RELATIONSHIP BETWEEN SELF-STIGMA OF PEOPLE WITH PSYCHOTIC DISORDERS AND THEIR ADHERENCE TO PSYCHOSOCIAL TREATMENT

BY

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CERTIFICATE OF ORIGINALITY

I hereby declare that this thesis is my own work and that, to the best of my knowledge and belief, it reproduces no material previously published or written, nor material that has been accepted for the award of any other degree or diploma, except where due acknowledgement has been made in the text.

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ABSTRACT

Background: Psychosocial treatment noncompliance is one of the main reasons for therapeutic failure. Recent research has shown that mental health consumers may internalize negative stereotypes, become self-stigmatized, and thus avoid engaging in appropriate helping-seeking behaviors. This study aimed at uncovering the relationship between psychosocial treatment compliance and self-stigma, and identifying possible mediators in undermining treatment compliance. **Method:** Some 108 mental health consumers were recruited in this cross-sectional observation study. In Phase One study, the Psychosocial Treatment Compliance Scale was developed, and the Self-stigma of Mental Illness Scale, the Rosenberg Self-esteem Scale, the Self-efficacy Scale and the Scale to Assess Unawareness of Mental Disorder were translated into Chinese and validated. The relationship between psychosocial treatment compliance and the identified variables were examined by using statistical regression of forward selection in Phase Two study. **Results:** The psychometric properties of all instruments were well established. As revealed by exploratory factor analysis, “Participation” and “Attendance” were identified as the main factors of psychosocial treatment compliance. Poor participation was related to lower self-esteem, diminished social self-efficacy, and poor retrospective insight of having mental illness. Poor attendance was related to higher self-concurrence of self-stigma, poor current awareness to the achieved effects of medication, and living with others. **Conclusion:** Psychosocial treatment compliance would be impeded by self-stigma and certain mediating factors. A better understanding of those barriers enables us to formulate appropriate interventional strategies to reduce self-stigma and meanwhile enhance compliance.

PUBLICATIONS ARISING FROM THE THESIS

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CHAPTER 1 INTRODUCTION

1.1. OVERVIEW OF STUDY

Mental illness is an adverse condition which affects more than 25% of people over the world during their life (World Health Organization, 2001). Individuals with mental illness are challenged by their disruptive symptoms, inadequate skills, and stigma in engaging age-appropriate roles and goals (Corrigan, 1998; Liberman, Spaulding, & Corrigan, 1995). The advance of psychotropic medication has produced substantial efficacy for the treatment of mental illness (Fenton, Blyler, & Heinssen, 1997) in reducing the chance of relapse (Rittmannsberger, Pachinger, Keppelmuller, & Wancata, 2004). Unfortunately, the use of medication alone is insufficient to improve the quality of life of consumers (Hogarty & Ulrich, 1998). Its beneficial effects in helping mental health consumers for improving social adjustment and obtaining competitive employment are still questionable (Bustillo, Lauriello, Horan, & Keith, 2001). The use of psychosocial treatment is thus an alterative to fulfill the needs of mental health consumers (Tarrier & Bobes, 2000) in promoting their independent living and subjective life satisfaction (Glynn, 2003).

Although compliance to recommended psychiatric treatment is central to therapeutic success (Ludwig, Huber, Schmidt, Bender, & Greil, 1990), a huge amount of mental health consumers have persistent difficulties in complying with prescribed treatment (Fenton, Blyler, & Heinssen, 1997). Self-stigma serves as the by-product of psychiatric services (Ritsher & Phelan, 2004). As public stigma

towards mental illness is severely endorsed in the society (Hamre, Dahl, & Malt, 1994; Link, 1987; Phelan, Link, Stueve, & Pescosolido, 2000; Tsang, Tam, Chan, & Cheung, 2003a; Yang & Pearson, 2002), mental health consumers may want to avoid the negative attitudes and actions from the public by withdrawing from psychiatric services (Corrigan, 2004; Watson & Corrigan, 2001). These avoidant behaviors contaminate the recovery of mental health consumers (Corrigan, Watson, & Barr, in press; Ritsher, Otilingam, & Grajales, 2003; Ritsher & Phalen, 2004). The relationship between self-stigma and psychosocial treatment compliance however has not received empirical support, and this study aimed at exploring their relationship.

1.2. PURPOSE OF STUDY

1. To develop and validate a scale to measure psychosocial treatment compliance of mental health consumers
2. To select, translate, and validate the selected measures of self-stigma, self-esteem, self-efficacy, and insight
3. To determine whether self-stigma interfered with adherence to psychosocial treatment
4. To identify significant variables pertaining to self-stigma that may have impact on participation and adherence to treatment

1.3. SIGNIFICANT OF STUDY

An understanding of the severity of the self-stigma among mental health consumers and its relationship with psychosocial treatment compliance enables us to formulate appropriate intervention to improve their treatment participation and utilization. The results can also provide guidelines as to anti-stigma promotion in Hong Kong in order to improve their opportunities in the community. Through better utilization of services, their chance of relapse and hence the cost of hospitalization may be reduced.

CHAPTER 2 LITERATURE REVIEW

2.1. MENTAL ILLNESS

2.1.1. DEFINITION

There is no universal consensus on the definition of mental illness. This concept is so complicated that no adequate boundaries can cover all its conditions (American Psychiatric Association, 1994). Cultural differences existed in the conceptualization of mental illness (Towsend, 1975; Whitt, Meile, & Larson, 1979). This is not surprising that certain behaviors in mainstream cultures are expected to be normal, but to be thought as deviants in minority groups. Additionally, the concept of mental illness keeps on changing worldwide, and this further complicates the situation in forging consensus in defining mental illness (Cockerham, 2003). The fact that American psychiatrists regarded homosexuality as mental illness until the early 1970s is one of the examples (Cockerham, 2003).

Numerous definitions have been invented for mental illness, but most of them are insufficient to provide an integrated operational meaning (Cockerham, 2003). The *Diagnostic and Statistical Manual of Mental Disorders (DSM)* is believed to have provided the most convincing definition of mental illness (Peck & Scheffler, 2002). The DSM, fourth edition (American Psychiatric Association, 1994) referred mental illness to a clinically significant behavioral or psychological syndrome experienced by an individual with present distress, disability, a significantly increased risk of suffering, or loss of freedom, in which the syndrome

must not be entirely an expectable and culturally sanctioned response. The World Health Organization (2001) proposed that mental illness should not be just a variation within "normal" phenomenal range. Individuals are regarded as having severe mental illness if they receive a psychiatric diagnosis with substantial disability (Center for Mental Health Services and National Institute of Mental Health, 1992). Symptomatic psychotic disorders like schizophrenia and schizoaffective disorders, and symptomatic bipolar affective disorder are examples of severe mental illness (Barker & Gregoire, 2000).

2.1.2. INCIDENCE AND PREVALENCE

Having mental illness is undoubtedly problematic. World Health Organization (2001) estimated that more than 25% of people suffered from mental illness during their life. Unipolar depression, alcoholic use, bipolar disorder, schizophrenia, and obsessive-compulsive disorders are expected to be included within the ten leading causes of disability internationally (Murray & Lopez, 1996). The Epidemiological Catchment Area Study and the National Comorbidity Survey (United States Department of Health and Human Services, 1999) estimated that 20% of Americans were annually influenced by mental illness. Another alarming estimation by Narrow (1998) revealed that 44.3 million Americans suffered from diagnosable mental illness in the year 1998. Such frightful situation has also been found in Hong Kong and mainland China. In the 1980s, Chen (1995) estimated that the prevalence rate of people with mental illness was approximately 11 per one thousand individuals. Based on the population in China at that time, it should be

ratiocinated that 11 million Chinese suffered from mental disorders. As to Hong Kong, the Health and Welfare Bureau (1999) estimated that 14,482 individuals aged from 15 to 64 were having schizophrenia and schizophreniform disorders in the year 1998, and additional 96,669 individuals suffered from affective psychosis. The Chinese University of Hong Kong (1999) surveyed 1300 adults, and the result demonstrated that 21.6% adults were incurred in different degrees of mental disorders. In the year 2002, the Census and Statistics Department (2003) estimated that 71,000 mental health consumers required long-term medical follow-up, whereas 18,500 of them required institutional residential services. These previous figures have demonstrated the widespread alarming situations of mental illness, and living with this disorder is really a difficult task for many mental health consumers.

2.1.3. POSSIBLE BARRIERS FOR THEIR LIFE

The life of mental health consumers is significantly persecuted by their disruptive symptoms, inadequate skills, and stigma (Corrigan, 2000). The mythic belief about the dangerousness of mental health consumers should elicit the scaring feeling and avoidant behaviors from the public (Cooper, Corrigan, & Watson, 2003). Mental health consumers will then be prohibited from receiving deserved help (Crosby, Brombley, & Saxe, 1980) and assessing social opportunity (Holmes & River, 1998). They are also facing difficulties in seeking employment (Link, 1987; Tsang, Tam, Chan, & Cheung, 2003a), and renting apartment (Alisky & Iczkowski, 1990; Page, 1983; Tsang, Tam, Chan, & Cheung, 2003a).

The recovery of mental health consumers is significantly impinged by mental illness stigma (Corrigan, 1998; Link, Cullen, Struening, Shrout, & Dohrenwend, 1989; Schumacher, Corrigan, & Dejong, 2003). Stigma increases the burdens of consumers and their family members (Tsang, Tam, Chan, & Cheung, 2003a). The widely endorsed negative attitudes and discriminations from public may trigger mental health consumers to be self-stigmatized (Corrigan & Watson, 2002). They may avoid participating in psychiatric services to eliminate the possibility of being labeled and to evade the negatively reactions from public (Cooper, Corrigan, & Watson, 2003; Corrigan, 2004). Both public stigma and self-stigma would prevent mental health consumers from achieving their life goals (Corrigan, 1998). Understanding of these barriers should be beneficial to supporting them with better engagement in life.

2.2. MENTAL ILLNESS STIGMA

Societal stigma contemporaneously existed among individuals with physical abnormality, deviated personal characteristics, and different racial and religionary groups (Goffman, 1963). Having mental illness is one of the examples of deviated personal characteristics. Our society still holds a deep-root negative belief towards mental health consumers (Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000), and they often believe that they do not belong to the society (Ritsher, Otilingam, & Grajales, 2003).

Goffman (1963) referred stigma as an attribute that discredits and devalues a person or a social group in the eye of others. According to the President's Commission on Mental Health (1978), mental illness stigma is regarded as myths in segregating mental health consumers from the society. The formation of stigma actually is the attributionally link between the characteristics of an individual and the disposition of pervasive dimension in certain group (Jones et al., 1984). The characteristics of such person or social group should be in contrary to the norm of social unit (Stafford & Scott, 1986), whereas social norm is described as an expected belief and behavior enforced by a group that a person ought to be obeyed (Franzoi, 2003). Furthermore, the label of mental illness has been accompanied with negative stereotype in resulting with discrimination, and has lowered the social status of mental health consumers (Link & Phelan, 2001).

Sociocultural perspective, motivational biases, and social cognitive models are the commonly used paradigms in explaining the prominence of stigma (Corrigan, 1998; Crocker & Lutsky, 1986). According to the sociocultural perspective, the formation of stigma aims to demonstrate common social injustice across different social groups. In term of motivational biases, it illustrates that this is our basic psychological needs for self-enhancement. From the view of social cognitive models, stigma is regarded as a knowledge structure in our mind to make sense of our social world. Because social cognitive models have the richest theoretical bases in explaining stigma (Augoustinos, Ahrens, & Innes, 1994; Corrigan, 1998; Hilton &

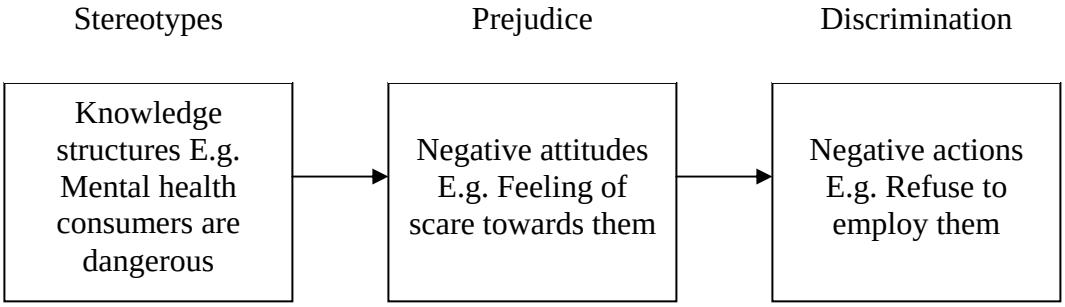
von Hippel, 1996), this paradigm was adopted to elucidate mental illness stigma in this study.

2.2.1. PUBLIC STIGMA

Public stigma towards mental health consumers is widely endorsed in Western (Hamre, Dahl, & Malt, 1994; Link, 1987; Phelan, Link, Stueve, & Pescosolido, 2000) and Chinese societies (Tsang, Tam, Chan, & Cheung, 2003a; Yang & Pearson, 2002). This is pathetic that well-functioning mental health consumers are also undermined by negative public attitudes (Weinstein, 1982). Survey (Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000) revealed that the majority of British adults regarded individuals with schizophrenia as dangerous and unpredictable. In China, as shame is largely associated with mental illness stigma, more severe public stigma exists in Chinese societies (Tsang, Tam, Chan, & Cheung, 2003a). This is not uncommon to observe that mental health consumers in mainland are being restrained at home and regarded as criminals (Tam, Tsang, Ip, & Chan, 2004). In Beijing, 80% of mental health consumers agreed that social stigma is a major obstacle for their recovery (Tsang, Weng, & Tam, 2000). In Hong Kong, a survey done by Tsang, Tam, Chan, and Cheung (2003) on 1,007 Hong Kong adults showed that a huge amount of respondents strongly opposed to the setting up of psychiatric facilities near their residential places. Their negative public attitudes limited the employment opportunity for mental health consumers.

Mental health consumers who have symptoms of inappropriate affect, bizarre behaviors and irrelevant speech are more likely to expose to public stigma (Corrigan, 2000). Public stigma is the negative attitudes and reactions generated from the public to act against mental health consumers, and it basically includes the components of stereotypes, prejudice, and discrimination (Corrigan & Watson, 2002). Stereotypes are the knowledge structures about the characteristics of specific groups (Hilton & von Hippel, 1996), and they should be learned from regular contacts with specific groups or from cultural lore (Crocker 1983; Crocker & Lutsky, 1986), whereas prejudice and discrimination are the negative attitudes and behaviors towards specific social groups (Franzoi, 2003). Figure 1 illustrates the meaning of stereotypes, prejudice, and discrimination. Stereotypes are usually formed via normal cognitive processes (Fiske, 1998), and they can provide efficient shortcuts in making categorization and judgment (Franzoi, 2003). The beliefs of dangerousness and incompetence are the common examples of stereotypes for mental health consumers (Corrigan & Watson, 2002). Having stereotypes are the foundation of forming negative attitudes and behaviors (Fiske, 1998). However, we should bear in mind that having knowledge of stereotypes about specific groups does not mean that we must agree with them (Jussim, Manis, Nelson, & Soffin, 1995; Krueger, 1996). Discrimination is occurred once the public hold the prejudicial endorsement of negative stereotypes towards mental health consumers (Corrigan, 1998).

Figure 1. Meaning of Stereotypes, Prejudice and Discrimination



It is our instinct to understand the cause-and-effect relationships in the social world (Piittman, 1993) through the process of attribution (Baron & Byrne, 1997). The attribution theory of controllability and stability can provide us with further insights about the formation and maintenance of public stigma towards mental illness (Corrigan, 2000), as such attribution will alter our affective reaction towards others (Weiner, 1980). In this theory, controllability refers to the degree of personal responsibility for the causation of illness, whereas stability refers to the expectation of improvement (Wiener, Perry, & Magnusson, 1988). According to the study by Weiner, Perry, and Magnusson (1988), the public often believed that mental illness consumers were in control of their illness and had poor prognosis. Respondents often reacted angrily and provided less help to the consumers. Similar findings were demonstrated by Corrigan et al.'s (2000) study. Both studies declared that serious stigmatization towards mental health consumers was widely endorsed in public.

Bias attribution of poor personal characteristics of mental health consumers may be considered another reason for public stigma. This is commonly made via stereotypes (Tsang, Tam, Chan, & Cheung, 2003a). The negative representations of

mental illness can be easily found in advertisement and films (Camp, Finlay, & Lyons, 2002). Misinformation from mass media should be obvious purveyors of mental illness stigma in disseminating the misconceptions of homicidal maniacs and dangerousness (Corrigan, 1998). Mass media has a power to mold the belief of audience towards perception of event (Gilbert, Tafarodi, & Malone, 1993), and people tend to pay greater attention to negative information (Baron & Byrne, 1997). General public may overgeneralize the negative characteristics of certain mental health consumers to all (Corrigan, 1998). Thus, the attitudes of fear, authoritarianism and benevolence are easily located in public (Brockington, Hall, Levings, & Murphy, 1993; Taylor & Dear, 1980), and it begets more severe pubic stigma from the deeply embedded negative stereotypes.

2.2.2. SELF-STIGMA

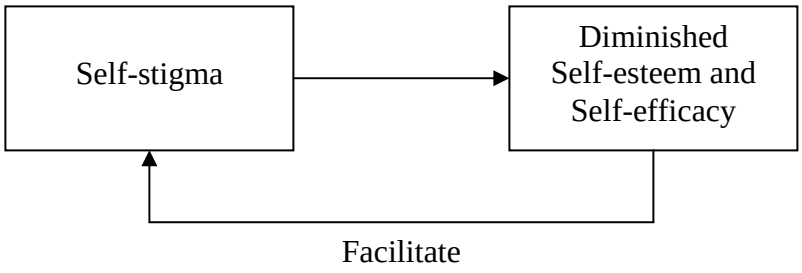
Self-stigma is referred to the internalized reaction generated from mental health consumers to act against themselves (Corrigan & Watson, 2002). Its formation is probably related to the experience of personally prominent public negative attitudes and actions following by the onset of mental illness (Holmes & Rivers, 1998). If the individuals hold the stigmatized social group identity as their core personal identity, the self-relevance of mental illness stigma should be obviously increased (Major & O'Brien, 2005). Apart from public stigma, self-stigma is supposed to be another principal barrier impeding the recovery of mental health consumers (Corrigan, Watson, & Barr, in press; Ritsher, Otilimgam, & Grajales, 2003; Ritsher & Phelan, 2004).

Self-stigma contains three components of self-stereotypes, self-prejudice and self-discrimination (Corrigan & Watson, 2002). Mental health consumers may be aware of the negative stereotype, and internalize those believes with prejudicial and discriminatory responses such as avoiding the pursuit of employment (Corrigan & Watson, 2002). This self-stigma may further undermine their appropriate help-seeking (Meltzer et al., 2003) for managing their treatable health problems (Weiss & Ramakrishma, 2001). To further understand the process of self-stigmatization, Corrigan, Watson, and Barr (in press) have proposed a three-tier mechanism of self-stigma which consists of stereotype agreement, self-concurrence, and self-esteem decrement. Stereotype agreement is the initial stage of self-stigmatization, and it refers to the endorsement of perceived stereotypes towards mental illness which is commonly held in general public. Some mental health consumers will agree truly with this adverse endorsement and apply to them as stereotype self-concurrence, and then proceed to the late stage of decrementing self-esteem (Corrigan, Watson, & Barr, in press) and self-efficacy (Holmes & River, 1988). Perceived stigma or stereotypes awareness should not be the domain of self-stigma, as the understanding of negative stereotypes about mental illness from public is not equivalent to the agreement of such stereotypes by mental health consumers (Hayward & Bright, 1997). Moreover, the effect of stigma on self should emerge according to the evaluation of salient stigmatizing condition, the collective representations, and the personal characteristics of individuals (Crocker, 1999).

The above review suggests that self-stigma would undermine the self-esteem and self-efficacy of mental health consumers (Corrigan, Watson, & Barr, in press; Holmes & River, 1998). However, their relationship is not merely a simple linear casual effect. In fact they are being influenced by each other. Corrigan and Watson (2002) postulates that mental health consumers who have low self-esteem and self-efficacy would be more likely to be undermined by self-stigmatization. Self-esteem is regarded as the degree of congruence of satisfaction between the personal self-image and ideal self-image (Siber & Tippett, 1965), or is simply defined as self-esteem which is a personal and global feeling of self-worth, self-regard, and self-acceptance (Rosenberg, 1979). It should be derived from our life event (Robson, 1988) upon different situations (Crocker, 1999). Self-efficacy is defined as the expectations that we hold about our abilities to accomplish certain tasks (Bandura, 1986). It is a powerful determiner for us in making decision for behaviors (Bandura, 1977). For those who have stronger self-efficacy, their personal effort in tasks should be more active and persistent (Buchmann, 1997). The ease of being self-stigmatized by low self-esteem and low self-efficacy individuals can be explained by the understating of their personal characteristics. Individuals with low self-esteem are more likely to accept the poor quality prescribed to them which may generate a feeling of hopelessness (Rosenfield, 1997). They have a tendency to attribute negative circumstances to their own cause, and to attribute positive feedback from external causes (Crocker, Alloy, & Kayne, 1998; Weiner, 1995). Their emotion may suffer through this kind of attributional style (Ritsher & Phelan, 2004) and thus they are more easily to become self-stigmatized. Individuals are beset by stigma-induced

identity threat, if they estimate that the demand of stigma-relevant stressors exceeds their demand on coping (Major & O'Brien, 2005). Mental health consumers with low self-efficacy may in turn become more vulnerable in this circumstance. Under the influence of mental illness stigma, they are more likely to fail in employment and independent living (Link, 1982; 1987). Those pieces of explanations have shown that the negative effects of high self-stigma, low self-esteem, and decreased self-efficacy should act in a vicious cycle which contaminates the life of mental health consumers. Figure 2 illustrates the effect.

Figure 2. Vicious Cycle Between Self-stigma, Self-esteem and Self-efficacy



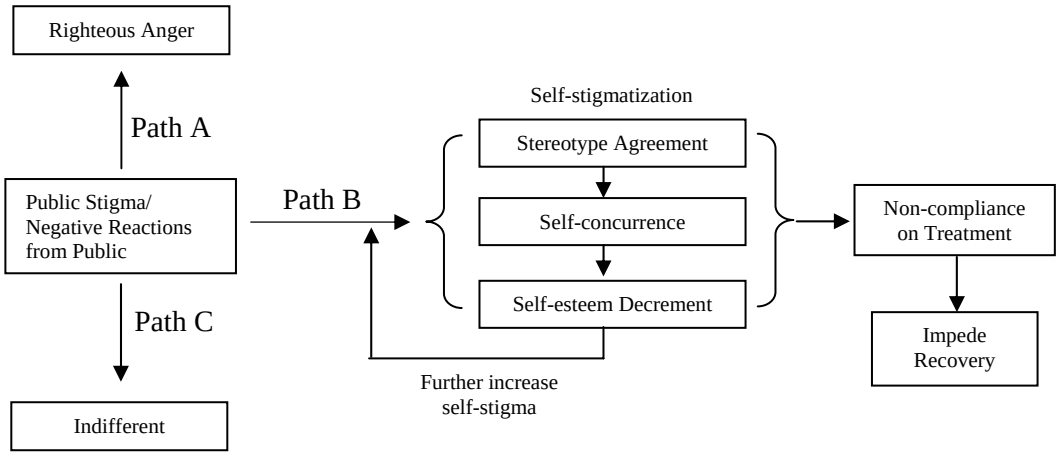
Furthermore, self-stigma can sometimes be perceived as the by-product of psychiatric services, as public may possess a label to those who participated in psychiatric services, and apply negative stereotypes to the users (Ritsher & Phelan, 2004). Even though mental health consumers are in absence of deviant behaviors, public still stigmatize them (Link, 1987). As a result, mental health consumers may abandon to seek care to avoid discrimination (Cooper, Corrigan, & Watson, 2003).

This has been intensively discussed how stigma impedes the self-concept of stigmatized individuals. However, this is surprising that some labeled individuals are not being self-stigmatized in suffering from declined self-esteem, demoralization, and impaired social functioning (Ritsher & Phelan, 2004), and in contrary, some of them even show higher self-esteem than majority (Crocker & Lawerance, 1999; Crocker & Major, 1989). They may recognize that the negative stereotypes from public are not legitimate to their present conditions (Corrigan & Watson, 2002). Their self-esteem should be maintained through a self-protective mechanism of attributing negative feedback from external causes (Testa, Crocker, & Major, 1988), and by in-group comparison (Taijfel & Turner, 1986). The negative attitudes and beliefs from public are viewed as excusable (Baumeister, Stillwell, & Wotman, 1990). In this sense, some labeled individuals with strong group identification may trigger psychological reactant (Breham, 1996) and righteous anger (Corrigan, Faber, Rashid, & Leary, 1999) by the influence of stigmatization. However, the one who does not seem to identify with their stigmatizing group will appear relatively indifferent to stigma (Corrigan & Watson, 2002), as they may not hold the belief that public stigmatized attitudes are applied to them.

This is frustrating to have an experience of being stigmatized (Jones et al., 1984). Self-stigmatized mental health consumers are more likely to avoid social interaction (Holmes & Rivers, 1998), and engage in appropriate help-seeking behaviors (Weiss & Ramarkrishma, 2001). It seems that self-stigma may hinder mental health consumers in complying with appropriate medication and

psychosocial treatments (Corrigan, 2004; Watson & Corrigan, 2001). Because of its important implications on the recovery of mental health consumers, this study tried to provide empirical support in unearthing the relationship between self-stigma and psychosocial treatment compliance. The formation and the process of self-stigma in impeding the recovery of mental health consumers are shown in Figure 3.

Figure 3. The formation and the process of self-stigma in impeding the recovery of mental health consumers



Personal characteristics of mental health consumers

1. Path A:
    a. Perceived negative reactions as not legitimate
    b. Intact self-esteem and self-efficacy
    c. High group identification
2. Path B:
    a. Perceived negative reaction as legitimate
    b. Low self-esteem and self-efficacy
    c. High group identification
3. Path C:
    a. Perceived negative reactions as not legitimate
    b. Intact self-esteem and self-efficacy
    c. Low group identification

2.3. PSYCHOSOCIAL TREATMENT

The use of antipsychotic medication is recognized as foremost intervention for mental health consumers (Manchanda & Norman, 2003). It is effective in reducing the relapse rate of many psychotic disorders (Rittmannsberger, Pachinger, Keppelmuller, & Wancata, 2004). Although its substantial efficacy has been demonstrated (Fenton, Blyler, & Heinssen, 1997), mental health consumers may continue to have impaired social functioning under good medication compliance (Bustillo, Laurello, Horan, & Keith, 2001). The control of psychotic symptoms does not necessarily mean that mental health consumers can return to normal functioning (Laurello, Bustillo, & Keith, 1999). Hogarty and Ulrich (1998) have enunciated that use of antipsychotic medication is insufficient to improve the quality of life of mental health consumers. For instance, the beneficial effects of medication for improving social adjustment and obtaining competitive employment are still questionable (Bustillo, Laurello, Horan, & Keith, 2001).

In view of the limitation of using medication alone for psychiatric rehabilitation, psychosocial treatment should be implemented in order to fulfill the needs of mental health consumers (Tarrier & Bobes, 2000). There is an increasing gain of interest in developing psychosocial treatment across 1970s to 1980s in managing negative symptoms, improving medication compliance, promoting social recovery, and enhancing the movement of deinstitutionalization (Larsen, Johannessen, Opjordsmoen, 1998). Current focus is placed on enhancing social functioning of individuals in community by reducing the environmental and

biological vulnerabilities (Falloon, Coverdale, & Brooker, 1996). Basically, the use of psychosocial treatment is to enhance role functioning, promote independent living, decrease symptoms severity, improve illness management (Mueser & Bond, 2000), and establish subjective life satisfaction for mental health consumers (Glynn, 2003). The knowledge base of psychosocial treatment is persistently enriched by the accumulating empirical support (Mueser & Bond, 2000; Bellack, 2004). Social skills training, vocational rehabilitation, cognitive behavioral therapy, and family interventions are popular examples of evidence-based psychosocial treatments (Glynn, 2003; Mueser & Bond, 2000; Penn & Mueser, 1996). Brief introduction on these four evidence-based psychosocial treatments is summarized in the following paragraphs.

2.3.1. SOCIAL SKILLS TRAINING

Social skills are essential for providing effective social performance (Bellack & Mueser, 1993). The main objective of providing social skills training is to promote the social functioning of individuals in identifying and mending problems in social relationship, daily life, work, and leisure (Lauriello, Bustillo, & Keith, 1999). The basic model, the social problem solving model, and the cognitive remediation model are the three forms of social skills training (Bellack & Mueser, 1993).

2.3.2. VOCATIONAL REHABILITATION

Seeking employment is one of the difficult tasks for mental health consumers. Lehman (1995) estimated that less than 20% of mental health consumers had obtained competitive employment, whereas the study conducted by the Equal Opportunities Commission (1997) revealed that only 30% of Hong Kong consumers were able to get gainful employment. The aim of vocational rehabilitation is to help mental health consumers to succeed in employment (Mueser & Bond, 2000). However, disappointment results from the use of sheltered workshops and pre-vocational rehabilitation programs are noted (Glynn, 2003). The Individual Placement and Support (IPS) model of supported employment (Drake, 1998) is the most promising with strong research evidence on its effectiveness (Bond, 1998; Bond, Drake, Mueser & Becker, 1997). This approach advocates time unlimited support to mental health consumers along with rapid job search, focus on consumers' job preference, integration of clinical and employment services, and the goal in seeking open employment (Bond, 1998).

2.3.3. COGNITIVE BEHAVIORAL THERAPY

Cognitive behavioral therapy is an empirical strategy (Haddock et al., 1998) in eliminating and managing psychiatric symptoms (Glynn, 2003), and reducing social disability of mental health consumers (Bustillo, Lauriello, Horan, & Keith, 2001). Its pioneered approaches include using logical thinking to test irrational thoughts, and developing coping strategy to control symptoms (Kingdon, Turkington,

& Beck, 1993). This strategy is particular promising in controlling delusions and auditory hallucinations of mental health consumers (Glynn, 2003).

2.3.4. FAMILY INTERVENTIONS

Mental health consumers who live in a high expressed emotion environment are more likely to expose to high risk of relapse (Zaretsky, 2003). This problem can be alleviated by family interventions (Mueser & Glynn, 1998; Tarrier, Barrowclough, Porceddu, & Fitzpatrick, 1994). Its modalities include psychoeducation and management techniques on psychiatric illness, given of psychological support to family in reducing stress, and building up rapport between mental health professionals and family members (Mueser & Bond, 2000).

2.4. COMPLIANCE ON PSYCHOSOCIAL TREATMENT

Mental health consumers commonly quitted prescribed psychosocial interventions before the completion of courses (Tarrier et al., 1998). As indicated by the study of Epidemiological Catchment Area, less than 30% of mental health consumers pursued intervention, and only 60% of individuals with schizophrenia participated in prescribed intervention (Regier et al., 1993). Although there is a lack of official statistics, experiences of mental health professionals support the phenomenon that noncompliance in psychosocial treatment is common among mental health consumers in Hong Kong.

Personal contribution on illness management can be represented by the degree of compliance (Baiker, 1986). Good treatment compliance is important for therapeutic success (Ludwig, Huber, Schmit, Bender, & Greil, 1990), and effective utilization of allocated resources (Playle & Keeley, 1998). In order to enjoy the benefits of treatment, mental health consumers should have good compliance on it (Watson & Corrigan, 2001). Scakett and Haynes (1976) defined compliance as the extent to which behaviors of individuals coincide with offered medical advice. The alternative terms in describing noncompliance include default, nonadherence, failure, refusal, resistance, and noncoperation (Fawcett, 1995). It is proposed that "noncompliance" should only be used when the goals of treatment is prominently interfered by the failure of compliance (O'Hanrahan & O'Malley, 1981). Although the definition of compliance proposed by Scakett and Haynes (1976) has been criticized as top-down therapeutic relationship, their definition continues to be used nowadays as there is still no other widely accepted definition on compliance (Ziguras, Klimidis, Lambert, & Jackson, 2001). To apply this concept in our study, psychosocial treatment compliance can be defined as the extent to which mental health consumers' behaviors regarding psychosocial treatment are in line with the expectation of mental health professionals.

The occurrence of compliance behavior by mental health consumers can be explained by the role theory (Parsons, 1972) and the health belief model (Rosenstock, 1966). According to the role model, patient is constrained to seek help and follow rational instructions from physician. Patient should take the

responsibility of noncompliance, as this behavior is certainly irrational and unacceptable (Babiker, 1986). This model however is entirely built on the medical perspective, and largely ignores the independent decision making role of patient in proceeding compliance behavior (Fallon, 1984). In terms of health belief model, compliance behaviors are taken according to the weighing between advantages and disadvantages of actions. It assumes that the health of individuals is perceived to be threatened, and certain action is believed to be beneficial in reducing the threat (Sackett & Haynes, 1976). Besides, their experience of psychiatric illness and the opinions from mental health professionals should modify their decision to act (Christensen, 1978).

Treatment compliance is influenced by the patient, treatment, environment and physician related domains (Fleischhacker, Oehl, & Hummer, 2003). Treatment acceptance of mental health consumers should be strongly affected by the personal characteristics of mental health consumers. Stigma should significantly increase the cost in blocking the compliance behaviors of consumers, as they are easily labeled and rejected once they are utilizing psychiatric services (Watson & Corrigan, 2001).

Treatment compliance is commonly measured through attendance and appointment keeping (Burke & Ockene, 2001; Chen, 1991; Corrigan, Liberman, & Engel, 1990; Cruz, Curz, & McEldoon, 2001; Lysaker, Bell, Milstein, Bryson, & Beam-Goulet, 1994; Pampallona, Bollini, Tibaldi, Kupelnick, & Munizza, 2002), willingness to follow medical advices (Burke & Ockene, 2001; Graybar, Antoniccio,

Boutilier, & Varble, 1989), level of participation (Corriss et al., 1999; Cuffel, Alford, Fischer, & Owen, 1996; Kemp, Kirov, Everitt, Hayward, & David, 1998; Kemp, Peter, Grantley, Brian, & Anthony, 1996; Lysaker, Bell, Milstein, Bryson, & Beam-Goulet, 1994), and motivation in joining prescribed interventions (Lysaker, Bell, Milstein, Bryson, & Beam-Goulet, 1994). However, most previous studies on treatment compliance adopted one or two dimensions for assessing the degree of compliance. They are inadequate in reflecting the real compliance level of mental health consumers. As there is a lack of psychometrically valid psychosocial treatment compliance scale for mental health consumers, I have developed one in my study. Treatment compliance should be scientifically measured by comparing observed treatment behaviors with expected treatment standards (Fleschhacker, Meise, Gunther, & Kurz, 1994). The manifestation of target compliance behaviors is assumed to occur in different circumstances by weighing of perceived benefits. An objective view of compliance behaviors can therefore be captured by a complete list of target compliance behaviors in psychosocial treatment.

2.5. INSIGHT

Amodar and colleagues (1993) referred insight as a continuous phenomenon of current and retrospective awareness and attribution of illness. The awareness about the need of treatment is also included in the framework of insight (Amodar, Strauss, Yale, & Gorman, 1991). Poor insight on mental illness is frequently noticed across mental health consumers (Amodar, Strauss, Yale, & Gorman, 1991; World Health Organization, 1973). Approximately 33% of individuals with schizophrenia

have denied or are unaware of their mental illness (Amodar et al,. 1994; Carpenter, Barko, Carpenter, and Strauss, 1973). In Swanson et al.'s (1995) study, it showed that individuals with mania strongly denied their positive symptoms which were caused by their mental illness, and similar findings have been reported for those with bipolar affective disorders (Schwartz, 1998).

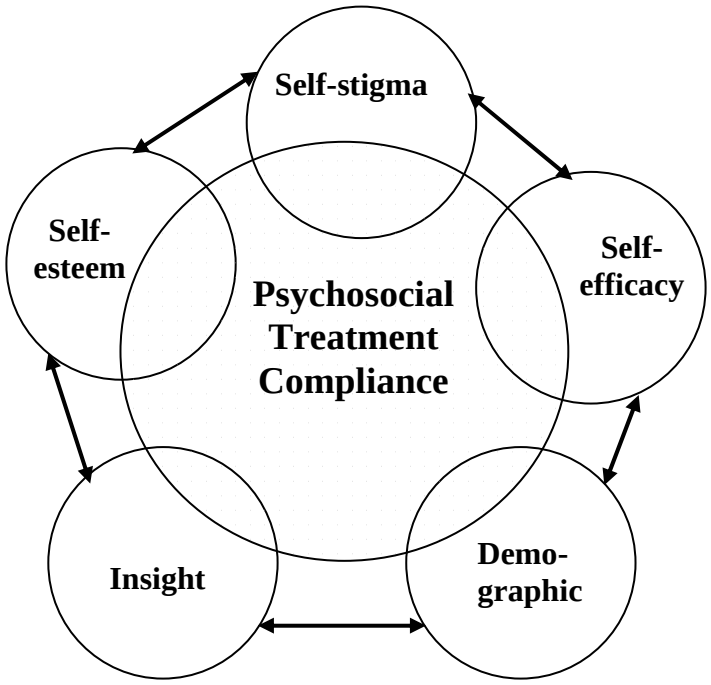
Insight plays an important role in the course and the treatment of mental illness (Amodar, Strauss, Yale, & Gorman, 1991). Lack of insight is associated with hospital readmission (Kent & Yellowlees, 1994) and medication noncompliance (Amador & Strauss, 1993; McEvoy et al., 1989; Weiden et al., 1994). Poor insight on mental illness may act as a mediating factor in causing noncompliance in psychosocial treatment (Lysaker, Bell, Milstein, Bryson, & Beam-Goulet, 1994). However, this study only focused on how insight affected the adherence in work rehabilitation programs, and its generalization to the whole psychosocial treatment was unknown. This construct has been tested with self-stigma in understanding their impact on psychosocial treatment compliance.

2.6. THEORETICAL FRAMEWORK

We hypothesize that poor psychosocial treatment compliance for mental health consumers is associated with high self-stigma, declined self-esteem, and low self-efficacy. We also assume that poor insight and certain demographic characteristics of consumers should undermine psychosocial treatment compliance. Those variables actually should interact to each other in affecting psychosocial

treatment compliance. As the relationship between variables does not seem to be cause-and-effect in nature, my study focused on studying their correlational relationship. However, the adjusted relationship between self-stigma, self-esteem, self-efficacy, insight, and related demographic variables on psychosocial treatment compliance can be handled by the model of multiple regression. This theoretical framework is shown in Figure 4.

Figure 4. Theoretical Framework of This Study



CHAPTER 3 OVERALL DESIGN OF THE STUDY

There were two phases for my research study. Appropriate scales in assessing Chinese mental health consumers' psychosocial treatment compliance, self-stigma, perceived stigma, self-esteem, self-efficacy, and insight were culturally and linguistically translated, or developed in Phase One. Based on the scales validated in Phase One, further study was done in Phase Two to explore the relationship between psychosocial treatment compliance, and self-stigma and other identified factors by using statistical regression of forward selection. The findings were compared with previous studies, and appropriate interventional strategies in self-stigma reduction and psychosocial treatment compliance enhancement were then discussed.

3.1. PHASE ONE: INSTRUMENT DEVELOPMENT AND VALIDATION

3.1.1. OBJECTIVES

1. To select, translate, and validate existing assessment tools in measuring self-stigma, perceived stigma, self-esteem, self-efficacy, and insight for mental health consumers in Hong Kong
2. To develop and validate a compliance scale to measure level of compliance to psychosocial treatment of mental health consumers

3.1.2. INSTRUMENT VALIDATION

Relevant questionnaires with recognized validity, reliability, and representation were selected in assessing self-stigma, perceived stigma, self-esteem, self-efficacy, and insight. The Signs and Symptoms Checklist of the Scale to Assess Unawareness of Mental Disorder was completed by the case occupational therapists. The remaining questionnaires were completed by the mental health consumers through interviews by the research assistants. Table 1 lists the selected assessment tools for this research study.

Table 1. Selected Questionnaires

Variables	**Questionnaires**	**Authors**
Self-stigma/ Perceived stigma	The Self-stigma of Mental Illness Scale (SSMIS)	Corrigan, Watson, & Barr, in press
Self-esteem	The Rosenberg Self-esteem Scale (RSES)	Rosenberg, 1965
Self-efficacy	The Self-efficacy Scale (SES)	Sherer et al., 1982
Insight	The Scale to Assess Unawareness of Mental Disorder (SUMD)	Amador, Strauss, Yale, Flaum, Endicott, & Gorman 1993

All of the above scales were written in English. Mental health consumers in Hong Kong might not have adequate English comprehensive skills to answer them. Those questionnaires were originally designed to be applied in western countries, and some items might not be applicable to Hong Kong cultural. Certain adaptations were thus made to improve their practicability in Hong Kong.

To ensure that the mental health consumers understand the questionnaire, the first step of adaptation was to translate the original English version of the questionnaires into Chinese. Two qualified and experienced translators were involved in this process. They had obtained a Bachelor degree in translation, and one of them received postgraduate qualification. The Self-stigma of Mental Illness Scale, the Rosenberg Self-esteem Scale, the Self-efficacy Scale, and the Scale to Assess Unawareness of Mental Disorder were firstly translated from English to Chinese by one qualified translator. The translated Chinese versions of the questionnaires were then back translated by another independent translator. The semantic meanings between the original and back translated English versions of questionnaires were compared by two postgraduate candidates with experience in mental health research. The discrepancies identified in semantic meaning were further investigated by two seasoned doctoral level researchers. Both of them had considerable knowledge and experience in mental health research, and instruments validation and development. Minor revisions on questionnaires were made according to the comments by the four panel members. The revisions mainly focused on improving the presentation of items, and rectifying the inappropriately translated words. For the Self-stigma of Mental Illness Scale, the translators made a mistake in translating the item of "*most people with mental illness are contagious*". In Chinese term, we seldom presented that "*people*" would infect others. It should be caused by the "*disease*". For the Rosenberg Self-esteem Scale, the fluency of the item "*I feel I do not have much to be proud of*" was improved after rephrasing. The translated Chinese version of "*I am a self-reliant persons*" of the Self-efficacy Scale was inadequate to present the real

meaning of "*self-reliant*". The deeper meaning of this item emerged after the amendment was made. For the Scale to Assess Unawareness of Mental Disorder, some jargons such as "social consequences", "thought disorder", and "stereotypic or ritualistic behaviour" were wrongly translated into Chinese. The minor revisions for the four questionnaires are presented in Appendix I.

Apart from examining the content validity of all questionnaires, examination on their cultural relevancy was also done by the four panel members. Consensus had been made by them that there was no culturally irrelevant items being identified from the four questionnaires. They all commented that the questionnaires should be appropriately applied to the Hong Kong mental health consumers in measuring their level of self-stigma, perceived stigma, self-esteem, self-efficacy, and insight.

Further check on the questionnaires' content validity and cultural relevancy were done by three experienced occupational therapists. Similar to the comments drawn by the four panel members, those professionals got a total agreement on accepting the content validity and the cultural relevancy of all questionnaires. Only one therapist remarked that a short description in illustrating the timeframe of assessment for the SUMD should be added. The method of content validity ratio (CVR; Lawshe, 1975) showed that the content validity and cultural relevancy for the four questionnaires were acceptable, as all the seven expert panel members had made a total agreement on acceptance.

Three target mental health consumers were involved in pre-testing to ensure that the questionnaires were understandable to them. All the respondents were able to answer the questionnaires in a smooth manner through the interview by a research assistant. They commented that the items were easy to understand, and therefore no further amendment was required. The finalized Chinese version of the Self-stigma of Mental Illness Scale, the Rosenberg Self-esteem Scale, the Self-efficacy Scale, and the Scale to Assess Unaware of Mental Disorder are attached in Appendix 2.

3.1.3. INSTRUMENT DEVELOPMENT

Literature review reveals that the existing scales and measuring methods in assessing the level of psychosocial treatment compliance for mental health consumers are incomprehensive in providing objective information on their level of psychosocial treatment compliance. A scale fulfilling this purpose was therefore developed.

Initial item pool was drawn from literature review and comments of related professionals (Clark & Watson, 1995; Devellis, 2003; Spector, 1992). CINAHL, MEDLINE, PsycINFO, and SSCI were used to locate appropriate literature on psychosocial treatment compliance from January 1966 to March 2004. The key words of “compliance”, “treatment”, “mental illness”, and other interchangeable terms were used. Thirteen relevant items were drawn form the computerized search. After discussing with the mental health rehabilitation professionals, another 12 relevant items were collected. A total of 25 items related to the measurement of

mental health consumers' compliance behaviors in psychosocial treatment were generated.

A summated rating scale was adopted in developing the psychosocial treatment compliance scale (Spector, 1992). Frequency acted as the response choice. The occurrence of target compliance behaviors were expressed by a five point Likert scale anchored from Never (1) to Always (5). In order to enhance the practicability of the PTCS to English Speaking countries, this scale was written in English. This scale should be easily completed by the case therapists who had adequate English comprehensive skills.

The content validity and cultural relevancy of the selected items were firstly examined by the two experienced PhD level researchers, and one postgraduate candidate. Those three members had been involved in the previous validation study. According to their comments, some items were combined due to repetition of meaning. For instance, the six items including "*initiative in asking relevant questions*", "*initiative in answering questions*", "*silent in sessions*", "*incessant talk in sessions*", "*willing to communicate with therapists*", and "*willing to communicate with group mates*" referred to the communication during psychosocial treatment. Those items were then combined, and divided into two concise items of "*was willing to communicate with therapist. E.g. initiative in asking or answering questions*", and "*was willing to communicate with other group mates*". Besides, some wordings were revised to improve their preciseness. For instance, "*actively participated in*

prescribed psychosocial treatment" was used instead of "*level of participation in given tasks, e.g. active, passive, resistive, and refusal participation*". This amendment did not only reduce its clumsiness, but also improved the overall consistency of the scale, as the response choice of the original item was based on evaluation instead of frequency. The 17-item Psychosocial Treatment Compliance Scale was developed after the revision. The three panel members commented that the PTCS contained no cultural sensitive ingredient.

The Psychosocial Treatment Compliance Scale was further reviewed by another three experienced mental health rehabilitation professionals. From their clinical point of view, they all agreed that the items of the PTCS were adequately sampled and did not contain any culturally irrelevant content. The involvement of these three experts expanded the expert panel from three members to six. All of them totally agreed with the content validity and the cultural relevancy of the PTCS, and reached the critical value of content validity ratio (Lawshe, 1975). The finalized version of the PTCS was used in this study and attached in Appendix 2.

3.1.4. METHOD

3.1.4.1. PARTICIPANTS

3.1.4.1.1. SAMPLE SIZE CALCULATION

Thirty-one mental health consumers were involved in the pilot study. Correlations between self-stigma, self-esteem and self-efficacy, and psychosocial treatment compliance were calculated for this pilot sample. By entering the correlational data in the statistical software of the Power Analysis and Sample Size (PASS) with type I error and power set at .05 and .80 respectively, 100 participants were estimated to be randomly recruited for the Phase Two study.

Sample size calculation was reported in this section because the whole data set had been used in Phase One validation study. It included examining the internal consistency of all instruments, establishing the convergence validity of the Psychosocial Treatment Compliance Scale, and performing the exploratory factor analysis for the PTCS.

3.1.4.1.2. GENERAL INFORMATION

Participants consisted of 51 males (47.2%) and 57 female (52.8%) who were clinically diagnosed to have DSM IV psychiatric illnesses including schizophrenia (*N*= 86; 79.6%), depressive disorder (*N*= 7; 6.5%), bipolar affective disorder (*N*= 9; 8.3%), schizoaffective disorder (*N*= 4; 3.7%), or delusional disorder (*N*= 2; 1.9%) by the certified psychiatric physicians. On average, they had acquired their DSM IV psychiatric diagnosis for 13.50 years (*S.D.* = 8.76). Their medical report, and the

ongoing clinical assessments and observation done by their case therapists showed that the participants currently suffered from hallucination (*N*= 20; 18.5%), delusion (*N*= 13; 12.0%), blunt affect (*N*= 26; 24.1%), avolition (*N*= 22; 20.4%), ahendonia (*N*= 13; 12.0%), poor attention (*N*=13; 12.0%), poor social relationship (*N*= 19; 17.6%) and poor social judgment (*N*= 22; 20.4%). They were either in-patient (*N*= 46; 42.6%), day-patient (*N*= 50; 46.3%), out-patient (*N*= 4; 3.7%), or other community service recipients (*N*= 8; 7.4%) from Kwai Chung Hospital, South Kwai Chung Psychiatric Centre, East Kowloon Psychiatric Centre, Yaumatei Psychiatric Centre, and Lai Kwan Day Training Centre of Baptist Oi Kwan Social Service with currently recipient of psychotropic medication. Their mean age were 38.47 years old (*S.D.* = 8.13). All of them received at least primary education, and the majority of them were single (*N*= 83; 76.9%). They had involved in at least one kind of psychosocial treatment such as family intervention, social skills training, vocational rehabilitation and cognitive behavioral therapy for the past three months. Those suffered from developmental disabilities, dementia, substance abuse of illicit drugs and alcohol, and significant hearing loss were excluded for this study. The details of their demographic data are shown in Table 2.

Eighteen qualified case occupational therapists assisted in this study. On average, they had 8.83 years (*S.D.* = 4.21) of experiences in providing occupational therapy services for mental health consumers. They had full understanding on how the participants complied with prescribed psychosocial treatment, as they had provided such intervention to particular participants for 11.83 months on average

(*S.D.* = 11.36). Their main duties included completing the Demographic Data Collection Form, the Signs and Symptoms Checklist of the Scale to Assess Unawareness of Mental Disorder, the Psychosocial Treatment Compliance Scale, and recruiting appropriate participants. Most of them had undergone a training session on how to administer the questionnaires, and how to recruit suitable participants for this study. Their queries were handled by the research personnel through discussion. The case occupational therapists mentioned that all questionnaires could be finished with ease, and they all understood the criteria for subject recruitment.

Table 2. Demographic Data of Participants (*N* = 108)

	M	*S.D.*
Age	38.47	8.13
Duration of Illness (years)	13.50	8.76
Accumulated Length of Stay in Hospital (months)	24.89	31.99
Accumulated Length of Stay in Day Hospital (months)	8.37	12.02
Number of Previous Admission	4.03	4.16
Frequency of Utilizing Mental Health Service (day per week)	5.40	.95

Table 2. Demographic Data of Participants (Continue)

	N	*%*
Gender		
Male	51	47.2
Female	57	52.8
Educational Level		
Primary	24	22.9
Secondary	66	62.9
Tertiary	15	14.3
Martial Status		
Single	83	76.9
Married	13	12.0
Divorce	10	9.2
Widow	2	1.9
Living with		
Parent	46	43.0
Sibling	16	15.0
Relatives	4	3.7
Spouse	5	4.7
Alone	27	25.2
Others	27	25.2
Source of Income		
Self-earned	2	1.9
Saving	13	12.1
Family	24	22.4
NDA/HAD	14	13.1
CSSA	62	57.9
Present Occupation		
Cleaning Worker	2	1.9
Security Guard	1	.9
Unemployed	90	84.1
Others	14	13.1
Diagnosis		
Schizophrenia	86	79.6
Depressive Disorder	7	6.5
Bipolar Affective Disorder	9	8.3
Schizoaffective Disorder	4	3.7
Delusional Disorder	2	1.9
Present Utilization of Mental Health Services		
In-patient	46	42.6
Day-patient	50	46.3
Out-patient	4	3.7
Others	8	7.4

3.1.4.2. INSTRUMENTS

1. The Psychosocial Treatment Compliance Scale (PTCS; Tsang, Fung, & Corrigan, 2006)
    a. This scale was used to measure how the mental health consumers complied with the prescribed psychosocial treatment. The occurrence of their compliance behaviors was assessed via the 17 items anchored from “Never” (1), “Infrequently” (2), “Sometimes” (3), “Frequently” (4) to “Always” (5). This scale was rated according to the case occupational therapists’ day-to-day observation on participants’ adherence to psychosocial treatment. Higher scores refer to better psychosocial treatment compliance. The psychometric properties of the PTCS were developed through the Phase One study.

2. The Self-stigma of Mental Illness Scale (SSMIS; Corrigan, Watson, & Barr, in press)
    a. Level of self-stigma and perceived stigma of mental health consumers were assessed by this instrument. This measurement contains 4 subscales, including “Stereotype Awareness”, “Stereotype Agreement”, “Self-concurrence”, and “Self-esteem Decrement”. Perceived stigma was measured by “Stereotype Awareness”, whereas self-stigma was assessed by the three reminding subscales. The four subscales contain the same 15 items, but they are arranged in different order. The SSMIS are rated by using a 9 point Likert scale

from “I strongly disagree” (1) to “I strongly agree” (9). The four subscales start from different introductory clauses:

i. Stereotype Awareness: “*I think the public believes.…..*”

ii. Stereotype Agreement: “*I think.…..*”

iii. Self-concurrence: “*Because I have a mental illness.…..*”

iv. Self-esteem Decrement: “*I currently respect myself less.…..*”

Thirteen items are written in negative direction. The remaining two items, “*most persons with mental illness are mostly geniuses*” and “*most persons with mental illness are unusually artistic*”, are written in positive direction. The score of negative items needs to be converted for summation. Higher score indicates higher level of perceived stigma and/ or self-stigma. Satisfactory internal consistency and test-retest reliability were demonstrated for the four original subscales, and the details are shown in Table 3.

Table 3. Internal Consistency and Test-retest Reliability of the SSMIS Subscales

Subscale	Internal Consistency	Test-retest Reliability
Stereotype Awareness	.85	.72
Stereotype Agreement	.64	.62
Self-concurrence	.72	.72
Self-esteem Decrement	.87	.75

3. The Rosenberg Self-esteem Scale (RSES; Rosenberg, 1965)

    a. This scale comprises 10 items in measuring global self-esteem. It rates on a 4 point Likert scale from "strongly disagree" (1) to "strongly agree" (4). Five of the item are written in positive direction (e.g. "*I feel that I am a person of worth, at least on an equal basis with others*"), and the reminding items are written in negative direction (e.g. "*I certainly feel useless at times*"). The scores of the 5 negative items should be converted. Higher scores represent higher expected self-esteem. The RSES was a reliable and validated tool with the internal consistency ranged from .77 to .88, and the test-retest reliability ranged from .82 to .88 (Blascovich & Tomaka, 1991).

4. The Self-efficacy Scale (SES; Sherer, et al., 1982)

    a. This scale contains twenty-three items which are rated by 14-point Likert Scale. 17 items refer to general self-efficacy and 6 items refer to social self-efficacy. The subscale of General Self-efficacy measure self-efficacy in non-specific behavioral aspect, whereas Social Self-efficacy Scale measures self-efficacy in differentiate social situations. The two subscales contain both positive (e.g. "*When I make up plans, I am certain I can make tem works*" and negative (e.g. "*One of my problems is that I cannot get down to work when I should*") items. The negative items are required to be recoded for scoring. Higher scores represent higher self-efficacy. Satisfactory internal consistency

had been demonstrated for the General Self-efficacy Subscale (α= .86) and the Social Self-efficacy Subscales (α= .71).

5. The Scale to Assess Unawareness of Mental Disorder (SUMD; Amador, Strauss, Yale, Flaum, Endicott, & Gorman, 1993)

    a. This scale was used to assess the current and retrospective insight of mental health consumers. Three general questions, "*awareness of mental disorders*", "*awareness of the achieved effects of medication*", and "*awareness of the social consequences of mental disorder*" are included. The SUMD also contains seventeen items concerning the "*awareness*" and "*attribution*" of having specific symptoms to their mental illness. According to the filled Signs and Symptoms Checklist, specific items are interviewed. For instance, participants were required to answer the item concerning his awareness and attribution of having delusion if he/ she were noted to have delusion in the checklist. The participant did not require answering this question if they did not have delusion. Higher scores indicate poor awareness and/or attribution of their mental illness and psychiatric symptoms. The inter-rater reliability of the general items and subscales are reported in Table 4.

Table 4. Interrater ICC for the General Items and Subscales Items of the SUMD

	Current	Past
Q1. Mental Illness	.89	.78
Q2. Medication	.75	.89
Q3. Social Consequence	.68	.67
Subscale1. Awareness of Symptoms	.90*	.86*
Subscale 2. Attribution of Symptoms	.87*	.52*

Key *: ICC for the total scores

6. Demographic Data Collection Form

    a. This form was developed to collect the general demographic details of participants such as their gender, age, education level, martial status, and diagnosis, and the background of informants. This form is attached in Appendix 2.

3.1.4.3. DATA COLLECTION

Two research assistants, including the MPhil candidate, were involved in the data collection. They were qualified occupational therapists, and had previous experiences in conducting face-to-face interviews with people with mental illness. The administrative methods of the questionnaires were clearly clarified among the discussion between the PhD level researcher and the two research assistants. They first of all explained the general information and the details of interview to the identified participants. Before conducting the interview, participants were required to sign a written consent to ensure that they agreed to voluntarily participate in this study. This MPhil study is part of the larger scale study entitled “Mental Illness Self-stigma as Barriers to Treatment Adherence”. The information sheet and the consent form for the above entitlement were used (Appendix 3). The Self-stigma of Mental Illness Scale, the Rosenberg Self-esteem Scale, the Self-efficacy Scale, and the Scale to Assess Unawareness of Mental Disorders (except the Signs and Symptoms Checklist) were completed by the participants through a face-to-face interview by the research assistants. The Demographic Data Collection Form, the Psychosocial Treatment Compliance Scale, and the Signs and Symptoms Checklist of the SUMD were completed by their case occupational therapists. The three instruments were completed according to the participants’ medical record which was documented by qualified psychiatric physicians, and the ongoing clinical observation and assessments conducted by the case occupational therapists. Thirty-one participants were required to complete the questionnaires again within 1 to 2 weeks after the first administration by the same rater, and the case occupational therapists were also

required to fill in the PTCS and Signs and Symptoms for those participants twice within the same schedule. Those data were used to assess the test-retest reliability of the questionnaires. However, the remaining 77 participants were only required to fill in the questionnaires once.

3.1.4.4. DATA ANALYSIS

Statistical Package for the Social Science (SPSS) version 11.0 was used for data analysis. The demographic data of participants and case occupational therapists were summarized by using descriptive and frequency statistics. The normality of the testing mean scores of the Psychosocial Treatment Compliance Scale, the Self-stigma of Mental Illness Scale, the Rosenberg Self-esteem Scale, the Self-efficacy Scale, and the Scale to Assess Unawareness of Mental Disorders was tested by skewness and kurtosis, whereas the presence of outliers was detected by *z*-score. Based on the data of the first 31 participants, the test-retest reliability of all questionnaires was established via intraclass correlation coefficient (ICC). By using the whole data set, Cronbach's coefficient alpha (α) was used to assess the internal consistency of each scale. Exploratory factor analysis was then applied to examine the factor structure of the Psychosocial Treatment Compliance Scale and provide an operational definition to the abstract complex constructs identified (Tabachnick & Fidell, 2001), and examine the construct validity of this instrument (Portney & Watkins, 2000). The Kaiser-Meyer-Oklin Measure of Sample Adequacy (Kaiser, 1974) and Barlett's Test of Sphericity (Bartlett, 1954) were applied to test the adequacy of the data set in proceeding exploratory factor analysis. The Kaiser-

Guttman criterion (Kaiser, 1970) and the Cattell's scree test (Cattell, 1966) were used to determine the retention of factors for further analysis. The varimax rotation was then applied to increase the interpretability of the factor structure of the PTCS. Pearson product-moment coefficient of correlation was applied to determine the bivariate correlations between psychosocial treatment compliance, and self-stigma, perceived stigma, self-esteem, self-efficacy and insight.

3.1.5. RESULTS

3.1.5.1. NORMALITY OF TESTING MEAN SCORES

Table 5 shows that the results of kurtosis and skewness for all testing mean scores were under a satisfactory limit. No violation of normality was noted.

Table 5. Number of subjects, mean, standard deviation, kurtosis, and skewness of each testing score

Sub-scores	*N*	Mean	*S.D.*	Kurtosis	Skewness
PTCS	108	61.38	11.90	-.824	.135
SSMIS: Stereotype Awareness	108	75.23	17.84	.417	-.380
SSMIS: Stereotype Agreement	108	70.40	19.07	-.240	-.002
SSMIS: Self-concurrence	108	62.47	21.95	-.467	.406
SSMIS: Self-esteem Decrement	108	63.02	20.85	-.416	.306
RSES	108	25.58	3.70	.231	-.701
SES: General	108	138.84	36.16	-.645	.021
SES: Social	108	48.75	13.95	.007	.249
SUMD: Mental Illness (Current)	108	2.33	1.39	-.756	.646
SUMD: Mental Illness (Past)	108	2.59	1.48	-1.175	.363
SUMD: Medication (Current)	108	2.19	1.43	-.648	.804
SUMD: Medication (Past)	108	2.42	1.58	-1.184	.580
SUMD: Social Consequence (Current)	108	2.21	1.47	-.793	.764
SUMD: Social Consequence (Past)	108	2.34	1.53	-1.020	.648
SUMD: Awareness of Symptoms (Current)	70	3.14	1.54	-1.436	-.194
SUMD: Awareness of Symptoms (Past)	100	3.18	1.42	-1.271	-.174
SUMD: Attribution of Symptoms (Current)	51	2.71	1.51	-1.300	.256
SUMD: Attribution of Symptoms (Past)	79	2.73	1.38	-.992	.362

3.1.5.2. DETECTION OF OUTLIERS

No univariate outlier was located by setting the criterion that *z*-score should be smaller than |3.29| (Tabachnick & Fidell, 2001). The absolute *z*-scores of the questionnaires are presented in Table 6.

Table 6. Absolute *z*-scores of the Questionnaires

Questionnaires	Absolute *z*-score	Questionnaires	Absolute *z*-score
PTCS	.03-1.98	SUMD: Mental Illness (Past)	.28-1.63
SSMIS: Stereotype awareness	.01-3.26	SUMD: Medication (Current)	.13-1.97
SSMIS: Stereotype agreement	.02-2.80	SUMD: Medication (Past)	.26-1.63
SSMIS: Self-concurrence	.07-2.89	SUMD: Social Consequence (Current)	.15-1.90
SSMIS: Self-esteem decrement	.00-3.02	SUMD: Social Consequence (Past)	.22-1.74
RSES	.11-3.13	SUMD: Awareness of symptoms (Current)	.09-1.39
SES: General	.02-2.16	SUMD: Awareness of symptoms (Past)	.13-1.54
SES: Social	.02-2.56	SUMD: Attribution of symptoms (Current)	.19-1.51
SUMD: Mental Illness (Current)	.24-1.91	SUMD: Attribution of symptoms (Past)	.09-1.64

3.1.5.3. EXPLORATORY FACTOR ANALYSIS OF THE PTCS

The data was appropriate for exploratory factor analysis, as it reached the criteria of Kaiser-Meyer-Olkin Measure of Sample Adequacy (value= .925; >.60), and Bartlett's Test of Sphericity (value= .000; <.05). The correlations for all paired items of the PTCS were greater than .30 which reached the recommendation by Tabachnick and Fidell (2001) for factor analysis.

Kaiser-Guttman criterion revealed that two factors with the eigenvalue greater than one should be remained. After the examination of the plot of the Catell's scree test, it confirmed the number of retention. Two factors were therefore extracted and rotated for further investigation. These two factors explained 70.74% of the total variance. The factor loadings, and correlation between items and the corresponding factors are reported in Table 7.

Table 7. Factor Loadings of PTCS Items and Correlation between Items and the Corresponding Factors

		Factor		M	SD	Pearson Coefficient	
		1	2			Factor1	Factor2
10.	Was willing to provide help to other participants when needed	**.861**	.337	3.31	.95	.901**	
9.	Was willing to communicate with other participants	**.800**	.229	3.42	.98	.795**	
8.	Was willing to communicate with therapists. E.g. Initiative in asking or answering questions	**.790**	.178	3.66	.84	.767**	
16.	Was willing to seek advice to improve performance	**.758**	.377	3.31	.96	.839**	
13.	Was willing to review topics discussed in previous psychosocial treatment sessions	**.750**	.406	3.33	.86	.854**	
12.	Was willing to complete homework assignment	**.740**	.510	3.37	.88	.894**	
11.	Was able to remember the contents/ skills taught in psychosocial treatment	**.704**	.393	3.39	.81	.815**	
17.	Was able to control emotion when facing uncertainty in psychosocial treatment	**.666**	.328	3.60	.83	.727**	
14.	Was willing to try new psychosocial treatment prescribed	**.645**	.534	3.53	.88	.835**	
7.	Was attentive in attending psychosocial treatment	**.576**	.643	3.71	.93	.847**	
6.	Actively participated in prescribed psychosocial treatment	**.517**	.690	3.67	.88	.819**	
4.	Was willing to follow therapists' instructions	**.476**	.712	4.04	.76	.785**	
2.	Attended prescribed psychosocial treatment on time	.140	**.837**	3.91	.95		.789**
1.	Attended prescribed psychosocial treatment	.226	**.782**	4.22	.74		.794**
3.	Was self-motivated in joining the psychosocial treatment program	.445	**.712**	3.66	.88		.820**
15.	Continued to participate in all psychosocial treatment and avoided premature treatment termination	.634	**.620**	3.62	.89		.879**
5.	Was willing to follow family's/ friends' advice in attending psychosocial treatment	.522	**.548**	3.65	.90		.800**
	Percentage of Variance accounted	40.08	30.66				

** $p < .01$

Factor 1: Participation

Factor 1 comprised twelve items including Item 4 "*Was willing to follow therapists' instructions*", Item 6 "*Actively participated in prescribed psychosocial treatment*", Item 7 "*Was attentive in attending psychosocial treatment*", Item 8 "*Was willing to communicate with therapists. E.g. Initiative in asking or answering questions*", Item 9 "*Was willing to communicate with other participants*", Item 10 "*Was willing to provide help to other participants when needed*", Item 11 "*Was able to remember the contents/ skills taught in psychosocial treatment*", Item 12 "*Was willing to complete homework assignment*", Item 13 "*Was willing to review topics discussed in previous psychosocial treatment sessions*", Item 14 "*Was willing to try new psychosocial treatment prescribed*", Item 16 "*Was willing to seek advice to improve performance*", and Item 17 "*Was able to control emotion when facing uncertainty in psychosocial treatment*". This factor mainly measured how well the mental health consumers participated in the prescribed psychosocial treatment. The target compliance behaviors in this category included participants' communication with therapists and group mates, their cooperation and performance towards psychosocial treatment, and their willingness to seek advice for improvement. This factor accounted for 40.08% of the total variance. The correlations between items and factor one ranged from .727 to .901 ($p < .01$). The mean rating for these 12 items scored from 3.31 to 4.04 (*S.D.* = .76 to .98).

Factor 2: Attendance

Item 1 "*Attended prescribed psychosocial treatment*", Item 2 "*Attended prescribed psychosocial treatment on time*", Item 3 "*Was self-motivated in joining the psychosocial treatment program*", Item 5 "*Was willing to follow family's/ friends' advice in attending psychosocial treatment*", and Item 15 "*Continued to participate in all psychosocial treatment and avoided premature treatment termination*" were included in this factor. This factor assessed the compliance behaviors in term of attendance and punctuation. The correlation between the five items and factor 2 ranged from .789 to .879 ($p < .01$) with the mean scores rated from 3.62 to 4.22 (*S.D.* = .74 to .95).

According to the rule set out by Comrey and Lee (1992), the majority of the PTCS items received a very good factor loading (>.63). This is interesting to see that Item 6 "*Actively participated in prescribed psychosocial treatment*", Item 7 "*Was attentive in attending psychosocial treatment*", and item 15 "*Continued to participate in all psychosocial treatment and avoided premature treatment termination*" seemed to be evenly loaded on factor 1 and 2. Following the advice from Kim and Mueller (1978), the ultimate solution should consider the reasonableness of underlying meaning of items. Thus, item 6 and 7 were allocated to factor 1, and item 15 was eventually included in factor 2. Although item 4 had a high factor loading on factor 2, this item was still allocated to factor 1 according to its underlying meaning. After the allocation, there were no contamination on the

internal consistency of the two factor solutions, and it showed that factor 4 also was highly correlated with factor 1 (α= .785; p<.01).

3.1.5.4. TEST-RETEST RELIABILITY

Most questionnaires demonstrated good test-retest reliability. Results showed that the test-retest reliability of the Chinese version of questionnaires was comparable to the original English version. Those results are reported in Table 8.

Table 8. Test-retest Reliability of the Questionnaires

	Intraclass Correlation Coefficient (95% *CI*)	
Instruments	Chinese Version	English Version
Psychosocial Treatment Compliance Scale		
1. Participation	.90	N.A.
2. Attendance	.86	N.A.
Self-stigma of Mental Illness Scale		
1. Stereotype Awareness	.71	.72
2. Stereotype Agreement	.70	.62
3. Self-concurrence	.81	.72
4. Self-esteem Decrement	.77	.75
Rosenberg Self-esteem Scale	.79	.82-.88
Self-efficacy Scale		
1. General Self-efficacy	.90	N.A.
2. Social Self-efficacy	.86	N.A.
Scale to Assess Unawareness of Mental Disorder		
1. Mental Illness (Current)	.89	.89
2. Mental Illness (Past)	.81	.78
3. Medication (Current)	.67	.75
4. Medication (Past)	.78	.89
5. Social Consequence (Current)	.90	.68
6. Social Consequence (Past)	.98	.67
7. Awareness of Symptoms (Current)	.92	.90
8. Awareness of Symptoms (Past)	.92	.87
9. Attribution of Symptoms (Current)	.86	.86
10. Attribution of Symptoms (Past)	.68	.52

3.1.5.5. INTERNAL CONSISTENCY

Good to excellent internal consistency was demonstrated for the questionnaires. Again, similar value of coefficient alpha was shown between the Chinese version and original English of questionnaires. Their coefficient alpha is reported in Table 9.

Table 9. Internal Consistency of the Questionnaires

	Coefficient Alpha	
Instruments	Chinese Version	English Version
Psychosocial Treatment Compliance Scale		
1. Participation	.96	N.A.
2. Attendance	.87	N.A.
Self-stigma of Mental Illness Scale		
1. Stereotype Awareness	.82	.85
2. Stereotype Agreement	.85	.64
3. Self-concurrence	.90	.72
4. Self-esteem Decrement	.88	.87
Rosenberg Self-esteem Scale	.77	.77- .88
Self-efficacy Scale		
1. General Self-efficacy	.88	.86
2. Social Self-efficacy	.70	.71
Scale to Assess Unawareness of Mental Disorder	N.A.	N.A.

3.1.5.6. CONVERGENT VALIDITY

The bivariate correlations between psychosocial treatment compliance, and self-stigma, perceived stigma, self-esteem, self-efficacy and insight are reported in Table 10. Apart from the pair of “Participation” of the PTCS and “Stereotype Awareness” of the SSMIS, and the pairs of “Current Attribution of Symptoms” and “Participation”/ “Attendance” of the PTCS, all the remaining pairs obtained statistically significant association.

Table 10. Correlations between the Psychosocial Treatment Compliance and Self-stigma, Perceived Stigma, Self-esteem, Self-efficacy, and Insight

	Participation of PTCS	Attendance of PTCS
The Self-stigma of Mental Illness Scale		
Stereotype awareness	-.180	-.258**
Stereotype agreement	-.319**	-.343**
Self-concurrence	-.394**	-.425**
Self-esteem decrement	-.390**	-.391**
Rosenberg Self-esteem Scale	.433**	.424**
Self-efficacy Scale		
General Self-efficacy	.367**	.382**
Social Self-efficacy	.429**	.363**
The Scale to Assess Unawareness of Mental Disorder		
Mental Illness (Current/ Past)	-.307**/ -.393**	-.253**/ -.277**
Medication (Current/ Past)	-.360**/ -.270**	-.330**/ -.232*
Social Consequence (Current/ Past)	-.351**/ -.315**	-.293**/ -.250**
Awareness of symptoms (Current/ Past)	-.423**/ -.382**	-.344**/ -.333**
Attribution of symptoms (Current/ Past)	-.255/ -.322**	-.186/ -.284*

*p < .05, ** p < .01

3.1.6. DISCUSSION

3.1.6.1. CONTENT VALIDITY AND RELIABILITY

The content validity and the cultural relevancy of the Psychosocial Treatment Compliance Scale, the Self-stigma of Mental Illness Scale, the Rosenberg Self-esteem Scale, the Self-efficacy Scale, and the Scale to Assess Unawareness of Mental Disorder were established by the experienced mental health rehabilitation professionals and researchers using the judgmental technique of content validity ratio. All experts commented that the questionnaires were contently valid and culturally relevant to Hong Kong. Our findings showed that the test-retest reliability and the internal consistency were satisfactory. This implies that the questionnaires are able to measure their corresponding constructs with stability over time.

3.1.6.2. STRUCTURAL VADILITY OF THE PTCS

The findings of exploratory factor analysis suggested the two-factor solution for the target psychosocial treatment compliance behaviors. “Participation” was the most important factor for determining whether the participants were complied or not. This factor represented the engagement, cooperation, and communication of mental health consumers for the prescribed treatment which accounted for 40.08 percentage of total variance. This is consistent to the literatures that level of participation (Corriss et al., 1999; Cuffel, Alford, Fischer, & Owen, 1996; Kemp, Kirov, Everitt, Hayward, & David, 1998; Kemp, Peter, Grantley, Brian, & Anthony, 1996; Lysaker, Bell, Milstein, Bryson, & Beam-Goulet, 1994) and willingness to follow advice

(Burke & Ockene, 2001; Graybar, Antoniccio, Boutilier, & Varble, 1989) are regarded as important determiners of treatment compliance.

"Attendance" was another important factor of psychosocial treatment compliance which constituted another 30.66% of the total variance. Attendance rate has been one of the most frequently used indicators for treatment compliance (Burke & Ockene, 2001; Chen, 1991; Corrigan, Liberman, & Engel, 1990; Cruz, Curz, & McEldoon, 2001; Pampallona, Bollini, Tibaldi, Kupelnick, & Munizza, 2002; Lysaker, Bell, Milstein, Bryson, & Beam-Goulet, 1994). Punctuality, treatment continuality, and the actualized form of self-motivation in joining treatment were included in this factor.

The two factors extracted, "Participation" and "Attendance", were therefore used as the variables for the correlational study, and the dependent variables for the regression analysis.

3.1.6.3. CONVERGENT VALIDITY OF THE PTCS

The normality of the mean scores of all questionnaires was assumed, and no univariate outliner was detected. This eliminated the possibility that the occurrence of statistical significant correlations were caused by unrepresentative data. Except that there was no significant association between "Participation" and "Stereotype awareness", significant associations were found between "Participation" and "Attendance" of the Psychosocial Treatment Compliance Scale, and the four

subscales of the Self-stigma of Mental Illness Scale. It implies that mental health consumers who are not self-stigmatized are more likely to participate and attend in the prescribed psychosocial treatment. This is consistent with the comment from Corrigan and his colleagues (Corrigan, 2004; Corrigan & Watson, 2002) that self-sigma should undermine treatment compliance. Self-stigmatized individuals are more likely to avoid social interaction with others (Holmes & River, 1998) and avoid help seeking (Dinos, Stevens, Serfaty, Weich, & King, 2004). They may avoid stigma by refusing to attend psychiatric treatment, as they are more likely to be labeled as mental illness by association (Corrigan, 2004). One interesting point is that there was no significant association found between "Participation" and "Stereotype Awareness". This may have the implication that their engagement in this treatment should not be affected if mental health consumers can overcome perceived stigma in attending psychosocial treatment.

The findings suggested that poor psychosocial treatment compliance was correlated with low self-esteem, poor general self-efficacy, and diminished social self-efficacy. There is a closely link between self-stigma, self-esteem, and self-efficacy (Corrigan & Watsion, 2002; Corrigan, Watson, & Barr, in press), and the erosive effect of self-stigmatization on self-esteem and self-efficacy should be intensified along this process (Fung, Tsang, Corrigan, & Lam, under review). Individuals with low self-esteem and self-efficacy are more likely to have the feeling of hopelessness (Rosenfield, 1997) and the negative beliefs about their inability to cope with given tasks and others. They are more vulnerable to be undermined by

self-stigma (Corrigan & Watson, 2002) resulting in treatment noncompliance. They may not agree that psychosocial treatment should help them in improving their conditions. According to the health belief theory (Rosenstock, 1966), target compliance behaviors would not be executed when the negative outcomes cannot be come across by the actions. Higher social self-efficacy individuals probably will experience lesser stress (Coffman & Gillingan, 2002) in non-medication treatment engagement (Corriss et al., 1999).

Insight was found to be correlated with psychosocial treatment compliance. Good participation and attendance were associated with better current and past awareness of having mental illness, achieved effect of medication, social consequence, and having specific mental illness symptoms. Significant association had also been demonstrated in the past attribution of having specific symptoms, but not for the current attribution. The insignificant correlation between current attribution and treatment compliance may imply that treatment compliance is related to the recognition of symptoms instead of its attribution. In general, the findings supported that mental health consumers who have better insight are more likely to have better psychosocial treatment compliance. This finding was consistent with the literature that poor insight was correlated with poor treatment compliance (Corrigan, Liberman, & Engel, 1990; Lysaker, Bell, Milstein, Bryson, & Beam-Goulet, 1994; Rusch & Corrigan, 2002). As supported by the role theory (Parson, 1972), mental health consumers who have no insight would not adopt their help seeking role as sufferer of mental illness.

3.1.6.4. LIMITATIONS

Certain strategies were implemented in Phase One study to establish the psychometric properties of the Psychosocial Treatment Compliance Scale and related questionnaires. However, further improvements can be done for this validation study. For the development of the PTCS, we did not establish its inter-rater reliability. Under the case management system of the psychiatric settings in Hong Kong, one therapist is responsible for providing psychosocial treatment for individual consumers. This is difficulty to involve another reliable rater in scoring the PTCS for the same participant.

Due to administrative constraint, there was a lack of information on actual compliance such as attendance rate and frequency of premature termination in establishing the construct validity of the PTCS via convergent validation. In view of the limited sample size for this study, confirmatory factor analysis could not be implemented in assessing the appropriateness of the explored factor model (Kim & Mueller, 1978) of psychosocial treatment compliance. This statistical technique should provide further information for the model enhancement (Tabacknich & Fidell, 2001). In further study, those information and analysis should be done to help us further understand the psychometric properties of the PTCS.

3.1.7. CONCLUSION

The objectives of Phase One study in developing the Psychosocial Treatment Compliance Scale, and translating and validating the Self-stigma of Mental Illness Scale, the Rosenberg Self-esteem Scale, the Self-efficacy Scale, and the Scale to Assess Unawareness of Mental Disorder were successfully achieved. The results suggested that all instruments may be applied with acceptable psychometric properties in the second phase of the study.

3.2. PHASE TWO: MAIN STUDY

3.2.1. OBJECTIVES

1. To determine the relationship between psychosocial treatment compliance, and self-stigma, perceived stigma, self-esteem, self-efficacy, insight and certain socio-demographic variables among mental health consumers in Hong Kong
2. To recommend strategies for psychosocial treatment compliance enhancement and self-stigma decrement

3.2.2. HYPOTHESES

1. High level of self-stigma is associated with poor psychosocial treatment compliance
2. Psychosocial treatment non-compliance is more likely to be related to self-stigma instead of perceived stigma
3. Poor self-esteem, low self-efficacy, lack of insight, and certain socio-demographic variables of consumers are explanatory factors of psychosocial treatment non-compliance

3.2.3. METHOD

This was a cross-sectional observational study. The data gathered from Phase One study were used in this phase for regression analysis.

3.2.3.1. DATA ANALYSIS

SPSS version 11.0 was used for data analysis. Statistical regression of forward selection was used to explore the adjusted relationship between psychosocial treatment compliance, and self-stigma, perceived stigma, self-esteem, self-efficacy, insight, and other influential socio-demographic variables. This statistical technique was used to eliminate the independent variables (e.g. perceived stigma) which did not provide statistical contributing to dependent variables (e.g. psychosocial treatment compliance) (Tabachnick & Fidell, 2001).

The inclusion criteria for the independent variables for regression analysis:

1. The independent variables did not contain a large amount of missing data
    a. Rationale: Resuming maximal utilization of subject to avoid deficiency of samples for analysis
2. The independent variables did not have obvious uneven distribution of sample
    a. Rationale: Representative conclusion should not be drawn from this type of variables
3. The independent variables correlated with “Participation” and/or “Attendance” of the PTCS at $p<.20$
    a. Rationale: To reduce the probability of excluding important variables (Bendel & Afifi, 1997).

According to the similarity of treatment recipient for the day-patient (*N*= 50), out-patient (*N*= 4), and community service users (*N*= 8), they were grouped together (*N*= 62) before being entered into the regression equation. There was an obviously uneven distribution of sample for different diagnostic groups. Statistical analysis such as regression analysis and ANOVA were not appropriate for testing their relationship/ difference in psychosocial treatment compliance. Independent *t*-test was used instead to compare their different levels of psychosocial treatment compliance between schizophrenia group (*N*= 86) and all participants including of diagnostic groups (*N*= 108).

3.2.4. RESULTS

Seven independent variables were excluded for regression analysis according to their marked number of missing data. They included the socio-demographic variables such as the accumulated length of stay as in-patient, the accumulated length of stay as day-patient and the number of previous admissions, and the four sub-scores of SUMD. The current and past awareness and attribution of symptoms were assessed according to the presence of specific symptoms, missing data were noted if the participant was symptom-free during the timeframe of interview. The numbers of missing data for those variables are shown in Table 11. Another 9 independent variables were found to have marked unevenly distribution of subject's characteristics and were being excluded for regression analysis (See Table 12). After initial screening, 24 independent variables were selected. Their significant levels in correlating with "Participation" and "Attendance" of the PTCS are shown in Table 13.

Table 11. Missing Cases for the Independent Variables

Independent Variables	No. of Missing Cases
Accumulated LOS (In)	26
Accumulated LOS (day)	14
No. of previous admission	13
SUMD: Awareness of Symptoms (Current)	38
SUMD: Awareness of Symptoms (Past)	8
SUMD: Attribution of Symptoms (Current)	57
SUMD: Attribution of Symptoms (Past)	29

Table 12. Distribution of Sample for Independent Variables

Variables	Distribution			
	Single	Married	Divorced	Widowed
Martial Status	83	13	10	2
	Yes		No	
Living with sibling	16		91	
Living with relatives	4		103	
Living with spouse	5		102	
Income (self-earned)	2		105	
Income (saving)	13		94	
Incoming (NDA/HAD)	14		93	
	Cleaning Worker	Security Guard	Unemployed	Others
Present Occupation	2	1	90	14

	Schizophrenia	Depressive Disorders	Bipolar Affective Disorders	Schizoaffective disorders	Delusional Disorders
Diagnosis	86	7	9	4	2

Table 13. Correlations between the independent variables and the two subscales of the PTCS

Item	PTCS: Participation		PTCS: Attendance	
	p-value	Regression	p-value	Regression
Gender	.095	✓	.076	✓
Education	.183	✓	.322	
Living with Parent	.928		.310	
Living alone	.670		.938	
Living with others	.423		.088	✓
Income: Family	.825		.835	
Income: CSSA	.098	✓	.144	✓
Present use of mental health services	.246		.648	
Age	.836		.765	
Duration of illness	.485		.967	
Frequency of use of mental health services	.445		.341	
SSMIS: stereotype awareness	.063	✓	.007	✓
SSMIS: stereotype agreement	.001	✓	.000	✓
SSMIS: self-concurrence	.000	✓	.000	✓
SSMIS: self-esteem decrement	.000	✓	.000	✓
RSES	.000	✓	.000	✓
SES: General	.000	✓	.000	✓
SES: Social	.00	✓	.000	✓
SUMD Mental Illness (Current)	.001	✓	.008	✓
SUMD Mental Illness (Past)	.000	✓	.004	✓
SUMD Medication (Current)	.000	✓	.000	✓
SUMD Medication (Past)	.005	✓	.016	✓
SUMD Social Consequence (Current)	.000	✓	.002	✓
SUMD Social Consequence (Past)	.001	✓	.009	✓

Key ✓: Selected independent variables for statistical regression of forward selection

Sixteen independent variables were identified to be appropriate to be engaged for forward stepwise multiple regression for "Participation" and "Attendance". After the forward stepwise approach, the finalized regression models for these two dependent variables were generated (Table 14 and 15).

Table 14. The Regression Model for "Participation"

Parameter	β	***t*-value**	***p*-value**
Self-esteem	.238	2.451	.016
Insight: Mental Illness (Past)	-.366	-4.677	.000
Social Self-efficacy	.280	2.902	.005

Adjusted r^2= .349

Table 15. The Regression Model for "Attendance"

Parameter	β	***t*-value**	***p*-value**
Self-stigma: Self-concurrence	-.405	-4.727	.000
Insight: Medication (Current)	-.232	-2.693	.008
Living with other ("no" set as base)	-.180	2.105	.038

Adjusted r^2= .256

Regression Model for "Participation"

After the statistical regression of forward selection, self-esteem, past awareness of mental disorder, and social self-efficacy were found to be significantly in the equation. Better self-esteem, social self-efficacy, and past insight of mental illness were related to better participation in psychosocial treatment, in which past awareness of mental illness possessed the strongest contribution (β= -.366; p= .000) for participation. These three independent variables explained 34.9% of the variance in accounting for participation.

Regression Model for "Attendance"

Self-concurrence showed the strongest correlation with attendance of psychosocial treatment (β= -.405; p= .000). Poor attendance was correlated with higher level of self-stigma, poor current awareness to the use of medication, and living with other (e.g. mainly in halfway house). These three independent variables accounted for 25.6% of the variance for the factor of attendance.

Psychosocial Treatment Compliance for different diagnostic groups

Independent *t*-test showed that no statistical differences were found between the schizophrenia group and all participants on "Participation" (t(192)= -1.230; p=.220) and "Attendance" (t(192)= -1.067; p= .648).

3.2.5. DISCUSSION

3.2.5.1. REGRESSION ANALYSIS

3.2.5.1.1. REGRESSION MODELS FOR "PARTICIPATION" AND "ATTENDANCE"

The effect of extreme cases in affecting the weights of regression models was eliminated by the reserved normality of data and the absence of outliners (Fox, 1991). Majority of the recruited participants were diagnosed to have schizophrenia (79.6%), and only a few of them suffered from other types of severe mental illness. Diagnosis should not be included in the regression analysis, as representative conclusion could not be obtained from those variables with marked uneven distribution of samples. Based on the psychiatrists' subjective report, it is found that substance use disorder and personality disorder were explanatory variables of treatment compliance, whereas schizophrenia and mood disorder were not (Compton, Rudisch, Weiss, West, & Kaslow, 2005). It seems that participants from different diagnostic groups might comply differently towards prescribed psychosocial treatment. An independent *t*-test was therefore implemented to examine the effect of diagnosis on affecting treatment compliance. From the results, the insignificant findings of *t*-test excluded the possibility that diagnosis would affect psychosocial treatment compliance.

Sixteen independent variables were selected for regression analysis. Gender, sources of income, perceived stigma, self-stigma, self-esteem, general and social self-efficacy, and insight were included for the regression analysis of "Participation"

and “Attendance”, whereas educational level and living with others served as the independent variables in the regression models of “Participation” and “Attendance” respectively. After adjusting the effects of all independent variables on psychosocial treatment compliance, the results showed that past awareness of having mental illness, self-esteem, and social self-efficacy were the significant explanatory variables of “Participation”. Self-concurrence of self-stigma, current awareness of the achieved effect of medication, and living with others were significantly related to “Attendance”. The relationships between these explanatory variables and psychosocial treatment compliance are discussed below.

3.2.5.1.2. SELF-STIGMATIZATION AND TREATMENT COMPLIANCE

The results suggested that “Self-concurrence” has the strongest relationship with psychosocial treatment attendance, whereas “Stereotype Awareness” and “Stereotype Agreement” did not associate with treatment compliance significantly. This may have the implication that once the mental health consumers self-internalized the negative stereotypes, they are likely not to attend psychosocial treatment. This is consistent with the belief that self-stigmatized consumers tend to keep their mental illness as a secret, and to avoid being labeled by not utilizing psychiatric services (Corrigan, 2004).

Upon the process of self-stigmatization, the self-esteem and self-efficacy of mental health consumers will be ultimately eroded (Corrigan, Watson, & Barr, in press; Holmes & River, 1998). The negative effects of self-stigmatization would be

most serious upon the late stage of the process. Although the findings suggested that the "Self-esteem Decrement" subscale of the Self-stigma of Mental Illness Scale was not significantly related to psychosocial treatment compliance, the effect of diminished self-esteem in undermining treatment compliance still could not be eliminated. The scores of the Rosenberg Self-esteem Scale and the Social Self-efficacy Scale were significantly related to the scores of the "Participation" of the Psychosocial Treatment Compliance Scale. It is ratiocinated that mental health consumers who have poor self-esteem and self-efficacy are less likely to have good psychosocial treatment participation. Mental health consumers who have low self-esteem often endorse the feeling of hopelessness (Rosenfield, 1997) in believing that participating in psychiatric services does not yield any benefits to them (Watson & Corrigan, 2001). Moreover, there was a significant relationship between interpersonal competence and non-medication treatment compliance (Corriss et al., 1999). Consumers with diminished social self-efficacy tend to be self-isolated. They often experience difficulties in communicating and cooperating with their therapists and groupmates.

Previous literature suggested that mental health consumers who have poor general self-efficacy should comply treatment poorly (Corrigan, 2004; Detweiler & Whisman, 1999; Watson & Corrigan, 2001). Surprisingly, the findings of this study did not demonstrate any significant relationship between general self-efficacy and psychosocial treatment compliance based on the regression analysis. We found that general self-efficacy was correlated with "Participation" and "Attendance" in the

bivariate analytical investigation. This implies that the influential effect of general self-efficacy on psychosocial treatment compliance is weaker than the independent variables such as self-stigma and insight. Further efforts in investigating its interactions with the identified variables in undermining psychosocial treatment compliance however are required.

To summarize, this is obvious that self-stigmatized mental health consumers are likely to have poor participation and attendance in psychosocial treatment. The barriers of self-stigma should be overcome in order to achieve better treatment compliance and outcomes.

3.2.5.1.3. INSIGHT AND TREATMENT COMPLIANCE

Consistent with the study by Lysaker, Bell, Milstein, Bryson, & Beam-Goulet (1994), the results of this study suggested that insight was an important explanatory variable of psychosocial treatment compliance. Past awareness of having mental illness was the strongest explanatory variable of psychosocial treatment participation, whereas current awareness towards the achieved effects of medication was the significant explanatory variable of attendance.

There is a close link between illness recognition and perceived needs for interventions (Cuffel, Alford, Fisher, & Owen, 1996). Realization of having a problematic condition is important for guiding individuals to think of the need in receiving treatment. Mental health consumers who do not have insight may believe

that they do not require receiving psychiatric intervention (Rusch & Corrigan, 2002). Individuals who have good past awareness of having mental illness may continue participating well in psychosocial treatment in order to achieve better recovery.

Better attitude towards medication is correlated with good psychosocial treatment compliance (Tsang, Fung, & Corrigan, 2006). Therefore, this is reasonable to infer that mental health consumers who have better insight towards medication are more willing to have good psychosocial treatment attendance.

3.2.5.1.4. LIVING CONDITIONS AND TREATMENT COMPLIANCE

Among all of the demographic variables, only "living with others" was significantly related to psychosocial treatment compliance. Majority of participants in this category lived in half-way house. A few of them for instance lived with their divorced partner or children. Family is important in assisting mental health consumers for overcoming their difficult times (Prince, 2005), and family's caring attitude is essential for influencing consumers in a positive way (Berglund Vahlne, & Edman 2003). Mental health consumers who live in half-way house or with their divorced partner should receive less social support from their family. Corrigan, Liberman, and Engel (1990) mentioned that better family support should enhance treatment compliance. Social supervision from family could enhance medication compliance (Fawcett, 1995). In the same token, mental health consumers who live with others are assumed to acquire less social supervision, and have poor psychosocial treatment attendance.

Some participants in this group lived with their children. Being a parent is a difficult task for many people. This is especially true for those having severe mental illness. For mothers having psychiatric illness, their mental illness has added burdens for them in meeting their children needs (Oyserman, Mowbray, Meares, & Firminger, 2000). Due to their incapability, stress and family strife are easily created. They may have the difficulty to work functionally for their multiple roles. Moreover, those parents may experience difficulty in concurrently providing parenting to their children and following treatment regime, and thus resulting in poor treatment attendance.

3.2.5.2. IMPLICATIONS FOR THE FINDINGS

The study of treatment compliance of mental health consumers has intrigued rehabilitation researchers. Previous studies failed to incorporate comprehensive dimensions of treatment compliance in their investigations. This study has rectified this problem by providing an objective measurement of psychosocial treatment compliance which is valuable for further compliance research.

The findings suggested that the negative effect of self-stigma may be intensified along the self-stigmatizing process, and its negative effect is most obvious after the self-internalization of negative stereotypes. Self-stigmatized mental health consumers are likely to show poor psychosocial treatment participation and attendance. Furthermore, lacking of insight, having low self-esteem, having diminished self-efficacy, and living with others are the barriers for acquiring good psychosocial treatment compliance. Promoting treatment compliance is an essential goal for psychiatric rehabilitation, as its failure would contaminate the treatment outcomes of consumers (Swanson et al., 1997). Non-compliant mental health consumers are more likely to relapse which leads to therapeutic failure (Ludwig, Huber, Schmidt, Bender, & Greil, 1990) and further impedes the personal quality of mental health consumer. It thus acts in a vicious cycle affecting the life of mental health consumers. My MPhil study provided empirical support to the path of self-stigmatization as shown by Corrigan's model. The intensification of the negative effects along the process of self-stigmatization was underpinned by the results of the study. Furthermore, this study has shown the link between psychosocial treatment

noncompliance and self-stigma. In view of its essential nature, interventional strategies and campaigns should urgently be implemented to eliminate the negative effects of self-stigma and the related barriers, and to promote psychosocial treatment compliance. The inputs and efforts from clinicians, family, general public, policy makers and researchers are equally important for collaborating with the mental health consumers in overcoming the barriers.

3.2.5.2.1. CLINICAL EFFORTS

This is no doubt that cooperation between clinicians and mental health consumers are important in helping the consumers to overcome their challenges. Treatment compliance should be easily enhanced when the recommended interventions have incorporated the needs and hope of participants, and when the loading of treatment is within the capacity of participants (Corrigan, Liberman, & Engel, 1990).

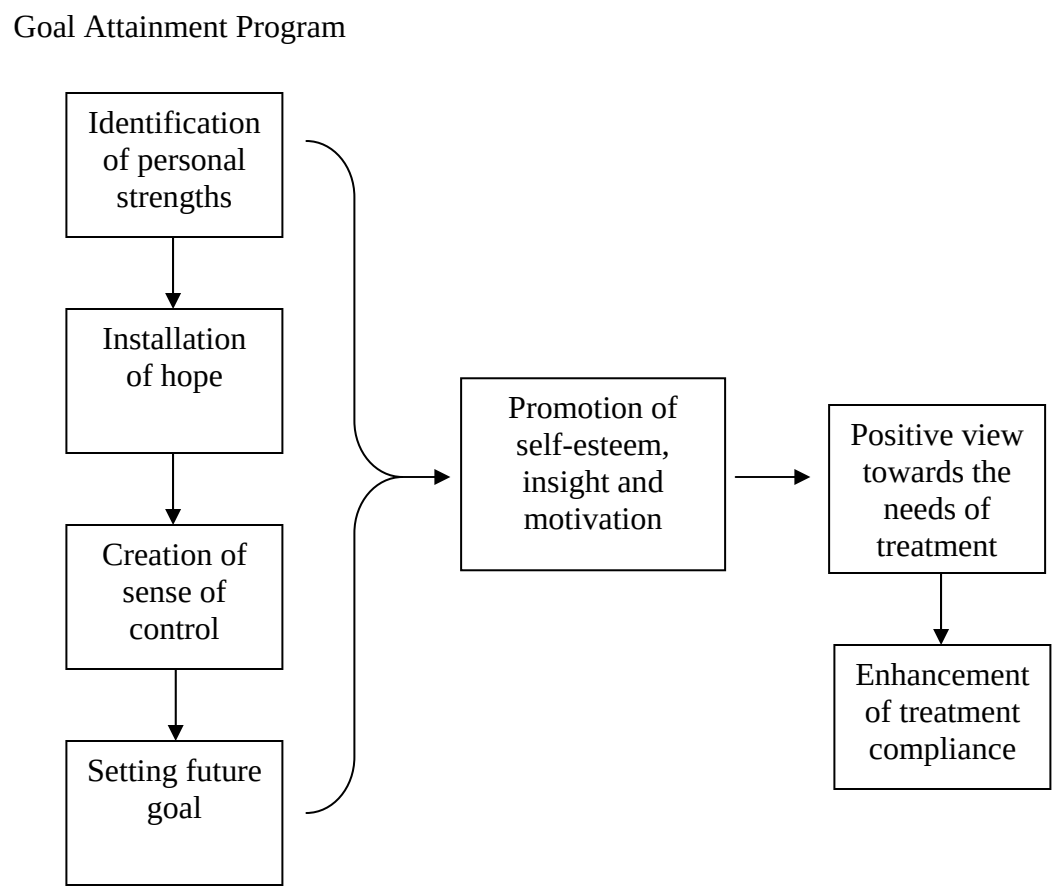
Specific interventional strategies should be implemented by clinicians to enhance compliance. Goal attainment program (Ng & Tsang, 2002) and motivational interviewing (Miller, 1983) which help mental health consumers developing realistic life goals and insight could serve for this purpose. Moreover, the reduction of self-stigma, and the enhancement of self-esteem and self-efficacy should be achieved according to psychoeducation, cognitive behavioral therapy and empowerment. Systematic reviews on those interventional strategies are presented in the following sessions.

3.2.5.2.1.1. GOAL ATTAINMENT PROGRAM

This program focuses on the needs and positive characteristics of mental health consumers (Rogers, 1984). Affirming personal worth, imaging the future, establishing a sense of control, and setting goal are the four key stages of the goal attainment program (Ng, 1999). Stage one focuses on the development of rapport and the identification of consumer's personal strength, whereas stage two focuses on the expression and installation of hope. Sense of control and accomplishment are encouraged in stage three. The success in stage three would guide and motivate the participants to plan for their future (Ng & Tsang, 2002). This is believed that insightful and motivated mental health consumers should have better psychosocial treatment engagement.

In order to empirically test the effectiveness of the goal attainment program, a quasi-experimental one-group pretest-posttest study was implemented by Ng and Tsang (2002). Twenty-five mental health consumers were randomly sampled from Castle Peak Hospital Peak in Hong Kong and went through the four sessions of the goal attainment program within 3 weeks. The results suggested that significant improvements in goal formation and self-esteem have been noticed for the participants. Moreover, this program has the potential to enhance treatment participation of mental health consumers in home and work rehabilitation programs (Ng & Tsang, 2002). Figure 5 illustrates the conceptual framework of this program in reinforcing psychosocial treatment compliance.

Figure 5. The Goal Attainment Program in Enhancing Psychosocial Treatment Compliance



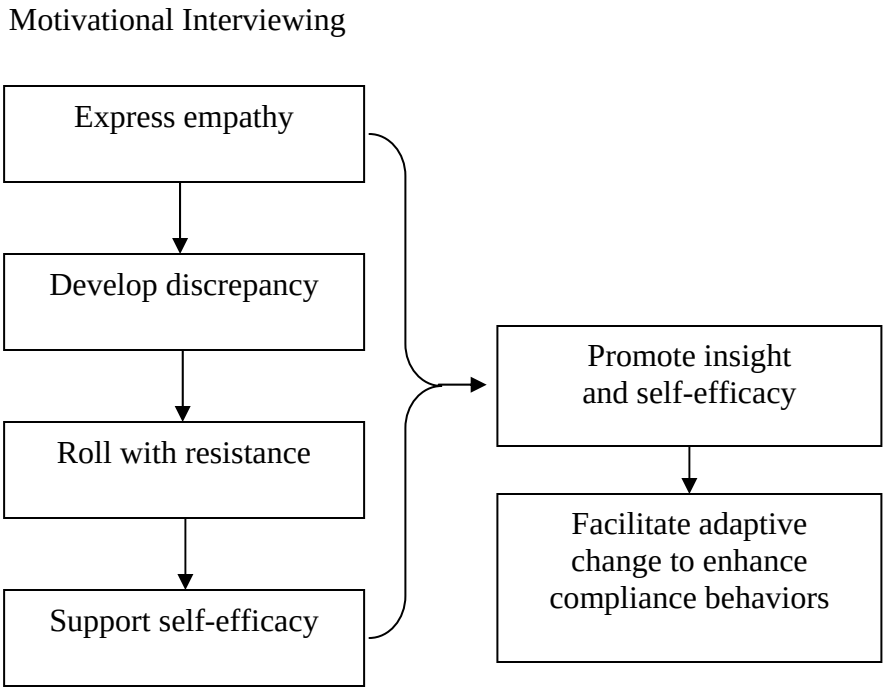
3.2.5.2.1.2. MOTIVATIONAL INTERVIEWING

Motivational interviewing is defined as "*a directive, client-centered counseling style for eliciting behaviors change by helping clients to explore and resolve ambivalence*" (Rollnick & Miller, 1995). This interventional strategy is useful in improving insight and treatment compliance for mental health consumers (Rusch & Corrigan, 2002; Zweben & Zuckoff, 2002). The clinical study done by Swanson, Pantalon, and Cohen (1999) has examined the effectiveness of motivational interviewing in increasing attendance rate of the first outpatient appointment among 121 mental health consumers. Their findings suggested that the attendance rate was higher for those who had received standard psychiatric treatment plus motivational interviewing. Participants who had just received standard treatment showed poor attendance rate.

Expression of empathy, development of discrepancy, rolling with resistance, and support of self-efficacy are the four basic principles of motivational interviewing (Miller & Rollnick, 2002). Expression of empathy refers to the establishment of acceptance between mental health rehabilitation professionals and consumers. Furthermore, mental health rehabilitation professionals are required to help the consumers to understand the discrepancy between their present behaviors and goals. For instance, mental health consumers are prompted to understand that their present non-compliant behaviors would undermine their recovery as independent citizens. The rehabilitation professionals should accept resistance as a source of useful information in understanding consumers. The self-efficacy of

consumers should be supported for guiding them to change (Miller & Rollinck, 2002) their present non-compliant behaviors. As people with schizophrenia often experience cognitive deficits, Rusch and Corrigan (2002) suggested that the information provided by the rehabilitation professionals should present in a shorter behavioral step with repetitions. Figure 6 illustrates the techniques of motivational interviewing in promoting treatment compliance.

Figure 6. Techniques of Motivational Interviewing in Promoting Treatment Compliance



3.2.5.2.1.3. PSYCHOEDUCATION

Psychoeducation enables mental health consumers to understand their mental illness, and promote their coping strategies (Cheng & Chan, 2005). Realistic information could be obtained to challenge their negative belief and self-stigma (Watson & Corrigan, 2002; Holmes & River, 1998). This modality is the most powerful when the presented information contains strong empirical evidences (Watson & Corrigan, 2002), and further empirical efforts should be added to support its effectiveness.

3.2.5.2.1.4 COGNITIVE BEHAVIORAL THERAPY

Kingdon and Turkington (1991) have applied cognitive behavioral therapy in helping mental health consumers normalize their stigmatized ideas and obtained a promising outcome. Although there was a methodological limitation in their study, Watson and Corrigan (2001) still agreed the effectiveness of cognitive behavioral therapy in reducing mental illness self-stigma. The interpretation towards a situation affects our feeling (Nelson, 1997). Stigma would create irrational fears (Gibson, 1992), and it should be eliminated. Rational emotive behavior therapy is specifically useful in this circumstance. Rational emotive behavior therapy attempts to promote the rational responses of mental health consumers by understanding their emotion from their thoughts and behaviors (Dryden & Ellis, 2003).

Beliefs that interfere the psychological wellbeing and meaningful goal pursuit are regarded as irrational (Dryden, 1995). The concepts of self-stigma could be view as irrational by the same token. Irrational beliefs are countered by employing the ABCDE framework of rational emotive behavior therapy (Dryden & Ellis, 2003). Table 16 illustrates the example of applying this therapy for self-stigma reduction.

Table 16. Rational Emotive Behavior Therapy for Self-stigma Reduction

Framework	Meaning	Descriptions and Examples
A	Activating event	Anticipate stigmatizing conditions E.g. When I got off from the psychiatric hospitals, people tended to look at me with fright
B	Belief	Beliefs toward those situations E.g. No one likes me or all people discriminate me
C	Consequence	Consequence of having this beliefs and activating events E.g. Treatment avoidant and relapse
D	Disputing	Challenging the self-stigmatized beliefs E.g. To provide evidences that some people do not hold the discriminating ideas, and to declare the negative outcomes of noncompliance
E	Effects	Developing positive emotion, cognition, and behaviors E.g. Appropriate interpretation to public attitudes, and having better treatment compliance

3.2.5.2.1.5. EMPOWERMENT

Mental health rehabilitation professionals should foster empowerment among mental health consumers (Corrigan, Kerr, & Kundsen, 2005) to promote greater control on their treatment and life (Rappaport, 1987). This modality should promote community action (Corrigan, Faber, Rashid, & Leary, 1999), reduce self-stigma (Watson & Corrigan, 2001), and enhance psychosocial treatment compliance (Corrigan, 2004). Upon the process of empowerment, mental health consumers may develop insight in understanding which interventions are beneficial to them (Corrigan & Garman, 1997). The applications of clubhouse model and advocacy groups are under this ideology (Dickerson, 1998).

3.2.5.2.2. FAMILIAL AND SOCIETAL EFFORTS

Family involvement is important for facilitating treatment compliance. By the support from family, consumers are likely to deal with difficult conditions (Atkinson & Coia, 1995), and to seek care (Carpenter, Morrow, Del Gaudio, & Ritzler, 1981). It is suggested that family members could participate in individual psychosocial intervention to cope with the specific behaviors of consumers (Atkinson & Coia, 1995) such as the non-compliant behaviors. Moreover, this is true that collaboration between community residential services and family should promote similar positive effects on social support and treatment compliance.

Public stigma is the appalling root of self-stigma. The cinematic mad image of mental health consumers (Tsang, Tam, Chan, & Cheung, 2003a) and the

controllable and stable attribution of mental illness (Corrigan, 2000) sustain the stigmatizing attitudes towards them. Acceptable, open, and optimistic mind from public is necessary to confront self-stigma of consumers. Protest, education and contact are the commonly used strategies to challenge negative stigmatizing attitudes hold in the public (Corrigan & Penn, 1999).

3.2.5.2.2.1. PROTEST

Protest aims at countering and suppressing the inaccurate representations of mental illness (Corrigan, 2004; Corrigan et al., 2001). The negative image of mental health consumers from the mass media could be successfully removed by using this approach (Wahl, 1995). It is useful in reducing the negative attitudes from general public (Corrigan, 2004). However, protest may induce the sensitivity of some individuals towards stigmatized group (Macrae, Bodenhausen, Milne, & Jetten, 1994; Macrae, Bodenhausen, Milne, & Wheeler, 1996), and it fails to promote positive view of mental health consumers (Corrigan, 2004). Thus, it is recommended that protest should be implemented in gentle manner in avoiding unnecessary reaction from public.

3.2.5.2.2.2. EDUCATION

Education is promising in reducing public stigma (Estroff, Penn, & Toporek, 2004). Individuals who are having more knowledge on mental illness tend to not endorse stigma (Brockington, Hall, Levings, & Murphy, 1993; Corrigan & Penn, 1999; Watson & Corrigan, 2001). Educational program helps the public to identify

inaccurate stereotypes and myths of mental illness (Watson & Corrigan, 2001), and to reduce their fear and exclusion towards mental health consumers (Wolff et al., 1996).

3.2.5.2.2.3. CONTACT

Previous studies suggested that contact reduces negative attitudes and stigma towards mental health consumers (Angermeyer & Matschinger, 1997; Chou & Mak, 1998; Mayville & Penn, 1998). The higher level of contact is associated with more support, respect and concern (Tsang, Tam, Chan, & Cheung, 2003a). Contact is most effective when it occurs in an intimate and cooperate manner (Estroff, Penn, & Toporek, 2004). Face-to-face contact with personal story sharing is also useful (Pinfold, Thornicroft, Huxleym & Farmer, 2005). Surprisingly, inconsistent finding is noted for young people (Corrigan et al., 2005; Ng & Chan, 2000), and it is suggested that interventional strategies for this group of people should focus on their categorical thinking (Watson, Miller, & Lyons, 2005).

3.2.5.2.3. POLITICAL EFFORTS

Worldwide, mental illness accounts for approximately 12% of burden for all disease groups. But this is unfortunately to notify that only 1% of health expenditure has been placed on psychiatric services (World Health Organization, 2001). This is also apprehensive to notice that only 60% of countries have formal mental health policy (World Health Organization, 2001). In Hong Kong, the funding policies for psychiatric services also reflect similar discrimination (Tsang, Tam, Chan, &

Cheung, 2003b). Legislators in Hong Kong often ignore the mental health issues (Tsang, Tam, Chan, & Cheung, 2003a). Those facts reveal that the rights and opportunities of mental health consumers are frequently being violated in the political level. The unfair social atmosphere creates a sense of discrimination. Mental health consumers may have a feeling of being abandoned from their society, and are likely to be self-stigmatized.

The social values of policy makers obviously affect the allocation of community resources (Mechanic, 1989). Poor provision of mental health services should be perceived as structural discrimination (Schulze & Angermeyer, 2003). Politicians have the responsibility to understand the needs of all disadvantaged groups and to allocate them with deserved resources. Definitely, there is a room for improving current mental health services (Bernstein, 2001). High quality and holistic psychiatric interventions could motivate mental health consumers' engagement and compliance.

The World Health Organization (2001) and the World Psychiatric Association (2002) have organized global anti-stigma movements to work against mental illness stigma. In view of the importance of mental health issue, the Health, Welfare and Food Bureau of Hong Kong has also organized the "Mental Health Month". One of the themes of "Mental Health Month 2005" is to promote positive attitudes towards people with mental illness or ex-mental illness among the teenagers. Recently, the Hong Kong Government has disseminated certain

publicities to increase public knowledge of mental illness. This is just a good start for commencing the anti-stigma campaigns in Hong Kong, and more efforts should be placed on this movement. For instance, the Government should cooperate with the schools in formulating mass educational campaigns, and develop variety of advocacy materials to dissipate public negative stereotypes on mental illness.

Insufficient budgets in implementing mental health research were frequently noticed internationally (Pinfold, Thornicroft, Huxley, & Framer, 2005). This barrier hinders the formulation and verification of effective psychiatric interventions for mental health consumers. More resources should be placed to facilitate the quality of psychiatric services.

3.2.5.2.4. RESEARCH EFFORTS

Evidence based practice is fundamental for quality care (Porteny & Watkins, 2000), and it is important to provide deserved psychiatric interventions (Torrey et al., 2001). Research could promote and consolidate our knowledge to provide best clinical practices and services. For instance, the results of this dissertation have suggested the possible barriers in undermining psychosocial treatment compliance. This information is important in guiding us to think of the countering techniques. Having further understanding on the causation and psychosocial mechanism of self-stigmatization and treatment noncompliance, more advanced and desired interventional protocols could be proposed.

The outcomes of protest, education and contact are promising, but their theoretical assumption for changing attitudes should be examined with empirical support (Corrigan, 2000; Corrigan & Penn, 1999). To date, only a few research efforts have been directed towards evaluating the effectiveness of self-stigma reduction strategies (Watson & Corrigan, 2001). Although the application of psychoeducation, cognitive behavioral therapy and empowerment in self-stigma reduction seems to be promising, their effectiveness has not received adequate empirical support. Similar consideration is demonstrated for the application of goal attainment program or motivational interviewing in enhancing psychosocial treatment compliance. Quality services should not be provided by chance. Throughout the process of theory testing, the reliability, validity, and specific application of interventions should be empirically verified (Portney & Watkins, 2000). The inadequate theoretical assumptions should be modified and enhanced, and this is essential to ensure that mental health consumers have received best quality psychiatric services.

3.2.5.3. LIMITATIONS AND FURTHER RESEARCH

This dissertation has demonstrated that self-stigmatized mental health consumers are more likely to be non-compliant to prescribed psychosocial treatment. Public negative stereotypes, prejudice and discrimination towards consumers definitely undermine their help seeking behaviors and quality of life. Under the interaction between public stigma and consumers' personal characteristics, some of them however may display righteous anger or indifference to the recipient of psychiatric services. This study fails to reveal the possible relationships between the experience of public stigma and the possible reactions of consumers on undermining psychosocial treatment compliance. This is difficult to explore those circumstances in this stage, as there is a lack of standardized assessment tools and reference point in differentiating consumers into the three groups of self-stigma, righteous anger and indifference. This cross-sectional observational study fails to investigate the casual relationship between self-stigma and psychosocial treatment compliance, and other influential factors such as neurocognitive deficits and therapeutic alliance may alter consumers' level of compliance. Those areas should be tested and declared in further study.

Another limitation of this study is that the majority of participants were diagnosed to have schizophrenia, and only a few of them were diagnosed with other forms of severe mental illness. Generalization of the results to the mentally ill population is weakened by our biased sample. Compliance to particular psychosocial treatment may vary among mental health consumers. For instance, someone may enjoy

participating in vocational rehabilitation program, but refuse to be engaged in cognitive behavioral therapy session. Further study could be done in investigating consumers' differential compliance behaviors towards specific psychosocial treatment, and explaining why certain psychosocial treatment could encourage compliance. That information is important for future psychiatric treatment formulation. We had screened out the uncooperative and mentally unstable consumers in the subject recruitment process. In this way, we might have excluded a small group of consumers who had extremely poor function and compliance. This would limit the generalization of findings to those who have very poor compliance and to the non-recipients of occupational therapy services. Furthermore, this is questionable as to the validity of the psychiatric diagnosis acquired from the medical reports. Misdiagnosis may sometimes happen (Bhugra & Flick, 2005; Honer et al., 1994) which may result in inaccurate interpretations of results. This is however out of our control in this study. We have nothing more to do other apart put trust on the practicing psychiatrists in Hong Kong. Future research however should be conducted to address this problem.

Some drawbacks were noticed using Phase One data for regression analysis in Phase Two. It should be ideal to collect two different sets of data for the Phase One and Phase Two Study separately. However, it was not possible to use this strategy in this study due to limitation of time and manpower as a MPhil project. In order to reduce the risk of problematic psychometric properties of the PTCS developed in this study, I took a stepwise approach. First, I did a preliminary

analysis to make sure PTCS was psychometrically valid before I collected the entire data set which was then used for the Phase II study. I admit that further studies of similar nature should use two sets of data instead of one.

3.2.6. CONCLUSION

"Participation" and "Attendance" are the two important dimensions of psychosocial treatment compliance. The results of Phase two study revealed that mental health consumers who have high self-concurrence of self-stigma, poor current insight towards the achieved effects of medication, and living with others are more likely to show poor psychosocial treatment attendance. Poor participation has been noticed for those who have low self-esteem, diminished social self-efficacy, and poor retrospective insight towards their mental illness. Those findings supported hypothesis one and three that high self-stigma, low self-esteem, diminished self-efficacy, poor insight and demographic characteristic of consumers are associated with psychosocial treatment compliance.

The greatest standardized regression coefficients for self-stigma and insight implies their strongest erosive effects on psychosocial treatment compliance. However, insignificant relationship was found between perceived stigma and psychosocial treatment compliance. Those findings supported hypothesis two that the association between self-stigma and psychosocial treatment compliance is stronger than those between perceived stigma and treatment compliance. The negative effect of self-stigma on consumers is intensified along the process of self-stigmatization. Self-stigmatized mental health consumers tend to avoid attending in prescribed psychosocial treatment, and their diminished self-esteem and social self-efficacy hinder their treatment participation.

In view of the seriousness of self-stigma and the related barriers, and the importance of psychosocial treatment compliance, appropriate treatment modalities should be implemented. The rehabilitation outcomes and quality of life of mental health consumers should be enhance by the collaboration between consumers, family, clinicians, general public, policy makers and researchers.

REFERENCES

Alisky, J. M., & Iczkowski, K. A. (1990). Barriers to housing for deinstitutionalized psychiatric patients. *Hospital and Community Psychiatry, 41*, 93-95.

Amador, X. F., Flaum, M., Andreasen, N. C., Strauss, D. H., Yale, S. A., Clark, S. C., et al. (1994). Awareness of illness in schizophrenia and schizoaffective and mood disorders. *Archives of General Psychiatry, 51(10),* 826-836.

Amador, X. F., & Strauss, D. H. (1993). Poor insight in schizophrenia. *Psychiatric Quarterly, 64,* 605-318.

Amador, X. F., Strauss, D. H., Yale, S. A., Flaum, M. M., Endicott, J., & Gorman, J. M. (1993). The assessment of insight in psychosis. *The American Journal of Psychiatry*, 150(6), 873-879.

Amador, X. F., Strauss, D. H., Yale, S. A., & Gorman, J. M. (1991). Awareness of illness in schizophrenia. *Schizophrenia Bulletin, 17,* 113-132.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders: DSM-IV*. Washington, DC: American Psychiatric Association.

Angermeyer, M. C., & Matschinger, H. (1997). Social distance towards the mentally ill: Results of representative surveys in the Federal Republic of Germany. *Psychological Medicine, 27(1),* 131-141.

Atkinson, J. M., & Coia, D. A. (1995). *Families coping with schizophrenia: a practitioner's guide to family groups*. Chichester ; New York : J. Wiley & Sons.

Augoustinos, M., Ahrens, C., & Innes, J. M. (1994). Stereotypes and prejudice: The Australian experience. *British Journal of Social Psychology, 33,* 125-141.

Babiker, I. E. (1986). Noncompliance in schizophrenia. *Psychiatry Developments, 4(4),* 329-337.

Bandura, A. (1977). Self-efficacy: towards a unifying theory of behavioral change. *Psychological Review, 84,* 191-215.

Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology, 4,* 359-373.

Barker, A., & Gregoire, A. (2000). Defining severe mental illness. In A. Gregoire (Ed.). *Adult severe mental illness*. London: Greenwich Medical Media Ltd.

Baron, R. A., & Byrne, D. (1997). *Social Psychology* (8th ed.). Boston: Allyn and Bacon.

Bartlett, M.S. (1954). A note on the multiplying factors for various chi square approximations. *Journal of the Royal Statistical Society, 16(Series B),* 296-298.

Baumeister, R. F., Stillwell, A., & Wotman, S. R. (1990). Victim and perpetrator accounts of interpersonal conflict: Autobiographical narratives about anger. *Journal of Personality and Social Psychology, 59(5),* 994-1005.

Bellack, A. S. (2004). Skills training for people with severe mental illness. *Psychiatric Rehabilitation Journal, 27(4),* 375-391.

Bellack, A. S., & Mueser, K. T. (1993). Psychosocial Treatment for Schizophrenia. *Schizophrenia Bulletin, 19(2),* 317-336.

Bendel, R.B., & Afifi, A.A. (1977). Comparison of stopping rules in forward stepwise regression. *Journal of American Statistical Association, 72,* 46-53.

Berglund, N., Vahln, J. O., & Edman, A. (2003). Family intervention in schizophrenia: Impact on family burden and attitude. *Social Psychiatry and Psychiatric Epidemiology, 38(3),* 116-121.

Bernstein, R. (2001). *Disintegrating systems: The state of State's public mental health systems.* Wingington D.C.: Bazelon Center for Mental Health Law.

Bhugra, D. & Flick, G. R. (2005). Pathways to care for patients with bipolar disorder. *Bipolar Disorder, 7(3),* 236-245.

Blascovich, J., & Tomaka, J. (1991). Measures of self-esteem. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes, Volume I*. San Diego, CA: Academic Press.

Bond, G. R. (1998). Principles of the Individual Placement and Support model: Empirical support. *Psychiatric Rehabilitation Journal, 22(1),* 11-23.

Bond, G. R., Drake, R. E., Mueser, K. T., & Becker, D. R. (1997). An update on supported employment for people with severe mental illness. *Psychiatric Services, 48(3),* 335-346.

Brehm, J. W. (1996*). A theory of psychological reactance.* San Diego, CA: Academic Press.

Brockington, I. F., Hall, P., Levings, J., & Murphy, C. (1993). The community tolerance of the mentally ill. *British Journal of Psychiatry, 162,* 93-99.

Burke L.E., & Ockene, I.S. (2001). *Compliance in healthcare and research* (1st ed.). New York: Futura Publishing Company, Inc.

Bustillo, J. R., Lauriello, J., Horan, W. P., & Keith, S. J. (2001). The psychosocial treatment of schizophrenia: an update. *The American Journal of Psychiatry, 158(2),* 163-175.

Camp, D. L., Finlay, W. M. L., & Lyons, E. (2002). Is low self-esteem an inevitable consequence of stigma? An example from women with chronic mental health problems. *Social Science & Medicine, 55(5),* 823-834.

Carpenter, P. J., Morrow, G. R., Del Gaudio, A. C., & Ritzler, B. A. (1981). Who keeps the first outpatient appointment? *American Journal of Psychiatry, 138*, 102-105.

Carpenter, W.T., Strauss, J.S., & Bartko, J.J. (1973). Flexible system for the diagnosis of schizophrenia: Report from the WHO pilot study of schizophrenia. *Science, 182,* 1275-1278.

Cattell, R. B. (1966). The Scree test for number of factors. *Multivariate Behavioral Research, 1*, 140–161.

Census and Statistics Department. (2003). *Thematic household survey report no. 12.* Hong Kong: Social Surveys Section.

Center for Mental Health Services and National Institutes of Mental Health. (1992). *Mental health, United States, 1992.* (Eds.). Manderscheid, R. W., & Sonnenschein, M. A. (1992). (DHHS Publication No. [SMA] 96-3098.) Washington, D.C.: U.S. Government Printing Office.

Chen, A. (1991). Noncompliance in community psychiatry: A review of clinical intervention. *Hospital and Community Psychiatry, 42(3),* 282-287.

Chen, Y.E. (1995). Mental health in China. *World Health*. Geneve: Sep.

Cheng, L. Y., & Chan, S. (2005). Psychoeducation program for Chinese family carers of members with schizophrenia. *Western Journal of Nursing Research, 27(5),* 583-599.

Chou, K. L., & Mak, K. Y. (1998). Attitudes to mental patients among Hong Kong Chinese: A trend study over two years. *International Journal of Social Psychiatry, 44(3),* 215-224.

Christensen, D. B. (1978). Drug-taking Compliance: A Review and Synthesis. *Hospital Research and Educational Trust, 13,* 171-187.

Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment, 7,* 309-319.

Cockerham, W. C. (2003). *Sociology of mental disorder* (6th ed.). Upper Saddle River, N.J. : Prentice Hall.

Coffman, D.L., & Gilligan, T.D. (2002). Social support, stress, and self-efficacy: Effects on students' satisfaction. *Journal of College Student Retention: Research, Theory, and Practice, 4(1),* 53-65.

Comrey, A.L., & Lee, H.B. (1992). *A First Course in Data Analysis*. (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

Compton. M. T., Rudisch, B. E., Weiss, P. S., West, J. C., & Kaslow, N. J. (2005). Predictors of psychiatrist-reported treatment-compliance problems among patients in routine U.S. psychiatric care. *Psychiatric Research, 137,* 29-36.

Cooper, A. E., Corrigan, P. W., & Watson, A. C. (2003). Mental illness and care seeking. *Journal of Nervous and Mental Disease, 191(5),* 339-341.

Corrigan, P. W. (1998). The impact of stigma on severe mental illness. *Cognitive and Behavioral Practice, 5*, 201-222.

Corrigan, P. W. (2000). Mental health stigma as social attribution: Implications for research methods and attitude change. *Clinical Psychology: Sciences and Practice, 7(1),* 48-67.

Corrigan, P. W. (2004). How stigma interferes with mental health care. *American Psychologist, 59(7),* 614-625.

Corrigan, P. W., Faber, D., Rashid, F., & Leary, M. (1999). The construct validity of empowerment among consumers of mental health services. *Schizophrenia Research, 38(1),* 77-84.

Corrigan, P. W., & Garman, A. N. (1997). Considerations for research on consumer empowerment and psychosocial interventions. *Psychiatric Services, 48(3)*, 347-352.

Corrigan, P. W., Kerr, A., & Kundsen, L. (2005). The stigma of mental illness: Explanatory models and methods for change. *Applied & Preventive Psychology, 11(3)*, 179-190.

Corrigan, P. W., Liberman, R. P., & Engel, J. D. (1990). From noncompliance to collaboration in the treatment of schizophrenia. *Hospital and Community Psychiatry, 41(11),* 1203- 1211.

Corrigan, P. W., Lurie, B. D., Goldman, H. H., Slopen, N., Medasani, K., & Phelan, S. (2005). How adolescents perceive the stigma of mental illness and alcohol abuse. *Psychiatric Services, 56(5),* 544-550.

Corrigan, P. W., & Penn, D. L. (1999). Lessons from social psychology on discrediting psychiatric stigma, *American Psychologist, 54(9),* 765-776.

Corrigan, P. W., River, L. P., Lundin, R. K., Penn, D. L., Uphoff-Wasowski, K., & Campion, J. et al. (2001). Three strategies for changing attributions about severe mental illness. *Schizophrenia Bulletin, 27(2),* 187-195.

Corrigan, P. W., River, L. P., Lundin, R. K., Wasowski, K. U., Campion, J., Mathisen, J., et al. (2000). Stigmatizing attributions about mental illness. *Journal of Community Psychology, 28(1),* 91-102.

Corrigan, P. W., & Watson, A. C. (2002). The paradox of self-stigma and mental illness. *Clinical Psychology: Science and Practice, 9,* 35-53.

Corrigan, P. W., Watson, A. C., & Barr, L. (in press). Understanding the self-stigma of mental illness. *Journal of Social and ClinicalPsychology.*

Corriss, D. J., Smith, T. E., Hull, J. W., Lim, R. W., Pratt, S. I., & Romanelli, S. (1999). Interactive risk factors for treatment adherence in a chronic psychotic disorders population. *Psychiatric Research, 89,* 269-274.

Crisp, A. H., Gelder, M. G., Rix, S., Meltzer, H. I., & Rowlands, O. J. (2000). Stigmatisation of people with mental illnesses. *British Journal of Psychiatry, 177,* 4-7.

Crocker, J. (1983). *Changing stereotypes about stigmatized groups*. Paper presented at the annual meeting of the American Psychological Association, Anaheim, CA.

Crocker, J. (1999). Social stigma and self-Esteem: Situational construction of self-worth. *Journal of Experimental Social Psychology*, 35, 89-107.

Crocker, J., Alloy, L. B., & Kayne, N. T. (1988). Attributional style, depression, and perceptions of consensus for events. *Journal of Personality and Social Psychology, 54*, 840-846.

Crocker, J., & Lawrence, J. S. (1999). Social stigma and self-esteem: The role of contingencies of worth. In D. A. Prentice & K. T. Miller (Eds.), *Cultural divides: Understanding and overcoming group conflict* (pp. 364-392). New York: Russell Sage Foundation.

Crocker, J., & Lutsky, N. (1986). Stigma and the dynamics of social cognition. In S. C. Ainlay, G. Becker, & L. M. Coleman (Eds.), *The dilemma of difference: A multidisciplinary view of stigma* (pp. 95-122). New York: Plenum Press.

Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review, 96*, 608-630.

Crosby, F., Bromley, S., & Saxe, L. (1980). Recent unobtrusive studies of black and white discrimination and prejudice: A literature review. *Psychological Bulletin, 87(3)*, 546-563.

Cruz, M., Cruz, R.F., & McEldoon, W. (2001). Best practice for managing noncompliance with psychiatric appointment in community-based care. *Psychiatric Services, 52(11)*, 1443-1445.

Cuffel, B. J., Alford, J., Fischer, E.P., & Owen, R. R. (1996). Awareness of illness in schizophrenia and outpatient treatment adherence. *The Journal of Nervous and Mental Disease, 184(11)*, 653-659.

Delaney, C. (1998). Reducing recidivism: medication versus psychosocial rehabilitation. *Journal of Psychosocial Nursing and Mental Health Services, 36*, 28-34.

Detweiler, J. B., & Whisman, M. A. (1999). The role of homework assignments in cognitive therapy for depression: Potential methods for enhancing adherence. *Clinical Psychology: Science and Practice, 6(3),* 267-282.

Devellis, R. F. (2003). *Scale development: Theory and applications* (2nd ed.). Thousand Oaks, Calif.: SAGE Publications.

Dickerson, F. B. (1998). Strategies that foster empowerment. *Cognitive and Behavioral Practice, 5(2),* 255-275.

Dinos, S., Steven, C., Serfaty, M., Weich, S., & King, M. (2004). Stigma: the feelings and experiences of 46 people with mental illness. *British Journal of Psychiatry*, *184*, 176-181.

Drake, R.E. (1998). A brief history of the Individual Placement and Support model. *Psychiatric Rehabilitation Journal, 22(1),* 3-7.

Dryden, W. (1995). *Brief rational emotive behaviour therapy*. Chichester; New York : Wiley.

Dryden, W., & Ellis, A. (2003). *Albert Ellis live!* London: Sage Publications.

Equal Opportunities Commission (1997). *Full report: A baseline survey on employment situation of persons with a disability in Hong Kong.*

Estroff, S. E., Penn, D. L., & Toporek, J. R. (2004). From stigma to discrimination: An analysis of community efforts to reduce the negative consequences of having a psychiatric disorder and label. *Schizophrenia Bulletin, 30(3),* 493-509.

Falloon, I. R. H. (1984). Developing and maintaining adherence to long-term drug-taking regimens. *Schizophrenia Bulletin, 10(3),* 412-417.

Falloon, I. R. H., Coverdale, J. H., & Brooker, C. (1996). Psychosocial interventions in schizophrenia: A review. *International Journal of Mental Health, 25(1),* 3-21.

Fawcett, J. (1995). Compliance: Definition and key issues. *Journal of Clinical Psychiatry, 56,* 4-10.

Fenton, W. S., Blyler, C. R., & Heinssen, R. K. (1997). Determinants of medication compliance in schizophrenia: Empirical and clinical findings. *Schizophrenia Bulletin, 23,* 637-651.

Fiske, S. T. (1998). Stereotyping, prejudice, and discrimination. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology*. New York : Distributed exclusively by Oxford University Press.

Fleischhacker, W. W., Meise, U., Gunther, V., & Kurz, M. (1994). Compliance with antipsychotic drug treatment: Influences of side-effects. *Acta Psychiatrica Scandinavica,* 89, 11-15.

Fleischhacker, W. W., Oehl, M. A., & Hummer, M. (2003). Factors influencing compliance in schizophrenia patients. *Journal of Clinical Psychiatry, 64,* 10-13.

Fox, J. (1991). *Regression diagnostics*. Newburry Park, C.A.: Sage Publication.

Franzoi, S. L. (2003). *Social psychology* (3rd ed.). New York: McGraw-Hill.

Fung, K. M. T., Tsang, H. W. H., Corrigan, P. W., & Lam, C. S. (under review). Measuring Self-stigma of Mental Illness in China and Its Implications for Recovery. Manuscript submitted for publication.

Gibson, R. (1992). The psychiatric hospital and reduction of stigma. In P. J. Fink, & A. Tasman (Eds.), *Stigma and mental illness*. Washington, DC : American Psychiatric Press.

Gilbert, D., T., Tafarodi, R. W., & Malone, P. S. (1993). You can't not believe everything you read. *Journal of Personality and Social Psychology, 65*, 221-233.

Glynn, S. M. (2003). Psychiatric rehabilitation in schizophrenia: advances and challenges. *Clinical Neuroscience Research, 3(1-2),* 23-33.

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Englewood Cliffs, NJ: Prentice-Hall.

Graybar, S.R., Antoniccio, D. O., Boutilier, L.R., & Varble, D.L. (1989). Psychological reactance as a factor affecting patient compliance to physician advice. *Scandinavian Journal of Behavior Therapy, 18,* 43-51.

Haddock, G., Tarrier, N., Spaulding, W., Yusupoff,L., Kinney, C., & McCarthy, E. (1998). Individual cognitive-behavior therapy in the treatment of hallucinations and delusions: A review. *Clinical Psychology Review, 18(7),* 821-838.

Hamre, P., Dahl, A., & Malt, U. (1994). Public attitudes to the quality of psychiatric treatment, psychiatric patients, and prevalence of mental disorders. *Norwegian Journal of Psychiatry, 4,* 275-281.

Hayward, P., & Bright, J. A. (1997). Stigma and mental illness: A review and critique. *Journal of Mental Health, 6,* 345.

Health and Welfare Bureau. (1999). *Hong Kong Rehabilitation Programme Plan (1998-99 to 2002-03): Towards a new rehabilitation era.* Hong Kong: Government Secretariat.

Hilton, J. L., & von Hippel, W. (1996). Stereotypes. *Annual Review of Psychology, 47,* 237-271.

Hogarty, G. E., & Ulrich, R. F. (1998). The limitations of antipsychotic medication on schizophrenia relapse and adjustment and the contributions of psychosocial treatment. *Journal of Psychiatric Research, 32(3-4),* 1998.

Holmes, E. P., & River, L. P. (1998). Individual strategies for coping with the stigma of severe mental illness. *Cognitive and Behavioral Practice, 5,* 231-239.

Honer, W. G., Smith, G. N., Macewan, G. W., Kopala, L., and Altman, S. et al. (1994). Diagnostic reassessment and treatment response in schizophrenia. *Journal of Clinical Psychiatry, 55(12),* 528-532.

Jones, E. E., Farina, A., Hastorf, A. H., Markus, H., Miller, D. T., & Scott, R. A. (1984). *Social stigma: The psychology of marked relationships*. New York: Freeman.

Jussim, L., Manis, M., Nelson, T. E., & Soffin, S. (1995), Prejudice, stereotypes, and labelling effects: Sources of bias in person perception. *Journal of Personality and Social Psychology, 68(2),* 228-246.

Kaiser, H. F. (1970). A second generation Little Jiffy. *Psychometrika, 35,* 401-415.

Kaiser, H.F. (1974). An index of factorial simplicity. *Psychometrika, 39,* 31-36.

Kemp, R., Kirov, G., Everitt, B., Hayward, P., & David, A. (1998). Randomized controlled trial of compliance therapy 18-month follow-up. *British Journal of Psychiatry, 172,* 413-419.

Kemp, R., Peter, H., Grantley, A.,Brian, E., & Anthony, D. (1996). Compliance therapy in psychotic patients: randomized controlled trial. *British Medical Journal, 312(7027),* 345-349.

Kent, S., & Yellowlees, P. (1994). Psychiatric and social reasons for frequent rehospitalization. *Hospital and Community Psychiatry, 45,* 347-350.

Kim, J., & Mueller, C.W. (1978). *Factor Analysis: Statistical Methods and Practical Issues*. Beverly Hills, California: SAGE Publications.

Kingdon, D. G., & Turkington, D. (1991). The use of cognitive behavioral therapy with a normalizing rationale in schizophrenia: Preliminary findings. *Journal of Nervous and Mental Disease, 179,* 207-211.

Kingdon, D. G., Turkington, D., & Beck, A. T. (1993). *Cognitive behavioral therapy of schizophrenia*. New York: Guilford.

Krueger, J. (1996). Personal beliefs and cultural stereotypes about racial characteristics. *Journal of Personality and Social Psychology, 71(3),* 536-548.

Larsen, T. K., Johannessen, J. O., & Opjordsmoen, S. (1998). First episode schizophrenia with long duration of untreated psychosis: Pathways to care. *British Journal of Psychiatry, 172,* 45-52.

Lauriello, J., Bustillo, J., & Keith, S. J. (1999). A critical review of research on psychosocial treatment of schizophrenia. *Biological Psychiatry, 46(10),* 1409-1417.

Lawshe, C.H. (1975). A Quantitative Approach to Content Validity. *Personnel Psychology, 28,* 563-575.

Lehman, A. (1995). Vocational rehabilitation in schizophrenia. *Schizophrenia Bulletin, 21,* 645-656.

Liberman, R. P., Spaulding, W., & Corrigan, P. W. (1995). Cognitive-behavioral therapies in psychiatric rehabilitation. In S. R. Hirsch & D. Weinberger (Eds.), *Schizophrenia* (pp. 605-625). Oxford: Blackwell Scientific Publications.

Link, B. G. (1982). Mental patient status, work, and income: An examination of the effects of a psychiatric label. *American Sociological Review, 47,* 202-215.

Link, B. G. (1987). Understanding labelling effects in the area of mental disorders: An assessment of the effects of expectations of rejection. *American Sociological Review, 52,* 96-112.

Link, B. G., Cullen, F. T., Struening, E., Shrout, P. E., & Dohrenwend, B. P. (1989). A modified labeling theory approach to mental disorders: an empirical assessment. *American Sociological Review, 54,* 400-423.

Link, B.G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology, 27,* 363-385.

Ludwig, W., Huber, D., Schmidt, S., Bender, S., & Greil, W. (1990). Assessment of compliance-related attitudes in psychiatry: A comparison of two questionnaires based on the Health Belief Model. *Social Psychiatry and Psychiatric Epidemiology, 25,* 298-303.

Lysaker, P., Bell, M., Milstein, R., Bryson, G., & Beam-Goulet, J (1994). Insight and psychosocial treatment compliance in schizophrenia. *Psychiatry, 57(4),* 307-311.

Macrae, C. N., Bodenhausen, G. V., Milne, A. B., & Jetten, J. (1994). Out of mind but back in sight: Stereotypes on the rebound. *Journal of personality and Social Psychology, 67*, 808-817.

Macrae, C. N., Bodenhausen, G. V., Milne, A. B., & Wheeler, V. (1996). On resisting the temptation for simplification: Counterintentional effects of stereotype suppression on social memory. *Social Cognition, 14*, 1-20.

Major, B., & O'Brien, L.T. (2005). The social psychology of stigma. *Annual Review of Psychology, 56*, 393-421.

Manchanda, R., & Norman, R. M. G. (2003). Schizophrenia : Early intervention. *The Canadian Journal of Continuing Medical Education, 11,* 123-127.

Mayville, E., & Penn, D. L. (1998). Changing societal attitudes toward persons with severe mental illness. *Cognitive and Behavioral Practice, 5(2),* 241-253.

McEvoy, J. P., Freter, S., Everett, G., Geller, J. L., Appelbaum, P., Apperson, L. J., et al. (1989). Insight and the clinical outcome of schizophrenic patients. *Journal of Nervous and Mental Disease, 177,* 48-51.

Mechanic, D. (1989). *Mental Health and Social Policy* (3rd ed.). Englewood Cliffs, N.J.: Prentice Hall.

Meltzer, H., Bebbington, P., Brugha, T., Farrell, M., Jenkins, R., & Lewis, G. (2003). The reluctance to seek treatment for neurotic disorders. *International Review of Psychiatry, 15(1-2),* 123-128.

Miller, W. R. (1983). Motivational interviewing with problem drinkers. *Behavioural Psychotherapy, 11,* 147-172.

Miller, W. R., & Rollnick, S. (2002). *Motivational Interviewing: Preparing people for change* (2nd ed.). New York, N.Y.: Guilford Press.

Mueser, K. T., & Bond, G. R. (2000). Psychosocial treatment approaches for schizophrenia. *Current Opinion in Psychiatry, 13*, 27-35.

Mueser, K. T., & Glynn, S. M. (1999). *Behavioral family therapy for psychiatric disorders*. Oakland, CA: New Harbinger Publications.

Murray, C. J. L., & Lopez, A. D. (1996). *The Global Burden of Disease: A Comprehensive Assessment of Mortality and Disability from Diseases, Injuries, and Risk Factors in 1990 and Projected to 2020.* Cambridge, Mass.: Harvard School of Public Health.

Narrow, W. E. (1998). *One-year prevalence of mental disorders, excluding substance use disorders, in the U.S.: NIMH ECA prospective data.* Population estimates based on U.S. Census estimated residential population age 18 and over. Unpublished.

Nelson, H. (1997). *Cognitive behavioural therapy with schizophrenia: A practice manual*. Cheltenham : S. Thornes.

Ng, F. L. B. (1999). *A pilot study of the goal attainment program for in-patients with schizophrenia in Hong Kong.* Master dissertation, Hong Kong Polytechnic University, Hong Kong.

Ng, F. L. B., & Tsang, H. W. H. (2002). A program to assist people with severe mental illness in formulating realistic life goal. *Journal of Rehabilitation, 16(4),* 59-66.

Ng, P., & Chan, K. (2000). Sex differences in opinion towards mental illness of secondary school students in Hong Kong. *International Journal of Social Psychiatry, 46,* 79-88.

O'Hanrahan, M., & O'Malley, K. (1981). Compliance with drug therapy. *British Medical Journal, 283*, 298–300.

Oyserman, D., Mowbray, C. T., Meares, P. A., & Firminger, K. B. (2000). Parenting among mothers with a serious mental illness. *American Journal of Orthopsychiatry, 70(3),* 296-315.

Page, S. (1983). Psychiatric stigma: Two studies of behaviour when the chips are down. *Canadian Journal of Community Mental Health, 2,* 13-19.

Pampallona, S., Bollini, P., Tibaldi, G., Kupelnick, B., & Munizza, C. (2002). Patient adherence in the treatment of depression. *British Journal of Psychiatry, 180,* 104-109.

Pappaport, J. (1987). Terms of empowerment exemplars of prevention: Toward a theory for community psychology. *American Journal of Community Psychology, 15(2),* 121-148.

Parsons, T. (1972). Delimitations of health and illness in the light of American values and social structure. In E.G. Jaco (Ed), *Patients, physicians and illness*. New York: Macmillan.

Peck, M. C., & Scheffler, R. M. (2002). An analysis of the definitions of mental illness used in state parity laws. *Psychiatric Services, 53(9),* 1089-1095.

Penn, D. L., & Mueser, K. T. (1996). Research update on the psychosocial treatment of schizophrenia. *American Journal of Psychiatry, 153(5),* 607-617.

Phelan, J., Link, B., Stueve, A., & Pescosolido, B. (2000). Public conceptions of mental illness in 1950 and 1996: What is mental illness and is it to be feared? *Journal of Health and Social Behavior, 41*, 188-207.

Pinofold, V., Thornicroft, G., Huxley, P., & Farmer, P. (2005). Active ingredients in anti-stigma programmes in mental health. *International Review of Psychiatry, 17(2),* 123-131.

Pittman, T. S. (1993). Control motivation and attitude change. In G. Weary, F. Geicher, & K. L. Marsh (Eds.), *Control motivation and social cognition* (pp. 157-175). New York: Springer-Verlag.

Playle, J. F., & Keeley, P. (1998). Non-compliance and professional power. *Journal of Advanced Nursing, 27(2),* 304-311.

Portney, L.G., & Watkins, M.P. (2000) *Foundation of Clinical Research: Applications to Practice* (2nd ed.). London: Prentice-Hall, Inc.

Prince, J. D. (2005). Family involvement and satisfaction with community mental health care of individuals with schizophrenia. *Community Mental Health Journal, 41(4),* 419-430.

Regier, D. A., Narrow, W. E. Rae, D. S., Manderscheid, R. W., Locke, B. Z., & Goodwin, F. K. (1993). The De-facto United States Mental and addictive disorders service system. *Archives of General Psychiatry, 50(2),* 85-94.

Ritsher, J. B., Otilingam, P. G., & Grajales, M. (2003). Internalized stigma of mental illness: Psychometric properties of a new measure. *Psychiatric Research, 121(1),* 31-49.

Ritsher, J. B., & Phelan, J. C. (2004). Internalized stigma predicts erosion of morale among psychiatric outpatients. *Psychiatric Research, 129(3),* 257-265.

Rittmannsberger, H., Pachinger, L., Keppelmuller, P., & Wancata, J. (2004). Medication adherence among psychotic patients before admission to inpatient treatment. *Psychiatric Services, 55(2),* 174-179.

Robson, P. J. (1988). Self-esteem: a psychiatric review. *British Journal of Psychiatry, 153,* 6-15.

Rogers, C. (1984). Change Theory: A framework for implementing nursing diagnosis in a long term care setting. *Nursing Clinics of North America, 22(4),* 887-897.

Rollnick, S., & Miller, W.R. (1995). What is motivational interviewing. *Behavioural and Cognitive Psychotherapy, 23,* 325-334.

Rosenberg, M. (1965). *Society and the Adolescent Self-Image.* Princeton, New Jersey: Princeton University Press.

Rosenberg, M. (1979). *Conceiving the self*. New York: Basic.

Rosenfield, S. (1997). Labeling mental illness: The effects of received services and perceived stigma on life satisfaction. *American Sociological Review, 62,* 660-671.

Rosenstock, I.M. (1966). *Why people use health service*. Milbank Mem Fund.

Rusch, N., & Corrigan, P. W. (2002). Motivational interviewing to improve insight and treatment adherence in schizophrenia. *Psychiatry Rehabilitation Journal, 26(1),* 23-32.

Sackett, D.L., & Haynes, B.R. (1976). *Compliance with therapeutic regimens*. Baltimore, Maryland and London: The Johns Hopkins University Press.

Schulze, B., & Angermeyer, M. C. (2003). Subjective experiences of stigma. A focus group study of schizophrenic patients, their relatives and mental health professionals. *Social Science and Medicine, 56(2),* 299-312.

Schumacher, M., Corrigan, P. W., & Dejong, T. (2003). Examining cues that signal mental illness stigma. *Journal of Social and Clinical Psychology, 22(5),* 467-476.

Schwartz, H.I., Vigiano, W., Perez, C.A. (1988). Autonomy and the right to refuse treatment: patients' attitudes after involuntary medication. *Hospital and Community Psychiatry, 39,* 1049-1055.

Sherer, M., Maddus, J. E., Mercandante, B., Prenticedunn, S., Jacobs, B., & Rogers, R. W. (1982). The self-efficacy scale: Construction and validation. *Psychological Reports, 51(2),* 663 – 671.

Siber, E., & Tippett, J.S. (1965) Self-esteem: Clinical assessment and measurement validation. *Psychological Reports, 16,* 1017-1071.

Spector, P. E. (1992). *Summated rating scale construction: An introduction*. California: SAGE Publications, Inc.

Stafford, M. C., & Scott, R. R. (1986). Stigma deviance and social control: some conceptual issues. In S. C. Ainlay, G. Becker, & L. M. Coleman (Eds.), *The dilemma of difference: A multidisciplinary view of stigma* (pp. 77-91). New York: Plenum Press.

Swanson, A. J., Panalon, M. V., & Cohen, K. R. (1999). Motivational interviewing and treatmet adherence among psychiatric and dually diagnosed patients. Journal *of Nervous and Mental Disease, 187(10),* 630-635.

Swanson, C.L., Freudenreich, O., McEvoy, J.P., Nelson, L., Kamaraju, L., & Wilson, W. (1995). Insight in schizophrenia and mania. *Journal of Nervous and Mental Disease, 183,* 752-755.

Swanson, J., Estroff, S., Swartz, M., Borum, R., Lachicotte, W., Zimmer, C., et al. (1997). Violence and severe mental disorder in clinical and community populations: The effects of psychotic symptoms, comorbidity, and lack of treatment. Psychiatry*: Interpersonal and Biological Process, 60(1),* 1-22.

Tabachnick, B.G., & Fidell, L.S. (2001). *Using Multivariate Statistics* (4th ed.). Boston: Allyn and Bacon.

Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In W. Austin & S. Worchel (Eds.), *The social psychology on intergroup relations* (pp. 7-24). Monterey, CA: Brooks/Cole.

Tam, S. F., Tsang, H. W. H., Ip, Y. C., & Chan, C. S. C. (2004). Preliminary evidence for the basis of self-concept in Chinese people with mental illness. *Quality of Life Research, 13,* 497-508.

Tarrier, N., & Bobes, J. (2000). The importance of psychosocial interventions and patient involvement in the treatment of schizophrenia. *International Journal of Psychiatry in Clinical Practice, (4),* S35-S51.

Tarrier, N., Barrowclough, C., Porceddu, K., Fitzpatrick, E. The Salford family intervention project: Relapse rated of schizophrenia at five and eight years old. *British Journal of Psychiatry, 165,* 829-832.

Tarrier, N., Yusupoff, L., Kinney, C., McCarthy, E., Gledhill, A., Haddock, G., et al. (1998). Randomised controlled trial of intensive cognitive behaviour therapy for patients with chronic schizophrenia. *British Medical Journal, 317,* 303-307.

Taylor, S. M., & Dear, M. J. (1980). Scaling Community Attitudes toward the mentally ill. *Schizophrenia Bulletin, 7*, 225-240.

Testa, M., Crocker, J., & Major, B. M. (1988). *The self protective function of prejudice: Effects of negative feedback and evaluator prejudice on mood and self-esteem*. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago.

The Chinese University of Hong Kong. (1999). "Are they physically or mentally sick?"- CUHK Finds Over One-Fifth Clinic Attendees Have Mental Disorders. *Press Releases.* Retrieved August 11, 2005 from http://www.cuhk.edu.hk/ipro/990205.htm

The President's Commission on Mental Health. (1978). *Report to the president from the President's Commission on Mental Health*. Washington, DC: U.S. Government Printing Office.

Torrey, W. C., Drake, R. E., Dixon, L., Burns, B. J., Flynn, L.,& Rush, A. J. et al. (2001). Implementing evidence-based practices for persons with severe mental illnesses. *Psychiatric Services, 52(1),* 45-50.

Towsend, J. M. (1975). Cultural conceptions, mental disorders and social roles: A comparison of Germany and America, *American Sociological Review, 40,* 739-752.

Tsang, H. W. H., Fung, K. M. T., & Corrigan, P.W. (2006). The Psychosocial Treatment Compliance Scale (PTCS) for People with Psychotic Disorders. *Australian and New Zealand Journal of Psychiatry, 40,* 561-569.

Tsang, H. W. H., Tam, P., Chan, F., & Cheung, W. M. (2003a). Stigmatizing attitudes towards individuals with mental illness in Hong Kong: Implications to their recovery. *Journal of Community Psychology, 31,* 383-396.

Tsang, H. W. H., Tam, P., Chan, F., & Cheung, W. M. (2003b). Sources of burdens on families of individuals with mental illness. *International Journal of Rehabilitation Research, 26(2),* 123-130.

Tsang, H., Weng, Y. Z., & Tam, P. (2000). Needs and problems related to mental health services in Beijing. *Psychiatric Rehabilitation Skills. 4 (1),* 1-21.

United States Deparment of Health and Human Services (1999). *Mental health: A report of the surgeon general 1999.* Pittsburgh, PA : Department of Health and Human Services, U. S. Public Health Service.

Wahl, O. F. (1995). *Media madness: Public images of mental illness.* New Brunswick, N.J.: Rutgers University Press.

Watson, A. & Corrigan, P. (2001). The impact of stigma on service access and participation. *A Guideline Developed for the Behavioral Health Recovery Management Project,* University of Chicago Center for Psychiatric Rehabilitation.

Watson, A. C., Miller, F. E., & Lyons, J. S. (2005). Adolescent attitudes toward serious mental illness. *Journal of Nervous and Mental Disease, 193(11),* 769-772.

Weiden, P., Rapkin, B., Mott, T., Zygmunt, A., Goldman, D., Horvitzlennon, M., et al. (1994). Rating of Medication Influences (ROMI) Scale in schizophrenia. *Schizophrenia Bulletin, 20(2),* 297-310.

Weiner, B. (1980). A cognitive (attribution)-emotion–action model of motivated behavior: An analysis of judgments of help giving. *Journal of Personality and Social Psychology, 39(2),* 186-200.

Weiner, B. (1995). *Judgements of responsibility: A foundation for a theory of social conduct*. New York: Guilford Press.

Weiner, B., Perry, R. P., & Magnuson, J. (1988). An attributional analysis of reactions to stigmas. *Journal of Personality and Social Psychology, 55*, 738-748.

Weinstein, R. M. (1982). Stigma and mental-illness: Theory versus reality. *Journal of Orthomolecular Psychiatry, 11(2),* 87-99.

Weiss, M. G. & Ramakrishna, J. (2001). Intervention: Research on reducing stigma. *Stigma and global health: Developing a research agenda*, An International Conference.

Whitt, H. P., Meile, R. L., & Larson, L. M. (1979). Illness role-theory, the labeling perspective and the social meanings of mental illness empirical test. *Social Science & Medicine Part A- Medical Sociology, 13(6A),* 655-666.

Wolff, G., Patharem, S., Craig, T., & Leff, A. (1996). Public education for community care: A new approach. *British Journal of Psychiatry, 168(4)*, 441-447.

World Health Organization. (1973). *Report of the international study of schizophrenia.* Geneva: WHO Press.

World Health Organization. (2001). *World health report 2001*. Geneva: World Health Organization.

World Psychiatric Association. (2002). *Schizophrenia: Open the doors training manual; Global program against stigma and discrimination because of schizophrenia*. New York: World Psychiatric Association.

Yang, L. H., & Pearson, V. J. (2002). Understanding families in their own context: Schizophrenia and structural family therapy in Beijing. *Journal of Family Therapy, 24(3),* 233-257.

Zaretsky, A. (2003). Target psychosocial interventions for bipolar disorder. *Bipolar Disorders, 5*, 80-87.

Ziguras, S. J., Klimidis, S., Lambert, T. J. R., & Jackson, A. C. (2001). Determinants of anti-psychotic medication compliance in a multicultural population. *Community Mental Health Journal, 37(3),* 273-283.

Zweben, A., & Zuckoff, A. (2002). Motivational interviewing and treatment adherence. In W. R. Miller, & S. Rollnick (Eds.), *Motivational interviewing: Preparing people for change* (pp. 299-319). New York, N.Y. : Guilford Press.

Appendix 1: Amendment of Instruments (Chinese Version)

The Self-stigma of Mental Illness Scale

Item	Sources of Problem/ Way to Improve	Amendment
1	Mistranslation of item was found	Change to "大部分精神病~~患者~~是會傳染的"
6	The term used should be replaced by other word to improve its relevancy	Change to "大部分精神病患者***是***~~無知~~***見識淺薄***和幼稚***的***"
9	The meaning was not much semantically to original version	Change to "大部分精神病患者要爲自己的問題~~負~~***感到自***責"
10	The group for comparison should to be clearly demonstrated	Change to "大部分精神病患者的智商***都***低於~~正常水平~~***常人***"
12	The presentation of item should be improved	Change to "大部分精神病患者不會痊癒或***情況***好轉"

Notes: The items for the four levels of the Measure of Self-stigma in Mental Illness are the same. So, the amendments for each level were identical.

Rosenberg Self-Esteem Scale

Item	Sources of Problem/ Way to Improve	Amendment
1	The phrase used was not layman	Change to "~~大體來說~~***大致上***，我對自己十分滿意"
4	The presentation of item should be improved by rephrasing	Change from "我自信我可以和別人表現得一樣好" to "***我做事可以和一般人做得一樣的好***"
5	The presentation of item should be improved by rephrasing	Change to "我~~時常~~覺得自己沒有~~什麼好~~***值得***驕傲***的地方***"
6	The phrase used was not layman	Change to "有時我的確~~感到~~***覺得***自己沒有~~什麼~~用~~處~~
7	The item did not demonstrated the degree of comparison	Change to "我覺得自己~~是~~***最低限度***和別人~~有~~一樣***有***~~好~~價值~~的人~~"
8	Clear presentation was required	Change to "我希望***我***能更尊重自己
10	Clear presentation was required	Change to "我***時常***用正面的態度來看自己"

Self-efficacy Scale

1. General Self-efficacy

Item	Sources of Problem/ Way to Improve	Amendment
2	Mistranslation of item was found	Add "***我其中一個問題是***" before the sentence "當我應該開始認真工作時，發現自己很難做到"
4	Precise presentation was required	Change from "當我爲自己訂下重要目標時，我甚少能達到目標" to "***我甚少能達到自己訂下的重要目標***"

5	Clear presentation was required	Change to "*我很多時*在工作未完成時~~我~~已經放棄"
6	Clear presentation was required	Change to "我*會*避免面對困難"
7	Clear presentation was required	Change to "我不會~~考慮~~嘗試*去做*某些看起來太複雜的事"
8	Clear presentation was required	Change to "當我做些厭惡的事時，我*都*會堅持到底"
11	Precise presentation was required	Change to "~~當沒預計的問題出現時，~~我不能好好~~地~~處理~~這些問題~~*一些突然的事物*'
12	Clear presentation was required	Change to "我*會*盡量避免學習看起來*太*困難的新事物"
13	Use of unsuitable word was found	Change to "失敗~~叫~~*令*我更勇於嘗試
14	The presentation of item should be improved by rephrasing	Change from"我對自己的能力無信心" to "*我不大相信自己的辦事能力*
15	The meaning was not identical to original version	Change from "我甚麼事都自己做" to "*我是一個靠自己的人*"
17	Clear presentation was required	Change to "我~~看來~~*認爲自己*沒能力應付生活上大部分的問題"

2. Social Self-efficacy

Item	Sources of Problem/ Way to Improve	Amendment
2	Precise presentation was required	Change from "若果我看見希望認識的人，我會上前結識那人，而不是得他／她來找我" to "*我會主動結識我想認識的朋友*"
3	Clear presentation was required	Change from "若果遇上某個特別的人，但發覺很難與他~~們做朋友~~*相處*，我很快便放棄與那人交朋友"
4	Clear presentation was required	Change the Chin (T) to "當我嘗試與某人交朋友，~~但發現那人沒多大興趣時~~*雖然他/她不表興趣*，*但*我*亦*不~~容~~*輕*易說放棄"
5	Clear presentation was required	Change the Chin (T) from "在社交聚會時我不懂得如何表現" to "*我不懂得如何在社交聚會時表現*'

Scale to Assess Unawareness of Mental Disorder

1. Signs and Symptoms Checklist

Item	Sources of Problem/ Way to Improve	Amendment
6	Mistranslation of jargon was found	Correction from "思覺失調" to "***思想障礙***"
8	Mistranslation of jargon was found	Correction from "奇裝異服" to "***異常服飾/ 外觀***"
9	Mistranslation of jargon was found	Correction from "典型或慣常行爲" to "***刻板或儀式行爲***"
18	Mistranslation of jargon was found	Correction from 混亂/ 迷失方向" to "***精神紊亂/ 定向困難***"

Noted: The corrected jargons were used in the "Awareness and Attribution Scale"

2. Awareness and Attribution Scale

Item	Sources of Problem/ Way to Improve	Amendment
1	Mistranslation of jargon was found	Change from "心理問題" to "***精神病問題***"
2	Clear presentation was required	Change the score description to "…服藥後***會***減低了徵狀的嚴重程度或病發~~次數~~***機會***"
3	Mistranslation of jargon was found Clear presentation was required	Change from "社會影響" to "***社會後果***" Change to "對象怎樣看自己曾經入院、強迫住院、被捕、被驅趕、被解僱、***或曾***受傷等的原因？"
4	Mistranslation of jargon was found	Change form " 幻聽" to "***幻覺***"
5	Mistranslation of item was found	Change to" 對象認不認爲自己患有妄想症(即內在產生的~~錯覺~~***錯誤觀念***)？"
6	Clear presentation was required	Change to "對象有否察覺到自己的語言混亂及***令***他人難以理解？"
8	Explanation was required	Change to "…自己的裝扮~~正常~~***與一般人生活習慣格格不入***"
10	Clear presentation was required	Change to "對象有否察覺自己的社交判斷力~~較弱~~***不佳***，會令身邊的人尷尬、生氣、或感到不自在？"
11	Clear presentation was required	Change to "自己***難於***控制***自我的***攻擊衝動~~有困難~~"
12	Clear presentation was required	Change to "自己***難於***控制***自己的***性衝動~~有困難~~？"

13	Unsuitable word was used	Change to “說話緩慢或內容空~~洞~~***泛***(語言貧乏症)的察覺”
14	Clear presentation was required	Change to “~~感情表達~~呆滯或平板***之感情表達***的察覺”
15	Clear presentation was required	Change to “***缺乏***~~無~~動機／***對事物***冷淡的察覺” and “對象是否察覺自己比平常不注意打扮及***個人***衛生，或容易缺乏體力，或***不能***在某些目標~~不能~~持之以恆？”
16	Clear presentation was required Inappropriate phrase translated was found	Add “***事物***” before “都不大熱衷” Change to “對象有否察覺~~自己在通常叫人~~***自己對平時***感興趣或高興的場合，明顯不再感興趣或歡樂，或對人際關係不大熱衷？”
17	Clear presentation was required	Using “專注力” instead. Change to “對象有否察覺自己在集中精神或維持***專***注~~意~~***力***~~到~~有困難？”
19	Clear presentation was required	Change to “對象有否察覺自己的眼神接觸不正常，***例如***不是狠狠盯著人家，便是過分避免眼神接觸？”
20	Clear presentation was required	Change to “對象有否察覺自己除了家人之外，與其他人的關係都不大親密，或與***其他***人的關係流於表面？”

Appendix 2: Chinese Version of Instruments

Demographic Data Collection Form

Participant Number: ( )
Date: _____

Informant's Particulars

1. Name of informant: _____

2. Gender*: □ Male □ Female

3. Field of professional qualification:
□ Nurse □ Occupational Therapist □ Psychiatrist □ Psychologist
□ Social Worker □ Other Rehabilitation Practitioner, please specify: _____

4. Duration of providing psychosocial treatment to participant: _____ months

5. Years of experience working with people with mental illness: _____ years

Personal Particulars

1. Name of client: _____

2. Gender*: □ Male □ Female

3. Age: _____

4. Educational Level*:
□ Primary □ Secondary □Tertiary

5. Martial Status*:
□ Single □ Married □ Divorce □ Widow
Number of Children: _____

6. Living with*:
□ Parent_____ □ Sibling_____ □ Relatives_____ □ Spouse
□ Alone □ Friend □ Other, please specify: _____

7. Source of Income*:

□ Self earned □ Savings □Family □ N.D.A./H.D.A. □ C.S.S.A.

□ Other, please specify: _____

8. Present Occupation*:

□ Cleaning Worker □ Delivery Worker □ General Clerk □ Salesperson

□ Security Guard □ Waiter □ Unemployed

□ Other, please specify: _____

Psychiatric Medical History

9. Diagnosis: _____

10. Date of Onset: _____

11. Date of First Admission to Psychiatric Hospital: _____

12. Date of Last Discharge from Psychiatric Hospital: _____

13. Accumulated Length of Stay in Psychiatric Hospital (In-patient): _____ months

14. Accumulated Length of Stay in Psychiatric Day Hospital (Day-patient):_____ months

15. The Number of Previous Admission: _____

Present Utilization of Mental Health Services

16. Present Recipient of Mental Health Services*

□ In-patient for Psychiatric Hospital (_____day per week)

□ Psychiatric Day Hospital (_____day per week)

□ Psychiatric Out-patient Clinics (_____day per week)

□ Other, please specify: _____, (_____day per week)

Psychosocial Treatment Compliance Scale (PTCS ; Tsang , Fung & Corrigan, 2006)

Instructions

The degree of psychosocial treatment compliance for people with mental illness is examined by the mental health care professionals, such as occupational therapists, social workers and nurses, etc. The term "therapists" stated below refers to all these professionals. Scoring on level of compliance is based on clients' overall performances in various psychosocial treatments, including family intervention, social skills training, vocational rehabilitation and cognitive behavioural therapy, etc., for the past THREE **months**.

Rating

Please circle the corresponding scores to reflect client's compliance in psychosocial treatment.

	Item	Never	Infrequently	Sometimes	Frequently	Always
1	Attended prescribed psychosocial treatment	1	2	3	4	5
2	Attended prescribed psychosocial treatment on time	1	2	3	4	5
3	Was self-motivated in joining the psychosocial treatment program	1	2	3	4	5
4	Was willing to follow therapists' instructions	1	2	3	4	5
5	Was willing to follow family's/ friends' advice in attending psychosocial treatment	1	2	3	4	5
6	Actively participated in prescribed psychosocial treatment	1	2	3	4	5
7	Was attentive in attending psychosocial treatment	1	2	3	4	5

8	Was willing to communicate with therapists. E.g. Initiative in asking or answering questions	1	2	3	4	5
9	Was willing to communicate with other participants	1	2	3	4	5
10	Was willing to provide help to other participants when needed	1	2	3	4	5
11	Was able to remember the contents/ skills taught in psychosocial treatment	1	2	3	4	5
12	Was willing to complete homework assignment	1	2	3	4	5
13	Was willing to review topics discussed in previous psychosocial treatment sessions	1	2	3	4	5
14	Was willing to try new psychosocial treatment prescribed	1	2	3	4	5
15	Continued to participate in all psychosocial treatment and avoided premature treatment termination.	1	2	3	4	5
16	Was willing to seek advice to improve performance	1	2	3	4	5

17	Was able to control emotion when facing uncertainty in psychosocial treatment	1	2	3	4	5

Reference:

Tsang, H. W. H., Fung, K. M. T., & Corrigan, P.W. (2006). The Psychosocial Treatment Compliance Scale (PTCS) for People with Psychotic Disorders. *Australian and New Zealand Journal of Psychiatry*, *40*, 561-569.

精神病自我標籤效應的量度
Self-Stigma of Mental Illness Scale (SSMIS)

向參加者讀出以下段落：
社會人士對精神病持多種態度。我們希望知道，你對整個社會(或大部份人士)這些態度有甚麼意見。請用下面的 9 分量表來回答以下的問題。

非常不同意　　無意見　　非常同意

1　2　3　4　5　6　7　8　9

第一部份
(向參加者逐一展示第一部份問題的咭片，每張咭片的頂部都有同意—不同意量表。每次讀出一條問題，並在分紙上記錄參加者的評分。若參加者的評分連續三個相同，說：“請記著，你可用 1 至 9 分內的任何分數作答。”**)**

我覺得一般人認為…

1	_____	大部分精神病是會傳染的。
2	_____	大部分精神病患者不可信。
3	_____	大部分精神病患者較常人富藝術天分。
4	_____	大部分精神病患者惹人討厭。
5	_____	大部分精神病患者不能找到正常的工作或做得長久。
6	_____	大部分精神病患者是見識淺薄和幼稚。
7	_____	大部分精神病患者不整潔及不修邊幅。
8	_____	大部分精神病患者道德意識薄弱。
9	_____	大部分精神病患者要為自己的問題感到自責。
10	_____	大部分精神病患者的智商低於常人。
11	_____	大部分精神病患者的行為飄忽。
12	_____	大部分精神病患者不會痊癒或情況好轉。
13	_____	大部分精神病患者是會構成危險的。
14	_____	大部分精神病患者不能照顧自己。
15	_____	大部分精神病患者是天才。

第二部份

向參加者讀出：

這一部份我們想知道你**現時**對這些態度有甚麼意見。你同意以下的項目嗎？

我認為…

1	_____	大部分精神病患者要為自己的問題感到自責。
2	_____	大部分精神病患者的行為飄忽。
3	_____	大部分精神病患者不會痊癒或情況好轉。
4	_____	大部分精神病患者不能找到正常工作或做得長久。
5	_____	大部分精神病患者不整潔及不修邊幅。
6	_____	大部分精神病患者是會構成危險的。
7	_____	大部分精神病是會傳染的。
8	_____	大部分精神病患者不可信。
9	_____	大部分精神病患者的智商低於常人。
10	_____	大部分精神病患者道德意識薄弱。
11	_____	大部分精神病患者不能照顧自己。
12	_____	大部分精神病患者惹人討厭。
13	_____	大部分精神病患者較常人富藝術天分。
14	_____	大部分精神病患者都是天才。
15	_____	大部分精神病患者是見識淺薄和幼稚。

第三部分

向參加者讀出：

接著，我們想知道以下的態度，有沒有任何一項適用在你身上。

因為我有精神病…

1	_____	我的智商低於常人。
2	_____	我較常人富藝術天分。
3	_____	我不可信。
4	_____	我見識淺薄和幼稚。
5	_____	我不能找到正常工作或做得長久。
6	_____	我不整潔及不修邊幅。
7	_____	我經常很有天分。
8	_____	我身上有些毛病是會傳染的。
9	_____	我不能照顧自己。
10	_____	我不會痊癒或情況好轉。
11	_____	我道德意識薄弱。
12	_____	我要為自己的問題感到自責。
13	_____	我行為飄忽。
14	_____	我會構成危險的。
15	_____	我惹人討厭。

第四部份

向參加者讀出：

最後，我們想知道這些態度**現時**如何影響你的自信或自尊。

我**現時**沒有甚麼自尊:

1	_____	因為我不能照顧自己。
2	_____	因為我不能找到正常工作或做得長久。
3	_____	因為我見識淺薄和幼稚。
4	_____	因為我經常很有天分。
5	_____	因為我會構成危險的。
6	_____	因為我不可信。
7	_____	因為我身上有些毛病是會傳染的。
8	_____	因為我要為自己的問題感到自責。
9	_____	因為我較常人富藝術天分。
10	_____	因為我不會痊癒或情況好轉。
11	_____	因為我惹人討厭。
12	_____	因為我行為飄忽。
13	_____	因為我不整潔及不修邊幅。
14	_____	因為我道德意識薄弱。
15	_____	因為我的智商低於常人。

Reference:

Corrigan, P. W., Watson, A. C., & Barr, L. (in press). The self-stigma of mental illness: Implications for self-esteem and self –efficacy. *Psychiatric Services.*

羅森伯自尊量表
Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965)

以下十條問題，從四個 Likert 量表選項中，選擇一個填答，這四個選項爲(1)很同意；(2)同意；(3)不同意；(4)很不同意。量表內有些爲反向題，由低至高計算其自尊程度。

指示: 以下是關於個人對自己的評價的問題，如果你很同意，同意，不同意，或很不同意的話，請在其 □ 劃上√ 。

	很同意	同意	不同意	很不同意
1. 大致上，我對自己十分滿意	☐	☐	☐	☐
2. *有時我會覺得自己一無是處	☐	☐	☐	☐
3. 我覺得自己有許多優點	☐	☐	☐	☐
4. 我做事可以和一般人做得一樣的好	☐	☐	☐	☐
5. *我覺得自己沒有值得驕傲的地方	☐	☐	☐	☐
6. *有時我的確覺得自己沒有用	☐	☐	☐	☐
7. 我覺得自己最底限度和別人一樣有價值	☐	☐	☐	☐
8. *我希望我能更尊重自己	☐	☐	☐	☐
9. *整體而言，我傾向認爲我是個失敗者	☐	☐	☐	☐
10. 我時常用正面的態度來看自己	☐	☐	☐	☐

注意: 有 *題目爲反向題。

Reference:

Rosenberg, M. (1965). *Society and the adolescent self-image.* Princeton, N.J.: Princeton Univer. Press.

自我效能感評估表

Self- efficacy Scale (SES; Sherer, 1982)

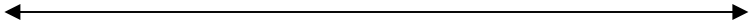
一般自我能力	得分
1 當我訂下計劃的時候，我肯定這些計劃是可行的。	☐
2 我其中一個問題是當我應該開始認真工作時，我發現自己很難做到。(R)	☐
3 若果我第一次做某些事不成功，我會繼續嘗試直至成功為止。	☐
4 我甚少能達到自己訂下的重要目標。(R)	☐
5 我很多時在工作未完成時已經放棄。(R)	☐
6 我會避免面對困難。(R)	☐
7 我不會嘗試去做某些看起來太複雜的事。(R)	☐
8 當我做些厭惡的事時，我都會堅持到底。	☐
9 當我決定了做某件事，我會立即去做。	☐
10 當我學習某些新事物，如果一開始便不成功，我很快便放棄。(R)	☐
11 我不能好好處理一些突發的事。(R)	☐
12 我會盡量避免學習看起來太困難的新事物。(R)	☐
13 失敗令我更勇於嘗試。	☐
14 我不大相信自己的辦事能力。(R)	☐
15 我是一個靠自己的人。	☐
16 我很容易說放棄。(R)	☐
17 我認為自己沒能力應付生活上大部分的問題。(R)	☐

社交自我能力	得分
1 我很難認識到新朋友。(R)	☐
2 我會主動結識我想認識的朋友。	☐
3 若果遇上某個特別的人，但發覺很難與他相處，我很快便放棄與那人交朋友。(R)	☐
4 當我嘗試與某人交朋友，雖然他不表興趣，但我也不輕易說放棄。	☐
5 我不懂得如何在社交聚會時表現。(R)	☐
6 我利用自己交朋友的能力結識朋友。	☐

註：有(R)的項目以高自我能力的反方向重新編寫。

得分：

1. 利用 Likert 標準，評估每項答案的同意程度，由“非常不同意”到“非常同意”。(由 1 至 14 分)



非常不同意(1)　　非常同意(14)

2. 相反項目應倒作計分用。
3. 得分愈高，代表自我效能感愈高。

Reference:

Sherer, M., Maddus, J. E., Mercandante, B., Prenticedunn, S., Jacobs, B., & Rogers, R. W. (1982). The Self-efficacy Scale: Construction and Validation. *Psychological Report, 51*, 663-671.

精神失常察覺評估標準

Scale to Assess Unawareness of Mental Disorder (SUMD; Amador et al., 1993)

指引：

本標準的評估對象必須患有精神失常，並出現以下其中一種徵狀。就每種評估標準的徵狀，首先必須證實對象在調查期間出現該種徵狀。只須肯定每種徵狀存在與否，徵狀的嚴重程度並不重要。填寫評估標準前，須先完成徵狀一覽表，以確定有關的徵狀。一覽表中的三個非徵狀“總結”項目(1,2 及 3)通常適用，在此情況下也須填妥。

“C”一欄評估訪問期間記錄到**最近七日**精神異常的最高的察覺程度。

“P”一欄評估訪問**過去三個月**出現的徵狀及現時對這些徵狀的察覺程度。換言之，當問到以往某些事時，對象會否表示自己當時出現妄想、思想障礙、不合群、精神病等。

視乎調查目的，可用較長或較短的時段去評估現時或過去的察覺程度及成因。

在每一項徵狀(第 4 至 20 項)，你必須就對象本身徵狀出現的原因(即成因)作出評估。**註**：任何徵狀，對象如在察覺一欄得 1 至 3 分，才須在成因一欄作評估。

徵狀一覽表

請圈出徵狀旁適用的字母(c 代表現時，p 代表過往)以顯示評估的徵狀及時段。

項目			徵狀
4.	c	p	幻覺
5.	c	p	妄想
6.	c	p	思想障礙
7.	c	p	情感表達不當
8.	c	p	異常外表及裝扮
9.	c	p	刻板或儀式行為
10.	c	p	社交判斷力弱
11.	c	p	控制攻擊衝動有困難
12.	c	p	控制性衝動有困難
13.	c	p	語言貧乏症
14.	c	p	呆滯或平板的情感表達
15.	c	p	缺乏動機／對事物冷淡
16.	c	p	喜樂不能／不合群
17.	c	p	精神渙散
18.	c	p	思想混亂／迷失定向
19.	c	p	不正常眼神接觸
20.	c	p	人際關係不佳

1. 精神失常的察覺：

整體而言，對象是否認為自己有精神失常、精神病問題、情緒問題等？

C	P	
0	0	不能評估
1	1	**察覺**：對象明確相信自己患有精神病
2	2	
3	3	**部分察覺**：對象不大肯定自己是否患有精神病，但接受自己可能有病的 說法
4	4	
5	5	**不察覺**：對象相信自己沒有患精神病。

2. 藥物效用的察覺：

對象怎樣看藥物的效用？對象認不認為服藥後減低了徵狀的嚴重程度或病發機會(如適用者)？

C	P	
0	0	不能評估
1	1	**察覺**：對象明確相信服藥後減低了徵狀的嚴重程度或病發機會。
2	2	
3	3	**部分察覺**：對象不大肯定服藥後是否減低了徵狀的嚴重程度或病發機會，但接受這說法。
4	4	
5	5	**不察覺**：對象不認為服藥後減低了徵狀的嚴重程度或病發機會。

3. 精神失常對社會後果的察覺：

對象怎樣看自己曾經入院、強迫住院、被捕、被驅趕、被解僱、或曾受傷等的原因？

C	P	
0	0	不能評估
1	1	**察覺**：對象明確相信這些社會後果與自己精神失常有關。
2	2	
3	3	**部分察覺**：對象不大肯定這些社會後果是否與自己精神失常有關。
4	4	
5	5	**不察覺**：對象相信這些社會後果與自己精神失常無關。

徵狀項目

4. 幻覺的察覺：

對象有否察覺自己有幻覺，例如他 / 她相信自己聽到已去世叔父的說話，這表示他不察覺這事沒可能發生，即是幻覺。若他認為這些幻覺是內在產生的，例如，“我近來壓力很大，我想我的腦袋有點不對勁”，這表示他有部份察覺。如果他相信他去世的叔父不可能跟他說話，而他聽到的不可能存在，那代表察覺到有幻覺。

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己有幻覺。
2	2	
3	3	**部分察覺**：對象不大肯定自己是否有幻聽，但接受自己可能有幻覺的說
4	4	
5	5	**不察覺**：對象相信自己沒有幻覺。

4.b. 成因：

對象如何理解這情況？

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

5. 妄想的察覺：

對象認不認為自己患有妄想症(即內在產生的錯誤觀念)?

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己患有妄想。
2	2	
3	3	**部分察覺**：對象不大肯定自己是否患有妄想，但接受這個說法(例如：說自己有些“傻念頭”或“自己的腦袋有些不對勁”)。
4	4	
5	5	**不察覺**：對象相信自己沒有妄想。

5.b. 成因：

對象怎樣理解這些經驗？

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

6. 思想障礙的察覺：

對象有否察覺到自己的語言混亂及令他人難以理解？

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己的說話及思想混亂。
2	2	
3	3	**部分察覺**：對象不大肯定自己的說話及思想是否混亂，但接受此說
4	4	
5	5	**不自覺**：對象相信自己沒有說話或思想混亂。

6.b. 成因：

對象怎樣理解這些經驗？

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

7. 情感表達不當的察覺：

對象有否察覺有時候自己的情感表達在某些社交場合及／或想像的情形中並不恰當？

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己的情感表達不當。
2	2	
3	3	**部分察覺**：對象不大肯定自己的情感表達是否不當，但接受此說法。
4	4	
5	5	**不察覺**：對象相信自己沒有情感表達不當。

7.b. 成因：

對象怎樣理解這些經驗？

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

8. 異常外表及裝扮的察覺：

對象有否察覺到自己的裝扮(例如衣著、化妝等)在文化習慣中顯得異常或突兀？

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己的裝扮與一般人生活習慣格格不入。
2	2	
3	3	**部分察覺**：對象不大肯定自己的裝扮與一般人生活習慣格格不入，但接
4	4	
5	5	**不察覺**：對象相信自己的裝扮與一般人生活習慣沒有格格不入。

8.b. 成因：

對象怎樣理解這些經驗？

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

9. 刻板或儀式行為的察覺：

對象有否察覺自己做出刻板或儀式行為？

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己做出刻板或儀式行為。
2	2	
3	3	**部分察覺**：對象不大肯定自己是否有做出刻板或儀式行為，但接受此
4	4	
5	5	**不察覺**：對象相信自己沒有做出刻板或儀式行為。

9.b. 成因：

對象怎樣理解這些經驗？

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

10. 社交判斷力弱的察覺：

對象有否察覺自己的社交判斷力不佳，會令身邊的人尷尬、生氣、或感到不自在？

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己的社交判斷力較弱。
2	2	
3	3	**部分自覺**：對象不大肯定自己的社交判斷力是否較弱，但接受此說
4	4	
5	5	**不自覺**：對象不認為自己的社交判斷力較弱。

10.b. 成因：

對象怎樣理解這些經驗？

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

11. 控制攻擊衝動有困難的察覺：

對象有否察覺自己控制攻擊衝動有困難？

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己難於控制自我的攻擊衝動。
2	2	
3	3	**部分自覺**：對象不大肯定自己是否難於控制自我的攻擊衝動，但接受此
4	4	
5	5	**不自覺**：對象不認為自己難於控制自我的攻擊衝動。

11.b 成因：

對象怎樣理解這些經驗？

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

12. 控制性衝動有困難的察覺：

對象是否察覺自己控制性衝動有困難？

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己難於控制自我的性衝動。
2	2	
3	3	**部分察覺**：對象不大肯定自己難於控制自我的性衝動，但接受此說
4	4	
5	5	**不察覺**：對象相信自己沒有難於控制自我的性衝動。

12.b. 成因：

對象怎樣理解這些經驗？

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

13. 說話緩慢或內容空泛(語言貧乏症)的察覺：

對象是否察覺自己的說話量或內容乏貧，或對問題的反應遲緩，或言語重覆？根據下列的綜合特徵評估對象的察覺程度。

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己說話緩慢或內容空洞。
2	2	
3	3	**部分察覺**：對象不大肯定自己說話是否緩慢或內容空洞，但接受此說
4	4	
5	5	**不察覺**：對象相信自己沒有說話緩慢或內容空洞。

13.b. 成因：

對象怎樣理解這些經驗？

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

14. 呆滯或平板情感表達的察覺：

對象有否察覺自己的面部表情甚少改變、少自主表情、木無表情，或甚少表達感情，或缺乏眼神接觸，或聲線呆板？切勿評估對象自己估計的情緒。

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己的感情表達呆滯或平板。
2	2	
3	3	**部分察覺**：對象不大肯定自己的感情表達是否呆滯或平板，但接受此說
4	4	
5	5	**不察覺**：對象相信自己的感情表達沒有呆滯或平板。

14.b. 成因：

對象怎樣理解這些經驗？

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

15. 缺乏動機 / 對事物冷淡的察覺：

對象是否察覺自己比平常不注意打扮及個人衛生，或容易缺乏體力，或不能在某些目標持之以恆？

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己表現冷淡。
2	2	
3	3	**部分察覺**：對象不大肯定自己是否表現冷淡，但接受此說法。
4	4	
5	5	**不察覺**：對象不認為自己的表現冷淡。

15.b.成因：

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

16. 喜樂不能 / 不合群的察覺：

對象有否察覺自己對平時感興趣或高興的場合，明顯不再感興趣或歡樂，或對人際關係不大熱衷？

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己在人際上被孤立，及對甚麼都事物不大熱
2	2	
3	3	**部分察覺**：對象不大肯定自己在人際上是否被孤立，或對甚麼事物都不大熱衷，但接受此說法。
4	4	
5	5	**不察覺**：對象不認為自己在人際上被孤立，或對甚麼事物都不大熱

16.b.成因：

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

17. 精神渙散的察覺：

對象有否察覺自己在集中精神或維持專注力有困難？

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己的專注力很差。
2	2	
3	3	**部分察覺**：對象不大肯定自己的專注力是否很差，但接受此說法。
4	4	
5	5	**不察覺**：對象不認為自己的專注力有問題。

17.b. 成因：

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

18. 思想混亂 / 迷失定向的察覺：

對象有否察覺到自己的表現出思想混亂或迷失定向？

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己表現出思想混亂或迷失定向。
2	2	
3	3	**部分察覺**：對象不大肯定自己表現出思想混亂或迷失定向，但接受此說
4	4	
5	5	**不察覺**：對象不認為自己表現出思想混亂或迷失定向。

18.b. 成因：

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

19. 不正常眼神接觸的察覺：

對象有否察覺自己的眼神接觸不正常，例如不是狠狠盯著人家，便是過分避免眼神接觸？

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己的眼神接觸不正常。
2	2	
3	3	**部分察覺**：對象不大肯定自己的眼神接觸是否不正常，但接受此說
4	4	
5	5	**不察覺**：對象認為自己的眼神接觸沒有不正常。

19.b. 成因：

對象怎樣理解這些經驗？

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

20. 人際關係不佳的察覺：

對象有否察覺自己除了家人之外，與其他人的關係都不大親密，或與其他人的關係流於表面？

C	P	
0	0	不能評估 / 不適用
1	1	**察覺**：對象明確相信自己的人際關係不佳。
2	2	
3	3	**部分察覺**：對象不大肯定自己的人際關係是否不佳，但接受此說法。
4	4	
5	5	**不察覺**：對象認為自己的人際關係沒有不佳。

20.b. 成因：

C	P	
0	0	不能評估 / 不適用
1	1	**正確**：徵狀與精神病有關。
2	2	
3	3	**部分正確**：不肯定，但考慮可能與精神病有關。
4	4	
5	5	**不正確**：徵狀與精神病無關。

精神失常察覺評估標準總結

現時(C 欄) 徵狀不察覺的得分

第 4 至 20 項 的 總分 完成項目號碼 總數

_____ / =

過往(P 欄) 徵狀不察覺的得分

第 4 至 20 項 的 總分 完成項目號碼 總數

_____ / =

現時(C 欄)辨別徵狀成因錯誤的得分

“b”項的總分 完成項目號碼 總數

_____ / =

過往(P 欄)辨別徵狀成因錯誤的得分

“b”項的總分 完成項目號碼 總數

_____ / =

Reference:

Amador, X.F., Strauss, D.H., Yale, S.C., Flaum, M.M., Endicott, J. & Gorman, J.M. (1993). Assessment of Insight in Psychosis. *American Journal of Psychiatry, 150(6)*, 873-879.

Appendix 3: Consent Form and Information Sheet

THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

The Hong Kong Polytechnic University and Kwai Chung Hospital
Joint Research Program
"Mental Illness Self-stigma as Barriers to Treatment Adherence"

CONSENT TO PARTICIPATE IN RESEARCH

I _____ hereby consent to participate in the captioned research conducted by Dr. Hector Tsang, Associate Professor of the Department of Rehabilitation Sciences, The Hong Kong Polytechnic University.

I understand that information obtained from this research may be used in future research and for publication. However, my right to privacy will be retained, i.e. my personal details will not be revealed.

The procedure as set out in the attached information sheet has been fully explained. I understand the benefit and risks involved. My participation in the project is voluntary.

I acknowledge that I have the right to question any part of the procedure and can withdraw at any time without penalty of any kind.

Name of participant _____

Signature of participant _____

Name of Parent or Guardian (if applicable) _____

Signature of Parent or Guardian (if applicable) _____

Name of researcher _____

Signature of researcher _____

Date _____

THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

香港理工大學與葵涌醫院
合辦之
「精神病自我標籤效應阻礙病人遵從治療」的研究

參與研究同意書

本人 _____ 同意參加由香港理工大學康復治療科學系副教授曾永康博士負責執行的研究項目。

我理解此研究所獲得的資料可用於未來的研究和學術交流。然而我有權保護自己的隱私,我的個人資料將不能洩漏。

我對所附資料的有關步驟已經得到充分的解釋。我理解可能會出現的風險。我是自願參與這項研究。

我理解我有權在研究過程中提出問題,并在任何時候決定退出研究而不會受到任何不正常的待遇或責任追究。

參加者姓名 _____.

參加者簽名 _____.

父母姓名或監護人姓名 (如需要) _____.

父母或監護人簽名 (如需要) _____.

研究人員姓名 _____.

研究人員簽字 _____.

日期 _____.

THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

The Hong Kong Polytechnic University and Kwai Chung Hospital
Joint Research Program
"Mental Illness Self-stigma as Barriers to Treatment Adherence"

INFORMATION SHEET

You are invited to participate on a study jointly conducted by Dr. Hector Tsang, Associate Professor of the Department of Rehabilitation Sciences at The Hong Kong Polytechnic University and Mr. IP Yee Chiu, Department Manager of the Occupational Therapy Department at Kwai Chung Hospital.

The aim of this study is to see how self-stigma for people with severe mental illness interferes with adherence to their psychosocial treatment and medication regimens. The study will involve completing several questionnaires, which will take you about 30 – 45 minutes per interview. It is hoped that this information will help us to understand self-stigma for people with severe mental illness in order to develop better treatments to improve their chance of recovery.

The assessment should not result in any undue discomfort. All information related to you will remain confidential, and will be identifiable by codes known only to the researcher.

You have every right to withdraw from the study before or during the assessment without penalty of any kind.

If you have any complaint about the conduct of this research study, please do not hesitate to contact Mr. Eric Chan, Secretary of the Human Subjects Ethics Sub-Committee of The Hong Kong Polytechnic University in person or in writing (c/o Human Resources Office in Room M1303 of the University).

If you would like more information about this study, please contact:
Dr. Hector Tsang at 2766 or Mr. Ip Yee Chiu at 2959 .

Thank you for your interest in participating in this study.

Dr. Hector Tsang
Principal Investigator

THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

香港理工大學與葵涌醫院
合辦之
「精神病自我標籤效應阻礙病人遵從治療」的研究

有關資料

誠邀閣下參加由香港理工大學康復治療科學系副教授曾永康博士及葵涌醫院職業治療部部門經理葉以超先生負責執行 的研究計劃。

這項研究的目的是調查自我標籤效應如何影響精神病患者遵從心理社交治療及藥物治療。研究中所涉及到的問卷每次需要花費閣下大約三十至四十五分鐘的時間。希望這些資料能有助於理解精神病患者的自我標籤效應,從而發展更好的治療方法去提升他們的復原機會。

這項評估不會引起任何不適的感覺。凡有關閣下的資料均會保密,一切資料的編碼只有研究人員知道。

閣下享有充分的權利在研究開始之前或之後決定退出這項研究,而不會受到任何對閣下不正常的代遇或責任追究。

如果閣下有任何對這項研究的不滿,請隨時與香港理工大學人事倫理委員會秘書親自或寫信聯絡(地址:香港理工大學人力資源辦公室 M1303 室轉交)。

如果閣下想獲得更多有關這項研究的資料,請聯絡:
曾永康博士,電話 2766　　或葉以超先生,電話 2959　。

謝謝閣下有興趣參與這項研究。

研究員
曾永康博士