRITIQUE

12. 1 Validity

12.1.1 Diagnosis

In keeping with the arguments about the heterogenous nature of the construct *schizophrenia* presented above, lack of standardization in diagnosis of schizophrenia constituted a problem. In this study the patients were classified according to their discharge diagnosis, or according to their latest diagnosis prior to the interview.

Many patients were found to have been given several different, and sometimes mutually exclusive diagnoses during their hospitalizations. In terms of the debate dealing with sub-diagnostic affective disorders, amongst the sample were previous diagnoses of such conditions. At the same time comprehensive records as regards a participant's history of hospitalization, since first diagnosis, were often unavailable. In restricting the research into an individual's psychiatric history to one city, it is possible that other hospitalizations in other cities remained unreported.

The diverse diagnoses of individuals' psychiatric histories had resulted in equally diverse treatment and the treatment of these diagnosed individuals was not controlled for in this study. This meant that the participants had undergone different treatments historically. They were also undergoing different treatment at the time of interviewing them. Different attitudes might therefore have been a function of individuals differing experiences, presently and historically, of

their medication or treatment, historically, rather than their illness, ipso facto.

Even if all participants had received standardised diagnoses, their attitudes could well have been related to the stage of the condition or the nature of the hallucinations (Carter, Mackinnon & Copolov, 1996). Taken further, even if the participants were diagnosed as being in the same hypothetical stage of the condition and were experiencing the same type of hallucinations, they might have had different interpretations of the value of these hallucinations (Miller, O'Connor & DiPasquale, 1993) which might have resulted in different attitudes towards their condition and its outcome.

12.1.2 Outcome

As Vollrath, Alnaes and Torgerson (1996) point out, research into the effect of attitudes and coping on mental health could benefit from better differentiation amongst outcome indicators. The studies that this study was replicating used more extensive or inclusive measures of outcome including, for instance, global functioning and social adjustment.

In using only a single measure of outcome, rate of rehospitalization, it is possible that, in this study, (i) the measure of outcome was too small a component of outcome to be able to represent outcome in its more global sense, and that (ii) this measure of outcome was not comparable to the two other studies' operationalization of outcome. Kessler (1983) argues that the strongest predictor of future functioning is current functioning. For this reason, including variables to do with work and social functioning might have been useful, for instance, as further measures of

outcome rather than mere rate of rehospitalization. However, in the two previous studies, it must be pointed out, some measures of outcome proved more effective than others suggesting that the administration of more measures of outcome does not necessarily enhance the accuracy of such measurement.

12.1.3 Attitude

In the research literature there has been a debate around the validity of verbal reports as data (Anders- Ericsson & Simon, 1980; Nisbett & Wilson, 1977). Certain schools of thought (Sison, 1996) might argue that this particular study, dealing as it does with the verbal reporting of schizophrenic out-patients, might not be valid in terms of individuals with ego functioning difficulties being, by definition, unable to report accurately their own experience of their illness.

Although none of the participants reported experiencing any hallucinations at the time of the interview, various researchers express caution regarding the accuracy of self-report with schizophrenics. Weiss (1990) warns that one should not ignore the cognitive and emotional dysfunctions that remain after psychosis has subsided.

It must be noted, however, that research dealing with an alteration of such self-reports with schizophrenic individuals have had tangible results in terms of their participants' improved recovery (Berner, 1996; Bradshaw, 1996; Corin & Lauzon 1992; Falloon & Tarbot, 1981; Herz, 1996; McNally & Goldberg, 1997).

12.2 Design

The direction of causality between attitude and rehospitalization cannot be established by the design of the present study. It cannot be excluded that certain attitudes might be the result rather than the cause of a variation in rehospitalization. For instance Volrath, Alnaes and Torgerson (1996) argue that differing coping styles might be state-dependent, and that there might be an interaction between symptoms, the course of the condition, rehospitalization, medication, treatment, social conditions, culture or attitude.

Similarly Cuffel (1996) highlights other factors that influence outcome in schizophrenia "factors like family interactions and mental health system access undoubtedly contribute to treatment participation in the mental health systems that serve this population" (p. 658).

12.3 Sampling

Pressure regarding time and availability of participants resulted in the sample becoming skewed in terms of race and gender. As such, the sample, as detailed above, both in terms of its size and its composition, might not be an accurate representation of, or generalizable to, the population of individuals suffering from schizophrenia. In terms of time constraints and the larger confounding variables that the introduction of participants from different catchment areas might have involved, it was decided not to control this skew in sampling.

12.4 Research instrument

In this study it was noticed that the true/false questionnaire often disallowed a response that felt appropriate for the participant and sometimes answers were given as both true in certain ways and false in other ways. For instance in response to a question asking: "If I go to hospital again I think I will recover again" (Item 40) one patient responded that it could be true or false that it depended on the medication. Another participant could not answer definitively true or false whether she found the cause of the illness in herself.

The research instrument was also limited in its having been devised without recourse to the recent research into coping and attribution. For instance it might have been interesting to explore whether individuals supported a disease belief or a social learning belief of mental illness, in terms of Fisher and Farinas' (1979) model, and to establish what coping methods they had explored.

12.5 Respondent Bias

Elaborating on the limited validity of this data, it must be noted that an individual being interviewed in a clinic, on which he or she relies, by an interviewer, who is seen to be a participant in the clinic's reason for being, must experience some sort of pressure to respond in a certain way. This response might have more to do with the participants' relationship with and expectations of the clinic than their attitudes towards their condition.

12.6 Implications

It needs to be borne in mind that the efficacy of coping strategies is probably stage dependent (Volrath, Alnaes & Torgerson (1996), and any implications drawn from the findings of this research need to reflect this. Further, while the focus of this study was on individual attitude, these attitudes occur within a sociocultural context that might prove to be even more difficult to alter than individual attitudes. In the particular sample that comprised this research sociocultural considerations are particularly important given that the sample was skewed both in terms of culture and in terms of gender.

While various interventions (Epstein, Sage & Wedding, 1995) have proven effective in terms of altering social awareness of mental illness, these have not been demonstrated to perpetuate long-term change in either psychiatric institutions or public relationships with individuals suffering from mental illness. Similarly the intra-psychic context and the course of the condition in which these relatively stable attitudes are contained might disallow easy alteration of the attitudes that are associated with poor outcome.

Notwithstanding the debates regarding the extent to which attitudes themselves are malleable, Beardslee, Wright and Rothberg (1996) suggest how a psycho-educational, preventative approach could be enhanced by eliciting more information from the participants.

CHAPTER THIRTEEN

IMPLICATIONS AND RECOMMENDATIONS

13.1 Implications

This study examines the relationship between psychological factors and recovery in schizophrenia by exploring the relationship between attitude and prognosis. If, as many researchers including Davidson (1992) and Berenbaum and Fujita (1994) suggest, personal and personality factors can indeed influence the course of schizophrenia it would seem useful to examine what these might be.

Results of the study suggest a significant correlation between positive and negative attitudes towards the condition and outcome, and a significant relationship between attitudes towards the future and outcome. Attitudes dealing with attribution, insight, and acceptance seem to have a less important relationship to outcome.

In terms of dealing with the debate that arose out of the studies that this study is replicating, it was found that a positive attitude towards the future and towards schizophrenia was more significantly related to outcome than were their negative counterparts. This finding disputes the findings of McGlashan and Carpenter (1981) which suggest that the absence of a negative attitude, a more neutral attitude towards schizophrenia, was more significantly related to outcome

than the presence of either negative or positive attitudes towards schizophrenia.

Such findings cannot directly comment on the efficacy of any intervention. In the nature of correlation research, these findings merely indicate a possible focus for future research. Longitudinal research could establish the causal direction of the relationship between attitude and outcome in schizophrenia. At the very least, a positive attitude is argued (Buchanan, 1992) to enhance treatment compliance even if it cannot be concluded to improve outcome or reduce vulnerability. Similarly, an attitude of accepting the diagnosis is also related to better treatment compliance (McEvoy, 1983). By implication, the findings of this research support interventions that prioritise a more personalised interaction with the individual and their support systems, thereby addressing some of the dangers of narrow biological interventions.

13.2 Recommendations for future research

Future research might benefit from a larger, more representative sample especially to investigate the findings of the Kruskal-Wallis analysis. This research would also be enhanced by controlling for treatment of the individuals, more accurate records, more diverse population groups and better differentiation amongst outcome measures.

Harding and Zahniser (1994) suggest that older research highlighted schizophrenia's chronic debilitating nature because they focussed on hospital patients. Perhaps more research should focus on following up hospital patients at out-patient clinics and at home in order to obtain a more comprehensive picture of the course of schizophrenia.

A lack of standardisation of attitudes and coping styles made it difficult to compare findings with those of other studies. The field as a whole could benefit from a standardisation of terminology.

Future research might explore the malleability of attitude or coping style by examining the association between personality traits and coping styles (McCrae & Costa, 1986) or by investigating cross-cultural clustering of attitudes and outcome in schizophrenia

Interventions proposed by Zubin and Steinhauer (1981); Tarrier, Harwood, Yukopoff and Ugareburu (1990) and Herz (1996) which focus on sociopsychological assets and liabilities in terms of impacting on both treatment compliance, prejudice reduction and recovery of patients seem worthy of further exploration. Benefits of such integrated models are argued to have an impact in terms of clarifying current psychological management of schizophrenia and in terms of the possible cost-saving for the national health budget which such interventions could have in mediating the chronic deteriorating course that has traditionally characterised schizophrenia.

Future research might explore the long-term effects on outcome of various strategies to alter attitudes and coping style, replicating work like Herz's (1996) which compares standard treatments with alternative treatments, or the Coping strategy enhancement program (CSE) proposed by Tarrier and colleagues (1990).

Another strategy to facilitate a more optimistic recovery in schizophrenia might be to investigate and enhance the attitude of the general public (Epstein, Sage & Wedding, 1995). This might

involve exploring cross-cultural research to attempt to define what attitudes of certain cultures seemed to be associated with improved recovery of schizophrenic individuals in that culture. Such research might counterbalance the EE research (Karno et al., 1987) which focuses on attitudes in families associated with poorer outcomes.

Attitude is only one aspect of the potential for psycho-social management of schizophrenia. There is much research into the efficacy of interventions focusing on social skills training, family therapy, cognitive therapy, and coping and retribution. [3] Future research could examine any one of these approaches or combination of psycho-social strategies. Such research might provide more support for ways of managing schizophrenia which apply themselves more broadly than to mere treatment compliance. In South Africa where, as discussed earlier, the availability of the latest pharmacological developments is limited, such research might provide valuable alternatives to explore as a conjunct to pharmacological management. In prioritizing the psychological management of the condition perhaps management of schizophrenia in South Africa could begin to approach the optimistic findings of recent research in more developed countries.

[3] See Penn & Mueser (1996) for a summary of research into these approaches.

CHAPTER FOURTEEN

Conclusion

In South Africa, as in other more developed countries, the management of schizophrenia consumes an inordinate amount of the national health budget perpetuating wide-ranging deficits for caregivers, social services and criminal justice resources. Clinicians have to deal with schizophrenic patients whose lives seem to be in total disarray, their patients seem unable to become well-functioning even with the recent introduction of more effective neuroleptics medication. For the clinician there seems to have been no alteration of the traditional "revolving door" syndrome (Zubin & Steinhauer, 1981).

And yet, although schizophrenia has traditionally been associated with such far-reaching chronicity and deterioration (APA, 1981; Harding & Zahisner, 1994), recent longitudinal research suggests that there is reason to be optimistic and hopeful about the treatment of schizophrenia (Ibid.). These findings suggest a wider range of recovery from schizophrenia than previously proposed. Associated with such heterogenous outcome has been an emphasis on characteristics of the individual as mitigating factors (Davidson, 1992). Such a focus is not unprecedented in the history of schizophrenia research, there having been a rich history on the phenomenology of schizophrenia since Kraepelin in 1898. The findings of recent research reaffirm the importance of the individual in the management of schizophrenia that was proposed by its early researchers. Such an emphasis could well be related to the research into chronic lifestyle conditions like cancer and HIV/AIDS. Research into these conditions, particularly in the new field of Psychoneuro-immunology, has seen an upsurge of research into the interaction between psychological and

physiological variables impacting on the course of these chronic conditions.

In terms of interventions, psycho-educative interventions focussing on compliance with the new neuroleptics report various successes in the management of schizophrenia (Kissling, 1991, in Schooler, 1997; Weiden & Oltson, 1995). Although such efforts also offer reason for optimism by schizophrenic individuals and their health practitioners, it is suggested that such interventions could be enhanced by introducing a focus on the ways in which certain qualities of the individual suffering from schizophrenia mediate the course of the condition rather than merely focussing on symptom alleviation.

In this study it is argued that the standard recommendations for psychological intervention in schizophrenia, psycho-educative and supportive interventions, although partly effective, do not engage broadly enough with psychological variables in the schizophrenic individual to be able to access the fullest range of recovery possible in schizophrenia. It is suggested that such limited psychological interventions with purely biological objectives could, in fact, prove to be more damaging than healing in terms of their exclusion of the individual's own experience of schizophrenia. One of the objectives of this study was to explore ways in which research into specific aspects of the psychological functioning of a schizophrenic individual could suggest a more defined role for psychology in an integrated model of management.

The present study replicates two studies done in 1969 and in 1981 based on the early psychological research into schizophrenia in the beginning of the century. All three studies assert

the importance of the relationship between individual attitude and outcome in schizophrenia. This study finds particularly that, in terms of emotion-focussed coping skills, both positive and negative attitudes towards the illness and towards the future are significantly correlated with outcome in schizophrenia. Of these positive and negative attitudes, it was found that positive attitude towards the illness and towards the future was more significantly correlated with outcome in schizophrenia than negative attitudes towards the illness and the future. These findings dispute the claim (McGlashan & Carpenter, 1981) that, in schizophrenia, the absence of negative attitude is more significantly correlated with a positive outcome than the presence of positive attitude. Like Soskis and Bowers (1969) the findings of the present study suggest that a positive attitude, by an individual suffering from schizophrenia, is more significantly correlated with a positive outcome than is negative attitude and outcome.

The results of this study cannot comment on the efficacy of any intervention directly manipulating attitude and coping in schizophrenia. Instead, the findings suggest the need for future research exploring ways of incorporating the relationship between attitude and outcome into the management of schizophrenia. The development of a more effective and comprehensive psychological management of schizophrenia might begin by eliciting and enhancing existing individual problem- and emotion-focussed coping skills and incorporating them into interventions. Through interventions that focussed not only on vulnerability, but also on improvement and recovery, perhaps clinicians could reduce the inordinate expense of managing schizophrenia. At the same time perhaps both the clinician and the schizophrenic individual might begin to approach the optimism associated with the recent findings around improved recovery rates in schizophrenia.

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APPENDIX A : **Letters of permission for research from Midlands Complex, Pietermaritzburg.**

PROVINCE OF
KWAZULU-NATAL
HEALTH SERVICES

FAX: (0331-455734)

TEL: (0331-454221)

ISIFUNDAZWE
SEKWAZULU-NATALI
EZEMPILO

PROVINSIE
KWAZULU-NATAL

MIDLANDS COMPLEX
(FORT NAPIER)
P.O. BOX 370
PIETERMARITZBURG
3200

Enq: J.G. Walker/tp
Ref: SP
Code: WPeters

28 November 1997

Mr D. Peters
Fort Napier Hospital
P.O. Box 320
PIETERMARITZBURG
3200

RE: D. PETERS: APPLICATION TO UNDERTAKE RESEARCH: MIDLANDS HOSPITAL

Your application to undertake a research project at Midlands Hospital is approved.

You are again reminded of the undertaking which you signed and in particular to note that:

1. The rights and clinical management of the patients must not be infringed. Written consent from each patient must be obtained, or if they cannot sign consent, to then obtain the guardian's consent.

2. You take full responsibility for the project, and the Department will not be responsible for any costs or other requirements.

3. The results and/or report on the research are to be submitted to myself (Chief Medical Superintendent) as soon as possible after the completion of the project.

   In addition, you are to liaise with Dr Pillay (Principal Clinical Psychologist) in all matters relating to the research project.

I wish you every success in this project.

CHIEF MEDICAL SUPERINTENDENT

Dr A. Pillay
Principal Clinical Psychologist
Midlands Hospital

Copy for your information and attention.

CHIEF MEDICAL SUPERINTENDENT

PROVINCE OF KWAZULU-NATAL HEALTH SERVICES

ISIFUNDAZWE SAKWAZULU-NATALI EZEMPILO

PROVINSIE KWAZULU-NATAL

MIDLANDS COMPLEX (FORT NAPIER)

Telephone number : 0331 - 454221
Fax number : 0331 - 455730

P O Box : 370
Isikhwama Seposi : Pietermaritzburg
Privaatsak : 3200

Enquires : J G Walker/mn
Imbuso :
Navrae :

Date : 2 November 1998
Usuku :
Datum :

Reference : Ref.: SP
Imkomba Code: pieters
Verwysing :

Mr D Peters
Faculty of Social Science
Department of Psychology
Private Bag X01
SCOTTSVILLE
3209

Dear Mr Peters

RESEARCH: MIDLANDS HOSPITAL

Your letter of 23 September 1998 has reference.

Approval is hereby given for you to complete your research project at Midlands Hospital.

The research is to be undertaken according to the conditions as listed in my minute of 28 November 1997. (Copy attached)

You need to submit a deadline as to when this research project is to be completed, but I would ask that the research at the hospital be completed by 31 January 1999 or earlier if possible.

Yours faithfully

CHIEF MEDICAL SUPERINTENDENT

APPENDIX B : **Letter of Consent.**

Dear participant,

Thank you very much for agreeing to participate in this research !

Your willingness to give of your valuable time and energy promises to benefit other people struggling with various illnesses. This research also forms part of my studies to qualify as a clinical psychologist, so I am personally grateful to you for your participation.

In this study I will be looking at what attitudes people have towards illness. It will take the form of a questionnaire and an interview.

I am quite happy to share with you the discussion and results of the project once it is complete.

Please would you sign the consent form below if you are willing to participate.

Consent Form.

I, (full name)....., on this day

....., voluntarily give my consent to participate in this research looking at the relationship betwen attitude and outcome in illness.

I have been informed about the general purpose of the project and understand that it may not be possible for the researcher to explain all the aspects of the project until after I have completed my participation in the project.

I have been asked to complete one questionnaire and to participate in a short interview.

It is my understanding that I may end my participation at any time and that any data obtained will be **strictly confidential**. I provide my name and address only for administrative reasons and to ennable the researcher to send me the results of the project.

I **would like/ don't require** a summary of the results of this project. (Please circle your response)

....

Participant *Researcher*

Address:.....

.....

.....

.....

Telephone:.....

APPENDIX C : **Sociodemographic questionnaire**

Sociodemographic variables

Name:
Age:
Gender:
Race:
Language:
File #:
Phone #:

Presenting problem:
(verbatim)

Education:

1. Occupational History.

1.2. Employment.

Ocupational history:

longest held job,
number of previous employment,
reasons for disontinued employment
current employment

1.2. Recreation.

Recreation :

1. Imagination: reading, movies, artistic hobbies
2. Physical: sport, exercise, diet awareness
3. Social resources/habits

2.Living conditions.

Address:
Living arrangements:

Independent/single:
Independent/cohabiting:
Dependent/intimate other
Dependent/family:
Dependent/halfway house etc:

3. Relationships

3.1 Intimate relationships

3.1.1.Current.

a) Marital status:

single
divorced
widowed
married Y/N

b) Present Intimate's attitude towards patient's illness:

positive, negative, accepting, denying

c) Present Intimate's explanation of the illness:

3.1.2. Relationship history

a) sexual preference
number of previous relationships
number of previous marriages
Longest relationship

b) Salient attitudes towards illness: P, N, A, D

c) Salient explanations of the illness:

3.2. Social Relationships.

a) Social resources:
no. of friends
confidantes ?

b) Friends attitudes towards patient's illness:
P, N, In, Is

c) Friend's explanation of the illness

3.3. Family Relationships.

a) Family
Constellation:
History of mental illness

b)Family attitude towards patient's illness
P, N, In, Is

c) Family explanation of the illness:

4. Illness.

4.1. General Illness:
Major illness/injury/hospitalization:
Stress:
History of loss/trauma/PTSD:
Substance Use:

4.2. Psychiatric Illness:

4.2.1.Hospitalization:
when first hospitalized
length of first hospitalization
number of subsequent hospitalizations
longest hospitalization

4.2.2.Diagnoses:
nature of first diagnosis
subsequent diagnoses
co-morbid diagnoses

4.2.3. Treatment:

a) Medication:

nature of first prescription
subsequent prescriptions
current prescriptions
attitude towards this prescription
presence of side effects
presence of paranoia

b) Psychotherapy:

nature: (individual/group)
duration:
attitude towards this therapy
current treatment:

c) Other treatment:

alternative medicine:
religion:
individual coping strategies:
attitude towards these:

DATE:
SOURCE:

APPENDIX D : **Attitude Questionnaires.**

TABLE 1

Items in 11 Attitude Scales used to Measure Patients' Attitudes toward Their Illness Experience

In the actual questionnaire, items for the scales were mixed together

I. Illness—positive
1. It was a turning point in my life—since then things have gotten better.
2. In a way, my illness helped me grow up.
3. In the long run, my illness made me better able to handle my problems.
4. Looking back on it now, I feel it was best that it happened.
5. I think that it made me a better person.

II. Illness—negative
1. It was a turning point in my life; since then things have gotten worse.
2. My illness was a big setback in my life.
3. All in all, being sick created more problems than it solved.
4. It really should never have happened.
5. It's very hard for me to find anything good about my illness.

III. Integrate illness
1. Now that I look back on it, it seems to fit in with the rest of my life.
2. Things like that don't "just happen."
3. Although it may not put them in the hospital, most people have an experience like I had at some point in their life.
4. I can see now that it developed out of problems which had been present all along.
5. I've spent a lot of time trying to make sense out of what happened to me.

IV. Isolate illness
1. Looking back on it, it doesn't really fit in with the rest of my life.
2. My illness pretty much "came out of the blue."
3. I don't think that very many people ever have an experience like I had when I was sick.
4. Every once in a while some people just "break down." I guess that's what happened to me.
5. It's much better to leave these things in the past and not think about them.

V. Blame self
1. It was almost as if I were asking for it to happen.
2. I can find the real cause of my illness in myself.
3. I got sick because of problems in my own personality.
4. It was basically my own fault.
5. I was expecting too much of myself; my goals were unrealistic.

VI. Blame family
1. My problems were a result of my family's problems.
2. I got sick because things were going so badly at home.

VI. Blame family—*Continued*
3. It happened because of the way I was brought up.
4. I got sick because of family problems.
5. It would not have happened if my family had been different.

VII. Blame events
1. I got sick because of an unfortunate chain of events.
2. The situation I was in was impossible.
3. There were too many pressures on me; I gave in under the strain.
4. I got into a situation I couldn't handle.
5. A bunch of things happened all at once; I just couldn't cope with them.

VIII. Insight—positive
1. The thing that really counts is understanding why you feel the way you do.
2. Now that I understand more about myself, I find that I can understand other people too and get along better with them.
3. It always helps to sit down and think things through.
4. Now that I understand why I became ill, I can handle my problems better.
5. When I feel strange or bad, I like to stop and try to figure out what is causing it.

IX. Insight—negative
1. You'll be healthier if you don't think too much about your problems.
2. You can never really understand your own feelings.
3. There are certain of my problems that I would rather forget about.
4. It doesn't really help that much to understand your problems; they keep on coming back anyway.
5. When I feel strange or bad, the best thing to do is to keep busy and hope it will go away.

X. Future—positive
1. Right now the future looks pretty good for me.
2. I think I am up to solving my problems.
3. My future will be better than my past.
4. If I have to go to the hospital again, I think I will recover.
5. Whatever happens in the future, I think I will be able to handle it.

XI. Future—negative
1. Right now the future is full of problems.
2. I sometimes wonder if I'll be able to face what the future will bring.
3. My happiest days are in the past.
4. If I have to go to the hospital again, I'm afraid I will have to stay for a long time.
5. I just don't see how things are going to get any better for me.

QUESTIONNAIRE

Thank you for agreeing to answer this questionnaire!
There are two sections and both are multiple choice.

Section A has 55 questions which have true or false options.
Section B has 10 questions which have rarely/ sometimes/often answers.

Please circle the answer which you choose. There is no right answer, only what is true to your own experience.

SECTION A.

1. My illness was a turning point in my life, since then things have got better.
TRUE/FALSE

2. Now that I look back on it, the illness seems to fit in with the rest of my life ?
TRUE/FALSE

3. It was almost as if I were asking for the illness to happen.
TRUE/FALSE

4. The illness really shouldn't have happened.
TRUE/FALSE

5. My problems were as a result of my family's problems.
TRUE/FALSE

6. The thing that really counts is understanding why you feel the way that you do.
TRUE/FALSE

7. When I feel strange or bad the nest thing to do is to keep busy and hope that it will go away.
TRUE/FALSE

8. My future will be better than my past
TRUE/FALSE

9. In a way, my illness helped me to grow up.
TRUE/FALSE

10. Right now the future is full of problems.
TRUE/FALSE

11. The illness was a turning point in my life, since then things have got worse.
TRUE/FALSE

12. Things like that don't "just happen".

TRUE/FALSE

13. Looking back on it, the illness doesn't really fit in with the rest of my life.

TRUE/FALSE

14. I can find the real cause of my illness in myself.

TRUE/FALSE

15. Right now the future looks pretty good for me.

TRUE/FALSE

16. I got sick because of an unfortunate chain of events.

TRUE/FALSE

17. Now that I understand why I became ill, I can handle my problems better.

TRUE/FALSE

18. There are certain of my problems that I would rather forget about.

TRUE/FALSE

19. My illness pretty much "came out of the blue".

TRUE/FALSE

20. I got sick because things were going badly at home.

TRUE/FALSE

21. I sometimes wonder if I'll be able to face what the future will bring.

TRUE/FALSE

22. The situation I was in was impossible.

TRUE/FALSE

23. My happiest days are in the past.

TRUE/FALSE

24. You'll be healthier if you don't think too much about your problems.

TRUE/FALSE

25. In the long run my illness made me better able to handle my problems.

TRUE/FALSE

26. If I have to go to hospital again, I am afraid I will have to stay for a long time

TRUE/FALSE

27. I think I am up to solving my problems

TRUE/FALSE

28. My illness was a major set-back in my life

TRUE/FALSE

29. Now that I understand more about myself I find that I can understand other people too and get along better with them **TRUE/FALSE**

30. I think that very many people have an experience like I had when I got sick

TRUE/FALSE

31. All in all being sick created more problems than it solved for me.

TRUE/FALSE

32. There were too many pressures on me, I gave in under that strain.

TRUE/FALSE

33. It always helps to sit down and think things through.

TRUE/FALSE

34. Every once in a while some people just "break down." I guess that's what happened to me. **TRUE/FALSE**

35.Although it may not have put them in the hospital, most people have an experience like I had at some point in their life. **TRUE/FALSE**

36. The illness was basically my own fault.

TRUE/FALSE

37. It doesn't help that much to understand your problems, they keep coming back anyway. **TRUE/FALSE**

38. The illness happened because of the way that I was brought up.

TRUE/FALSE

39. I think that the illness made me into a better person.

TRUE/FALSE

40. If I have to go to hospital again I think I will recover again.

TRUE/FALSE

41. The illness would not have happened if my family had been different. **TRUE/FALSE**

42. I can see now that the illness developed out of problems that had been present all along. **TRUE/FALSE**

43. When I feel strange or bad, I like to stop and try to figure out what is causing it. **TRUE/FALSE**

44. You can never really understand your own feelings. **TRUE/FALSE**

45. I have spent a lot of time trying to figure out what happened to me **TRUE/FALSE**

46. I got into a situation I couldn't handle. **TRUE/FALSE**

47. I just don't see how things are going to get any better for me. **TRUE/FALSE**

48. It's much better to leave these things in the past and not think about them **TRUE/FALSE**

49. Looking back on the illness now, I feel that it was best that it happened. **TRUE/FALSE**

50. I was expecting too much of myself, my goals were unrealistic. **TRUE/FALSE**

51. I got sick because of family problems **TRUE/FALSE**

52 A bunch of things happened all at once **TRUE/FALSE**

53 It's hard for me to find anything good about the illness. **TRUE/FALSE**

54 I got sick because of problems in my own personality. **TRUE/FALSE**

55. Whatever happens in the future I think I will be able to handle it. **TRUE/FALSE**

APPENDIX E : **Data spreadsheet.**

sub	Age	Race	Sex	Outcd	educa	emply	living	relat	diag	diag+	rate	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	q11	q12	q13	q14
1	35	3	1	3	7	12	4	1	14	15	0.2	1	1	0	1	1	1	1	1	1	1	0	1	1	1
2	24	3	1	1	10	18	4	1	0	1	1	1	1	0	1	1	1	1	0	1	0	0	1	1	1
3	27	3	1	3	6	84	4	1	9	10	0.3	1	0	1	1	1	1	1	1	0	1	0	1	1	1
4	29	3	2	2	10	0	4	1	8	9	0.22	1	1	1	1	1	1	1	1	1	0	0	1	0	1
5	35	3	1	2	10	24	4	1	12	13	0.15	1	1	0	1	1	1	1	1	1	1	0	1	1	1
6	33	3	1	3	10	60	5	1	13	14	0.21	1	1	0	1	1	1	0	1	1	1	0	1	0	0
7	32	1	1	3	10	60	5	1	9	10	0.3	1	1	0	1	0	1	1	1	1	1	0	1	0	1
8	28	1	1	4	8	24	5	1	6	7	0.57	0	0	0	0	1	1	0	1	0	0	1	0	1	1
11	28	3	1	2	10	36	4	2	3	4	0.5	0	0	0	1	0	1	1	0	1	1	1	1	1	0
12	31	3	1	0	8	36	2	4	8	9	0	1	1	1	1	0	1	1	1	1	0	0	1	0	1
13	26	3	1	3	5	10	4	4	2	3	1	0	0	0	1	1	1	1	0	0	1	1	1	1	0
14	27	3	1	3	3	0	4	4	9	10	0.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	26	3	1	2	10	6	4	4	6	7	0.29	1	1	1	1	1	1	1	0	0	1	1	1	0	1
16	28	3	1	3	8	54	3	4	7	8	0.38	1	1	0	1	1	1	1	1	0	0	0	1	1	1
17	34	1	2	6	9	5	4	1	10	11	0.55	1	1	0	1	0	1	1	1	1	0	0	0	0	1
18	35	3	2	2	7	54	5	1	19	20	0.1	1	1	0	1	1	1	1	1	1	0	1	1	0	1
19	33	3	1	2	8	24	4	4	9	10	0.2	1	0	0	1	0	1	1	1	1	0	0	1	1	0
20	34	3	1	1	10	84	4	1	3	4	0.25	0	0	1	0	1	1	1	1	0	1	1	1	1	0
21	28	3	1	2	10	12	4	1	4	5	0.4	1	0	1	0	0	1	1	1	1	0	0	1	0	1
22	26	3	1	3	10	12	4	1	5	6	0.5	1	0	1	1	0	1	1	1	1	0	0	1	0	1
23	26	3	2	3	6	0	4	1	5	6	0.5	0	1	0	1	1	1	1	1	1	0	1	1	1	1
24	34	3	2	1	7	3	4	4	2	3	0.33	1	0	0	1	1	1	1	1	1	0	0	1	1	0
25	26	3	1	2	10	12	4	1	2	3	0.67	0	0	1	1	1	1	1	1	1	1	1	1	1	1
26	29	3	2	4	9	24	3	4	1	2	2	0	1	0	1	1	0	1	0	0	1	1	1	1	1
27	22	4	1	1	8	1	4	4	1	2	0.5	1	1	0	1	1	1	1	1	1	1	0	1	1	1
28	33	4	1	2	7	2	4	1	7	18	0.11	1	1	0	1	0	1	1	1	1	0	0	0	1	0
29	25	3	1	1	8	1	4	1	8	9	0.11	1	0	0	0	0	0	1	1	1	1	1	0	0	1
$\bar{x}$	29.4			2.37	8.3	24.4			7.1	8.11		20	16	9	23	18	25	25	22	20	14	11	23	17	20
s	3.78			1.19	1.82	25.2			4.8	4.83		71.4	57.1	32.1	82.1	64.3	89.3	89.3	78.6	71.4	50	39.3	82.1	60.7	71.4

q40	q41	q42	q43	q44	q45	q46	q47	q48	q49	q50	q51	q52	q53	q54	q55	ill-pos	ill-neg	int-ill	iso-ill	bla-self	bla-fam
1	0	0	1	0	1	0	0	1	1	0	0	0	1	1	1	5	2	4	4	2	1
1	0	1	1	1	1	1	1	0	0	1	1	1	1	0	1	4	4	5	4	3	3
0	0	0	1	1	1	1	1	1	0	1	0	1	1	1	1	3	3	3	5	5	2
1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	1	5	2	5	4	5	3
1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	4	3	4	4	4	4
1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	5	2	5	4	2	3
1	0	1	1	1	1	1	0	0	0	0	0	1	0	1	1	4	2	5	3	2	0
1	0	0	0	0	1	1	1	1	0	1	0	0	1	0	1	0	4	1	4	2	3
1	0	0	1	1	1	1	1	1	0	0	0	1	1	1	0	2	5	3	5	1	0
1	0	1	1	0	1	1	0	1	1	1	0	1	0	1	1	5	2	5	3	5	0
0	0	1	1	0	1	1	1	1	0	1	0	1	1	1	0	0	5	4	5	3	2
0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	4	5	4	5
1	1	1	1	0	0	1	0	1	1	1	0	0	1	0	0	4	5	4	4	4	4
1	1	1	1	0	1	0	0	1	0	1	1	1	1	0	1	2	3	4	4	3	4
1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	1	5	1	4	4	4	1
0	0	1	1	1	1	1	1	1	0	0	0	1	1	1	1	4	5	5	4	3	2
1	0	0	1	0	0	0	0	1	0	0	0	0	0	1	1	4	2	2	4	1	0
1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	1	4	4	5	3	5
0	0	1	1	1	1	1	0	1	1	0	0	1	0	0	1	5	1	3	2	2	0
0	1	1	1	0	0	1	0	1	1	0	0	1	0	0	1	5	2	2	3	3	2
0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	2	4	5	5	3	5
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1	0	1	1	1	1	1	1	0	0	1	1	1	1	0	1	0	5	4	3	2	3
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1	0	1	1	1	1	1	0	1	0	1	0	1	0	1	1	2	3	3	5	3	0
1	1	0	1	1	1	1	1	0	1	0	1	0	1	0	1	5	2	2	3	2	4
20	10	20	25	17	24	24	13	23	13	18	14	22	17	18	22	3.444444	3.259259	3.777778	4.037037	3.037037	2.555556
71.4	35.7	71.4	89.3	60.7	85.7	85.7	46.4	82.1	46.4	64.3	50	78.6	60.7	64.3	78.6	1.685083	1.293648	1.099944	0.838052	1.104921	1.74978

APPENDIX F : **Frequency of responses.**

	Number of True Responses	Percentage
Question 1 (illness-positive)	20	71.4
Question 2 (integrate-illness)	16	57.1
Question 3 (Blame self)	9	32.1
Question 4 (illness-negative)	23	**82.1**
Question 5 (Blame family)	18	64.3
Question 6 (insight-positive)	25	**89.3**
Question 7 (insight-negative)	25	**89.3**
Question 8 (future-positive)	22	78.6
Question 9 (illness-positive)	20	71.4
Question 10 (future-negative)	14	50
Question 11 (illness-negative)	11	39.3
Question 12 (integrate-illness)	23	**82.1**
Question 13 (isolate illness)	17	60.7
Question 14 (blame self)	20	71.4
Question 15 (future-positive)	20	71.4
Question 16 (blame events)	24	**85.7**
Question 17 (insight-positive)	21	75
Question 18 (insight-negative)	25	**89.3**
Question 19 (isolate illness)	23	**82.1**
Question 20 (blame family)	16	57.1
Question 21 (future-negative)	24	**85.7**
Question 22 (blame events)	21	75
Question 23 (future-negative)	15	53.6
Question 24 (insight-negative)	23	**82.1**
Question 25 (illness-positive)	21	75
Question 26 (future-negative)	11	39.3
Question 27 (future-positive)	22	78.6
Question 28 (illness-negative)	24	**85.7**

	Number of True Responses	Percentage
Question 29 (insight-positive)	26	**92.9**
Question 30 (isolate illness)	25	**89.3**
Question 31 (illness-negative)	13	46.4
Question 32 (blame events)	22	78.6
Question 33 (insight-positive)	26	**92.9**
Question 34 (isolate illness)	21	75
Question 35 (integrate illness)	19	67.9
Question 36 (blame self)	17	60.7
Question 37 (insight-negative)	16	57.1
Question 38 (blame family)	11	39.3
Question 39 (illness-positive)	19	67.9
Question 40 (future-negative)	20	71.4
Question 41 (blame family)	10	35.7
Question 42 (integrate illness)	20	71.4
Question 43 (insight-positive)	25	**89.3**
Question 44 (insight-negative)	17	60.7
Question 45 (integrate illness)	24	**85.7**
Question 46 (blame events)	24	**85.7**
Question 47(future-negative)	13	46.4
Question 48 (isolate illness)	23	**82.1**
Question 49 (illness-positive)	13	46.4
Question 50 (blame self)	18	64.3
Question 51 (blame family)	14	50
Question 52 (blame events)	22	78.6
Question 53 (illness-negative)	17	60.7
Question 54 (blame self)	18	64.3
Question 55 (future-positive)	22	78.6

APPENDIX G : **Results of correlation analysis.**

ins-neg	fut-pos	fut-neg	pos-neg	int-iso	insight	future
1						
-0.0351	1					
0.317888	-0.50303	1				
0.018289	0.723019	-0.55468	1			
0.096964	0.418864	-0.15891	0.369457	1		
-0.77832	0.378129	-0.49367	0.396594	0.270428	1	
-0.21309	-0.8405	-0.8888	0.730787	0.32421	0.506464	1

APPENDIX H : **Results of correlation between variables.**

POSITIVE ATTITUDE TOWARDS ILLNESS

At a significance level of 1 %	
(+ correlation)	**(- correlation)**
Positive attitude towards insight	Negative attitude towards illness
Positive attitude towards the future	
Positive minus negative attitude towards the future	
At a significance level of 5 %	
Integrate minus isolate	Negative attitude towards the future
	Positive minus negative attitude towards insight

NEGATIVE ATTITUDE TOWARDS ILLNESS

At a significance level of 1 %	
(+)	(-)
Isolate illness	Positive attitude towards the future
Negative attitude towards the future	Positive minus negative attitude towards the future
At a significance level of 5 %	
Blame family	Positive attitude towards insight.
	Positive minus negative attitude towards insight

INTEGRATE ILLNESS

At a significance level of 1 %	
(+)	(-)
Positive attitude towards insight	
At a significance level of 5 %	
Blame self	
Blame events	
Negative attitude towards insight	

ISOLATED ILLNESS

At a significance level of 5%	
(+)	(-)
Negative attitude towards the future	Level of education
	Positive attitude towards the future
	Positive minus negative attitude towards the illness
	Positive minus negative attitude towards insight
	Positive minus negative attitude towards the future

BLAME SELF

At a significance level of 5 %	
(+)	(-)
Integrate illness	
Blame events	
Positive attitude towards insight	

BLAME FAMILY

At a significance level of 5 %	
(+)	(-)
Negative attitude towards illness	Years since diagnosis

BLAME EVENTS

At a significance level of 1 %	
(+)	(-)
Negative attitude towards insight	
At a significance level of 5 %	
Integrate illness	Positive minus negative attitude towards insight
Blame self	
Integrate minus isolate	

POSITIVE ATTITUDE TOWARDS INSIGHT

At a significance level of 1 %	
(+)	(-)
Positive attitude towards illness	
Positive minus negative attitude towards illness	
Positive attitude towards the future	
Integrate illness	
Integrate minus isolate	
Positive minus negative attitude towards the future	
At a significance level of 5 %	
Blame self	Negative attitude towards illness

NEGATIVE ATTITUDE TOWARDS INSIGHT

At a significance level of 1 %	
(+)	(-)
Blame events	
At a significance level of 5 %	
Integrate illness	

POSITIVE ATTITUDE TOWARDS THE FUTURE

At a significance level of 1 %	
(+)	(-)
Positive attitude towards the illness	Negative attitude towards the illness
Positive attitude towards insight	Negative attitude towards the future
Positive minus negative attitude towards the illness	
At a significance level of 5 %	
Years since diagnosis	Isolate illness
Integrate minus isolate	
Positive minus negative attitude towards insight	

NEGATIVE ATTITUDE TOWARDS THE FUTURE

At a significance level of 1 %	
(+)	(-)
Negative attitude towards the illness	Positive attitude towards the future
	Positive minus negative attitude towards the illness
	Positive minus attitude towards insight
At a significance level of 5 %	
Isolate illness	Positive attitude towards the illness

POSITIVE MINUS NEGATIVE ATTITUDE TOWARDS THE ILLNESS

At a significance level of 1 %	
(+)	(-)
Positive attitude towards insight	
Positive minus negative attitude towards the future	
At a significance level of 5 %	
Years since diagnosed	Isolate illness
Positive attitude towards the future	

INTEGRATE MINUS ISOLATE

At a significance level of 1 %	
(+)	(-)
Positive attitude towards insight	
At a significance level of 5 %	
Level of education	
Positive attitude towards the future	
Positive minus negative attitude towards the illness	
Positive minus negative attitude towards the future	
Blame events	

POSITIVE MINUS NEGATIVE ATTITUDE TOWARDS INSIGHT

At a significance level of 1 %	
(+)	(-)
	Negative attitude towards the future
At a significance level of 5 %	
Positive attitude towards the illness	Negative attitude towards the illness
Positive minus negative attitude towards the illness	Isolate illness
Positive attitude towards the future	Blame events

POSITIVE MINUS NEGATIVE ATTITUDE TOWARDS THE FUTURE

At a significance level of 1 %	
(+)	(-)
Positive attitude towards the illness	Negative attitude towards the illness
Positive minus negative attitude towards the illness	
Positive attitude towards insight	
At a significance level of 5 %	
Integrate minus isolate	Isolate illness

APPENDIX I : **Results of regression analysis.**

Regression Statistics

Multiple R	0.650208
R Square	0.42277
Adjusted R Square	0.285335
Standard Error	0.33641
Observations	27

Analysis of Variance

	df	*Sum of S*	*Mean Squ*	*F*	*Significance F*
Regression	5	1.740659	0.348132	3.076135	0.030838
Residual	21	2.376608	0.113172		
Total	26	4.117267			

	Coefficie	*Standard*	*t Statistic*	*P-value*	*Lower 5.0*	*Upper 5.0*
Intercept	0.464295	0.094687	4.903477	4.3E-05	0.458286	0.470304
pos-neg	-0.07852	0.03683	-2.13191	0.042628	-0.08085	-0.07618
int-iso	0.09614	0.056215	1.710202	0.099138	0.092572	0.099707
insight	0.049182	0.068083	0.722389	0.476503	0.044862	0.053503
future	-0.03485	0.04906	-0.71033	0.483823	-0.03796	-0.03174
self-other	-0.03824	0.060941	-0.62741	0.535861	-0.0421	-0.03437

APPENDIX J : **Results of Kruskal-Wallis.**

rate		hi-neg		hi-pos		hi-both	
0.38	1	0.11	3.5	0	1	0.1	2
1	1	0.25	10	0.11	3.5	0.15	5
0.5	1	0.38	16	0.2	6.5	0.29	11
0.25	1	0.5	19.5	0.2	6.5	0.3	13
0.11	1	0.5	19.5	0.21	8	0.3	13
2	1	0.57	23	0.22	9	0.33	15
0.5	1	1	25.5	0.3	13	0.5	19.5
0.57	1	2	27	0.4	17	0.67	24
0.4	2	**0.66375**	**144**	0.5	19.5	1	25.5
0.22	2	**0.56118**		0.55	22	**0.404444**	**128**
0.2	2			**0.269**	**106**	**0.265041**	
0.11	2			**0.162324**			
0.2	2						
0.5	2						
0.55	2						
0.21	2						
0	2						
0.3	2						
0.67	3						
0.5	3						
1	3						
0.33	3						
0.15	3						
0.1	3						
0.29	3						
0.3	3						
0.3	3						