University of Alberta

Assessing the Impact of Obsessive Compulsive Disorder

by

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ABSTRACT

This study explores whether people with Obsessive Compulsive Disorder (OCD) differ on demographic characteristics relative to national samples, or in terms of impact when compared to other diagnostic groups. A comparative descriptive design using secondary data was conducted to measure differences in demographic variables and mean score differences on three psychological instruments. Three subgroups of participants were included, 10 with OCD, 19 with mixed *DSM-IV* diagnoses and 29 with Schizophrenia. All three groups differed from national studies regarding specific demographic variables. No significant differences in mean scores were found when comparing the three instruments between groups. The OCD group symptoms rated as being more severe than the group with Schizophrenia. Investigations into the impact of specific illnesses need to include a multidimensional assessment of health outcomes. This study can add to our recognition that OCD is a serious mental disorder with substantial impact on the individual.

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Kiley, who inspired my interest in the first place;

Kathy, who never stopped believing that I could do it;

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And especially all those who live with obsessive compulsive disorder.

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CHAPTER 1:

INTRODUCTION

Background and Summary of the Problem

Obsessive compulsive disorder (OCD) affects 2% to 3% of the world's population and is the fourth most common psychiatric illness in the United States (Karno, Golding, Sorenson, & Burnam, 1988). It is characterized by unwanted distressing thoughts and accompanying compulsive rituals (Rasmussen & Eisen, 1992b). In addition to causing distress, the obsessions and compulsions are time consuming and can interfere significantly with the daily lives of those affected by this anxiety disorder. However, compared to other psychiatric disorders such as schizophrenia, until recently, the debility and costs associated with OCD have not been well recognized. This may, in part, be due to the nature of OCD. Hospitalization is not typically involved in the treatment of OCD, and thus common economic indicators of the impact of illness (bed days, number of hospitalizations, and recidivism rates) are not helpful in assessing its seriousness. A broader characterization of the impact of OCD is needed. To date knowledge about the impact of OCD on the psychosocial function of individuals with OCD is limited (Grabe et al., 2000).

Purpose, Research Question, and Objectives

A secondary analysis of the data sets drawn from three previous studies was undertaken to add to our knowledge on the impact of OCD on the psychosocial functioning of people diagnosed with the disorder. The primary research questions that guided this secondary analysis were, "Do the

demographic characteristics of people with OCD differ from those of people with mixed psychiatric disorders or schizophrenia? And does the impact of OCD differ from the impact of other psychiatric disorders on engulfment, hopelessness, and self-efficacy?"

There were three objectives of this secondary analysis using data sets from two regional studies and one national study: (a) to compare the demographic characteristics of three groups included in two regional studies (individuals with OCD, with schizophrenia, or with mixed psychiatric disorders) relative to those for the population, based on census data; (b) to compare individuals with OCD with two reference groups (patients with schizophrenia and patients with mixed psychiatric disorders) on measures of self-efficacy, hopelessness, and engulfment; and (c) to compare individuals with OCD or first-episode schizophrenia on measures of symptom severity.

Significance of the Study

A greater understanding of the full impact of OCD on individuals can lead to more targeted psychotherapeutic interventions and social-support strategies than are currently being used. Analysis will indicate if OCD is associated with certain demographic parameters. Analysis will also indicate whether the impact of OCD is distinctly different from impact of other psychiatric disorders.

CHAPTER 2:

LITERATURE REVIEW

Topics reviewed in this chapter include the historical background of OCD, a definition of health and how it relates to serious mental illness, and definitions of the key constructs and how these are linked to OCD. Next, the key characteristics of OCD are described, followed by a description of the disorder's human and economic impact. The results of previous comparisons of OCD with other psychiatric disorders are then presented. Finally, a summary is provided to highlight the conclusions drawn from the literature and the gaps in knowledge to be addressed in this study.

Obsessive Compulsive Disorder

Historically, OCD was thought to be a rare mental disorder with a sporadic, mild impact on the individual. Health professionals did not consider it a serious psychiatric disorder relative to others such as schizophrenia. More recent data, however, suggest that OCD has a significant impact on the lives of individuals who have the disorder. Of all of the anxiety disorders, OCD may best fit the criteria for seriousness and may well be the most disabling and the least understood (Jenike, 1983; Karno & Golding, 1991). Individuals with this disorder are often demoralized by their symptoms, which can be very intrusive in nature and affect virtually all aspects of life (Hollander, 1997).

There has been only limited research into how OCD impacts individuals and their interpersonal environment. However, themes and concepts that relate to health and well-being can guide investigations into the full impact of OCD. To

understand what OCD is and to investigate what contributes to the overall impact of this illness, a literature review of specific health-related databases was conducted (Health Star, PsychInfo, Medline, and CINAHL). The following key words and their synonyms framed the search: *mental illness*, *OCD*, *impact*, *schizophrenia*, *hopelessness*, *self-efficacy*, and *engulfment*.

The literature addressed the impact of the illness using various terms and interdependent concepts such as *disability*, *burden of illness*, *intrusiveness*, *distress*, *impairment*, *resilience*, *dysfunction*, *deficits*, and *quality of life*. It provided insights into how people's lives can be affected by OCD.

Definition of Health

In the 1940s the World Health Organization (Answers.com, 2005) redefined *health* as a "state of complete physical, mental, and social well-being, and not merely the absence of disease" (¶ 1). Thus health and illness were no longer considered dichotomous. Health represented a global sense of well-being, and illness would impact components of well-being in varying degrees, depending on the severity of the illness and personal resources of the individual. With this revised definition, those with well-managed chronic health conditions could even be considered healthy. This new conceptual framework shifted the appraisal of how illness affects individuals from more simplistic accounts of hospital days, physician visits, or types of therapy to broader indices of health—wellness and illness. A large number of interdependent psychosocial and environmental factors were recognized as contributing to this new framework. Attempts to examine this broader context for health spawned such interrelated

terms as *quality of life*, *burden of illness*, *disability days*, and *impact of illness*. Operational definitions and measurement tools were developed to investigate these concepts and their relationship to health and illness. Some of these tools were very general in nature to allow comparisons across varied clinical or community populations, whereas others were very specific to allow one type of health condition to be better characterized. Considering specific concepts related to health can assist health care professionals in looking beyond traditional illness-focused parameters to gain a more personal understanding of what it is like to live with an illness.

A large body of literature on health and mental health concepts grew, in particular in the area of quality of life (QoL). QoL typically focuses on functional capacity and the ability to perform the activities of independent daily living (Hays, Wells, Sherbourne, Rogers, & Spritzer, 1995). Many chronic health conditions have been studied in relation to QoL, including cardiovascular disease, diabetes, degenerative neuropsychiatric disorders (e.g., multiple sclerosis, Parkinson's disease, Alzheimer's dementia; Hays et al., 1995; Spitzer et al., 1995; Wells & Sherbourne, 1999); and, more recently, psychiatric disorders such as schizophrenia and depression (Warshaw et al., 1993).

Global well-being and life satisfaction specific to mental health began to be studied in the 1980s (Lehman, 1983). At that time in the United States large numbers of patients began to move into the community from psychiatric facilities. Following national surveys that studied the quality of American life (Becker, 1995), mental health care providers began to realize that difficulties in life areas

such as living situations, family or social relations, leisure, work, safety, finances, and health concerns had the potential to interfere with carefully planned treatment efforts. This spurred an interest in assessing mentally ill patients' perspectives on what determines good QoL (Becker, 1995). There was also a desire to better understand client needs and the impact of services on their lives (Lehman, 1983).

Many researchers began their QoL studies on individuals with mental illnesses by comparing the QoL of individuals with chronic physical illnesses with that of individuals with chronic mental illnesses. Overall, they found that decreases in the quality of psychosocial functioning in patients with psychiatric disorders are as severe as those observed in patients with chronic physical disorders (Warshaw et al., 1993). Atkinson, Zibin, and Chuang (1997),compared a group of patients with mental illness (schizophrenia, bipolar disorder, or depression) with a sociodemographically similar group of hemodialysis patients. Their results indicated similar levels of QoL between individuals with schizophrenia and the hemodialysis group; however, those with bipolar depression and depression reported a lower QoL. In another study, patients with schizophrenia rated their QoL lower than did the general population and other physically ill patients (Bobes & Gonzalez, 1997). Data on OCD and QoL are limited. Indeed, "data on quality of life and on psychosocial function of subjects with OCD in the general population are missing to date" (Grabe et al., 2000, p. 262). Only one QoL study with an OCD population was found (Koran, Thienemann, & Davenport, 1996). Although individuals with OCD had higher

scores in the domain of physical health than did patients with diabetes and depression and were near the norm of the general population, their scores in the domains of mental health (social functioning, role limitations because of emotional problems, and global mental health) were significantly lower than those of the general population.

Associated Constructs

Embedded in broader concepts such as QoL, impact of illness, and burden of illness are more specific constructs that contribute to the health continuum. They can be viewed as moderators of the "load" that a health condition may place on individuals and their interpersonal environment. Examples of such constructs include engulfment (Lally, 1989), hope (Morse & Doberneck, 1995), stress load and appraisal of one's ability to cope, or self-efficacy (Folkman, Bernstein, & Lazarus, 1987), and interpersonal and social support (House, 2002). Three of these specific constructs will be considered in more detail.

Engulfment

Lally (1989) became interested in how patients defined themselves and maintained a sense of competence in light of a diagnosis and hospitalization. He theorized that the most potent factors in clients' self-concept are the meanings that they attach to their experiences with the illness and the meanings that others attach to their illness. These meanings form a considerable amount of their self-concept or self-identity. If they accept the meaning of their experience as mental illness they begin a process called *role engulfment* in which a significant degree

of an individual's sense of self and behavior becomes organized around being psychiatrically ill.

Engulfment has also been related to the concept of *chronicity* (Estroff, 1989; Lally, 1989). Estroff looked at the connection between these concepts in relation to individuals with schizophrenia and suggested that *becoming schizophrenic* is synonymous with role engulfment because the individual changes from a once-valued person to someone who has become dysfunctional and devalued by him- or herself and others. Individuals become devalued through the process of role constriction. Previously, they had had a social role, and as they lost this role, they came to know themselves only in the role of "the chronically mentally ill." This process may be complicated by the fact that the onset of schizophrenia usually occurs in adolescence or early adulthood when roles are still fluid and vulnerable to change (Erikson, 1968; Juhasz, 1989).

Because the onset of OCD often occurs at similar developmental stages, individuals with OCD may be at risk for the same role transformation. Symptoms of OCD may be so pervasive in their lives that all thoughts and feelings about themselves might become defined solely by their chronic illness (Menenberg, 1987; Miller, 1983). Those with OCD might also be concerned with reconciling the meaning of their symptoms with their sense of self and with how others might view them. Engulfment may be particularly pertinent for persons with OCD because they often feel immense shame over the irrationality of some of their obsessive thoughts and repetitive behaviors. They strongly link their self-worth to

other people's views of them and are more likely to believe that others will judge them extremely negatively and critically (Ehntholt, Salkovskis, Rimes, 1999).

Hopelessness

Hope and hopelessness have been recognized as important concepts in understanding responses to chronic illness (Carson, Soeken, Shanty, & Terry, 1990; Deegan, 1988; Miller, 1983; Rideout & Montemuro, 1986). Hopelessness has been found to be associated with suicidality (O'Connor, Connery, Cheyne, 2000). The impact of hope in acute illnesses has been studied extensively. Hope is believed to create a sense of empowerment, encouragement, and renewal in patients who are coping with a diagnosis of cancer and bone-marrow transplantation (Saleh & Brockopp, 2001). Patients with colorectal cancer who felt able to challenge their illness also conveyed hope through the expression of a desire to live and the anticipation of having a future (Ramfelt, Severinsson, & Lutzen, 2002). In a case study one woman identified hope as an essential element in her recovery from schizophrenia (Lovejoy, 1984).

On the other hand, *hopelessness* is described as despair in which individuals cannot believe that they have a future, are incapable of getting past their suffering, and are unable to find meaning in their lives or relationships. They view themselves as being unable to cope and are at the point of giving up (Miller, 1991; as cited in Miller, 1992). Hopelessness has been described as helplessly giving up hope, living in emptiness, or assuming one has no future or reason to live; and it culminates in collapsing mentally (Kylma, 2004). Hopelessness has also been identified as a key element in the demoralization of those with

illnesses. Eapen and Revesz (2003) found that parents whose children had cancer or head injuries associated less than optimal coping with a lack of hope (Johnson & Roberts, 1997). Individuals with cancer who lacked hope expressed more somatic distress, loss of control, and social isolation than did those with hope (Chapman & Pepler, 1998). Men who reported high levels of hopelessness had a faster rate of carotid atherosclerosis than did men who reported *low* to moderate levels of hopelessness (Everson, Kaplan, Goldberg, Salonen, & Salonen, 1997). OCD has been identified as a chronic illness, and as such hopelessness may be a significant factor in the impact of this disorder. Patients with OCD, like those with schizophrenia, may become demoralized, lose hope, and lead progressively more restricted lives (Estroff, 1989).

Self-Efficacy

Self-efficacy refers to the beliefs about one's capabilities to exercise control over events that affect one's life (Bandura, 1977). Specifically, it reflects those beliefs in one's own ability to mobilize motivation, cognitive resources, and action to exercise control over task demands (Bandura, Adams, & Beyer, 1977). It has also been defined as "one's estimate of one's fundamental ability to cope, perform and be successful" (Judge & Bono, 2001, p. 80). These definitions of self-efficacy reflect an underlying principle that the performance of specific activities is strongly influenced by an individuals' beliefs in his or her ability to succeed in the activities. When individuals are ill, stronger self-efficacy beliefs are suggested by their ability to set higher goals, demonstrate greater resolve, and expend more effort, and are also indicative of a lower likelihood of being

dissuaded by difficulties that they may encounter (Conn, 1998). Parker (1998) investigated organizational interventions that could promote 'role breadth' (the confidence to take on a wide range of proactive, interpersonal, and integrative tasks) and self-efficacy in employees and found that enhancing autonomy and participation in decision making can directly increase employees' sense of control over their environment and thereby increase self-efficacy. Self-efficacy has been shown to be strongly correlated with exercise behavior and exercise-behavior change. Those with higher scores on self-efficacy expressed increased confidence in their ability to exercise even under difficult circumstances (Conn, 1998). Higher levels of positive symptoms in individuals with schizophrenia predicted poorer self-efficacy (Lysaker, Clements, Wright, Evans, & Marks, 2001). Self-efficacy was one of the strongest predictors of QoL outcomes in a study of participants with asthma. Those with greater self-efficacy believed in their ability to control their asthma, but also were confident that they knew what behaviors to use to prevent further acute episodes. In the same study, low self-efficacy was also associated with lower scores on the Short Form Health Survey 36 (SF-36; Mancuso, Rincon, McCulloch, & Charlson, 2001). Higher scores of self-efficacy correlated with a lower number of hospitalizations for patients with asthma and better compliance with treatment regimes (Scherer & Bruce, 2001). Self-efficacy scores significantly predicted physical, social, and family function for patients with coronary heart disease (Sullivan, LaCroix, Russo, & Katon, 1998).

In summary, various conceptual frameworks and embedded constructs have emerged since the World Health Organization (Answers.com, 2005)

expanded the definition of health beyond the mere absence of illness. Numerous general and highly focused measurement tools have been developed to allow closer examination of the overall impact of illness on health. Three of the embedded constructs (hope, the role of engulfment, and self-efficacy) have been related to the health and illness impact of a number of non-psychiatric and psychiatric conditions.

Data from the studies discussed previously provide a strong comparative base for an examination of the impact of OCD. However, prior to providing such comparisons, a brief description of this mental disorder and a summary of the data related to OCD is provided.

Obsessive Compulsive Disorder

Included in this section of the chapter is a description of OCD and epidemiology, treatment, and comorbidity with other conditions. Also considered are the economic impact of OCD and a comparison of other disorders with OCD in relation to impact. The discussion of specific impacts is expanded to include the impact of OCD on relationships and other health-related constructs.

Description

OCD is a condition that involves unwanted, distressing thoughts and the accompanying compulsive rituals (Rasmussen & Eisen, 1992b). Appendix A presents the specific diagnostic criteria for OCD as set out in the *Diagnostic and Statistical Manual of Mental Disorders IV* ([*DSM-IV*] 4th ed.; American Psychiatric Association [APA], 2000). In short, individuals with OCD show evidence of obsessions and compulsions. "Obsessions are defined as concurrent persistent

ideas, thoughts, images or impulses that are experienced as intrusive and senseless. Compulsions are repetitive, seemingly purposeless behaviors, performed in response to obsessional thoughts or in a stereotyped manner" (Kolada, Bland, & Newman, 1994, p. 25). In addition to the frequency of obsessive thoughts is the immense amount of time consumed by rituals. OCD patients often spend several hours daily washing their hands, showering, or cleaning (Kolada et al., 1994; Sasson et al., 1997). Sexual and aggressive obsessions cause moral and ethical concerns for patients when these thoughts conflict with their value systems (Rasmussen & Tsuang, 1986). They also fear that others may observe them performing their rituals and view them as being 'weird' or 'freaks' (Newth & Rachman, 2001).

Cases of OCD include the well-known figure Howard Hughes, who from early childhood held lifelong obsessional ideation involving germs. He insisted on sealing doors and windows and having things brought to him insulated in paper towels to prevent germs from entering his home. Sadly, he ended his own life, a tragic but not uncommon risk in OCD (Sasson et al., 1997).

Onset

Some researchers have identified the mean age of the onset of OCD as 20 to 26 years (Karno et al., 1988), whereas others have reported the onset of symptoms as early as 14.5 years (Hollander et al., 1996). Cases have been reported before six years of age (Kolada et al., 1994) and in individuals 65 years of age and older (Nestadt, Bienvenu, Cai, Samuels, & Eaton, 1998). It should be noted, however, that there is often a delay between the onset of symptoms and

professional treatment to establish a diagnosis. Hollander (1997) found a lag of 10 years, and Rasmussen and Tsuang (1986) suggested lag times of between 7 and 16 years.

This lag between onset and treatment is attributable in part to the shame and humiliation that individuals feel about their symptoms (Hollander, 1997). Patients with OCD often do not seek out health professionals because of a perceived need to conceal both the content and the frequency of their obsessions. Individuals with OCD attach catastrophic personal significance to unwanted intrusive thoughts, and they fear that if they reveal these thoughts, others will be horrified and reject them.

The lag between symptom onset and treatment may also be a result of misdiagnosis. Patients are often diagnosed with either generalized anxiety disorder or depression rather than with OCD. Some of this is related to their reporting of associated symptoms, whereas the core concern is actually OCD. Nestadt et al. (1998) identified the most common complaints from OCD patients who sought treatment as relationship problems; stress, alcohol, or drug problems; mood disorders; and anxiety or nervousness. Another barrier to seeking medical attention is the fear of criminal charges or criminal consequences if they discuss their obsessional thoughts of physical or sexual violence. Such individuals may also believe that their thoughts have mystical power and that if they disclose their obsessive thoughts, then the thoughts may become more powerful and actually come true. Thus they respond by concealing

their thoughts to maintain control over the ability of the thoughts to harm others (Newth & Rachman, 2001).

Epidemiologic Data

OCD affects 2% to 3% of the world's population and is the fourth most common psychiatric illness in the United States (Karno et al., 1988). The estimated total number of patients worldwide who have OCD is 50 million, which makes it a significant global problem (Weissman et al., 1994). Researchers have reported six-month prevalence rates of OCD of 1.6% and lifetime prevalence rates of around 3% (Robins et al., 1984). No gender differences in prevalence rates or lifetime morbidity risk of OCD have been found (Goodwin, Guze, & Robins, 1969; Kolada et al., 1994; Myers et al., 1984; Robins et al., 1984; Weissman & Merikangas, 1986).

Treatment

Early beliefs about OCD centered on demonic possession, which was treated by witch doctors or religious leaders who responded with some sort of exorcism (Jenike, 1983). Before 1966, neurosurgery was considered the only truly effective treatment. However, such treatment was considered so extreme that it was seldom used (Baer & Greist, 1997). Early pharmacological treatment focused on one of the tricyclic antidepressants, clomipramine, but more recently has shifted to serotonin selective reuptake inhibitors (SSRIs). In their 1995 review, Stanley and Turner expressed optimism that major advances in treating OCD had occurred in the last decades. This was largely because of new developments in pharmacological and behavioral treatment. In fact, Lindsay,

Crino, and Andrews (1997) suggested that the only two effective treatments for OCD are behavior therapy using exposure and response prevention and SSRIs.

Comorbidity

As with many psychiatric disorders, comorbidity is common; emerging about 50% of the time in individuals with OCD as the primary diagnosis (Munford, Hand, & Liberman, 1994). Coexisting psychiatric diagnoses include major depressive disorder, simple phobia, social phobia, and eating disorders (Rasmussen & Eisen, 1990). In addition to these disorders, Rasmussen and Eisen (1992a) found increased rates of alcohol dependence, panic disorder, Tourette's syndrome, and separation anxiety disorder.

High rates of comorbidity have significant implications for treatment in patients with a primary diagnosis of OCD. Individuals with OCD symptoms and other anxiety problems such as panic disorder, social phobia, or generalized anxiety disorder experience even greater difficulty with carrying out activities of daily living, but may be more ready to seek treatment. With comorbid presentations monotherapies are less likely to yield full remission. For example, patients with both OCD and panic disorder may require highly targeted psychotherapy in which a distinction is made between obsessional thoughts and the thoughts associated with panic; and patients with OCD and social phobia need to learn to distinguish between fearful thoughts that are socially cued and those that are obsessional in nature (Welkowitz, Struening, Pittman, Guardino, & Welkowitz, 2000).

Impact of OCD

Impact of OCD on the Individual

The impression that OCD was a rare illness came from chart reviews in the late 1950s and 1960s and led to significant underestimates of the disease. Few hospital charts at that time reflected the diagnosis of OCD. It is now recognized that many patients with OCD are not seen in hospital because they are reluctant to seek help as a result of their feelings of fear and shame related to their thoughts and compulsions (Rasmussen & Eisen, 1992b). Not only was OCD evaluated as being rare, but it was also not considered a serious illness. The following quotations attest to this perception:

> Obsessional neurosis . . . has a prognosis that is more favorable than is often believed; . . . [it] does not lead to an increased risk of suicide, homicide, alcoholism, drug addiction, antisocial behavior, chronic hospitalization, or the development of an other mental disorder such as schizophrenia. (Goodwin et al., 1969, pp. 186-187)

"Obsessive-compulsives constitute a small percentage of psychiatric patients, and they tend to be outpatients who function occupationally and socially in the community in spite of their symptoms" (Welner, Reich, Robins, Fishman, & Van Doren, 1976, p. 527), and "In many instances OCD may not significantly impair daily functioning, thus not impelling persons into treatment as early or as often as do disorders that more severely disrupt daily functioning" (Karno et al., 1988, p. 1094).

The discrepancy between knowing that their obsessions and compulsions are irrational and having the overwhelming urge to perform them contributes to the immense suffering associated with OCD. By attempting to resist

compulsions, individuals often find it difficult to concentrate and experience exhaustion from the endless intrusion of nagging uncertainties. Obsessional slowness—the time that it takes to complete rituals—may be the major source of interference in daily functioning (Sasson et al., 1997). Also, according to Nestadt et al. (1998), individuals with OCD show higher levels of alcohol consumption, social isolation, and cognitive impairment.

Impairment for individuals with OCD can vary from being minor and permitting full functioning in work, social, leisure, and family relationships to being severe and requiring extensive intervention. Researchers have reported that individuals with OCD express a range of concerns such as impaired family relationships, impaired friendships, academic underachievement, and interference with work (Hollander et al., 1996); impairment in role performance and social functioning (Koran et al., 1996); and impairment in intentional activities (Antony, Roth, Swinson, Huta, & Devins, 1998).

Impact of OCD on Relationships

Community surveys have shown that about 20% of OCD respondents are not married (Regier et al., 1993). Clinical studies have found this percentage to be much higher (37% to 72%; Bellodi, Sciuto, Diaferia, Ronchi, & Smeraldi, 1992; Koran et al., 1996). Steketee (1997) speculated that higher rates of nonmarriage for OCD patients compared with community samples is likely because of the differing chronicity and severity of symptoms. Those with more severe symptoms are more likely to be more impaired in social skills and have more difficulties with

intimacy and, consequently, are less likely to marry. Some studies have also shown higher divorce rates for individuals with OCD (Grabe et al, 2000).

OCD often diminishes the quality of family relationships. Individuals with this disorder may ask family members to become involved in their rituals of checking or to provide repeated reassurance (Koran, 2000). The OCD sufferer may forbid family members to use a washroom because of fears of contamination or to use a room because it is filled with hoarded items. Those with OCD can become very angry and frustrated with family members who fail to comply with their requests for help with rituals, which can result in verbal and even physical altercations. Many family members find themselves modifying routines to suit a patient's symptoms and have reported this to be at least moderately distressing for them (Calvocoressi et al., 1999). The most troublesome symptoms of OCD with which families have difficulty coping include the patients' ruminations and rituals, longstanding unemployment, noncompliance with medication, depression, withdrawal from social and family contact, lack of motivation, and excessive arguing. Families reported concerns in a number of general areas in family life, including interference with family social activities, loss of friendships, marital discord, financial problems, and sibling hardship (Cooper, 1996).

Black, Gaffney, Schlosser, and Gabel (1998) reported that spouses identified a variety of issues such as sexual difficulties; overwhelming feelings of frustration, anger, guilt, and fatigue; and disrupted family and social life. Families of individuals with OCD scored lower on problem solving, communication, role

functioning, behavior control, affective responsiveness, affective involvement, and general functioning than did well-matched control families. Other relatives reported loss of income, privacy, normal family activities, pleasure and freedom. Internally, they felt a loss of self-esteem, of a sense of competence, and of pleasure in a child's success. They felt little certainty about the illness and the future (Cooper, 1996).

OCD and Health-Related Constructs

In summary, OCD is a serious mental disorder that significantly impacts individuals and those around them. The impact crosses multiple health concepts with regard to personal, social, and occupational functioning. OCD patients may experience a decreased sense of self-efficacy because of malignant doubt about their own memory and judgment (Dar, Rish, Hermesh, Taub, & Fux, 2000) or express feelings of things not being 'just right' or sensations of imperfection (Coles, Frost, Heimberg, & Rheaume, 2003). They use rituals and feedback from others to attenuate their anxiety caused by their doubts. They express less confidence in, or feel less comfortable with, their abilities than do subjects without OCD (Reuven et al., 2000). High rates of comorbidity with major depressive disorder may increase feelings of hopelessness and despair. The frequency of obsessional thoughts and compulsive rituals and the amount of time devoted to OCD-related symptoms leads to occupational and social impairment, which may in turn lead to feelings of being overwhelmed by the illness.

General Impact

Economic Impact

In the US the direct and indirect costs of OCD were estimated to be $8 billion in 1990. Most indirect costs result from work loss, early retirement, and absenteeism. The estimated direct costs in lost wages is $40 billion (Dupont, Rice, Shiraki, & Rowland, 1995). Leon, Portera, and Weissman (1995) noted that 25% to 30% of both men and women with OCD in the US received some kind of government financial assistance and that those with OCD received disability payments at a rate four times greater than that for those individuals without psychiatric disorders. Hollander, Stein, Kwon, et al. (1997) reported that in a population with OCD, 25% of the subjects had been hospitalized for OCD at an average cost of $12,500 US. Extrapolating from their data, these authors estimated that, in total, more than $5 billion is spent annually on OCD-related treatment. Further evidence of the significant financial impact of OCD is provided by data showing that individuals with OCD had more outpatient consultations with psychiatrists and psychologists over a 12-month period than did other groups of patients (Grabe et al., 2000). The OCD group also had higher rates of unemployment.

Comparison With Other Psychiatric Disorders

Most patients with OCD report lifetime symptom distress and significant interference with their ability to study, work, socialize, make friends, and maintain family relationships. As a result, they express marked impairment in their sense of satisfaction with life (Hollander, 1997). The impact of this disorder is reflected

in the few studies in which researchers compared the impact of OCD with that of other disorders (Mendlowicz & Stein, 2000). In most comparative studies they reported that the ratings of satisfaction with life of patients with OCD have been significantly lower than those of the general population and similar to the ratings of populations with depression and schizophrenia (Grabe et al., 2000; Hollander et al., 1996; Koran et al., 1996).

In a seminal study, Bobes et al. (2001) found that patients with OCD and those with schizophrenia had the lowest health-related QoL. Specific impacts of both disorders included disruption of careers or academic achievement and problems in their relationships with family and friends (Hollander, 1997; Hollander et al., 1996; Stein, Roberts, Hollander, Rowland, & Serebo, 1996). Other research groups have also found a similar degree of psychosocial and economic impairment between OCD and schizophrenia relative to other anxiety disorders (Bystritsky et al., 2001; Munford et al., 1994).

Traditionally, patients with schizophrenia have been considered the group most affected by their mental illness. The schizophrenia diagnosis brought with it a grim picture of a chronic deteriorative course, severe social or occupational incapacitation, and little evidence of remission with improved function. Many individuals with schizophrenia are unemployed (Chan & Cheng, 2001), and they often have poor self-care, a very limited social life, and frequent readmissions (Chan, MacKenzie, Ng, & Leung, 2000). Brekke, Long, and Kay (2002) found that individuals with schizophrenia often have asymmetrical relationships; that is, the reciprocity and flow of energy tend to be unidirectional. Many of these

individuals experience difficulties in finding and keeping a job, which has a significant negative impact on their self-confidence and identity as well as their means to develop social relationships and to earn income to meet their material needs (Roe, 2001). In one QoL study, Chan and Yu (2004) reported that the participants with schizophrenia reported the lowest ratings in overall health, life enjoyment, sexual activity, financial resources, and physical environment. Recent improvements in detection, early assertive treatment, and pharmacological agents have fundamentally challenged this bleak longitudinal course for schizophrenia.

Summary Statement

In keeping with a more global definition of health, investigations into the impact of specific illnesses need to include a multidimensional assessment of health outcomes and contributing personal factors. In addition to traditional indices such as hospitalizations, the average length of stay, the number of bed-days, the cost to the health care system, and estimates of lost work-related productivity, gaining an understanding of the personal impact of illness on self, family, and social network is imperative. Broad-based QoL instruments have been used to investigate the functional day-to-day impact of illness. However, they do not capture the more personal impact of illness on personal beliefs about self and perceptions about the degree to which one is managing the collective illness "load."

To address this gap in our understanding of the overall impact of OCD, previously collected data from three specific instruments that measure

engulfment, hopelessness, and self-efficacy will be used to compare the impact of OCD with two other clinical conditions.

CHAPTER 3:

METHOD

There were three objectives of this secondary analysis using data sets from two regional studies and one national study: (a) to compare the demographic characteristics of three groups drawn from two regional studies (individuals with OCD, mixed psychiatric disorders, or a first-episode of schizophrenia) with national figures based on census data; (b) to use regional data to compare individuals with OCD with two reference groups (patients with first-episode of schizophrenia and patients with mixed psychiatric disorders) on measures of engulfment, hopelessness, and self-efficacy; and (c) to use regional data to compare individuals with OCD and schizophrenia on measures of symptom severity. In this chapter the definitions of first-episode schizophrenia and mixed psychiatric disorders are provided. Then the design, instruments, and the data preparation and analysis used to address the study objectives are presented. Finally, the ethical considerations associated with these secondary analyses are described.

Definitions

MIXED Diagnostic Group

One of the two regional studies provided a data set for a convenience sample of 29 patients who had visited an outpatient day-treatment program. Of the 29 patients, 10 had a confirmed diagnosis of OCD, and 19 were of a mixed DSM diagnosis. The mixed population had diagnoses of mood and adjustment

disorders and required day treatment after being discharged from the inpatient program (K. Hegadoren, personal communication, August 5, 2005).

First-Episode Schizophrenia

The term *psychosis* refers to a cluster of specific behaviors that can occur in a number of mental illnesses, the most common of which is schizophrenia (Lester et al., 2005). Prior to a diagnosis of schizophrenia, most patients experience one or more nonspecific symptoms such as sleep disturbance, anxiety, irritability, depressed mood, decline in social relations and personal functioning, suspiciousness, loss of motivation, and apathy (Lester et al., 2005). The mean age of onset of psychotic symptoms is 22 for women and 19 years for men, with 80% of first episodes occurring between the ages of 16 and 30 years (Lester et al., 2005). According to US statistics, 40.8% of the onset of psychosis occurred between the ages of 15 and 19 (Lester et al., 2005). In the UK, 4 per 1,000 adults between the ages of 16 and 64 (190,000) have a functional psychosis (Lester et al., 2005).

First-episode psychosis is a life-changing event for individuals and their family, all of whom often require long-term support and guidance (Lester et al., 2005). Interest in this population began because of the belief that the predominant course of schizophrenia includes chronically low functioning with little evidence of long-term improvement. The illness also carries a risk of mortality due to suicide in about 10% of this population over a 10-year period (Bromet, Naz, Fochtmann, Carlson, & Tanenberg-Karant, 2005). It is hoped that increasing public awareness of the illness and its treatment, together with early

intervention, will result in earlier help-seeking behavior, decrease symptoms, positively influence the patient's experience of care, and decrease the sense of powerlessness that individuals affected by the illness often experience (Mattson et al., 2000).

Secondary Analysis

Design

A comparative descriptive design was used to address the objectives of this study. All raw data on measures of the key variables (engulfment, self-efficacy, hopelessness, and symptom severity) and demographic data (age, gender, marital status, education, and employment status) were drawn from the data collected from all participants. Three subgroups of participants were included in this comparative study: (a) participants with a confirmed diagnosis of OCD (OCD group), (b) participants with mixed *DSM-IV* diagnoses (MIXED group), and (c) participants with a diagnosis of schizophrenia (SCHIZ group)

Sample

The sample for the secondary analysis was comprised of all the participants in the subgroups (n = 58). (See Appendix B for information on the studies from which the three subgroups were drawn.)

Instruments

The selection of specific instruments was guided by the choices that McCay (1994) made in her validation study of the Modified Engulfment Scale (MES) in a large clinical population with schizophrenia. This author explained that constructs such as hopelessness and self-efficacy are components of self-

concept and are thereby related to engulfment. She found a positive correlation between hopelessness and engulfment and a negative correlation between self-efficacy and engulfment.

The concepts of engulfment, hope and self-efficacy were operationalized in the two validity studies by using three instruments: the Modified Engulfment Scale, the Self-Efficacy Scale, and the Hopelessness Scale, respectively. Two instruments were used to measure symptom severity: the Yale-Brown Obsessive Compulsive Scale for the participants with OCD and the Positive and Negative Syndrome Scale for the participants with schizophrenia. The instruments are described below.

The Modified Engulfment Scale. Lally (1989) created a 70-item true-false inventory called the Engulfment Scale (ES). He based the ES on qualitative interviews designed to elicit both the patients' explanatory model of illness and the patients' view of themselves. The interviews covered such topics as the sense of having changed, the view of this change as relatively permanent, acceptance of the mentally ill label, a loss of normal roles, and a negative comparison of oneself with others. The higher the individual scores on the tool, the greater their engulfment in the patient role.

A modified version of the ES, the MES is comprised of 30 items on a 5-point Likert-type scale (McCay, 1994). The respondent is asked to read each item and indicate how true or false each statement is for him or her by using verbal anchors ranging from *completely true* to *completely false* (see Appendix C for a copy of the scale). Multipoint scales offer a greater probability of obtaining

increased variance, and reliability may be more readily achieved (Nunnally, 1978). These anchors were developed with the clinical population in mind and were intended to derive the benefits of a multipoint scale, yet maintain as much as possible the concrete nature of the true/false scale (McCay, 1994).

Scores are calculated by summing across items. (Items 1, 4, 6, 7, 12, 15, 23, 25, 26 and 30 are scored in reverse.) Total scores range from 30 to 150, with higher scores indicating higher levels of engulfment. For the purposes of this study the range was divided into thirds to represent a range of severity. Scores of 30-70 were categorized as mild, scores of 71-110 were categorized as moderate, and scores of 111-150 were categorized as severe. An alpha coefficient of .83 was obtained in the initial pilot of the MES, which indicates sound internal consistency. The MES tool measures both aspects of role engulfment: how individuals view themselves and how they think others view them. Further convergent, divergent, and discriminant testing of the MES supports the validity of this modified scale (Anastasi, 1982; McCay, 1994).

The Hopelessness Scale (HS). The HS has been used extensively in health-related studies (Horesh, Orbach, Gothelf, Efrati, & Apter, 2003). Clinical researchers have used the HS to study how religiousness and spirituality were used to cope with amyotrophic lateral sclerosis (Murphy, Albert, Weber, Del Bene, & Rowland, 2000) and to evaluate the psychological consequences of combination antiretroviral treatment in terms of mood, hope, and life satisfaction in men with symptomatic HIV infection (Rabkin, Ferrando, Lin, Sewell, & McElhiney, 2000). Following initial validation of its strong psychometric

properties, it has been widely used to explore the relationship between hopelessness and suicidal behavior in outpatients with anxiety and mood disorders (Chioqueta & Stiles, 2003) and panic disorder (Beck, Steer, Sanderson, & Skeie, 1991; Rudd, Dahm, & Rajab, 1993). It has also been used in conjunction with other tools to predict the admission of patients with suicidal ideation (Cochrane-Brink, Phil, Lofchy, & Sakinofsky, 2000). Horesh et al. (2003) used the scale when they investigated the hypothesis that some forms of suicidal behavior among adolescents are related to helplessness and depression, whereas others are related to anger and impulsivity. Researchers also used the scale to study adolescents, homelessness, and reliance (Rew, Taylor-Seehafer, Thomas, & Yockey, 2001).

The HS is a 20-item true-false scale designed to measure negative expectancies for the future (Appendix D). Possible scores range from 0 to 20, with higher scores indicating greater hopelessness. Scoring consists of assigning 1 to either T or F on each item, whichever is indicative of hopelessness. Generally, 0-3 represents minimal hopelessness; 4-8, mild hopelessness; 9-14, moderate hopelessness; and 15-20, severe hopelessness (Cochrane-Brink et al., 2000). The scale has evidenced high internal consistency, a Kuder-Richardson 20(KR-20) value of 0.93 (Beck, Weissman, Lester, & Trexler, 1974), and strong levels of concurrent and construct validity (Rudd et al., 1993).

The Self-Efficacy Scale (SES). In 1982 Sherer et al. developed the SES scale. In the original version of the SES, 36 items focused on three areas: willingness to initiate behavior, willingness to expend effort to complete the

behavior, and persistence in the face of adversity. Each participant rated each item on a Likert-type scale that ranged from *strongly disagree* to *strongly agree*. Higher scores indicate greater levels of self-efficacy (Sherer et al., 1982). The scale was further refined, and 23 items on the original scale were retained that could be placed in one of two subscales, general self-efficacy and social self-efficacy, with Cronbach's alpha reliability coefficients of 0.86 and 0.71, respectively (Sherer et al., 1982). These results compare favorably with the alpha value of 0.6 that Nunnally (1978) recommended for scales used in social science research. The two subscales were studied for correlations between them and then between the subscales and the scales that measure personality characteristics related to personal efficacy. All were moderate in magnitude and in the appropriate direction. The two subscales, collectively termed the SES (Appendix E), were then tested for validation with 150 participants. The results provided evidence of reliable subscales and evidence of the construct and criterion validity of the scale (Sherer et al., 1982).

The SES has since been used in various health-related studies. Tollet and Thomas (1995) used it to examine how a specific nursing intervention to instill hope influenced the levels of hope, self-efficacy, self-esteem, and depression in homeless veterans. Washington (2000) used the SES to determine the effects of experiential and cognitive group therapy on the self-efficacy of chemically dependent women. The SES, along with other tools, was used to explore the contribution of demographics, intrinsic motivation, general self-efficacy, risk

taking, and stressful life experiences to the urban minority adolescent's perception of health status (Honig, 2002).

The SES is comprised of 23 items on a 5-point Likert-type scale, the range of the total scale being 1- 115. The SES contains two subscales, the General Self-Efficacy Subscale (items 2, 3, 4, 7, 8, 11, 12, 15, 16, 18, 20, 22, 23), range of scores being 1- 65 and the Social Self-Efficacy Subscale (items 6, 10, 14, 19), range of scores being 1-20. Respondents are asked to rate the extent to which they agree with each item (1 = *disagree strongly* and 5 = *agree strongly*). Scoring consists of reversing the scores of the negatively keyed items (3, 6, 7, 8, 11, 12, 14, 18, 20, 22), not scoring the filler items (1, 5, 9, 13, 17, 21), and summing across items. For the purposes of this study, three categories (mild, moderate, and severe) were used. These categories were determined by taking the total possible score (1-115) and dividing it into thirds. Total scores of 1-38 represented mild symptoms; 39-77 moderate symptoms; and, 78-115 severe symptoms. Scores on the General self-efficacy subscale of 1-21 represented mild symptoms, scores of 22- 43 represented moderate symptoms and scores of 44-65 were indicative of severe symptoms. Scores on the Social self-efficacy subscale of 1- 6 represented mild symptoms, scores of 7-13 represented moderate symptoms and scores of 14-20 were indicative of severe symptoms.

The Yale-Brown Obsessive Compulsive Scale (Y-BOCS). The Y-BOCS Scale was developed as "a clinician-rated instrument for assessing the severity of obsessive-compulsive symptoms in patients with obsessive compulsive disorder" (Goodman, Price, Rasmussen, Mazure, Delgado, et al., 1989, p. 1012;

Appendix F). The Y-BOCS contains 19 items and utilizes a 5-point Likert-type scale that ranges from *no symptoms* to *severe symptoms* to measure the impact of the participant's obsessions. The range of scores is 0-40. This portion of the scale is scored by summing across the scale and assigning a global severity score. If the measure is taken repeatedly, then a global improvement score can also be given. The Y-BOCS has demonstrated a high degree of internal consistency, and each of the 10 items has been significantly correlated with the total score (Goodman, et al., 1989). These authors found significant and moderately strong correlations between total Y-BOCS scores and two independent global measures of OCD, the Clinical Global Impression–Obsessive Compulsive Scale (CGI-OCS; $r = .74$; $P < .0001$; $n = 78$) and the National Institute of Mental Health Global Obsessive Compulsive Scale (NIMH-OC; $r = .67$; $P < .0001$; $n = 20$).

For the purposes of this study, the first 10 items were used and three categories (mild, moderate, and severe) were used. These categories were determined by taking the total possible score (0-40) and dividing it into thirds. Total scores of 0 were not used because they would indicate no symptoms in any area. Scores of 1-13 represented mild symptoms; 14-26, moderate symptoms; and 27-40, severe symptoms. Some support for these ranges was found in the literature. Although Stewart, Stack, Farrell, Pauls, and Jenike (2005) did not identify the symptom severity ranges, they did report that an admission score of 26.6 (which can be rounded up to 27) "confirmed the presence of severe OCD symptoms" (p. 607). Ninan et al. (2006) explored specific items of the Y-BOCS

for symptom severity and considered scores of 0-1 to indicate mild to no interference and scores of 2-4 to indicate moderate to severe impairment in functioning. If this method was applied to each item and the total score tallied, a range of 0-10 would indicate mild and scores of 20-40 would indicate moderate to severe. This is consistent with this study. Some authors considered scores ≤ 8 on the Y-BOCS as representing complete symptom remission (Sousa, Isolan, Oliveira, Manfro, Cordioli, 2006); however, others stated that symptom remission implies that symptoms are no more than mild (Tolin, Abramowitz, & Diefenbach, 2005). This would then identify mild scores as very close to those identified in this study.

The Positive and Negative Syndrome Scale (PANSS). Kay, Fiszbein, and Opler (1987) developed the Positive and Negative Syndrome Scale (PANNS; Appendix G), to be completed by trained interviewers to evaluate positive and negative symptoms of schizophrenia and associated syndromes. The goal was to include items that best represented positive and negative features and to exclude others, such as attentional disorders, which may actually be secondary to other symptoms (Peralta & Cuesta, 1994). The authors reported that the PANNS has good interrater reliability (the internal coefficients for the positive, negative, and general psychopathology scales were 0.74, 0.69, and 0.64, respectively); adequate construct validity, high internal reliability (α coefficients for the positive, negative, and general psychopathology scales of 0.80, 0.82, 0.82, respectively); appropriate test-retest reliability (correlations were $r = .37$ and $r = .43$ for the positive negative scale, respectively); and external

validity (Bell, Milstein, Beam-Goulet, Lysaker, & Cicchetti, 1992; Kay et al., 1987; Kay, Opler, & Fiszbein, 1986; Kay & Singh, 1989).

The PANNS consists of thirty items, based on a 7-point scale; 1= absent, 2=minimal, 3=mild, 4=moderate, 5=moderate/severe, 6= severe and 7= extreme (Muller et al., 1998). This scale contains four subscales, the positive score based on items P1-P7, the negative score based on items N1-N7, the general psychopathology scale based on G1-G16 and the composite scale which is determined by subtracting the negative score from the positive score. Scores on the composite scale range from -42 to 42. The composite scale provides information regarding the predominance of positive and negative symptoms. Summing the negative and positive subscales and the general psychopathology scale provide the total score. Scores range from 30 to 210. (Muller, et al., 1998). For the purposes of this study the total scores were collapsed into three categories: mild, moderate, and severe symptoms. The possible range of scores was 30-210, and these categories were determined by taking the total possible score and dividing it into thirds. Total scores of 30 were not used because they would indicate no symptoms in any area. The range of scores for mild then became 31-90; moderate, 91-150; and severe, 151- 210. Charabawi, Lasser, Bossie, Zhu, and Amador (2006) recommended using these ranges when they studied insight and its relationship to clinical outcomes. They measured item G12 using scores of 1-2 = no impairment; 3-4 = mild to moderate impairment; and 5-7 = severe impairment. Had this categorization been applied to each item and then to the total scores, the range of severity would appear very similar to that

used in this study. Moller et al. (2005) also offered support when they identified a total PANSS score of 30 as representing no symptoms and considered a score of 158 as representing those with a severe illness. Both of these scores fall within the ranges of the same severity assigned to this study.

Data Analysis and Preparation

The Statistical Package for Social Sciences (SPSS) student version 13.0 (SPSS Inc., 2004) was used to summarize the data and run the planned descriptive and inferential statistics. Descriptive statistics were used to summarize the demographic data (age in years, gender, employment status, marital status, and level of education) for each of the three groups taken from the two regional studies and to summarize the scores on the key dependent variables (MES, HS, and SES). Frequencies, percentages, and ranges were used to summarize discrete data, and means and standard deviations were used to summarize continuous data.

The Chi-square procedure was used to compare groups on categorical data. The student t-test or analysis of variance procedures were used to make group comparisons on continuous variables.

The first objective was to compare the demographic characteristics of three groups drawn from two regional studies (individuals with OCD, a first episode of schizophrenia, or mixed psychiatric disorders) with demographic data drawn for the year closest to the year in which the regional data were collected from Statistics Canada (1995-2005). The variables available for comparison from Statistics Canada were employment status, marital status, and level of education.

National data rather than provincial data were used for comparison because the former were more consistently collected across all of the variables. Only data on single marital status can be compared because data on marriage, common-law, divorced, and separated status were collected differently in this study than those collected by Statistics Canada.

The second objective was to compare individuals with OCD with two reference groups (patients with mixed psychiatric disorders and patients with first-episode schizophrenia) on measures of engulfment, hopelessness, and self-efficacy. The mean scores of the three diagnostic groups on the MES and HS were compared using an ANOVA. The mean scores on the SES were available only for the OCD and the MIXED group for comparison.

The third objective was to compare individuals with OCD and schizophrenia on measures of symptom severity. The raw total scores for the symptom severity scales (the PANNS for the schizophrenia group and the Y-BOCS for the OCD group) were first collapsed into three categories (mild, moderate, and severe symptoms). The results of categorization were then compared using frequencies and percentages.

Ethical Issues

Both studies from which data were used were approved by a university-based Human Research Ethics Review Board. Before data analysis began, ethical approval was obtained from the Health Research Ethics Board at the University of Alberta. Each participant had been informed about the study and had signed a consent form to participate. Anonymity was maintained by having

the data collected by individuals who were not involved in the participants' treatment. There was no access to any unique identifying information on any subjects from the two previous studies, which further ensured anonymity.

The confidentiality of the participants' names was maintained, and their names did not appear on any research forms or instruments. All participants were assigned a code number, which was the only identifying information that appeared on the research forms or instruments. Neither their names nor any identifying data appeared on any subsequent papers or documents that resulted from the data analyses. The data were kept in a locked cabinet in the office of one of the principal investigators.

Written informed consent had been obtained from the subjects prior to their participation in the study. They had been informed that they were free to withdraw from the study at any time and that the decision to withdraw would not affect their treatment.

CHAPTER 4:

FINDINGS

In this chapter the demographic and clinical characteristics of the study cohorts are summarized. Then the results of comparisons of the demographic characteristics of the groups drawn from the regional studies are presented, followed by a comparison of the demographic characteristics of the regional versus the national data for the three groups. Using the regional data, the group comparisons on engulfment, hopelessness, and self-efficacy are put forward. Finally, the results of comparisons on symptom severity for the OCD and the patients with schizophrenia are summarized.

Characteristics of the Study Cohorts

Demographic Characteristics of Groups

One of the two regional studies provided a data set for a convenience sample of 29 patients who had visited an outpatient day-treatment program. Of the 29 patients, 10 had a confirmed diagnosis of OCD and 19 were of a mixed DSM diagnosis. The mixed population had diagnoses of mood disorders and adjustment disorders and required ongoing follow-up after being discharged from the inpatient program (K. Hegadoren, personal communication, August 5, 2205).

The second of the two regional studies provided a data set for a convenience sample of 29 patients who had visited a First-Episode Psychosis Clinic in large urban centre. These patients met the diagnostic criteria for schizophrenia, schizophreniform disorder, or schizoaffective disorder. None had any previous psychiatric hospitalization, and none had received antipsychotic

medications or had drug-related psychosis, significant medical illness, or organic brain syndrome.

The Demographic and Clinical Characteristics of the Groups Included in the Regional Studies

The demographic variables of age, gender, employment status, marital status, and level of education for the three regional groups (OCD, MIXED, and SCHIZ) are presented in Table 1. In summary, each group had more female than male participants, except for the SCHIZ group. Other than the OCD group, each group had higher numbers of unemployed participants than employed. All the groups had higher percentages of *single* marital status than either being divorced or married. The majority of the participants had previous education of Grade 12 or higher.

Medications for the OCD and MIXED Group

The clinical variable of *medications prescribed* for the OCD group and the MIXED group are presented in Tables 2 and 3. In comparison to the mixed group, the majority of the OCD group were taking more than one psychotropic medication.

Demographic Comparison of the Regional and National Data

Employment

The results of the Chi-square test on employment showed that in all three groups more than the expected number of individuals were unemployed (Table 4).

Table 1

Demographic Characteristics of Sample by Group

Demographic characteristics	OCD n = 10		MIXED n = 19		SCHIZ n = 29	
Age in years M (SD)	35.60	(8.97)	39.06	(9.74)	26.44	(5.96)
Gender						
Male	3	(30)	8	(42)	17	(59)
Female	7	(70)	10	(53)	12	(41)
Missing case(s)			1			
Employment status f (%)						
Unemployed	5	(50)	12	(63)	20	(69)
Employed	5	(50)	6	(32)	9	(31)
Missing Case(s)			1			
Marital status f (%)						
Married or common law	4	(40)	4	(21)	2	(7)
Separated, divorced	0	(0)	4	(21)	3	(10)
Single	6	(60)	9	(47)	24	(83)
Missing case(s)			2			
Educational status f (%)						
=< 12 years	1	(10)	2	(11)	9	(31)
> 12 years/ =<16	8	(80)	10	(53)	13	(45)
> 16 years	1	(10)	6	(32)	7	(24)
Missing case(s)			2			

Note: OCD = Obsessive Compulsive Disorder Group; MIXED = Mixed Diagnostic Group; SCHIZ = Schizophrenia Group

Table 2

Types of Medications Prescribed for the OCD Group and the MIXED Group

OCD	MIXED	Medication(s)
100	94	% on psychotropic medications
100	72	% on anti-depressants
20	16	% on anti-psychotics
10	22	% on mood stabilizers
40	50	% on anxiolytics
10	11	% on hypnotics
20	22	% on medications other than psychotropics*

Note: OCD = Obsessive Compulsive Disorder Group; MIXED = Mixed Diagnostic Group
* Others include anti-EPS agents, anti-epileptic drugs, thyroid medications, anti-migraine medications, anti-inflammatory medications, and gastro-intestinal stimulants.

Table 3

Number of Medications Prescribed for the OCD Group and the MIXED Group

Number of psychotropic medications prescribed/person	OCD	MIXED
1 medication	30%	38%
2 medications	30%	27%
3 or more medications	40%	27%

Note: OCD = Obsessive Compulsive Disorder Group; MIXED = Mixed Diagnostic Group

Employment

The results of the Chi-square test on employment showed that in all three groups more individuals were unemployed than the expected.

Table 4

Employment as compared to National Norms

Group	Observed N	Expected N*	Residual	Chi- square (a)	df	Asymp. sig.
OCD		*		27.416	1	.000
Employed	5	9.3	-4.3			
Not employed	5	.7	4.3			
MIXED		*		95.266	1	.000
Employed	6	16.7	-10.7			
Not employed	12	1.3	10.7			
SCHIZ		**		178.015	1	.000
Employed	9	27.0	-18.0			
Not employed	20	2.0	18.0			

Note: OCD = Obsessive Compulsive Disorder Group; MIXED = Mixed Diagnostic Group; SCHIZ = Schizophrenia Group

* Statistics Canada, Labor Force Estimates, 1997

** Statistics Canada, Labor Force Survey, 2005

In an analysis of the variable 'education levels' (Table 5), the Chi-square results indicated that differences between the level of education observed and expected were significant at the 0.05 level in each of the three groups. The results indicated that all groups had fewer individuals than expected with '12

years or less education.' The OCD group and the MIXED group, but not the SCHIZ group, had more individuals than expected with 'more than 12 years of education and less than or equal to 16 years of education' and more than the expected number of participants with more than '16 years of education.' With the exception of the SCHIZ group in the category of 'more than 12 years of education or equal to or less than 16 years of education,' all groups had more years of education than the average for the general population. Although all three groups had more participants with 'more than 16 years of education,' the SCHIZ group had a higher percentage of these individuals.

Table 5

Education Level as Compared to National Norms

	OCD			MIXED			SCHIZ		
	≤ 12	>12 ≤ 16	>16	≤ 12	>12 ≤ 16	>16	≤ 12	>12 ≤ 16	>16
Observed N	1	8	1	2	10	6	9	13	7
Expected N	*5.9	3.6	.4	*10.1	6.5	.8	**13.0	14.7	1.3
Residual	-4.9	4.4	.6	-8.7	3.5	.8	-4.0	-1.7	5.7
Chi-square (a)	10.074			42.594			26.581		
Df	2			2			2		
Asymp. sig.	.006			.000			.000		

Note: OCD = Obsessive Compulsive Disorder group, MIXED = Mixed diagnosis group, SCHIZ = Schizophrenic group

Note: OCD = Obsessive Compulsive Disorder Group; MIXED = Mixed Diagnostic Group; SCHIZ = Schizophrenia Group

* Statistics Canada, Census of Population, 1996

** Statistics Canada, Census of Population, 2001

Marital Status

As reported earlier, only the statistics regarding single status could be compared with the Canadian statistics. Differences in percentages indicate that each group had a higher percentage of individuals who were single than the general population had. The SCHIZ group had the highest percentage of difference (Table 6).

Table 6

Marital Status

Group	% single	% single Canadian statistics	% difference
OCD	60	41.7*	18.3
MIXED	47.3	41.7*	5.6
SCHIZ	82.9	41.8**	41.1

Note: OCD = Obsessive Compulsive Disorder Group; MIXED = Mixed Diagnostic Group; SCHIZ = Schizophrenia Group

* Source: Statistics Canada: Population by Marital Status 2001-2005

** Source: Statistics Canada: Marriages by Province and Territory 2004

Comparison of Groups on Engulfment, Hopelessness, and Self-Efficacy

To address the second objective of the study, which was to compare individuals with OCD with two reference groups on measures of engulfment and hopelessness, analysis of variance (ANOVA) and a t-test were used to measure self-efficacy between OCD and one reference group (MIXED).

Modified Engulfment Scale (MES)

The results of the ANOVA showed that there was no significant difference between group means on the MES ($F = 1.884$; $df = 2$; $p = .162$). Total scores of the MES range from 30 to 150, with higher scores indicating higher levels of engulfment. Scores from all of the groups ranged from mild (30-70) to severe (112-150) in clinical terms.

Hopelessness Scale (HS)

The results of the ANOVA showed no significant difference between group means on the HS ($F = 1.709$; $df = 2$; $p = .191$). Possible scores range from 0 to 20, and high scores indicate greater levels of hopelessness. Scores from the OCD group and the MIXED group ranged from none (0) to severe (15-20) in terms of hopelessness rating. The SCHIZ group scores ranged from mild (4-8) to moderate (9-14).

Self-Efficacy Scale (SES)

The results of the t-test showed no significant differences between the OCD and MIXED group mean scores ($t = .737$, $df = 27$, $p = .467$). This held true for the two subscales as well: SES General ($t = .988$, $df = 27$, $p = .332$) and SES Social ($t = -.017$, $df = 27$, $p = .987$). Scores range from 17 to 85. Higher scores indicate high levels of self-efficacy.

Scores from the OCD group and the MIXED group on the total SES ranged from poor to good, with the majority of each group having scores in the moderate range (Table 7). These same results held true for both groups on the General subscale of the SES. Scores for the OCD and MIXED group on the SES

Social subscale also ranged from poor to good; however, the scores for the OCD group were equally split between poor and moderate. The majority of the scores for the MIXED group fell in the moderate category.

Table 7

Summary of Scores of Three Scales by Group

	OCD n = 10		MIXED n = 19		SCHIZ n =29	
Scale	(M ± SD)	Range	(M ± SD)	Range	(M ± SD)	Range
Modified Engulfment Scale	82.30 ± 22.68	46-124	92.15 ± 24.23	51-129	79.75 ± 20.03	33-116
Hopelessness Scale	5.70 ± 4.32	0-15	8.68 ± 6.54	0-20	6.94 ± 5.11	1-14
Self-Efficacy Scale						
Total	50.50 ± 12.57	29-74	46.68 ± 13.57	25-74		
General Subscale	39.10 ± 9.76	23-51	34.84 ± 11.61	17-58		
Social Subscale	11.40 ± 3.47	6-17	11.42 ± 3.11	7-18		

Note: OCD = Obsessive Compulsive Disorder Group; MIXED = Mixed Diagnostic Group; SCHIZ = Schizophrenia Group

Scores from the OCD group and the MIXED group on the total SES ranged from poor (18-40) to good (64-85). Scores from the OCD group on the SES general subscale ranged from moderate (22-43) to good (44-65); no subjects reported poor (1-21) general SES. The MIXED group scores ranged from *poor* (1-21) to *good* (44-65).

Scores from the OCD group on the social subscale of the SES ranged from poor (1-6) to good (14-20); the MIXED group all reported moderate (7-13) and good (14-20) social SES.

The percentages of participants assigned to mild, moderate, and severe categories based on raw scores for the MES and HS are reported by group in Tables 8 and 9, respectively. The percentages of participants assigned to good, moderate, and poor categories based on raw scores for the SES total, the SES General subscale, and the SES Social subscale for the OCD and MIXED groups are reported in Tables 10, 11 and 12, respectively.

Table 8

MES Severity as a Function of Disorder Group

Severity score	OCD %	MIXED %	SCHIZ %
Mild	30	26.3	24.1
Moderate	60	47.4	72.4
Severe	10	26.3	3.2

Note: Mild = 30-70; Moderate = 71-111; Severe = 112-150; OCD = Obsessive Compulsive Disorder Group; MIXED = Mixed Diagnostic Group; SCHIZ = Schizophrenia Group

Table 9

HS Severity as a Function of Disorder Group

Severity score	OCD %	MIXED %	SCHIZ %
None	40	31.6	13.1
Mild	40	21.1	37.9
Moderate	10	26.3	31
Severe	10	21.1	0

Note: None = 0-3; Mild = 4-8; Moderate = 9-14; Severe = 15-20; OCD = Obsessive Compulsive Disorder Group; MIXED = Mixed Diagnostic Group; SCHIZ = Schizophrenia Group

Table 10

SES (Total Score) Severity as a Function of Disorder Group

Severity score	OCD %	MIXED %
Poor	20	31.6
Moderate	60	57.9
Good	20	10.5

Note: Poor = 17-39; Moderate = 40-62; Good = 63-85; OCD = Obsessive Compulsive Disorder Group; MIXED = Mixed Diagnostic Group

Table 11

SES (General Subscale) as a Function of Disorder Group

Severity score	OCD %	MIXED %
Poor	20	36.8
Moderate	50	52.6
Good	30	10.5

Note: Poor = 13-30; Moderate = 31-48; Good = 46-65;
OCD = Obsessive Compulsive Disorder Group;
MIXED = Mixed Diagnostic Group

Table 12

SES (Social Subscale) as a Function of Disorder Group

Severity score	OCD %	MIXED %
Poor	40	31.6
Moderate	40	52.6
Good	20	15.8

Note: Poor = 4-9; Moderate = 10-15; Good = 16-20;
OCD = Obsessive Compulsive Disorder Group;
MIXED = Mixed Diagnostic Group

Comparison of the OCD and SCHIZ Groups on Symptom Severity Scale

To make comparisons on the symptom severity scales, the range of each scale was broken into thirds; each third represents a different category of severity.

Setting aside the missing cases in the OCD group, the majority of participants reported symptoms of severe (80%), and only 20% rated their symptoms as mild in severity on the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) scale (Table 13). All of the participants with schizophrenia reported symptoms of mild severity on the Positive and Negative Syndrome Scale (PANSS).

Table 13

Symptom Severity for OCD and Schizophrenia Groups

	OCD Y-BOCS N = 10	SCHIZ PANSS N = 29
Mean ± S.D.	20.80 ± 6.76	49.98 ± 9.76
Range	9-28	49.98 ± 9.76
Symptom severity: Mild f (%)	1 20%	29 100%
Symptom severity: Moderate f (%)		0 0%
Symptom severity: Severe f (%)	4 80%	0 0%
Missing cases	5	0

Note: Y-BOCS = Yale-Brown Obsessive Compulsive Scale; PANNS = Positive and Negative Syndrome Scale; Y-BOCS scores: Mild = 1-13; Moderate = 14-26; Severe = 27-40; PANSS scores: Mild = 31-90; Moderate = 91-150; Severe = 151-210; OCD = Obsessive Compulsive Disorder Group; SCHIZ = Schizophrenic Group

CHAPTER 5:

DISCUSSION

In this chapter the demographic and clinical characteristics of the sample and the key findings for each of the study objectives are discussed in relation to the current literature. This is followed by a summary of the limitations of this study. Finally, the implications of the study for nursing practice and research are then highlighted.

Demographic and Clinical Characteristics of the sample by Group

The demographic characteristics of the OCD sample in this study are similar to those in previous reports of the demographic variables of age (Besiroglu, Cilli, & Askin, 2004; Kryzhanovskaya & Canterbury, 2001; Sorenson, Kirkeby, & Thomsen, 2004), gender (Sorenson et al., 2004), employment (Besiroglu et al., 2004; Sorenson et al., 2004; Stewart et al., 2004), marital status (Bellodi et al., 1992; Besiroglu et al., 2004; Koran et al., 1996), and level of education (Stewart et al., 2004).

The medications that this sample of OCD participants used was similar to those of the participants in other studies. Psycopharmacological treatment was the most widespread form of treatment (Sorenson et al., 2004). Of these, antidepressants were the most common drug prescribed (88%), with augmentation by antipsychotic medications (8.2%), benzodiazepines (5.9%), and hypnotics (0.5%). "The gold-standard pharmacological treatment for OCD is a 10-12 week trial with clomipramine or an SSRI in adequate doses" (Cottraux, Bouvard, & Milliery, 2005, p. 186). It is important to note that the majority of

participants in the OCD group were not on monotherapy, which the literature recommends; rather, 70% were on two or more medications. This may be a result of either a failed or only partial response to monotherapy.

Comparisons of Demographic Characteristics of the Groups with National Data Sets

Compared with national averages, the regional data for all three groups showed a significantly poorer rate of employment. In all three groups a higher percentage of individuals were single and had more years of education than in the general population. In all groups fewer individuals than expected had a Grade 12 or less education; in the OCD and MIXED group more individuals reported higher than Grade 12 and more than 16 years of education. In the SCHIZ group fewer individuals had more than a Grade 12 education but less than 16 years of schooling, however, in this group a larger proportion than average had more than 16 years of schooling. This may be because this convenience sample was drawn from a university-based intervention study, and recruitment garnered participants with some postsecondary education. Given the age that this illness often strikes young men, it is likely that they were partway through their postsecondary education at either the undergraduate or graduate level.

Comparisons of Groups on Engulfment, Hopelessness, and Self-Efficacy

There were no statistically significant group differences on engulfment, hopelessness, or self-efficacy. These results may reflect a true similarity in the

impact of OCD, MIXED, and SCHIZ on these psychosocial constructs. This interpretation is in contrast to the predominant view that schizophrenia is associated with greater disability than are other psychiatric disorders (Mohan, Tandon, Kaira, & Trivedi, 2003). An alternate interpretation is that the lack of significant findings may be a result of the lack of power required to capture true group differences on these constructs. The sample sizes in this study were small. Also, lack of group differences may have resulted from group differences on an important unmeasured intervening variable. The regional data sets were collected using convenience sampling techniques. Replication of this study using larger samples and random sampling techniques is required to determine if group differences do exist on measures of engulfment, hopelessness, and self-efficacy.

Unfortunately, no recent studies on these constructs in relation to OCD could be found. This study presents new findings to be added to the literature, and it fills a vital gap in knowledge on OCD. In light of the gap, the literature considered other related constructs, such as QoL, self-esteem, levels of functioning, treatment response, and wellness.

Modified Engulfment Scale (MES)

The majority of the OCD participants reported moderate levels of engulfment. This could be accounted for by the fact that other studies found that individuals with OCD are often concerned with reconciling the meaning of their symptoms with their sense of self and with how others might view them. Engulfment may be particularly pertinent for persons with OCD because they often feel immense shame over their symptoms. They strongly link their self-

worth to other people's views of them and are more likely to believe that others will make extremely negative and critical judgments of them (Ehntholt et al., 1999).

Engulfment affects OCD patients with a sense of life roles; often they feel that that they can no longer fulfill their roles to their satisfaction. Social functioning and role limitations are the parameters that show the greatest impairment in OCD patients compared to the general population (Besiroglu et al., 2004). Five studies reported high levels of social/peer problems, isolation, and difficulties maintaining employment (Stewart et al. 2004). Bobes et al. (2001) stated that "OCD is severe and disabling illness which is frequently associated with considerable psychological handicaps and reduced quality of life comparable to those with psychotic disorders" (p. 121). Results of the current study supported this view.

Hopelessness Scale (HS)

Scores from the OCD group spanned the entire range on the HS scale. Some individuals may experience more hopelessness because of the chronic nature of this illness. Unfortunately, the length of the illness was not a variable identified in this study. Hope and hopelessness have been recognized as important concepts in understanding a response to chronic illness (Carson, Soeken, Shanty, & Terry, 1990; Deegan, 1988; Miller, 1983; Rideout & Montemuro, 1986). Patients with OCD, like those with schizophrenia, may become demoralized, lose hope, and lead progressively more restricted lives (Estroff, 1989). Poor satisfaction with care and diminished life functioning are tied

to hopelessness. As the degree of perceived hopelessness increases, the less the individual is able to participate in work, relationships, and activities of daily living (Morris et al., 2005).

Despite recent treatment success, complete remission is not common, and OCD symptoms frequently persist (Ackerman & Greenland, 2002). According to Rufer et al. (2005), those with chronic OCD have rarely received effective treatment. This can be the underlying reason that patients with OCD experience hopelessness.

Poor quality of life may be another underlying reason for varying levels of hopelessness. Patients with OCD have significantly poorer quality of life than community comparison cohorts (as cited in Rapaport, Clary, Fayyad, & Endicott, 2005).

Self-Efficacy Scale (SES)

Scores from the OCD group on the total SES and on both subscales indicated symptoms in the moderate category. Self-efficacy has been defined as "one's estimate of one's fundamental ability to cope, perform and be successful" (Judge & Bono, 2001, p. 80). The definitions of self-efficacy reflect an underlying principle that the performance of specific activities is strongly influenced by an individual's beliefs about his or her ability to perform the behavior. When individuals are experiencing an illness, stronger self-efficacy beliefs are suggested by their ability to set higher goals, demonstrate greater resolve, and expend more effort and are indicative of a lower likelihood of being dissuaded by difficulties that they may encounter (Conn, 1998).

The reasons for poor SES Social scores may be attributed to perceptions of social functioning. Consider that when 219 respondents reported on the impact of OCD on their social functioning (Sorenson, Kirkeby, & Thomsen, 2004), they stated that poor social functioning (72%) dominated their symptoms. These results imply that the ability to complete tasks and manage their illness was seriously compromised. This would affect their perceptions about their ability to problem-solve and overcome adversity.

Comparisons of the OCD and SCHIZ Groups on Symptom Severity

Yale-Brown Obsessive Compulsive Scale (Y-BOCS)

The mean from this study's data fell in the moderate range of symptom severity. Other studies supported this severity rating if the same scores are used for each category (Atmaca, Kuloglu, Tezcan, & Gecici, 2002; Besiroglu, et al., 2004; Denys, Burger, van Megen, de Geus, & Westenburg, 2003; Denys, van der Wee, van Megen, & Westenburg, 2003).

Positive and Negative Syndrome Scale (PANSS)

The mean from this study's data fell in the mild range of symptom severity. By contrast, mean scores from other studies were higher (Gharabawi et al. 2006; Moller et al., 2005; Ciliberto, Bossie, Urioste, & Lasser, 2005). Perhaps the reason for the lower mean was the brevity of the illness of the participants in this study. The deficits in cognition and social functioning are less frequently seen at the first episode of illness (McGorry et al., 1992). Those initially diagnosed are demoralized but still function relatively well. A decline in functioning is apparent

over the course of illness exacerbations (Bilder et al., 1991), whereas it is likely that the OCD group experienced chronic symptoms because it has been well established that individuals with OCD often take many years to be diagnosed and then treated.

Limitations of the Study

This study has a number of limitations that may affect the generalization of the results: (a) The sample sizes of the OCD and mixed diagnostic groups are small; (b) convenience sampling has been used in the selection of all of the groups; however, this is the most frequently used sampling in studying populations with mental health illness; and (c) the use of the MES has been empirically validated only with a group of patients with schizophrenia.

Implications of the Findings

The lack of statistically significant differences in the results from the three groups on the psychological tools may have more to do with any kind of mental illness and less with a specific diagnosis. The results may also be more reflective of moderators such as duration of illness, personal resources, coping style, personality features and treatment response all of which were not assessed in this study. It was interesting to note that moderate levels of engulfment and self-efficacy do not necessarily lead to significant hopelessness. This suggests that interventions targeting engulfment and self-efficacy will not necessarily address issues of hopelessness.

Implications for Nursing Practice and Research

As the limitations of biomedical indicators of health have been recognized, other indicators such as psychological health, level of independence, social relationships, personal beliefs, and relationship to relevant features in an individual's environment have become recognized as critical to meeting the needs of clients with OCD (Besiroglu et al., 2004). Psychosocial functioning is an important but often neglected aspect of treatment outcome studies for mental illnesses (Stewart, Stack, Farrell, Pauls, & Jenike, 2005). There is an increasing agreement among health care providers and consumers that the scope of assessments should include broader dimensions such as role functioning and quality of life. This means that successful treatment must go beyond improving signs and symptoms to address the broader issue of restoration of health (Rapaport et al., 2005).

"Critical to success in self-management of health behavior is having experiences of mastery over desired tasks" (Cutler, 2005, p. 284). Measuring self-efficacy may provide information pertinent to the motivation to follow a treatment plan and therefore the vulnerability to relapse (Peraud, 2000). To address self-efficacy, nurses could design education programs to enhance self-efficacy with a focus on strategies to help patients gain support from others and provide support to others, as well as strategies to strengthen confidence and belief in one's own abilities, role function, social integration, and adaptation to community upon release from hospital (Cutler, 2005).

In regard to hopelessness, providing nursing care that maximizes hope is important in assisting patients overcome any learned helplessness. This can assist patients in building realistic illness-management strategies (Morris et al., 2005). Strategies include helping patients to identify reasons for living and facilitating their involvement in decision making (de Sales, 2005).

In general, a treatment approach that teaches patients coping skills to reduce the physical, psychological, social, and economic consequences of their illnesses could greatly enhance patient outcomes. Treatment strategies should also include assisting patients in strengthening their professional, social, and familial supports, which are protective factors against mental illness in general or relapse more specifically. These strategies may also assist patients in being more hopeful about recognizing early warning signs of relapse and then making reasonable decisions regarding managing their symptoms (Morris et al., 2005).

With regard to engulfment, McKay (2006), is developing an intervention strategy to decrease the risk of chronicity. Overall, the goal of the group is to resist engulfment through the process of psychological adjustment and prevention of secondary trauma that may arise from this illness. Strategies include exploring and accepting the individual's perceived meaning of the illness experience; reinforcing attempts to regain mastery, control, and self-esteem; and confirming self-attributes not necessarily associated with the illness.

Assessments of the range of mental disorders on multiple measures such as QoL and functional impairment are needed (Rapaport et al., 2005). Stewart et al. (2004) specified that their "findings regarding psychosocial outcome

suggest that multiple criteria are important when measuring outcome of OCD" (p. 11). The use of pertinent standardized psychosocial and functional tools would be an asset for the assessment and treatment of all mental illnesses.

The information garnered from this preliminary descriptive study could be useful in providing some direction for further research on the broad impact of OCD on the lives of those with OCD and of their families. Data on constructs related to the impact can be used to develop and test conceptual frameworks that explain the relationship between health and OCD. A greater understanding of the full impact of OCD on individuals can lead to more targeted psychotherapeutic interventions and social-support strategies. The future development of these interventions can focus on defining self beyond the illness and building hope. Studies such as this can also provide data to assist in developing outcome measures (Massion, Warshaw, & Keller, 1993). Replication of studies using these variables is important, as well as using random sampling techniques when possible to provide generalizability of study findings to OCD populations.

Conclusions

In keeping with a more global definition of health, investigations into the impact of specific illnesses need to include a multidimensional assessment of health outcomes and contributing personal factors. Broad-based QoL instruments have been used to investigate the functional day-to-day impact of illness. However, they do not capture the more personal impact of illness on beliefs about self and perceptions about the degree to which one is managing the

collective illness "load." Data from this study can add to our recognition that OCD is a serious mental disorder with a far-reaching impact on the individual's internal sense of mastery and worth.

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APPENDIX A:

OBSESSIVE COMPULSIVE DISORDER DIAGNOSTIC CRITERIA

Appendix A: Obsessive Compulsive Disorder Diagnostic Criteria

A. Either obsessions or compulsions

Obsession as defined by (1), (2), (3), and (4):

(1) recurrent and persistent thoughts, impulses, or image that are experienced, at some time during the disturbance, as intrusive and inappropriate and that cause marked anxiety or distress

(2) the thoughts, impulses, or images are not simply excessive worries about real-life problems

(3) the person attempts to ignore or suppress such thoughts, impulses, or images, or to neutralize them with some other thought or action

(4) the person recognizes that the obsessional thoughts, impulses, or images are a product of her own mind (not imposed from without as in thought insertion)

Compulsions as defined by (1) and (2):

(1) repetitive behaviors (e.g., handwashing, ordering, checking) or mental acts (e.g., praying, counting, repeating words silently) that the person feels driven to perform in response to an obsession, or according to rules that must be applied rigidly

(2) the behaviors or mental acts are aimed at preventing or reducing distress or preventing some dreaded event or situation; however, these behaviors or mental acts either are not connected in a realistic way with what they are designed to neutralize or prevent or are clearly excessive

B. At some point during the course of the disorder, the person has recognized that the obsessions or compulsions are excessive or unreasonable. **Note:** This does not apply to children.

C. The obsessions or compulsions cause marked distress, are time consuming (take more than 1 hour a day), or significantly interfere with the person's normal routine, occupation (or academic) functioning, or usual activities or relationships.

D. If another Axis I disorder is present, the content of the obsessions or compulsions is not restricted to it (e.g., preoccupation with food in the presence of an Eating Disorder; hair pulling in the presence of Trichotillomania; concern with appearance in the presence of Body Dysmorphic Disorder; preoccupation with drugs in the presence of a Substance Using Disorder; preoccupation with having a serious illness in the presence of Hypochondriasis; preoccupation with sexual urges or fantasies in

the presence of Paraphillia; or guilty rumination in the presence of Major Depressive Disorder).

E. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Specify if:

With Poor Insight: if, for most of the time during the current episode, the person does not recognize that the obsessions and compulsions are excessive or unreasonable.

(APA, 2000, pp. 217-218)

APPENDIX B:

VALIDITY STUDIES

Appendix B: Validity Studies

Intervention Study

Purpose. The purpose of the intervention study was to evaluate the impact of a new group intervention on engulfment and the development of the negative syndrome.

Design. It was a randomized control study to compare results between subjects receiving the experimental intervention plus treatment as usual and subjects receiving just the usual treatment in the First Episode Psychosis Clinic.

Sample. A homogenous convenience sample of 29 patients diagnosed with schizophrenia was recruited from the First Episode Psychosis Program of a large urban center. Criteria for eligibility included schizophrenia, schizophreniform disorder or schizoaffective disorder, an ability to read, speak and comprehend English. Subjects did not have any previous psychiatric hospitalizations and had not received antipsychotic medication for more than six weeks prior to hospitalization. Exclusion criteria included Drug Related Psychosis, Significant Medical illness and/or Organic Brain Syndrome.

Procedures. Outcome measures were completed at pre-intervention, immediately post-intervention, three months post-intervention and one year post-intervention. Outcome measures for this study included; The Hopelessness Scale; The Modified Engulfment Scale; The Coping Inventory for Stressful Situations – Situation Specific; The Impact of Event Scale; Quality of Life Scale and The Positive and Negative Syndrome Scale.

This pilot study was completed in 2005 by Dr. Elizabeth McCay.

Validity Study

Purpose. McCay and Hegadoren (1997) proposed a pilot project to examine preliminary data regarding the construct validity of the Modified Engulfment Scale in an OCD patient population. The results would be compared with another clinical population. ***Design.*** It was a descriptive comparison study. ***Sample.*** A clinical sample of 65 subjects was sought from patients who were attending an outpatient day-treatment program. There were no exclusion criteria; all participants in the outpatient program were invited to participate. However, the project was terminated prematurely because of researcher relocation. Of the 29 recruited, 10 had a confirmed diagnosis of OCD and 19 were of a mixed DSM diagnosis. The mixed population had diagnoses of mood disorders and adjustment disorders who required ongoing intensive follow up after being discharged from the inpatient program (K. Hegadoren, personal communication, August 5, 2005).

Procedures. All participants were administered questionnaires to measure engulfment, self-efficacy, and hopelessness. In addition, a specific symptom severity scale for OCD was used for the subset of outpatients with OCD.

APPENDIX C:

THE MODIFIED ENGULFMENT SCALE

Appendix C: The Modified Engulfment Scale

This questionnaire will help us understand how you feel about yourself in relation to your illness. Please read each statement carefully and record your answer as directed. Place an X in the box that best reflects how TRUE or FALSE each statement is for you. The choices are as follows:

	Completely False (1)	Usually False (2)	Sometimes True and Sometimes False (3)	Usually True (4)	Completely True (5)
1. I get along as well as most people do.					
2. Because of my illness, I can't do things for myself the way other people can.					
3. In my opinion, I am mentally ill.					
4. I expect to be well in the future.					
5. I will never be the person I was before my psychiatric illness began.					
6. At some point in time I will not need psychiatric medication.					
7. I am well enough to be discharged today from psychiatric care.					
8. To be really well, I will have to go through a change in myself.					
9. Right now, I am no longer the person I was before getting ill.					
10. "Once a mental patient, always a mental patient".					
11. I will probably need to be hospitalized again.					
12. My mind is normal.					
13. Friends and family see me as just a "mental patient".					
14. I am often depressed because of my illness.					
15. I am basically the same person I was before I became ill.					

	Completely False (1)	Usually False (2)	Sometimes True and Sometimes False (3)	Usually True (4)	Completely True (5)
16. I can only be friends with other psychiatric patients.					
17. Once having been hospitalized for psychiatric problems there is a good chance of it happening again.					
18. I believe I am more anxious and nervous than most other psychiatric patients					
19. My illness keeps me from having close friends.					
20. I am afraid of losing my mind.					
21. I will always be different from others because of my psychiatric illness.					
22. I will always have to take psychiatric medicine.					
23. I will be able to find work in the future.					
24. There is something wrong with my mind.					
25. Sometime in the future I will earn enough money to buy more of the things I want.					
26. I am healthy in my body and mind.					
27. It is good for me to stay in hospital for a long time.					
28. There are many things I used to be able to do that I can't do now.					
29. I am damaged as a person by my illness.					
30. I can look forward to being married or having a steady partner.					

(McCay, 1994)

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE!

APPENDIX D:

THE HOPELESSNESS SCALE

Appendix D: The Hopelessness Scale

For each question listed below please circle true or false.

1. I look forward to the future with hope and enthusiasm.	T	F
2. I might as well give up because I can't make things better for myself.	T	F
3. When things are going badly, I am helped by knowing that they can't stay that way forever.	T	F
4. I can't imagine what my life would be like in 10 years	T	F
5. I have enough time to accomplish the things I most want to do.	T	F
6. In the future, I expect to succeed in what concerns me most.	T	F
7. My future seems dark to me.	T	F
8. I expect to get more of the good things in life than the average person.	T	F
9. I just don't get the breaks, and there's no reason to believe I will in the future.	T	F
10. My past experiences have prepared me well for my future.	T	F
11. All I can see ahead of me is unpleasantness rather than pleasantness.	T	F
12. I don't expect to get what I really want.	T	F
13. When I look ahead in the future, I expect I will be happier than I am now.	T	F
14. Things just won't work out the way I want them to.	T	F
15. I have great faith in the future.	T	F
16. I never get what I want so it's foolish to want anything.	T	F
17. It is very unlikely that I will get any real satisfaction in the future.	T	F
18. The future seems vague and uncertain to me.	T	F

19. I can look forward to more good times than bad times.	T	F
20. There's no use in really trying to get something I want because I probably won't get it.	T	F

(Beck et al., 1974)

APPENDIX E:

THE SELF-EFFICACY SCALE

Appendix E: The Self-Efficacy Scale

This questionnaire is a series of statements about your personal attitudes and traits. Each statement represents a commonly health belief. Read each statement and decide to what extent it describes you. There are no right or wrong answers. You will probably agree with some of the statements and disagree with others.

Please indicate your personal feelings about each statement below by circling the choice that best describes your attitude or feeling. Please be very truthful and describe yourself as you really are, not as you would like to be.

	Disagree strongly (1)	Disagree somewhat (2)	Neutral (3)	Agree somewhat (4)	Agree strongly (5)
1. I like to grow house plants.					
2. When I make plans, I am certain I can make them work.					
3. One of my problems is that I cannot get down to work when I should.					
4. If I can't do a job the first time, I keep trying until I can.					
5. Heredity plays the major role in determining one's personality.					
6. It is difficult for me to make new friends.					
7. When I set important goals for myself, I rarely achieve them.					
8. I give up on things before completing them.					
9. I like to cook.					
10. If I see someone I would like to meet, I go to that person instead of waiting for him or her to come to me.					
11. I avoid facing difficulties.					
12. If something looks too complicated, I will not even bother to try it.					
13. There is some good in everybody.					
14. If I meet someone interesting who is very hard to make friends with, I'll soon stop trying to make friends with that person.					

	Disagree strongly (1)	Disagree somewhat (2)	Neutral (3)	Agree somewhat (4)	Agree strongly (5)
15. When I have something unpleasant to do, I stick to it until I have finished it.					
16. When I decide to do something, I go right to work on it.					
17. I like science.					
18. When trying to learn something new, I soon give up if I'm not initially successful.					
19. When I'm trying to become friends with someone who seems uninterested at first, I don't give up very easily.					
20. When unexpected problems occur, I don't handle them well.					
21. If I were an artist, I would like to draw children.					
22. I avoid trying to learn new things when they look too difficult for me.					
23. Failure just makes me try harder.					

(Sherer et al., 1982)

APPENDIX F:

YALE-BROWN OBSESSIVE COMPULSIVE SCALE (9/89)

Appendix E: Yale-Brown Obsessive Compulsive Scale (9/89)

Y-BOCS Total (add items 1-10) ____

Patient Name_____ Date_____

Patient ID _____ Rater_____

---

1. Time spent on obsessions	None (0)	Mild (1)	Moderate (2)	Severe (3)	Extreme (4)

1b. Obsession-free interval	No symptoms (0)	Long (1)	Moderately Long (2)	Short (3)	Extremely Short (4)
(Do not add to subtotal or total score)					

2. Interference from obsessions	None (0)	Mild (1)	Moderate (2)	Severe (3)	Extreme (4)
3. Distress from obsessions	None (0)	Mild (1)	Moderate (2)	Severe (3)	Extreme (4)
4. Resistance	Always Resists (0)	(1)	(2)	(3)	Completely Yields (4)
5. Control over obsession	Complete Control (0)	Much control (1)	Moderate control (2)	Little control (3)	No control (4)

Obsession Subtotal (add items 1-5) _____

---

6. Time spent on compulsions	None (0)	Mild (1)	Moderate (2)	Severe (3)	Extreme (4)

6.b. Obsession-free interval	No symptoms (0)	Long (1)	Moderately Long (2)	Short (3)	Extremely Short (4)
(Do not add to subtotal or total score)					

7. Interference from compulsions	None (0)	Mild (1)	Moderate (2)	Severe (3)	Extreme (4)
8. Distress from compulsions	None (0)	Mild (1)	Moderate (2)	Severe (3)	Extreme (4)

9. Resistance	Always Resists (0)	(1)	(2)	(3)	Completely Yields (4)
10. Control over obsessions	Complete Control (0)	Much control (1)	Moderate control (2)	Little control (3)	No control (4)

Compulsion Subtotal (add items 6-10) _____

11. Insight into O-C symptoms (0) (1) (2) (3) (4)	Excellent				Absent
12. Avoidance	None (0)	Mild (1)	Moderate (2)	Severe (3)	Extreme (4)
13. Indecisiveness	None (0)	Mild (1)	Moderate (2)	Severe (3)	Extreme (4)
14. Pathologic responsibility	None (0)	Mild (1)	Moderate (2)	Severe (3)	Extreme (4)
15. Slowness	None (0)	Mild (1)	Moderate (2)	Severe (3)	Extreme (4)
16. Pathologic doubting	None (0)	Mild (1)	Moderate (2)	Severe (3)	Extreme (4)

17. Global Severity	(0)	(1)	(2)	(3)	(4)	(5)	(6)
18. Global Improvement	(0)	(1)	(2)	(3)	(4)	(5)	(6)

19. Reliability Excellent = 1 Good = 1 Fair = 2 Poor = 3

(Goodman, Price, Rasmussen, Mazure, Fleischmann, et al., 1989)

APPENDIX G:

THE POSTIVE AND NEGATIVE SYNDROME SCALE

PANNS

Rating Criteria

Positive Scale (P)

P1. Delusions. Beliefs which are unfounded, unrealistic, and idiosyncratic. *Basis for rating:* thought content expressed in the interview and its influence on social relations and behavior as reported by primary care workers or family.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Presence of one or two delusions
4	Moderate	Presence of either a kaleidoscopic array of poorly formed, unstable delusions or if a few well-formed delusions that occasionally interfere with thinking, social relations, or behavior.
5	Moderate Severe	Presence of numerous well-formed delusions that are tenaciously held and occasionally interfere with thinking, social relations, or behavior.
6	Severe	Presence of stable set of delusions which are crystallized, possibly systematized, tenaciously held, and clearly interfere with thinking, social relations, and behavior.
7	Extreme	Presence of a stable set of delusions which are either highly systematized or very numerous, and which dominate major facets of the patient's life. This frequently results in inappropriate and irresponsible actions, which may even jeopardize the safety of the patient or others.

Positive Scale (P)

P2. Conceptual disorganization. Disorganized process of thinking characterized by disruption of goal-directed sequencing, e.g., circumstantiality, tangentiality, loose associations, non sequiturs, gross illogicality, or thought block. *Basis for rating*: cognitive-verbal processes observed during the course of the interview.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Thinking is circumstantial, tangential, or paralogical. There is some difficulty in directing thoughts toward a goal, and some loosening of associations may be evidenced under pressure.
4	Moderate	Able to focus thoughts when communications are brief and structured, but becomes loose or irrelevant when dealing with more complex communications or when under minimal pressure.
5	Moderate Severe	Generally has difficulty in organizing thoughts, as evidenced by frequent irrelevancies, disconnectedness, or loosening of associations even when not under pressure.
6	Severe	Thinking is seriously derailed and internally inconsistent, resulting in gross irrelevancies and disruption of thought processes, which occur almost constantly.
7	Extreme	Thoughts are disrupted to the point where the patient is incoherent. There is marked loosening of associations, which result in total failure of communications, e.g., "word salad' or mutism.

Positive Scale (P)

P3. Hallucinatory behavior. Verbal report or behavior indicating perceptions which are not generated by external stimuli. These may occur in the auditory, visual, olfactory, or somatic realms. *Basis for rating*: verbal report and physical manifestations during the course of interview as well as reports of behavior by primary care workers or family.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	One or two clearly formed but infrequent hallucinations, or else a number of vague abnormal perceptions which do not result in distortions of thinking or behavior.
4	Moderate	Hallucinations occur frequently but not continuously, and the patient's thinking and behavior are affected only to a minor extent.
5	Moderate Severe	Hallucinations are frequent, may involve more then one sensory modality, and tend to distort thinking and/or disrupt behavior. Patient may have delusional interpretation of these experiences and respond to them emotionally and, on occasion, verbally as well.
6	Severe	Hallucinations are present almost continuously, causing major disruptions of thinking and behavior. Patient treats these as real perceptions, and functioning is impeded by frequent emotional and verbal responses to them.
7	Extreme	Patient is almost totally preoccupied with hallucinations, which virtually dominate thinking and behavior. Hallucinations are provided a rigid delusional interpretation and provoke verbal and behavioral responses, including obedience to command hallucinations.

Positive Scale (P)

P4. Excitement. Hyperactivity as reflected in accelerated motor behavior, heightened responsivity to stimuli, hypervigilance, or excessive mood lability. *Basis for rating*: behavioral manifestations during the course of interview as well as reports of behavior by primary care workers or family.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Tends to be slightly agitated, hypervigilant, or mildly overaroused throughout the interview, but without distinct episodes of excitement or marked mood lability. Speech may be slightly pressured.
4	Moderate	Agitation or overarousal is clearly evident throughout interview, affecting speech and general mobility, or episodic outbursts occur sporadically.
5	Moderate Severe	Significant hyperactivity or frequent outbursts or motor activity are observed, making it difficult for the patient to sit still for longer than several minutes at any given time.
6	Severe	Marked excitement dominates the interview, delimits attention, and to some extent affects personal functions such as eating and sleeping.
7	Extreme	Marked excitement seriously interferes in eating and sleeping and makes interpersonal interactions virtually impossible. Acceleration of speech and motor activity may result in incoherence and exhaustion.

Positive Scale (P)

P5. Grandiosity. Exaggerated self-opinion and unrealistic convictions of superiority, including delusion of extraordinary abilities, wealth, knowledge, fame, and moral righteousness. *Basis for rating*: thought content expressed in the interview and its influence on behavior as well as reports of behavior by primary care workers or family.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Some expansiveness or boastfulness is evident, but without clear-cut grandiose delusions.
4	Moderate	Feels distinctly and unrealistically superior to others. Some poorly formed delusions about special status or abilities may be present but are not acted upon.
5	Moderate Severe	Clear-cut delusions concerning remarkable abilities, status, or power are expressed and influence attitude but not behavior.
6	Severe	Clear-cut delusions or remarkable superiority involving more than one parameter (wealth, knowledge, fame, etc.) are expressed, notably influence interactions, and may be acted upon.
7	Extreme	Thinking, interactions, and behavior are dominated by multiple delusions of amazing ability, wealth, knowledge, fame, power, and/or moral stature, which may take on a bizarre quality.

Positive Scale (P)

***P6.* Suspiciousness/persecution**. Unrealistic or exaggerated ideas of persecution, as reflected in guardedness, a distrustful attitude, suspicious hypervigilance, or frank delusions that others mean one harm. *Basis for rating:* thought content expressed in the interview and its influence on behavior as reported by primary care workers or family.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Presents a guarded or even openly distrustful attitude, but thoughts, interactions, and behavior are minimally affected.
4	Moderate	Distrustfulness is clearly evident and intrudes on the interview and/or behavior, but there is no evidence of persecutory delusions. Alternatively, there may be indication of loosely formed persecutory delusions, but these do not seem to affect the patient's attitude or interpersonal relations.
5	Moderate Severe	Patient shows marked distrustfulness, leading to major disruptions on interpersonal relations, or else there are clear-cut persecutory delusions that have limited impact on interpersonal relations and behavior.
6	Severe	Clear-cut pervasive delusions of persecution which may be systematized and significantly interfere in interpersonal relations.
7	Extreme	A network of systematized persecutory delusions dominates the patient's thinking, social relations, and behavior.

Positive Scale (P)

P7. Hostility. Verbal and nonverbal expressions of anger and resentment, including sarcasm, passive-aggressive behavior, verbal abuse, and assaultiveness. *Basis for rating:* interpersonal behavior observed during the interview and reports by primary care workers or family.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Indirect or restrained communication of anger, such as sarcasm, disrespect, hostile expressions, and occasional irritability.
4	Moderate	Presents an overt hostile attitude, showing frequent irritability and direct expressions of anger and resentment.
5	Moderate Severe	Patient is highly irritable and occasional verbally abusive or threatening.
6	Severe	Uncooperativeness and verbal abuse or threats notably influence the interview and seriously impact upon social relations. Patient may be violent and destructive but is not physically assaultive toward others.
7	Extreme	Marked anger results in extreme uncooperativeness, precluding other interactions, or in episodes(s) of physical assault toward others.

Negative Scale (N)

N1. Blunted Affect. Diminished emotional responsiveness as characterized by a reduction in facial expression, modulation of feelings, and communicative gestures. *Basis for rating:* observation of physical manifestations of affective tone and emotional responsiveness during the course of the interview.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Changes in facial expression and communicative gestures seem to be stilted, forced, artificial, or lacking in modulation.
4	Moderate	Reduced range of facial expression and few expressive gestures result in a dull appearance.
5	Moderate Severe	Affect is generally "flat" with only occasional changes in facial expression and a paucity of communicative gestures.
6	Severe	Marked flatness and deficiency of emotions exhibited most of the time. There may be unmodulated extreme affective discharges, such as excitement, rage, or inappropriate laughter.
7	Extreme	Changes in facial expression and evidence of communicative gestures are virtually absent. Patient seems constantly to show a barren or "wooden" expression.

Negative Scale (N)

N2. Emotional withdrawal. Lack of interest in, involvement with, and affective commitment to life's events. *Basis for rating:* reports of functioning from primary care workers or family and observation of interpersonal behavior during the course of the interview.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Usually lacks initiative and occasionally may show deficient interest in surrounding events.
4	Moderate	Patient is generally distanced emotionally from the milieu and its challenges, but, with encouragement, can be engaged.
5	Moderate Severe	Patient is clearly detached emotionally from persons and events in the milieu, resisting all efforts at engagement. Patient appears distant, docile, and purposeless but can be involved in communication at least briefly and tends to personal needs, sometimes with assistance.
6	Severe	Marked deficiency of interest and emotional commitment results in limited conversation with others and frequent neglect of personal functions, for which the patient requires supervision.
7	Extreme	Patient is almost totally withdrawn, uncommunicative, and neglectful of personal needs as a result of profound lack of interest and emotional commitment.

Negative Scale (N)

N3. Poor Rapport. Lack of interpersonal empathy, openness in conversation, and sense of closeness, interest, or involvement with the interview. This is evidenced by interpersonal distancing and reduced verbal and nonverbal communication. *Basis for rating:* interpersonal behavior during the course of the interview.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Conversation is characterized by a stilted, strained, or artificial tone. It may lack emotional depth or tend to remain on an impersonal, intellectual plane.
4	Moderate	Patient typically is aloof, with interpersonal distance quite evident. Patient may answer questions mechanically, act bored, or express disinterest.
5	Moderate Severe	Disinvolvement is obvious and clearly impedes the productivity of the interview. Patient may tend to avoid eye or face contact.
6	Severe	Patient is highly indifferent, with marked interpersonal distance. Answers are perfunctory, and there is little nonverbal evidence of involvement. Eye and face contact are frequently avoided.
7	Extreme	Patient is totally uninvolved with the interview. Patient appears to be completely indifferent and consistently avoids verbal and nonverbal interactions during the interview.

Negative Scale (N)

N4. Passive/apathetic social withdrawal. Diminished interest and initiative in social interactions due to passivity, apathy, energy, or avolition. This leads to reduced interpersonal involvements and neglect of activities of daily living. *Basis for rating:* reports on social behavior from primary care workers or family.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Shows occasional interest in social activities but poor initiative. Usually engages with others only when approached first by them.
4	Moderate	Passively goes along with most social activities but in a disinterested or mechanical way. Tends to recede into the background.
5	Moderate Severe	Passively participates in only a minority of activities and shows virtually no interest on initiative. Generally spends little time with others.
6	Severe	Tends to be apathetic and isolated, participating very rarely in social activities and occasionally neglecting personal needs. Have very few spontaneous social contacts.
7	Extreme	Profoundly apathetic, socially isolated, and personally neglectful.

Negative Scale (N)

N5. Difficulty in abstract thinking. Impairment in the use of the abstract-symbolic mode of thinking, as evidenced by difficulty in classification, forming generalizations, and proceeding beyond concrete or egocentric thinking in problem-solving tasks. *Basis for rating:* responses to questions on similarities and proverb interpretation, and use of concrete vs. abstract mode during the course of the interview.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Tends to give literal or personalized interpretations to the more difficult proverbs and my have some problems with concepts that are fairly abstract or remotely related.
4	Moderate	Often utilizes a concrete mode. Has difficulty with most proverbs and some categories. Tends to be distracted by functional aspects and salient features.
5	Moderate Severe	Deals primarily in concrete mode, exhibiting difficulty with most proverbs and many categories.
6	Severe	Unable to grasp the abstract meaning of any proverbs or figurative expressions and can formulate classifications for only the most simple of similarities. Thinking is either vacuous or locked into functional aspects, salient features, and idiosyncratic interpretations.
7	Extreme	Can use only concrete modes of thinking. Shows no comprehension of proverbs, common metaphors or similes, and simple categories. Even salient and functional attributes do not serve as a basis for classification. This rating may apply to those who cannot interact even minimally with the examiner due to marked cognitive impairment.

Negative Scale (N)

N6. Lack of spontaneity and flow of conversation. Reduction in the normal flow of communication associated with apathy, abolition, defensiveness, or cognitive deficit. This is manifested by diminished fluidity and productivity of the verbal-interactional process. *Basis for rating:* cognitive-verbal processes observed during the course of the interview.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Conversation shows little initiative. Patient's answers tend to be brief and unembellished, requiring direct and leading questions by the interviewee.
4	Moderate	Conversation lacks free flow and appears uneven or halting. Leading questions are frequently needed to elicit adequate responses and proceed with conversation.
5	Moderate Severe	Patient shows a marked lack of spontaneity and openness, replying to the interviewer's questions with only one or two brief sentences.
6	Severe	Patient's responses are limited mainly to a few words or short phrases intended to avoid or curtail communication. (E.g., "I don't know," "I'm not at liberty to say.") Conversation is seriously impaired as a result, and the interview is highly unproductive.
7	Extreme	Verbal output is restricted to, at most, an occasional utterance, making conversation impossible.

Negative Scale (N)

N7. Stereotyped thinking. Decreased fluidity, spontaneity, and flexibility of thinking, as evidenced in rigid, repetitious, or barren thought content. *Basis for rating:* cognitive-verbal processes during the course of the interview.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Some rigidity shown in attitudes or beliefs. Patient may refuse to consider alternative positions or have difficulty in shifting from one idea to another.
4	Moderate	Conversation revolves around a recurrent theme, resulting in difficulty in shifting to a new topic.
5	Moderate Severe	Thinking is rigid and repetitious to the point that, despite the interviewer's efforts, conversation is limited to only tow or three dominating topics.
6	Severe	Uncontrolled repletion of demands, statements, ideas, or questions which severely impairs conversation.
7	Extreme	Thinking, behavior, and conversation are dominated by constant repetition of fixed ideas or limited phrases, leading to gross rigidity, inappropriateness, and restrictiveness of patient's communication.

General Psychopathology Scale (G)

G1. Somatic concern. Physical complaints or beliefs about bodily illness or malfunctions. This may range from a vague sense of ill being to clear-cut delusions of catastrophic physical disease. *Basis for rating:* thought content expressed in the interview.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Distinctly concerned about health or somatic issues, as evidenced by occasional questions and desire for reassurance.
4	Moderate	Complains about poor health or bodily malfunction, but there is no delusional conviction and over-concern can be allayed by reassurance.
5	Moderate Severe	Patient expresses numerous or frequent complaints about physical illness or bodily malfunction, or else patient reveals one or two clear-cut delusions involving these themes but is not preoccupied by them.
6	Severe	Patient is preoccupied by one or a few clear-cut delusions about physical disease or organic malfunction, but affect is not only fully immersed in these themes, and thoughts can be diverted by the interviewer with some effort.
7	Extreme	Numerous and frequently reported somatic delusions, or only a few somatic delusions of a catastrophic nature, which totally dominate the patient's affect and thinking.

General Psychopathology Scale (G)

G2. Anxiety. Subjective experience of nervousness, worry, apprehension, or restlessness, ranging from excessive concern about the present or future to feelings of panic. *Basis for rating:* verbal report during the course of the interview and corresponding physical manifestations

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Expresses some worry, over-concern, or subjective restlessness, but no somatic and behavioral consequences are reported or evidence.
4	Moderate	Patient reports distinct symptoms of nervousness, which are reflected in mild physical manifestations such as fine hand tremor and excessive perspiration.
5	Moderate Severe	Patient reports serious problems of anxiety which have significant physical and behavioral consequences, such as marked tension, poor concentration, palpitations, or impaired sleep.
6	Severe	Subjective state of almost constant fear associated with phobias, marked restlessness, or numerous somatic manifestations.
7	Extreme	Patient's life is seriously disrupted by anxiety, which is present almost constantly and, at times, reaches panic proportion or is manifested in actual panic attacks.

General Psychopathology Scale (G)

G3. Guilt feelings. Sense of remorse or self-blame for real or imagined misdeeds in the past. *Basis for rating:* verbal report of guilt feelings during the course of interview and the influence on attitudes and thoughts.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Questioning elicits a vague sense of guilt or self-blame for minor incident, but the patient clearly is not overly concerned.
4	Moderate	Patient expresses distinct concern over his or her responsibility for a real incident in his or her life but is not preoccupied with it, and attitude and behavior are essentially unaffected.
5	Moderate Severe	Patient expresses a strong sense of guilt associated with self-depreciation the belief that her or she deserves punishment. The guilt feelings may have a delusional basis, may be volunteered spontaneously, may be a source of preoccupation and/or depressed mood, and cannot be allayed easily by the interviewer.
6	Severe	Strong ideas of guilt take on a delusional quality and lead to an attitude of hopelessness or worthlessness. The patient believes he or she should receive harsh sanctions for the misdeeds and even regard his or her current life situation as such punishment.
7	Extreme	Patient's life is dominated by unshakable delusions of guilt, for which he or she feels deserving of drastic punishment, such as life imprisonment, torture, or death. There may be associated suicidal thoughts or attribution of others' problems to one's own misdeeds.

General Psychopathology Scale (G)

G4. Tension. Overt physical manifestations of fear, anxiety, and agitation, such as stiffness, tremor, profuse sweating, and restlessness. *Basis for rating:* verbal report attesting to anxiety and, thereupon, the severity of physical manifestations of tension observed during the interview.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Posture and movements indicate slight apprehension, such as minor rigidity, occasional restlessness, shifting of position, or fine rapid hand tremor.
4	Moderate	A clearly nervous appearance emerges from various manifestations, such as fidgety behavior, obvious hand tremor, excessive perspiration, or nervous mannerisms.
5	Moderate Severe	Pronounced tension is evidenced by numerous manifestations, such as nervous shaking, profuse sweating, and restlessness, but conduct in the interview is not significantly affected.
6	Severe	Pronounced tension to the point that interpersonal interactions are disrupted. The patient, for example, may be constantly fidgeting, unable to sit still for long, or show hyperventilation.
7	Extreme	Marked tension is manifested by signs of panic or gross motor acceleration, such as rapid restless pacing and inability to remain seated for longer than a minute, which makes sustained conversation not possible.

General Psychopathology Scale (G)

G5. Mannerisms and posturing. Unnatural movements or posture as characterized by an awkward, stilted, disorganized, or bizarre appearance. *Basis for rating:* observations of physical manifestations during the course of interview as well as reports from primary care workers or family.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Slight awkwardness in movements or minor rigidity of posture.
4	Moderate	Movements are notably awkward or disjointed, or an unnatural posture is maintained for brief periods.
5	Moderate Severe	Occasional bizarre rituals or contorted posture are observed, or an abnormal position is sustained for extended periods.
6	Severe	Frequent repletion of bizarre rituals, mannerisms, or stereotyped movements, or a contorted posture is sustained for extended periods.
7	Extreme	Functioning is seriously impaired by virtually constant involvement in ritualistic, manneristic, or stereotyped movements or b an unnatural fixed posture which is sustained most of the time.

General Psychopathology Scale (G)

G6. Depression. Feelings of sadness, discouragement, helplessness, and pessimism. *Basis for rating:* verbal report of depressed mood during the course of interview and its observed influence on attitude and behavior as reported by primary care workers of family.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Expresses some sadness or discouragement only on questioning, but there is no evidence of depression in general attitude or demeanor.
4	Moderate	Distinct feelings of sadness or hopelessness, which may be spontaneously divulged, but depressed mood has no major impact on behavior or social functioning, and the patient usually can be cheered up.
5	Moderate Severe	Distinctly depressed mood is associated with obvious sadness, pessimism, loss of social interest, psychomotor retardation, and some interference in appetite and sleep. The patient cannot be easily cheered up.
6	Severe	Markedly depressed mood is associated with sustained feelings of misery, occasional crying, hopelessness, and worthlessness. In addition, there is major interference in appetite and/or sleep as well as in normal motor and social functions, with possible signs of self-neglect.
7	Extreme	Depressed feelings seriously interfere in most major functions. The manifestations include frequent crying, pronounced somatic symptoms, impaired concentration, psychomotor retardation, social disinterest, self-neglect, possible depressive or nihilistic delusions and/or possible suicidal thoughts or actions.

General Psychopathology Scale (G)

G7. Motor retardation. Reduction in motor activity as reflected in slowing or lessening of movements and speech, diminished responsiveness to stimuli, and reduced body tone. *Basis for rating:* manifestation during the course of interview as well as reports by primary care workers of family.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Slight but noticeable diminution in rate of movements and speech. Patient may be somewhat underproductive in conversation and gestures.
4	Moderate	Patient is clearly slow in movements, and speech may be characterized by poor productivity, including long response latency, extended pauses, or slow pace.
5	Moderate Severe	A marked reduction in motor activity renders communication highly unproductive or delimits functioning in social and occupational situation. Patient can usually be found sitting or lying down.
6	Severe	Movements are extremely slow, resulting in a minimum of activity and speech. Essentially the day is spent sitting idly or lying down.
7	Extreme	Patient is almost completely immobile and virtually unresponsive to external stimuli.

General Psychopathology Scale (G)

G8. Uncooperativeness. Active refusal to comply with the will of significant other, including the interviewer, hospital staff, or family, which may be associated with distrust, defensiveness, stubbornness, negativism, rejection of authority, hostility, or belligerence. *Basis for rating:* interpersonal behavior observed during the course interview as well as reports by primary care workers of family.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Complies with an attitude of resentment, impatience, or sarcasm. May inoffensively object to sensitive probing during the interview.
4	Moderate	Occasional outright refusal to comply with normal social demands, such as making own bed, attending scheduled programs etc/. The patient may project a hostile, defensive, or negative attitude but usually can be worked with.
5	Moderate Severe	Patient frequently is incompliant with the demands of his or her milieu and may be characterized by others as an "outcast" or having "a serious attitude problem". Uncooperativeness is reflected in obvious defensiveness or irritability with the interviewer and possible unwillingness to address many questions.
6	Severe	Patient is highly uncooperative, negativistic, and possibly also belligerent. Refuses to comply with most social demands and may be unwilling to initiate or conclude the full interview.
7	Extreme	Active resistance seriously impacts on virtually all major areas of functioning. Patient may refuse to join in any social activities, tend to personal hygiene, converse family or staff, and participate even briefly in an interview.

General Psychopathology Scale (G)

G9. Unusual thought content. Thinking characterized by strange, fantastic, or bizarre ideas, ranging from those which are remote or atypical to those which are distorted, illogical, and patently absurd. *Basis for rating:* thought content expressed during the course of the interview.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Thought content is somewhat peculiar or idiosyncratic, or familiar ideas are framed in an odd context.
4	Moderate	Ideas are frequently distorted and occasionally seem quite bizarre.
5	Moderate Severe	Patient expresses many strange and fantastic thoughts (e.g., being the adopted son of a king, being an escapee from death row) or some which are patently absurd. (e.g. having hundreds of children, receiving radio messages from outer space through a tooth filling)>
6	Severe	Patient expresses many illogical or absurd ideas or some which have a distinctly bizarre quality (e.g., having three heads, being a visitor from another planet).
7	Extreme	Thinking is replete with absurd, bizarre, and grotesque ideas.

General Psychopathology Scale (G)

G10. Disorientation. Lack of awareness of one's relationship to the milieu, including persons, place, and time, which may be due to confusion or withdrawal. *Basis for rating:* response to interview questions on orientation.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	General orientation is adequate but there is some difficulty with specifics. For example, patient knows his or her location but not the street address; knows hospital staff names but not their functions; know the month but confused the day of week with an adjacent day; or errs in the date by more than two days. There may be narrowing of interest evidenced by familiarity with the immediate but not extended milieu, such as ability to identify staff but not the Mayor, Governor, or President.
4	Moderate	Only partial success in recognizing person, places, and time. For example, patient know her or she is in a hospital but not its name; know the name of his or her city but not the borough or district; know the name of his or her primary therapist but not many other direct care workers; know the year and season but is not sure of the month.
5	Moderate Severe	Considerable failure in recognizing person, place and time. Patient has only a vague notion of where he or she is and seems unfamiliar with most people in his or her milieu. He or she may identify the year correctly or nearly so bun not know the current month, day of week, or even the season.
6	Severe	Marked failure I recognizing person, place, and time. For example, patient has no knowledge of his her whereabouts; confuses the date by more than one year, can name only one or two individuals in his or her current life.
7	Extreme	Patient appears completely disoriented with regards to person, place, and time. There is gross confusion or total ignorance about one's location, the current year, and even the most familiar people, such as patents, spouse, friends, and primary therapist.

General Psychopathology Scale (G)

G11. Poor attention. Failure in focused alertness manifested by poor concentration, distractibility from internal and external stimuli, and difficulty in harnessing, sustaining, or shifting focus to new stimuli. *Basis for rating:* manifestations during the course of the interview.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Limited concentration evidence by occasional vulnerability to distraction or faltering attention toward the end of the interview.
4	Moderate	Conversation is affected by the tendency to be easily distracted, difficulty in long sustaining concentration on a given topic, or problems in shifting attention to new topics.
5	Moderate Severe	Conversation is serious hampered by poor concentration, distractibility, and difficulty in shifting focus appropriately.
6	Severe	Patient's attention can be harnessed for only brief moments or with great, effort, due to marked distraction by internal or external stimuli.
7	Extreme	Attention is so disrupted that even brief conversation is not possible.

General Psychopathology Scale (G)

G12. Lack of judgment and insight. Impaired awareness of understanding of one's own psychiatric condition and life situation. This is evidenced by failure to recognize past or present psychiatric illness or symptoms, denial of need for psychiatric hospitalization or treatment, decisions characterized by poor anticipation of consequences, and unrealistic short-term and long-range planning. *Basis for rating:* thought content expressed during the interview.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Recognizes having a psychiatric disorder but clearly underestimates its seriousness, the implications for treatment, or the importance of taking measures to avoid relapse. Future planning may be poorly conceived.
4	Moderate	Patient shows only a vague or shallow recognition of illness. There may be fluctuations in acknowledgment of being ill or little awareness of major symptoms which are present, such as delusions, disorganized thinking, suspiciousness, and social withdrawal. The patient may rationalize the need for treatment in terms of its relieving lesser symptoms, such as anxiety, tension and sleep difficulty.
5	Moderate Severe	Acknowledges past but not present psychiatric disorder. If challenged, the patient may concede the presence of some unrelated or insignificant symptoms, which tend to be explained away by gross misinterpretation or delusional thinking. The need for psychiatric treatment similarly goes unrecognized.
6	Severe	Patient denies ever having had a psychiatric disorder. He or she disavows the presence of any psychiatric symptoms in the past or present and, though compliant, denies the need for treatment and hospitalization.
7	Extreme	

General Psychopathology Scale (G)

G13. Disturbance of volition. Disturbance in the willful initiation, sustenance, and control of one's thoughts, behavior, movements, and speech. *Basis for rating:* thought content and behavior manifested in the course of the interview.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	There is evidence of some indecisiveness in conversation and thinking, which may impede verbal and cognitive processes to a minor extent.
4	Moderate	Patient is often ambivalent and how clear difficulty in reaching decisions. Conversation may be marred by alternation in thinking, and in consequence verbal and cognitive functioning are clearly impaired.
5	Moderate Severe	Disturbance in volition interferes in thinking as well as behavior. Patient shows pronounced indecision that impedes the initiation and continuation of social and motor activities, and which also may be evidenced in halting speech.
6	Severe	Disturbance of volition interferes in the execution of simple, automatic motor functions, such as dressing and grooming, and markedly affects speech.
7	Extreme	Almost complete failure of volition is manifested by gross inhibition of movement and speech, resulting in immobility and/or mutism.

General Psychopathology Scale (G)

G14. Poor impulse control. Disordered regulation and control of action on inner urges, resulting in sudden, in modulated, arbitrary, or misdirected discharge of tension and emotions with out concern about consequences. *Basis for rating:* behavior during the course of the interview and reported by primary care workers or family.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Patient tends to be easily angered and frustrated when facing stress or denied gratification but rarely acts on impulse.
4	Moderate	Patient gets angered and verbally abusive with minimal provocation. May be occasionally threatening, destructive, or have one or two episodes involving physical confrontation or a minor brawl.
5	Moderate Severe	Patient exhibits repeated impulsive episodes involving verbal abuse, destruction of property, or physical threats. There may be one or two episodes involving serious assault, for which the patient requires isolation, physical restraint, or PRN sedation.
6	Severe	Patient frequently is impulsively aggressive, threatening, demanding and destructive, without any apparent consideration of consequences. Show assaultive behavior and may also be sexually offensive and possibly respond behaviorally to hallucinatory commands.
7	Extreme	Patient exhibits homicidal attacks, sexual assaults, repeated brutality, or self-destructive behavior. Requires constant direct supervision or external constraints because of inability to control dangerous impulses.

General Psychopathology Scale (G)

G15. Preoccupation. Absorption with internally generated thoughts and feelings and with autistic experiences to the detriment of reality orientation and adaptive behavior. *Basis for rating:* interpersonal behavior observed during the course of the interview.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Excessive involvement with personal needs or problems, such that conversation veers back to egocentric themes and there is diminished concern exhibited toward others.
4	Moderate	Patient occasionally appears self-absorbed, as if daydreaming or involved with internal experiences, which interferes with communication to a minor extent.
5	Moderate Severe	Patient often appears to be engaged in autistic experiences, as evidenced by behaviors that significantly intrude on social and communicational functions, such as the presence of a vacant stare, muttering or talking to oneself, or involvement with stereotyped motor patterns.
6	Severe	Marked preoccupation with autistic experiences, which seriously delimits concentration, ability to converse, and orientation to the milieu. The patient frequently may be observed smiling, laughing, muttering, talking or shouting to himself or herself.
7	Extreme	Gross absorption with autistic experiences, which profoundly affects all major realms of behavior. The patient constantly may be responding verbally and behaviorally to hallucinations and show little awareness of other people or the external milieu.

General Psychopathology Scale (G)

G16. Active social avoidance. Diminished social involvement associated with unwarranted hear, hostility, or distrust. *Basis for rating:* reports of social functioning by primary care workers or family.

	Rating	Criteria
1	Absent	Definition does not apply
2	Minimal	Questionable pathology; may be at upper extreme of normal limits.
3	Mild	Patient seems ill at ease in the presence of others and prefers to spend time alone, although he or she participates in social functions when required.
4	Moderate	Patient grudgingly attends all or most social activities but may need to be persuaded or may terminate prematurely on account of anxiety, suspiciousness, or hostility.
5	Moderate Severe	Patient fearfully or angrily keeps away from any social interactions despite others' efforts to engage him. Tends to spend unstructured time alone.
6	Severe	Patient participates in very few social activities because of fear, hostility, or distrust. When approached, the patient shows a strong tendency to break off interactions, and generally he or she appears to isolate himself or herself from others.
7	Extreme	Patient cannot be engaged in social activities because of pronounced fears, hostility, or persecutory delusion. To the extent possible, he or she avoids all interactions and remains isolated from others.

PANSS QUICKSCORE™ FORM

Patient Name or ID: _____ **Rater:** _____ **Date:** _____

Use this for all items:

1 = Absent
2 = Minimal
3 = Mild
4 = Moderate
5 = Moderate/Severe
6 = Severe
7 = Extreme

☐ P1. Delusions

☐ P2. Conceptual Disorganization

☐ P3. Hallucinatory behavior

☐ P4. Excitement

☐ P5. Grandiosity

☐ P6. Suspiciousness/persecution

☐ P7. Hostility

☐ N1. Blunted affect

☐ N2. Emotional withdrawal

☐ N3. Poor rapport

☐ N4. Passive/apathetic social withdrawal

☐ N5. Difficulty in abstract thinking

☐ N6. Lack of spontaneity and flow of conversation

☐ N7. Stereotyped thinking

☐ G1. Somatic Concerns

☐ G2. Anxiety

☐ G3. Guilt feelings

☐ G4. Tension

☐ G5. Mannerisms and posturing

☐ G6. Depression

☐ G7. Motor retardation

☐ G8. Uncooperativeness

☐ G9. Unusual thought content

☐ G10. Disorientation

☐ G11. Poor attention

☐ G12. Lack of judgment and insight

☐ G13. Disturbance of volition

☐ G14. Poor impulse control

☐ G15. Preoccupation

☐ G16. Active social avoidance