EXAMINING COGNITIVE BEHAVIORAL THERAPY WITH ASIAN AMERICAN PATIENTS IN AN ACUTE PSYCHIATRIC PARTIAL HOSPITAL SETTING

A Dissertation Presented

By

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ABSTRACT

The Asian American population is the fastest growing racial group in the United States. However, there has been no commensurate growth in research on the mental health needs of this population. Previous conceptual studies have suggested that Cognitive Behavioral Therapy (CBT) is compatible with traditional Asian cultural values as well as in line with the preferences and expectations for psychotherapy among Asian American individuals. Unfortunately, there is a dearth of empirical research that examines the effectiveness of CBT for Asian American patients who are receiving psychological treatment. Therefore, this study examines the influence of CBT on psychological symptom severity levels of depression, anxiety, psychological well-being, and quality of life, for Asian American patients who have received treatment at an acute psychiatric partial hospital. Results and limitations are discussed.
CHAPTER ONE:
INTRODUCTION

Statement of the Problem

Growing Asian population in United States

The Asian population is the fastest growing ethnic group in the United States, increasing by 46% between the years of 2000 and 2010 (U.S. Census Bureau, 2010) and is projected to have the largest population increase of 213% by 2025, rising from 10.7 million to an estimated 33.5 million (U.S. Census Bureau, 2010). Globally, people of Asian descent make up 60% of the world’s population (Sue & Sue, 1987). These demographic trends indicate an increasing importance of understanding the mental health needs of Asian Americans. However, despite the growth of the Asian and Asian American populations, there has been no commensurate growth in research (U.S. Department of Health and Human Services, 2001).

Mental Health Needs of Asians

Several studies have found that Asian Americans reported higher rates of serious mental health problems than any other ethnic groups (Kurasaki, Okazaki, & Sue, 2002; Okazaki, 1997; Uba, 1994). Studies have found that Japanese and Chinese American college students reported greater feelings of loneliness, anxiety, and other adjustment problems as compared with non-Asian college students (e.g., Sue & Kirk, 1973; Sue & Zane 1985). Another study had similar findings with Asian American college students reporting higher levels of depression and anxiety compared to White college students (Okazaki, 1997). The Center for Disease Control and Prevention’s report on the “10 Leading Causes of Death” in 2009 highlighted significant mental health disparities
among racial/ethnic groups. The Asian Americans and Pacific Islanders (AAPIs) ages 15-24 years old were found to have the second highest rate of deaths related to suicide at 19.9% of all deaths for this age group (Whites: 16.3%, Black: 6.6%, American Indian: 22.7%, Hispanic: 11.2%). Among individuals aged 25-34 years old, AAPIs had the highest rate of suicide deaths at 17.5% compared to other racial/ethnic groups (Whites: 14.5%, Black: 5.2%, American Indian: 12.1%, Hispanic: 9.4%). Additionally, suicide also ranked as the second leading cause of death for AAPI’s in this age range, just behind unintentional injury (Center for Disease Control Prevention, 2009). Experiences that are common among members of this ethnic group, including immigration and acculturation stress, racism, discrimination, and imposed stereotypes have been found to negatively impact the mental health and psychological well-being of AAPI individuals (e.g., Constantine et al., 2004; Alegria et al., 2004; Borders & Liang, 2011; Tang, 2007).

Despite alarming suicide rates and other indicators of mental health problems, the issue of mental health continues to be ignored in Asian Americans. In order to explore what can be done to address the mental health needs of this population, it is necessary to examine what the general mental health field is investigating in terms of understanding and treating the mental health needs of individuals, and then to explore if those treatments are compatible with Asian Americans.

_Empirically Supported Treatment Movement_

Currently in the field of psychology and mental health services within the United States, there is a movement towards establishing, validating, promoting and disseminating the use of empirically supported treatments (ESTs) (APA Task Force on Psychological Intervention Guidelines, 1995; Chambless & Hollon, 1998; Task Force on
Despite this growing trend towards ESTs and the growing ethnic minority populations in the United States, including Asian Americans, few ESTs have been tested with ethnic minority groups in the U.S. (Horrell, 2008). The U.S. Department of Health and Human Services (DHHS, 2001) reported that ethnic minorities are less likely to receive guideline-informed care for major depressive disorder than are White individuals in the United States. DHHS points to the fact that the majority of depression treatment studies have only focused on White populations, resulting in a lack of knowledge about the usefulness of established treatments for ethnic minority populations.

Moreover, while Chambless et al. (1998) detailed an exhaustive list of ESTs, they failed to discuss any differential effectiveness of treatments across different ethnic groups. Horrell (2008) discussed how the lack of attention in exploring differential effectiveness would then falsely interpret that these treatments can be generalized to all individuals, despite differences in ethnicity or culture. However, other studies have indicated the importance of evaluating the effectiveness of ESTs with different ethnic groups because of the differences between the White majority culture and different ethnic minority cultures. These differences can affect the level of effectiveness of the treatment with individuals from these populations, and some studies have suggested the need for modifications to be made to ESTs to be more culturally appropriate in order to increase treatment effectiveness (Dowd, 2003; Hays, 1995). Unfortunately, because of the paucity of research on the ESTs with ethnic minority populations, including Asian Americans, more research is still needed to assess treatment effectiveness.
With the growing Asian population in the U.S., and the growing need for empirically supported treatments (EST), it is necessary to expand the current literature and the field of psychology by further exploring the use of EST with Asian American patients. For a comprehensive list of ESTs, see Chambless et al. (1998). A significant percentage of ESTs include aspects of cognitive behavioral therapy (CBT); as CBT is currently one of the most widely used and validated ESTs, the use of CBT will be the focus of this study.

CBT is a form of therapy that emphasizes the relationship between thoughts, feelings, and behaviors and how they each can impact the other. Therapy then focuses on how to improve one’s mood by learning strategies such as cognitive restructuring to combat maladaptive thinking, as well as behavioral interventions to combat destructive behavior patterns (Beck, 1995). CBT has been conducted in over 150 clinical trials investigating whether CBT can help issues ranging from mood and affective disorders such as depression, to substance abuse and gambling addiction, to helping patients with Tourette’s syndrome, and several other conditions (Langreth, 2007). Integrated Behavioral Health (in Langreth, 2007) reported that over half of the cases that use their mental health benefits include CBT. Moreover, clinics are reporting an increasing need to hire clinicians who specialize in CBT at the request of their patients; for example at Kaiser Permanente Clinic in California, there are over 70% of the mental health patients use some form of CBT (Langreth).

The current psychology literature has discussed how CBT may be a suitable fit for psychological treatment for Asian patients based on the compatibility of CBT with certain Asian cultural values and treatment preferences compared with other traditional
western psychotherapies (e.g., Chen & Davenport, 2005; Hodges & Oei, 2007; Hwang, Wood, Lin, & Cheung, 2006). For example, Asian American patients tend to favor a more directive counseling style over affect-focused, reflective, and non-directive styles (Li & Kim, 2004). Asian Americans clients have also indicated a tendency to prefer therapies such as CBT that emphasize practical problem-solving and an external control over their problems, over psychodynamic therapies that emphasize intra-psychic conflicts (Hwang et al., 2006). Additionally, within the patient-therapist relationship, studies have also found that Asian clients prefer the counselor to be in a position of authority, where they assume some responsibility for defining the problem and goals and evaluating treatment progress (Hodges & Oei, 2007). Li and Kim (2004) also found that clients who were in the directive counseling condition rated the working alliance as stronger and the counselor as more empathic and culturally competent than those that were in the non-directive condition.

**Rationale for Study**

Although the literature has suggested that aspects of CBT are compatible with certain traditional Asian values, there has been a dearth of empirical studies assessing CBT treatment with Asian American patients. Some studies have included non-clinical populations, such as Dai et al.’s (1999) study that recruited elderly Chinese Americans from the community through their church and apartment complex. The majority of the other empirical studies include participants from outpatient facilities, including ones in other countries such as Japan (Chen et al., 2007), Canada (Shen, Alden, Sochting, & Tsang, 2006), and Hong Kong (Wong, 2008). However, to this date, there has been no study of the effectiveness of CBT among Asian American patients in an acute psychiatric
hospital setting. Therefore, this study’s purpose is to add to the empirical research by assessing the impact of CBT with Asian American patients in a partial hospitalization program.

Moreover, previous studies of CBT with Asian American patients in the United States have been in cultural community centers or were recruited for treatment based on their ethnicity (e.g., Hinton et al., 2004; Hinton et al., 2005), and thus the Asian patients were receiving treatment among other Asian patients and often with Asian clinical mental health providers. Being among other Asian patients and clinicians can influence symptoms, so that the symptom reduction could be the result of group dynamics rather than the use of CBT as a treatment intervention. Leong (1986) discussed how Asian Americans have a tendency to report therapists as more credible and competent if they are also Asian American.

Other studies have found that Japanese Americans as a group behave differently when they are interacting with other Japanese Americans than when they are interacting with Euro-Americans (Dinges & Lieberman, 1989). Some Asian Americans also report feeling more relaxed, more willing to disclose personal information, and feel better understood by other Asian Americans rather than individuals from a different ethnic group (Uba, 1994).

Thus, this study is a necessary addition to the current literature on CBT with Asian American patients, as it removes the confounding variable of being in a culturally similar environment such as a cultural community center and among an Asian patients’ majority. This is a naturalistic study that will explore the use of CBT within a private hospital’s partial hospitalization program where patients are referred for treatment either
as a step-down from inpatient hospitalization or referred from an outpatient provider to have more intensive treatment; the patients were not recruited specifically for the purposes of this study, and were not admitted for treatment based on their race or ethnicity.

**Disclaimer**

It is important to recognize the intra-group diversity among Asian Americans, which include 43 ethnic groups, of varying histories, languages, religions, beliefs and values (Hong, 2001). Individuals may also have a range of degrees of acculturation, migration experiences, levels of education, and so forth. However, although it is important to not overlook the diversity within this population, it is also important to acknowledge their unifying commonalities that set this racial group apart from other racial groups within the United States, in order to better understand how to maximize treatment for this population (Hong, 2001).

**Definitions**

**Asian American**

Individuals from over 43 ethnic groups that are classified as a single group because of their shared ethnic origins from the continent of Asia and the Pacific Islands, where they share similar cultural values as well as physical appearance. Asian Americans in this study are defined as anyone of Asian descent that is living in the United States (Hong, 2001; Uba, 1994)

**Cognitive Behavioral Therapy (CBT)**

Cognitive Behavioral Therapy (CBT) is a form of psychotherapy that is an empirically supported treatment that focuses on patterns of thinking that are maladaptive and the
beliefs that underlie such thinking. The premise of CBT is that maladaptive thinking leads to changes in affect and in behavior, and so treatment focuses on challenging distorted cognitions and changing destructive patterns of behavior, in order to improve one’s mood (Beck et al., 1987; Beck, 1995).

Empirically Supported Treatment

Clearly specified psychological treatments shown to be efficacious in controlled research with a delineated population (Chambless & Hollon 1998).

Partial Hospital

Psychosocial treatment in a milieu setting that is part of the continuum of care which serves as either treatment following discharge from an inpatient unit or provides more intensive services than outpatient services. It concentrates on short-term crisis stabilization and rehabilitation with intensive psychosocial treatments, including group and individual therapies, case management, and pharmacotherapy (Neuhaus, 2006).

Race

In this dataset that was used for this study, the construct of race was self-identified by each of the patients that received treatment at the BHP, where they were to select their race as either: American Indian or Native Alaskan, Asian, Black or African American, White, Native Hawaiian or Pacific Islander, Caribbean Islander, Latino, Multiracial (specify), Choose Not to Answer, or Do Not Know. For the purposes of this dissertation, race will be discussed in terms of culture.
Chapter Summary

This chapter explores the background and issues pertaining to the mental health needs of the Asian American population, particularly within the context of the current field of psychology. In general, mental health services have recently emphasized the use of ESTs, with CBT as one of the most widely used. It also describes the significance and purpose of this current study, noting the limited research in the field on the area of Asian American mental health. Therefore, the aim of this study is to add to the empirical research on the use of CBT with Asian American patients, by assessing whether CBT treatment in an acute partial hospital setting is an effective means of reducing their psychological symptoms. The next chapter reviews the current literature on the mental health needs of Asian Americans as well as the conceptual and empirical studies that have been done on the use of CBT with this population.
CHAPTER TWO:
LITERATURE REVIEW

This chapter explores the mental health issues and needs that are common among Asian Americans and the factors that impact these issues. It also discusses the components of CBT and the rationale for the use of this treatment as a compatible treatment with Asian American cultural values as well as expectations of psychotherapy. Additionally, it reviews the empirical research available among this population, highlighting the limited nature of the literature and the need for continued research in this area, and thus justifying the current study.

Asian Americans: An Underserved Minority

High Rates of Mental Health Issues

While the population of Asian Americans in the United States is growing at an exponential rate (U.S. Census Bureau, 2006), Asians have only rarely been included in psychological research (Iwamasa, Hsia, & Hinton, 2006). As a population, Asian Americans have been traditionally overlooked, due to stereotypes concerning Asians in America as “model minorities,” and are assumed to be more successful and exempt from the struggles and difficulties faced by as other ethnic minorities (Sue & Sue, 1990). However, research has debunked this myth and, on the contrary, several studies have found that comparatively, Asian Americans report higher rates of mental health issues compared to any other racial and ethnic group (e.g., Kurasaki, Okazaki, & Sue, 2002; Okazaki, 1997; Uba, 1994).

Several studies have found that Asian American students reported experiencing greater feelings of anxiety, depression, loneliness, and adjustment problems as compared
with non-Asian students (e.g., Okazaki, 1997; Sue & Zane, 1985). A study among Asian international students also found that they scored the highest on all of the outcome measures of psychopathology, including depression, anxiety, and suicidal ideation (Cho & Haslam, 2009). Anxiety problems have been found to be more common among Asian Americans than other racial groups (Vandervoort, Divers, & Madrid, 1999). Furthermore, Asian Americans have reported higher levels of depression as compared to their White counterparts (Kuo, 1984). In particular, Southeast Asians have been found to have greater mental health needs compared with other Asian groups (Marshall et al., 2005); an estimated 70% of Southeast Asian refugee patients in Kinzie et al.’s (1990) study were diagnosed with post-traumatic stress disorder, and 43% of the Hmong refugees in Westermeyer’s (1988) study met criteria for various mental disorders including major depression, adjustment disorder, and paranoia, double the rate of the overall U.S. population.

**Influencing factors and stressors**

Although mental health issues among Asian Americans have historically been overlooked by the mental health field, it is imperative to further study and investigate the experiences and symptoms that impact this population. Therefore, it is important to investigate the sources of stress and other factors which may influence mental health among this population.

*Immigration and Acculturation*

The Asian population is the largest group of immigrants to the United States, and a recent study in 2010 found that Asians made up 36% of the new immigrants (Pew Research Center, 2012). Within the Asian population, census data also indicates that 69%
of all Asian Americans are foreign born (U.S. Census Bureau, 2004). As a result of their immigration experience, the acculturation process can be stressful and arduous as they learn to adapt to a new culture, different customs and social norms, a new language, and a new environment. This process of cultural adaptation, also called “acculturation,” can influence the psychological well-being of Asian immigrants and potentially have detrimental effects on their mental health (Barry & Grilo, 2003; Berry & Kim, 1988; Yeh, 2003).

Acculturation is the process whereby an individual from one cultural group adopts or integrates the beliefs, values, and language of another cultural group (Organista, Organista, & Kurasaki, 2003). The process of acculturation can be challenging and can lead to increased stress, which has been referred to as “acculturative stress” (Berry & Kim, 1988). Acculturative stress is the stress related to the experiences of acculturation and the psychological difficulties in adapting to a new culture, or the psychological stressors resulting from unfamiliarity with new customs and social norms (Berry, 2005). Acculturative stress can be influenced by factors such as pre-migration trauma, acceptance from the dominant host culture, experiences of prejudice or discrimination, or how similar or different the new host culture is to the culture of origin. Acculturative stress has been found to contribute to poorer mental health status among Chinese (Wei et al., 2007), Korean (Lee, Koeske, & Sales, 2004), Taiwanese (Ying & Han, 2006), and overall Asian international students (Constantine et al., 2004).

Reasons for migration (e.g., voluntary or forced; refugee status) can have a significant impact on acculturative stress (Meyer et al., 2009). One major example of this is the pre-migration trauma that several Southeast Asian refugees endured as a result of
experiences in their home countries prior to coming to the United States, such as starvation, torture, forced labor, and loss of loved ones. Pre-migration trauma has been found to impact the mental health of immigrants, resulting in high rates of post-traumatic stress disorder and depression (Marshall et al., 2005).

Research findings have indicated a negative correlation between the length of stay in the United States and rates of mental disorders among Asian Americans (Meyer et al., 2009). This study also found that English-language proficiency level influenced whether Asian Americans utilized mental health services, in that non-English-proficient Asian Americans may be more likely to use alternative services in lieu of mental health care. One study found that greater adherence to Asian culture and lesser familiarity with American culture was associated with lower self-esteem, and higher levels of anxiety and depression (Hovey, Kim, & Seligman, 2006). The study also found negative mental health outcomes associated with the dual pressure of adapting to the American culture while trying to cultivate and maintain one’s Korean background and values. This study adds to the literature that has already found that Asian American foreign-born students reported higher levels of interpersonal distress, anxiety, and depression compared to White native-born students (Okazaki, 1997; Abe & Zane, 1990). The National Latino and Asian American study (NLAAS) was the first national epidemiological survey on Asian Americans in the United States, with findings indicating that among Asian men, those who spoke English proficiently tended to have lower rates of lifetime and 12-month mental health disorders, compared to those who were less proficient. However, the same study found that among Asian American women, those who were foreign born were actually less likely than Asian Americans who were U.S. born to have a lifetime case of a
mental health disorder (Takeuchi et al., 2007). These findings suggest possible differing affects of acculturation on the mental health of Asian immigrants.

Acculturation levels among family members can also lead to intergenerational differences and conflict. Participants in Lee et al.’s (2009) study discussed struggles with balancing two different cultures, adapting to the American culture at school and with friends, while balancing the culture and values of their parents. For immigrant families, acculturation is a transgenerational process with each following generation being more acculturated than the previous generation (Hong & Ham, 2001). It is not uncommon that first-generation Asian immigrants, particularly those who immigrated when they were adults, may experience more difficulty in the acculturation process (Hong & Ham, 2001). Or, if the children are born and raised in the United States, they are likely to identify more with mainstream American culture than their parents that immigrated to the US as adults (Kurasaki, Okazaki, & Sue; 2002).

Therefore, another factor which may place stress on the individuals in this family could be the intergenerational conflicts around differences in cultural values and beliefs. For example, a child may learn to acculturate quickly through immersion in the culture through school and friends, and may desire more independence from their parents, which is more of an American cultural value versus their parents who may be less acculturated and emphasize more traditional Asian values of filial piety and interdependence (Organista et al., 2003). The cultural differences can create tension between the more acculturated child and their parents, which can result in greater distress and potential mental health problems (Meyer et al., 2009).
Other post-migration issues including the impact of the separation from family members and friends in their home country and the need to rebuild a social support network, and the loss of previous social or vocational roles in society can also be related to poorer mental health outcomes (Organista et al., 2003). The lack of a support network can lead to feelings of social isolation and increased stress, which can result in feelings of loneliness, depression, anxiety, and even marital conflict (Hong & Ham, 2002).

**Discrimination, Racism, Prejudices**

For both those who have immigrated to the United States as well as those who were born in the country, minority status may constitute another source of stress (Meyer et al., 2009). Alegria et al. (2004) found that minority status can result in increased risk for psychopathology. A common experience associated with minorities in the United States is that of discrimination, racism, and stereotypes, which result in being additional factors that can influence the mental health of Asian Americans (Meyer et al., 2009). For example, in a study with Asian American young adults, the participants reported that a major source of stress came from experiences of discrimination based on their racial and cultural backgrounds (Lee et al., 2009).

Chan (2003) discussed how stereotypes of Asians being compliant and diligent in the workplace, may lead to stereotypes of this population as lacking leadership qualities, which in turn may reduce their chances of obtaining a higher level position. Hyun (2005) described this phenomenon as the “bamboo ceiling” where Asian Americans are excluded from executive or managerial positions because of subjective factors such as being deemed lacking of leadership potential or communication skills, rather than factors such as job performance and qualifications. When comparing Asian American men with
White Americans and African Americans of the same education and occupation, the Asian men were found to have the lowest wages (Leong, 1998). When an individual’s social mobility is limited because of his or her race or ethnicity, he/she is likely to experience feelings of worthlessness (Chun, Eastman, Wang, & Sue, 1998).

Studies reveal that ethnic minorities, including Asian Americans and Asian immigrants exhibit higher depressive symptoms when exposed to higher degree of perceived discrimination and racial stereotypes (Borders & Liang, 2011). Another study indicated that perceived discrimination is a strong predictor of both internal and external problems in Asian students (Shrake & Rhee, 2004). Therefore, higher levels of perceived discrimination can result in increased levels of stress and dissatisfaction, and overall negatively impact the mental health of Asian Americans.

**Pressure to Succeed**

Another source of stress that may affect the mental well-being of Asian Americans is the pressure to succeed. One of the greatest pressures often come from an individual’s parents, as Asian American young adults still report that they experienced strong pressures from their parents to fulfill certain expectations, including being successful academically as well as following certain career paths (Lee et al., 2009).

In addition to expectations from the family, there is also an individual’s pressure on his/herself to be successful. In particular, immigrants may have high expectations when they immigrated to the “Land of Opportunity”, and if their expectations are unfilled, it can negatively impact the individual’s sense of self worth (Meyer et al., 2009). Even at a larger systems level, there are also the societal pressures from cultural stereotypes that Asian Americans are smart and successful (Lee et al., 2009). The
internalization of this “model minority myth” stereotype has also been found to relate to depression and feelings of shame (Tang, 2007). This “model minority myth” has been harmful in interfering with economically disadvantaged Asian American communities receiving the necessary financial as well as emotional resources (Wong & Halgin, 2006).

**Underutilization of Mental Health Services**

Despite the number of those struggling with mental health problems, it has been found that Asian Americans who suffer from mental health issues, tend not to seek mental health services (Le Meyer, Zane, Cho, & Takeuchi, 2009; U.S. Department of Health and Human Services, 2001). Research has also indicated that Asians in North America underutilize professional psychological treatment relative to their population size (Hu, Snowden, Jerrell, & Kang, 1993; Leong, 1994, Uba, 1994). Abe-Kim et al. (2007) found that for Asian Americans with a diagnosis consistent with criteria in the *Diagnostic and Statistical Manual* (4th ed. [DSM-IV]; American Psychiatric Association, 1994) during a 12-month period, only 34.1% sought any services, compared with 41.1% of all individuals with DSM-IV mental disorder diagnoses in the National Comorbidity Survey Replication (NCS-R). Le Meyer et al. (2009) also examined a nationally representative sample using data from the National Latino and Asian American Study (NLAAS), and found that Asian Americans diagnosed with psychological disorders significantly underutilized mental health services. This was especially salient among Asian American immigrants who were twice as unlikely to use mental health services as Asian Americans who had been born in the United States. The surgeon general reported that only 17% of the Asian Americans with a psychological problem sought some form of assistance, and less than 6% did so from a mental health provider (DHHS, 2001).
Another study using the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) studied the lifetime prevalence of DSM-IV psychiatric disorders and mental health service utilization among various ethnic and racial groups (Lee, Martins, Keyes, & Lee, 2011). The findings from this study indicated that Asian Americans are more likely to avoid utilizing mental health services relative to other racial and ethnic groups with the same psychological diagnoses, even after adjusting for years of residency in the U.S. and socio-economic status variables. In particular, Asians with lifetime mood disorders were found to significantly underutilize psychological treatment compared with Whites, Hispanics, and Native Americans.

**Reasons for Underutilization of Services**

*Stigma & shame*

One of the significant deterrents of seeking mental health services is the social stigma attached to mental health problems. Individuals have reported that the Asian culture tends towards a negative perception of individuals seeking psychological counseling (Lee et al., 2009). Others have discussed perceptions that mental illness brings shame onto the family (Iwamasa, Hsia, & Hinton, 2006) and that Asian community often stigmatizes people with mental illness, which in turn causes feelings of shame for the mentally ill individual (Wynaden et al., 2005).

*Emotional-restraint*

Not only are mental health services underutilized, but it is not uncommon for Asian Americans to have a tendency to not display strong emotions or expose any emotional distress, as in Asian cultures it is highly valued to display emotional restraint (Sue & Sue, 2008). Traditional Asian culture emphasizes the promotion of interpersonal
harmony, and thus the suppression and avoidance of conflict, as well as withholding the expression of one’s feelings openly (Uba, 1994). Heppner et al. (2006) found that Asian international students may refrain from talking to their family and friends about any emotional distress related to acculturative stress or trouble adapting to their new environment, because they do not want to burden others with their problem.

Because it is looked down upon to discuss personal feelings and emotions, Asians are apt to not admit to any affective symptoms such as depression. Moreover, Heppner et al. (2006) predicted that by keeping these emotions to themselves, Asians may become more vulnerable to depression. This Asian value of emotional restraint could be another reason why depression and other mental illnesses are not often admitted to, as well as why individuals may not be apt to seek professional help for mental health problems. Okazaki (2002) suggested that emotional self-control is one of the cultural values to distinguish Asian Americans from White Americans. However, the underestimation of distress among Asian Americans may contribute to the lack of support for distress as well as delay Asian Americans to seek professional help.

Unaware of Resources

Not only is there stigma around mental health, but many Asian Americans may not be aware of the importance of mental well-being (Lee et al., 2009). Lee et al. discussed that within the Asian culture, there has been less understanding of mental health, as some psychological conditions have not been identified in their culture, and there are fewer careers related to psychological counseling compared to Western cultures. Many individuals are unfamiliar with the concept of talk therapy, may not be aware of the
seriousness of the mental problems they may be experiencing, or are unaware that appropriate treatment and counseling might significantly help them (Hong & Ham, 2001).

Not only is there a limited awareness of professional psychiatric services, it is more common in the Asian culture to seek help from one’s personal connections, such as family members and elders in the community (Hong & Ham, 2001). It is also more likely for individuals to seek out other professionals that may be more culturally familiar to them, such as religious leaders, community leaders, teachers, or even their medical doctor (Wynaden et al., 2005).

**Availability of appropriate services**

Lastly, professional mental health services may not be utilized among this population because of the lack of services available to them. Language barriers is a significant factor in difficulties in obtaining professional treatment, as there is a need for mental health professionals who can provide linguistically appropriate care (Wynaden et al., 2005). In addition to more clinicians who can provide therapy in an individual’s primary language, it is also essential that treatment be culturally sensitive as well as culturally appropriate (Lee et al., 2009).

**Movement towards Empirically Supported Treatments**

In the current field of psychology and psychotherapy, there is a growing movement towards empirically supported treatments (EST). Chambless and Hollon (1998) defined ESTs as psychological treatments that have demonstrated efficacy and effectiveness in controlled research studies with a specified population. The premises of this movement are to better enhance patient care as a result of clinicians acquiring, using, and keeping up with more up-to-date treatments that have been empirically studied.
The identified criteria for ESTs include 1) the treatment has been shown to be beneficial in a controlled research study where it has been found to be statistically significantly superior compared to no treatment, placebo or alternative treatment, 2) the study must be conducted with a treatment manual or an equivalent, with a population that is being treated for specified problems and meeting specific inclusion criteria, outcome assessment measures are used that are reliable and valid, and the use of appropriate statistical data analyses, and 3) The superiority of the EST needs to have been found in at least two independent research settings (Chambless & Hollon, 1998).

**Cognitive Behavioral Therapy**

Chambless et al. (1998) includes an exhaustive list of all the current ESTs, in which a significant percentage of the treatments include aspects of cognitive behavioral therapy (CBT). Currently, CBT is one of the most preferred and widely used EST (Hays & Iwamasa, 2006). CBT has been found to be effective for the treatment of a variety of conditions including anxiety (e.g., Beck, Emery, & Greenberg, 1985; Borkovec & Costello, 1993), depression (e.g., Beck, Rush, Shaw, & Emery, 1987; Butler & Beck, 1995; Chambless & Ollendick, 2004), eating disorders (e.g., Agras et al., 2000; Murphy, Straebler, Cooper, & Fairburn, 2010), marital conflict (Epstein & Baucom, 2002), substance abuse (e.g., Beck, Wright, Newman, & Liese, 2001), personality disorders (e.g., Beck, Freeman, Davis, & Associates, 2003), and many other problems and conditions (e.g., Barlow, 2001; Nathan & Gorman, 1998).

CBT is a form of psychotherapy that is based on the idea that one’s thoughts, feelings, and behaviors are interrelated (Beck, 1995). Dysfunctional cognitions contribute to maladjustment, so the role of the CBT therapist is to help the client recognize the
relationship between thoughts, behavior, and mood. The therapist then works with client to learn to recognize when their thoughts are negative or unrealistic, which can potentially lead to maladaptive behaviors or negative emotional experiences (Dobson, 2001). The therapist and the client work together to identify the problems, and the therapist helps the client to learn more helpful coping strategies, including problem solving, social skills and support, and cognitive restructuring (Dobson, 2001). When the dysfunctional cognitions are challenged and destructive or maladaptive behaviors are changed, it can then lead to changes in the client’s emotional responses (Beck, 1995).

A recent meta-analysis completed by Blagys and Hilsenroth (2002) summarized the specific distinctive processes and values unique to CBT; the distinguishing characteristics of CBT include:

1) The use of homework outside of the therapy session (in order to practice the skills learned during therapy sessions and to implement them in real-world situations);

2) The direction of session activity (therapists take a more directive role in therapy, and each session often has an agenda or there is a focus on specific topics or tasks);

3) The teaching of skills to cope with symptoms (the nature of therapy includes a psychoeducational role in which the therapist teaches the clients certain cognitive and behavioral strategies to help reduce, manage, or control their symptoms);

4) The focus on the client’s present and future experiences (rather than exploring past and childhood experiences and memories);
5) Providing information about a client’s disorder (therapists often provide detailed information to the client about their symptoms as well as an explicit rationale about the treatment choice);

6) The focus on a patient’s illogical or irrational thoughts or beliefs (the therapist helps the client to test, challenge, and change his/her distorted thinking patterns)

**CBT and Asian Values**

Chambless and Hollon (1998) have suggested that patients as well as practitioners and researchers will benefit from knowing which treatments are effective for which patients, yet little research has been conducted on the effectiveness of ESTs with clients from different ethnic backgrounds. However, it is a promising sign that the support and use of CBT treatment with Asian patients have been increasing since the early 1960s (Hodges & Oei, 2005). CBT has become one of the most popular and preferred treatment approaches for Asian American clients because of how convergent it is with certain Asian cultural values as well as preferences for treatment (e.g., Hong & Ham, 2001; Iwamasa, Hsia, & Hinton, 2006; Uba, 1994). Studies have indicated that CBT may be preferred over more psychodynamic therapies, as Asian clients have suggested favoring more directive, structured, and symptom-focused, rather than a therapy that is less directive, more reflective, and affect-focused (Hwang et al., 2006; Shen et al., 2006).

CBT being more short-term, directive, problem-focused, and action-oriented is culturally congruent with the expectations of therapy of many Asian American clients (Hong & Ham, 2001). Compared with other cultural groups, Asian Americans often expect therapy to be brief (Uba, 1994) and are less comfortable with the idea of a long-
term or open-ended therapy, potentially considering such therapy as a failure (Iwamasa, Hsia, & Hinton, 2006).

Asian clients have also indicated a preference for therapists to be more directive, viewing the therapist as an expert (Hong & Ham, 2001; Li & Kim, 2004; Uba 1994), and rating directive therapists as being more effective than non-directive therapists (Hwang et al., 2006). Structured and directive therapeutic strategies are preferred by Asian Americans as they are consistent with their values, interaction styles, and expectations (Uba, 1994). For example, Hodges & Oei (2007) discussed how Confucian ideals have placed importance on the hierarchical nature of society and relationships; these ideals may suggest why Asian clients come to expect and prefer the therapist to take the lead and be more directive in the therapy sessions and guiding treatment by actively helping to define the problem, setting goals, and evaluating progress.

As part of the directive nature of CBT, the component of teaching coping skills and assigning homework also aligns with traditional Asian values that value education as a means of self-improvement and success (Dandy & Nettelbeck, 2002). Asian students have been found to hold beliefs around schoolwork and homework as being important for their self-improvement and self-worth (Chen & Stevenson, 1989). Hodges and Oei (2007) discussed how the traditional Confucian work ethic and achievement orientation may explain the cultural value of diligent effort towards problem-solving, which may make the emphasis on homework as part of CBT treatment more readily accepted by Asian clients. Foo and Kazantzis (2007) also proposed that Chinese patients may already be predisposed to the idea that homework assignments can help them learn more about
themselves and develop better problem-solving skills, as well as an opportunity to practice the skills they learn in therapy and assist in working towards self-improvement.

CBT is the favored form of therapy among Asian clients over insight-oriented therapies, as there is more emphasis on addressing the presenting symptoms, rather than focusing on intensive exploration of early developmental experiences or intrapsychic conflicts (Shen et al., 2006). In a culture that values emotional restraint, there is a reluctance to discuss one’s feelings as it is believed that problems are unavoidable aspects of life and it is more valued to display self-discipline through emotional restraint (Uba, 1994). Therefore, Asian clients may be less inclined towards psychodynamic therapy or other insight-oriented therapies that focus on intrapsychic conflicts and increasing insight into one’s problems (Shen et al., 2006). Asian American clients often believe that change is derived from learning to increase willpower and self-discipline, and thus they may be more drawn to CBT treatment which typically focuses on a time-limited, structured treatment that has an educational model and focuses on learning skills and problem resolution (Uba, 1994).

In order to further help CBT to be more culturally appropriate when used among Asian American clients, it is important for the therapist to be culturally sensitive as well as culturally competent. In this way, the therapist can more accurately assess a client’s thoughts, feelings, and behaviors within the context of Asian cultural values, norms, and worldviews as well as the client’s environment and other cultural and individual influences. It is also critical that the CBT treatment goals are congruent with the client’s cultural and social environmental contexts (Hong & Ham, 2001). Hwang et al. (2006) further discussed recommendations on how to adapt and modify CBT to be more
culturally sensitive and meet the therapeutic needs of Asian American clients, such as increasing the therapist’s understanding of the client’s cultural background, educating the client about psychotherapy at the start of treatment, and cultural bridging, for example, relating CBT’s principles of relaxation training and the Chinese meditation and martial art of Tai Qi Quan.

**Empirical Studies of CBT with Asian Patients**

Although there is growing conceptual literature regarding the compatibility of CBT with Asian values, there is a dearth of empirical studies exploring the effectiveness of CBT treatment with Asian mental health patients (Shen et al., 2006). There have been very few treatment efficacy studies conducted with ethnic minorities, and most ESTs have been evaluated using samples primarily from White populations, and thus the utility for ethnic minority populations has not been extensively explored or supported (Bernal & Scharron-del-Rio, 2001). There have been few ESTs that have been tested with ethnic minority populations in general, and a review of 63 meta-analyses from 1977 through 1991 on psychotherapy effects, included only 5 meta-analyses that contained any information about the clients’ ethnicities (Matt & Navarro, 1997).

More recently, Horrell (2008) conducted a search through publications from 1950 to 2006 that explored the effectiveness of CBT interventions with ethnic minority adults, and identified only 12 studies that examined CBT effectiveness among African, Asian, or Latino American adults. Within her review, only seven of those studies included Asian American patients, with sample sizes ranging from 4 to 40 patients. Since the sample size for Asian Americans in Organista et al.’s study (1994) was only four participants, they reported that it was not possible to draw any definitive conclusions regarding the
effectiveness of CBT on the treatment of depression on this population. Markowitz et al. (2000) also had a sample size of four Asian American individuals on their examination of CBT treatment for individuals who were HIV-positive with major depression. Overall, the findings indicated a significant improvement in depression scores after treatment, however, there was no specific discussion of the Asian American population. Dai et al. (1999) found promising indications of depression and anxiety symptom reduction among elderly Chinese American individuals through watching a one-time videotape based on CBT. The participants were recruited from a Chinese-speaking church and from an apartment complex.

CBT and its component of exposure therapy are listed in Chambless et al. (1998) as one of the most efficacious EST for post-traumatic stress disorder (PTSD). There have been three studies that examined the use of CBT and exposure therapy among Cambodian (Otto et al., 2003; Hinton et al., 2005) and Vietnamese refugees (Hinton et al., 2004) diagnosed with PTSD from experiencing war and genocide. All three studies found that CBT is an effective treatment in reducing PTSD symptoms. Hinton et al.’s (2005) study resulted in 60% of their participants no longer meeting criteria for a diagnosis of PTSD or GAD (generalized anxiety disorder). Additionally, Kubany, Hill, and Owens (2003) studied the use of CBT as part of trauma therapy with an ethnically diverse sample of battered women in Hawaii. All the ethnic minority women who completed the study were found to be free of PTSD at the end of treatment and at their 3-month follow-up. The interventions for all of these studies in Horrell’s review took place in a community-based outpatient clinic.
The paucity of empirical studies on the use of CBT with Asian individuals is not specific to the United States. However, the few studies which have been conducted in other countries have shown positive responses to CBT as a treatment modality. For example, in Hong Kong, Wong (2008) conducted a randomized control study with Chinese adults ages 18-60 who met criteria for depression on the DSM-IV and the Chinese version of the Beck Depression Inventory (C-BDI). After 10 weeks of CBT group therapy, forty percent of the participants had a clinically significant change in their symptom improvement in their depression, coping, negative emotions, and dysfunctional attitude levels.

A study conducted in Japan among patients with social anxiety disorder (SAD) also found that a CBT program originally developed in Western countries, showed promising results in terms of the effectiveness in a Japanese outpatient setting (Chen et al, 2007). Lastly, a study conducted among Chinese immigrants in Canada also explored the use of CBT group intervention, where they found a significant improvement in depression symptoms for those in the CBT group versus those who were receiving treatment as usual (Alden et al., 2006).
**Chapter Summary**

The Asian American population is one of the fastest growing populations in the United States, yet they have historically been overlooked in the mental health literature, despite evidence that suggests potentially higher rates of mental health issues. Research has indicated that despite the stressors and mental health issues experienced by this population, there is a significant underutilization of professional mental health services among Asian American individuals. However, CBT has been suggested to be one of the more promising treatments for this population, and studies have indicated ways in which CBT may be a culturally appropriate treatment among Asian Americans, because of its components aligning with several Asian cultural values as well as expectations of treatment.

Unfortunately, the empirical literature on the effectiveness of CBT with Asian Americans is very limited. The few studies conducted among outpatient populations have indicated promising results; however, to date, there has been no study exploring the use of CBT within an acute psychiatric partial hospital setting with Asian American patients. The aim of this investigation will be to explore the efficacy of CBT in decreasing the psychiatric symptoms experienced by Asian American patients that have completed the partial hospitalization program. It is hoped that an investigation conducted in an acute hospital setting will add to the literature on CBT treatment for Asian American patients, particularly as it pertains to those with more significant symptom severity levels. This study will seek to answer the following questions:
**Research Question 1**

Is CBT effective for Asian patients in:

a) Increasing functioning level

b) Decreasing depression

c) Decreasing anxiety

d) Increasing psychological health

**Research Question 2**

Is CBT as effective for Asian patients as White patients in terms of:

a) Increasing functioning level

b) Decreasing depression

c) Decreasing anxiety

d) Increasing psychological health
CHAPTER THREE:

METHODOLOGY

Participants

The study’s sample included adult patients who presented for treatment at the Behavioral Health Partial Program (BHPP), affiliated within a private psychiatric hospital in New England. Adult patients, over the age of 18 years old, were referred for partial hospitalization treatment from psychiatric inpatient units, other hospital-based or residential programs, and mental health providers in the community; some patients were referred as a step down from inpatient hospitalization, while others were referred from outpatient treatment providers for an increased level of care. Patients attended the partial program for 7-10 days. At the time this study was completed, a total of 1,448 adults had attended the BHPP from August 2010 to August 2012. All treatment data was collected into a BHPP dataset.

Inclusion criteria for this current study were 1) being a patient admitted to the BHPP, 2) identifying their race as either “Asian” or “White, Non-Hispanic” in the demographics survey completed upon program admission. The sample for this study included 1,039 White, Non-Hispanic patients and 51 Asian patients, with a total of 43 Asian patients who completed the treatment outcome measures at both the beginning and end of CBT treatment at the BHPP. Among the Asian patients, there were a total of 14 males and 29 females, ranging in age from 18 to 40 with a mean age of 30 years old. Then 43 of the White, Non-Hispanics from the larger BHPP dataset were matched, creating a total of 86 participants included in the study.
Setting

The BHPP is a treatment facility within a psychiatric campus hospital in New England. The treatment at the BHPP utilizes cognitive behavioral therapy (CBT) principles and interventions that are adapted to the unique challenges faced in an acute naturalistic partial hospital setting in the U.S. (Neuhaus, 2006). The entire treatment is done in English, so patients referred for treatment are required to possess a sufficient level of English proficiency. Subjects are assessed upon admission by a psychiatrist and a clinical team manager (a licensed psychologist or social worker) and Axis I diagnoses are conferred using the Mini-International Neuropsychiatric Interview (MINI; Sheehan et al., 1989). Before receiving any form of treatment, patients complete a demographics survey as well as a series of questionnaires, which are also administered at termination before the patient is discharged; the measures assess for depression, anxiety, psychological well-being, treatment credibility and expectancies. All assessments are completed using a computer program.

Treatment

Treatment focuses on the acquisition of cognitive (e.g., thought records, cognitive restructuring), and behavioral (e.g., behavioral scheduling, exposure) strategies. Each patient is assigned a clinical team manager, a clinical liaison, and a psychiatrist. During the course of treatment, patients receive both individual and group CBT provided by BHPP staff including psychiatrists, psychologists, social workers, occupational therapists, psychology trainees at the pre-doctoral and practicum levels, and mental health counselors. The psychology trainees attend weekly intensive CBT didactic training led by a team of faculty members; the seminars review CBT skills and techniques, group and
individual therapies, translating empirically supported treatment into a clinical environment, and the pragmatics of treatment. Practicum level trainees work part-time and receive two hours of supervision; pre-doctoral trainees work full-time and receive four hours of individual supervision, in addition to weekly seminars. The majority of the BHPP staff are of White descent, however, one of the mental health counselors is Asian American, and there has been at least one Asian American practicum trainee as well as at least one Asian American pre-doctoral trainee.

Patients are expected to attend five, 45 to 50-minute skills-focused groups each day, from 9am to 3pm, five days of the week, Monday through Friday, unless they have an individual meeting with a clinician. The groups are generally didactic in nature, and the group leader presents information and teaches specific CBT skills for the patients to practice and use in their treatment. For example, the “Mood Monitor” group teaches how to use the CBT skill of cognitive restructuring in order to challenge automatic maladaptive thoughts with potential alternative thoughts; “Behavioral Scheduling” group emphasizes the importance of behavioral activation, to increase structured time and more balanced types of activities, including self-care, mastery tasks, social, as well as pleasurable activities; “Chain Analysis” helps clients to assess what vulnerabilities, physical symptoms, social and emotional situations may lead to problematic behaviors. Some groups are also process based and focus on discussing areas of problem solving and goal setting. Additionally, some groups are psychoeducational in nature, and review symptoms that commonly occur for various psychological diagnoses. Participants attend the BHPP on average of 7-10 days of treatment, and the case manager determines when the patient is ready for discharge.
As part of treatment, the patients meet individually with their clinical liaison, for 30-50 minutes, 3 times per week. The clinical liaison meetings aim to review and practice skills learned in groups. Clinical liaisons are trainees who are either graduate level practicum students or pre-doctoral interns.

The patients are also assigned a clinical team manager whose role it is to coordinate group choices and scheduling for the patient, insurance coverage, general case management issues, overall treatment of the patient, and discharge referrals. Patients generally meet with their clinical team manager for 30-50 minutes, 2-3 times per week or as needed. The clinical team managers are licensed clinicians, either clinical social workers or psychologists.

The patients are also assigned a psychiatrist for medication management and potential medication adjustment. The psychiatrists meet with the patients for 15-30 minutes, 2-3 times per week or as needed. The psychiatrists work closely with all other team members in order to provide medically relevant input that may guide clinical decision-making.

Additionally, the BHPP has an occupational therapist and a vocational counselor that the clinical team manager can elect for their patients to see, if needed. If a patient is assigned an occupational therapist, they meet for individual sessions for 30 minutes, 1-2 times per week. Sessions entail conducting occupational assessments and providing assistance and helping patients recover lost mental or physical functioning as a result of their mental illness. Meetings with the vocational counselor are scheduled if needed. Vocational counselor meetings are individual sessions for 30 minutes, 1-2 times per week. The vocational counselor helps assess the patient’s general functioning and helps
determine whether they are ready to return to work, as well as assist in preparing them for re-entry into the working world.

**Procedure**

The participants in this study were part of a larger sample of patients in treatment at the BHPP, within a larger Harvard-teaching hospital in New England. The investigator received approval for this study from the Institutional Review Boards (IRBs) of the Harvard hospital and Northeastern University. As part of the larger study, each new patient was assigned a clinical team manager who completed an intake of the patient. The patient then attended an initial orientation and tour by a Mental Health Specialist.

After the tour, the patients were directed to meet with the BHPP research assistant who discussed the purposes of treatment outcomes research and asked the patients to sign an informed consent form to indicate their consent. Once consent was obtained, each participant was assigned a number code, so that all data within the dataset was anonymous. The signed consent forms with the patients’ names matching their number codes were kept in a binder in a locked file cabinet in a locked room in a separate office. The research assistant would then explain the psychodiagnostic and self-report measures that were administered on the computer for the patients to complete after intake before the start of treatment. At each patient’s treatment termination, prior to discharging, generally 7-10 days after admissions, the patients would meet with the same research assistant and complete the outcome measures again.

The self-report measures used in this current study include the Behavior and Symptom Identification Scale (BASIS24; Eisen et al., 2004), the Center for the Epidemiological Studies of Depression-10 (CESD-10; Andersen et al., 1994), the Penn
State Worry Questionnaire-Abbreviated (PSWQ-A; Hopko et al., 2003), and the Schwartz Outcome Scale (SOS; Blais et al., 1999). Each patient was assigned a numerical code in order to ensure confidentiality of their responses. The responses from the measures were then inputted into a dataset stored and analyzed using the Statistical Program for the Social Sciences 19 (SPSS).

**Data Analysis**

For this investigation, the larger BHPP dataset was used to collect the data of all patients that identified as either “Asian” or “White, Non-Hispanic” as their race in the demographics survey upon admissions. Before statistical analyses were run, all missing data was noted. Participants who did not complete entire measures post-treatment were omitted. If only one item has been missed on a measure, then it was substituted with the average score of the non-missing items. In order to have the same number of participants from both racial groups, a group of White participants was matched with the Asian sample. The procedure of matching was utilized to pair a White, Non-Hispanic patient that matched the demographics to each of the Asian American patients, based on age, gender (male/female), education level (eighth grade or less, some high school, high school/GED, some college, 4-year college graduate, or post-college education), prior homelessness (yes/no), previous psychiatric hospitalization (yes/no) and health rating (very poor, poor, good, very good, excellent).

Prior to running statistical analyses, normality was tested for the dependent variables using the Shapiro-Wilk test of normality. The histograms were also observed to note if there was a normal distribution versus any skew and kurtosis. Variables that were found to have violated normality were then transformed. Normality was tested for
BASIS-24 and found that at T2 normality was violated, however, when the data was transformed by square-root, normality was obtained. For CESD-10, normality was tested and was found that T2 violated normality, however, when the data was transformed by square-root, normality was obtained. Normality testing for PSWQ-A found that both T1 and T2 departed from a normal distribution, however, the transformed data did not improve the normality. This is important to note since these variables violated one of the assumptions necessary for t-tests, thus it is necessary to be aware of how it may impact the validity of the study’s findings. The normality testing for SOS found that T1 did not have a normal distribution, however, when the data was transformed by square-root, normality was then obtained.

A series of statistical analyses, including paired t-tests and 2x2 between-within repeated measures analysis of variance, were conducted using SPSS version 19.0, using a p<0.05 significance level.

**Measures**

All the measures used in this study included Asian individuals in their normative sample, suggesting they contributed to the validity and reliability testing of this measure. However, it is also important to note that the studies did not explore the specific appropriateness or validity of the use of these measures specifically among Asian individuals. It is also critical to be aware of the use of tests developed and assessed primarily in one specific culture, as tests typically reflect the values and beliefs of that specific culture (Vazquez-Nuttall and Li et al., 2007). Unfortunately, due to the confines of the dataset and the availability of the measures available, the measures used in this current study were selected for best overall validity and reliability, but could not assess
the specific constructs for its cultural validity among Asian culture. Additionally, although it is not within the scope of this study, it would also be important to note the language proficiency and acculturation status of the Asian American patients, as these factors can also impact the accuracy of the measures used (Vazquez-Nuttall and Li et al., 2007).

**Demographics Questionnaire**

The initial demographic survey, at the time of treatment admission, includes 15 questions about age, gender, race, education, employment or student status, living situation, marital status, previous psychiatric hospitalization history, and physical health.

**Behavior and Symptom Identification Scale (BASIS-24)**

The BASIS-24 (Eisen et al., 2004) is a 24-item self-report measure that assesses mental health treatment outcomes by assessing behavioral health and how patients feel before and after receiving care. BASIS-24 was used to assess for overall functioning across six different domains of depression, interpersonal problems, self-harm, emotional lability, psychosis, and substance abuse/dependence; higher scores indicated worse functioning. The BASIS-24 consists of six subscales which assess symptoms over the past week in six areas: (1) Depression and Functioning (e.g., “Feel sad or depressed?”; “Coping with problems in your life”), (2) Interpersonal Problems (“Get along in social situations?”), (3) Self-Harm (“Think about ending your life?”), (4) Emotional Lability (“Have mood swings?”), (5) Psychosis (“Hear voices or see things?”), and (6) Substance Abuse/Dependence (“Did you have an urge to drink alcohol or take street drugs?”). Respondents rate items on a 5-point Likert scale regarding either level of difficulty experienced (0 = “no difficulty” to 4 = “extreme difficulty”) or frequency (0 = “None of
the Time” to 4 = “All of the Time”). Subscales range from 0-8 for self-harm to 0-24 for depression/functioning and total scores reflect overall functioning, with higher scores indicating worse functioning and symptom severity (Eisen et al., 2004). This measure was administered during admissions prior to the start of treatment as well as upon discharge at the end of treatment.

The BASIS-24 was standardized on an original inpatient sample of 2,656 patients (Eisen et al., 2004). 54.6% were male (n = 1,449) and 45.4% were female (n = 1,207); in terms of race, 64.9% were White (n = 1,695), 25.7% were Black/African American (n = 672), 1.4% were American Indian/Alaskan (n = 36), 0.8% were Asian/Pacific Islander (21), 4.1% identified as Other (n = 106), and 3.1% identified as Multi-racial (n = 79). With regard to age range, 15.3% of the sample were 18-24 years old (n = 405), 22.2% were 25-34 years old (n = 589), 31.4% were 35-44 years old (n = 833), 20.6% were 45-54 years old (n = 546), 6.0% were 55-64 years old (n = 158), and 4.7% were 65+ years old (n = 125). The original standardized outpatient sample included a total of 3,222 individuals, with 44.2% of which were male (n = 1,424) and 55.8% were female (n = 1,798). In terms of race, 77.7% were White (n = 2,455), 11.1% were Black/African-American (n = 352), 1% were American Indian/Alaskan (n = 32), 1.3% were Asian/Pacific Islander (n = 41), 5.6% identified as Other (n = 178), and 3.2% were Multi-racial (n = 102). In terms of age, 19.5% were 18-24 years (n = 629), 29.5% were 25-34 years (n = 949), 29.4% were 35-44 years (n = 947), 15.8% were 45-54 years (n = 508), 4.5% were 55-64 years (n = 145), and 1.4% were 65+ years old (n = 44).

The measure has been found to have high reliability and validity, with standardized internal consistency reliability coefficients above .70 for all subscales,
ranging from 0.75 to 0.89 for inpatients and from 0.77 to 0.91 for outpatients; test-retest reliability coefficients were also ranged from 0.81 to 0.96 for inpatients and from 0.89 to 0.96 for outpatients (Eisen et al., 2006). This scale has demonstrated good psychometric properties across inpatient, outpatient, residential, and partial hospital settings as a broad assessment of psychopathology and associated distress (Eisen et al., 2004). In terms of construct validity, correlations of the BASIS-24 domain and summary scores with The Short-Form Health Survey’s Mental Component Summary (MCS; Ware, Kosinski, & Keller, 1996) for both inpatients and outpatients ranged from 0.15 to 0.77 and the correlations with global ratings of mental health and satisfaction with life was 0.75 (Eisen et al., 2004). The internal reliability in this present study was high (T1 and T2 both had $\alpha = .88$).

**Center for the Epidemiological Studies of Depression-10 (CESD-10)**

The CESD-10 (Andresen et al., 1994) is a widely used brief instrument for measuring symptoms of depression in both clinical and research settings. The 10-item scale assesses for symptoms of depression experienced over the past week (e.g., “I felt depressed” or “I felt lonely”). Responses are given on a 4-point ordinal scale, ranging from 0 = “rarely or none of the time” (less than 1 day); 1 = “some or a little of the time” (1-2 days); 2 = “occasionally or a moderate amount of the time” (3-4 days); 3 = “most or all of the time” (5-7 days). The higher the overall score, the higher depressive symptom severity endorsed. This measure was administered during admissions prior to the start of treatment as well as upon discharge at the end of treatment.

This 10-item self-report scale is taken from the longer well-validated 20-item version of the Center for Epidemiological Studies Depression Scale that has established
reliability and validity among adult populations (CES-D: Radloff, 1977). Although the CESD-10 does not discuss the details of the standardized sample, Gellis (2011) reported promising results for use of individuals from a range of gender, racial, and medical health condition backgrounds. His sample included a total of 618 individuals over the age of 65 (mean age of 76.1 years), where 67 of the participants were males and 551 were female, and 536 identified their race as White whereas 82 were Non-White. Tuunainen et al. (2001) discussed a further breakdown of racial backgrounds, including Asian Americans, where 74.1% of the participants were White, 12.6% Hispanic, 8.7% African-American, 3.9% Asian, and 0.7% were Native American.

The reliability of the CESD is consistently above 0.80 and the validity has been measured using other well-established and commonly used measures of depression, such as the Beck Depression Inventory (e.g., Shean & Baldwin, 2008). Radloff (1977) initially based the concurrent validity of the CESD on correlations between this measure and the Hamilton Clinician’s Rating scale as well as the Raskin Rating scale, 0.69 and 0.75 respectively. Concurrent validity has also been found through the correspondence of scores of 16 and over with SCID based diagnosis of depression (Fechner-Bates, Coyne, & Schwenck, 1994). The CESD-10 has been proven to be reliable and valid in screening for depression in adult and adolescents in clinical as well as community settings (Carpenter et al., 1998; Irwin, Artin, & Oxman, 1999). The internal reliability for this study was found to be high (T1: $\alpha = .89$; T2: $\alpha = .86$).

**Penn State Worry Questionnaire-Abbreviated (PSWQ-A)**

The PSWQ-A (Hopko et al., 2003) is one of the most widely used measures of worry and generalized anxiety disorder (GAD). The PSWQ-A was derived from Meyer,
Miller, Metzger, & Borkovec’s (1990) original 16-item instrument, which has been commonly used in treatment outcome studies of GAD (e.g., Barlow et al., 1992; Borkovec & Costello, 1993; Ladouceur et al., 2000).

The PSWQ-A is a reliable and well-validated, single factor, 8-item self-report measure designed to assess worry severity. The eight items on the PSWQ-A consist of statements about worry (e.g., “My worries overwhelm me”) that the responders rate on a 5-point Likert scale ranging from 1 (“Not at all typical of me”) to 5 (“Very typical of me”). Total scores range from 8 to 40, with higher scores indicating higher levels of worry. This measure was administered during admissions prior to the start of treatment as well as upon discharge at the end of treatment.

The reliability and validity of the PSWQ-A (Crittendon & Hopko, 2006) was measured with older adults as well as younger adults. The older adults (n=115) included a mean age 71.6 years (SD = 10.9), 73% were women (n=84), 92% were Caucasian, 3% Asian American, 3% American Indian or Alaskan Native, and 2% identified as African American. The PSWQ-A also was assessed on younger adults (n=183), with mean age was 21.3 years (SD = 3.2), 69% were women (n=126), 88% were Caucasian, 7% African American, 3% Asian American, 2% identified as American Indian or Alaskan Native. The internal consistency reliability was found to be high for younger and older adults (Cronbach’s $\alpha = 0.89 - 0.94$) and a test-retest reliability of $r = 0.87 - 0.95$. Moderate to strong convergent validity with measures of worry and anxiety was also evident ($r = 0.46 - 0.83$) as well as support for the construct validity of the PSWQ-A through its relation to the original PSWQ ($r = 0.65 - 0.83$) (Hopko et al., 2003). The internal reliability was very high for this study (T1: $\alpha = .95$; T2: $\alpha = .94$).
**Schwartz Outcome Scale (SOS)**

The SOS (Blais et al., 1999) is a well-validated and reliable, single factor, 10-item self-report measure designed to examine a broad domain of psychological health in a variety of settings (Young et al., 2003). The SOS was used in this study to measure psychological health and well-being, with higher scores indicating improved overall psychological health. Each item on this 10-item scale assesses quality of life and psychological well-being. Participants are asked to select on a scale of 0-6 the response which best fits how he/she has generally felt over the past week (e.g., “I feel hopeful about my future”; or “I am able to handle conflicts with others”). Participants rate items on a 7-point Likert scale from 0 (“Never”) to 6 (“All or nearly all of the time”). Total scores range from 0 to 60, with higher scores indicating better psychological health. This measure was administered during admissions prior to the start of treatment as well as upon discharge at the end of treatment.

SOS (Blais & Baity, 2009) was originally assessed on 3,032 individuals across inpatient (1,471), outpatient (804), and non-patients (757). The standardization sample included 62% female, and a mean age of 30.45. Though the test manual did not discuss about different racial and cultural backgrounds, other studies have included participants from different ethnic backgrounds that have shown promising results of the SOS. For example, Haggerty et al. (2010) used SOS among a non-clinical sample, where their findings suggested promising results for the use of the test not only on a range of settings, situations, but also racial and cultural backgrounds as well. Haggerty’s study included 183 female and 42 male, with an overall mean age of 20.9 years; 72% of the participants
were Caucasian, 8.4% were Latino/Hispanic, 7% were African American, 4.4% were Asian, and 7.6% identified as Other.

Blais et al. (1999) found the internal consistency reliability to be high (α = 0.96). Blais also found strong convergent validity with Well-Being Scale (α = 0.86), Desire to Live Scale (α = 0.86), Self-Esteem Scale (α = 0.81), Sense of Coherence Scale (α = 0.81), and Satisfaction with Life Scale (α = 0.78) was also found. For this current study, the internal reliability was found to be very high (T1 and T2: α = .94).

**Data Analysis Plan**

*Research Question 1*

Is CBT effective for Asian patients in:

- (e) Increasing functioning level
- (f) Increasing psychological health
- (g) Decreasing depression
- (h) Decreasing anxiety

*Hypotheses 1a – 1d:*

Based on the literature focusing on Asian mental health patients and CBT treatment, it was hypothesized that there would be significant improvement in the functioning level, depression and anxiety symptom severity, and psychological health among the Asian American patients at the end of treatment at the BHPP.

*Statistical Analysis*
Paired t-tests were performed to compare the means from pre-treatment and post-treatment for each of the different measures.

Research Question 2

Is CBT as effective for Asian patients as White patients in terms of:

e) Increasing functioning level
f) Increasing psychological health
g) Decreasing depression
h) Decreasing anxiety

Hypotheses 2a-2d:

Based on the empirical literature that supports CBT as an effective treatment modality amongst White patients, and the conceptual literature that has discussed CBT principles as being congruent with Asian cultural values as well as common expectations of therapy among Asian American patients, it was hypothesized that the CBT treatment would be at least similarly effective in alleviating symptom severity among Asian American patients as it is among the White patients.

Statistical Analysis

A 2x2 between-within repeated measures analysis of variance (ANOVA) was used, exploring the interaction between Race (Asian vs. White patients) and Time (Pre-treatment to post-treatment). A lack of a relationship would suggest that there would be no significant differential effectiveness of the CBT treatment based on race. However, a
significant race x time interaction would suggest that the CBT treatment leads to significantly greater changes in one of the racial groups compared to the other group.

Chapter Summary

This study assessed the treatment outcomes among adult patients who received treatment at a Behavioral Health Partial Program (BHPP) in New England. 43 Asian patients completed treatment at the BHPP, and 43 White, Non-Hispanic patients were then matched. Treatment at the BHPP focused on utilizing CBT principles and interventions, through both individual and group therapies. Patients’ symptom severity levels were assessed prior to the start of treatment as well as upon termination at the end of treatment. This study measured if CBT was effective in increasing the functioning level, decreasing depression, decreasing anxiety, and increasing the overall psychological well-being among Asian American patients, as well as assessing for possible differential effectiveness of symptom reduction between the Asian American and the White, Non-Hispanic patients.
CHAPTER FOUR: RESULTS

This chapter presents the findings from the analyses exploring the study’s research questions. First, the demographic characteristics of the study’s sample are presented. Then the analyses of the treatment outcomes for functioning level, depression, anxiety, and psychological health are presented. Finally, a summary of the findings from the analyses is outlined.

Demographic Characteristics

A total of 51 self-identified Asian American individuals received treatment at the BHPP during the study period of August 2010 to August 2012. Of these patients, 43 completed both pre-treatment (T1) and post-treatment (T2) measures. A total of 14 males and 29 females, between the ages of 18 to 40 years old, with a mean age of 30 years old completed this study. All of the participants had, at the minimum, graduated high school or received a General Educational Development GED. Only 1 of the participants had ever been homeless, meanwhile 25 out of the 43 had previously been hospitalized in a psychiatric program during the past 6 months prior to entering the BHPP. There were originally 1,039 White, Non-Hispanic patients in the BHPP, and a total of 771 of them completed both pre and post-treatment measures. Of these 771 White, Non-Hispanic patients, 43 were matched with the Asian American participant demographics based on gender, age, education level, prior homelessness, prior psychiatric hospitalization, and health rating.
Table 1
Asian American and White, Non-Hispanic American Participants Demographics

<table>
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<th>White, Non-Hispanic (n = 43)</th>
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</table>

Research Question 1: Is CBT treatment effective for Asian American patients in

a) Increasing Functioning Level

A paired-samples t-test was conducted to compare the functioning levels for the Asian American patients prior to and post-receiving CBT treatment at the BHPP. Before running the analyses, it was necessary that all assumptions of t-tests were met. First, the dependent variables for this study were the scores in the symptom measures, which use
ratio scales of measurement. The independent categorical related variable used was the two groups, the White, Non-Hispanic racial group and the Asian racial group. Normality was also assessed, when normality was violated, the scores were transformed, as previously discussed.

On average, the participants had an improved overall functioning level after CBT treatment \((M = 17.19, \text{SD} = 8.88)\), compared to before starting treatment at the BHPP \((M = 27.19, \text{SD} = 11.72)\). This difference was statistically significant, \(t(42) = 6.37, p = .000\), indicating that after receiving CBT treatment at the BHPP, the Asian American patients had a higher overall functioning level and improved symptom severity.

\(b)\) Decreasing Depression

A paired-samples t-test revealed that the Asian American participants on average had lower levels of depression symptoms at the end of treatment \((M = 8.53, \text{SD} = 5.16)\) than prior to starting at the BHPP \((M = 15.07, \text{SD} = 8.19)\). This difference was statistically significant, \(t(42) = 6.35, p = .000\), indicating that after receiving CBT the Asian American patients had an overall lower depression severity level.

\(c)\) Decreasing Anxiety

A paired-samples t-test was conducted to compare the anxiety symptom severity level at T1 and T2 for the Asian American patients at the BHPP. There was a significant difference in the scores from T1 \((M = 27.53, \text{SD} = 9.93)\) to T2 \((M = 22.67, \text{SD} = 8.85)\), \(t(42) = 5.49, p = .000\). The findings show that the Asian American patients had a statistically significant improvement in anxiety symptoms from pre- to post-treatment.
d) *Increasing Psychological Health*

A paired-samples t-test revealed that on average, the Asian American patients’ had improved psychological health after receiving CBT treatment at the BHPP (M = 37.02, SD = 13.29) than prior to the start of treatment (M = 25.77, SD = 14.38), *t*(42) = -5.56, *p* = .000.

**Research Question 2: Is CBT as effective for Asian American patients as White patients in terms of:**

a) *Increasing Functioning Level*

A 2x2 between-within repeated measures ANOVA was conducted to explore the interaction between Race (Asian vs. White patients) and Time (T1 to T2); Time was used as a within-subjects factor, and Race as a between-subjects factor. Before running the analyses, it was necessary that all assumptions of ANOVA were met. First, the dependent variables for this study were the scores in the symptom measures, which use ratio scales of measurement. The independent variables used were also two categorically related groups, the White, Non-Hispanic racial group and the Asian racial group. As previously discussed, normality was assessed for, where it was violated, the data was transformed and normality was achieved for all measures except for PSWQ. The assumptions of homogeneity of variance and sphericity were supported.

The interaction between race and time was found to be not significant, *F*(1, 84) = .03, *p* = .86, $\eta^2_p = .000$, however, the main effect for time was found to be significant *F*(1,84) = 73.71, *p* = .000, $\eta^2_p = .470$ with lower scores at post-treatment compared to pre-treatment. These findings suggest that the patients in the BHPP experienced a significant improvement in their functioning level after completing treatment, regardless of their
racial background. The findings also indicated a significant main effect for race, \( F(1, 84) = 6.44, p = .01, \eta_p^2 = .071 \) with White patients endorsing higher symptom severity levels.

Using the transformed data for BASIS-24 at T2, the interaction between race x time was approaching significance, \( F(1, 84) = 3.56, p = .063, \eta_p^2 = .041 \), with White patients showing a greater reduction in symptom severity level. The main effect for time was also found to be significant, \( F(1,84) = 414.74, p = .000, \eta_p^2 = .832 \), with lower scores at the end of treatment compared to prior to treatment. There was also a significant effect for race, \( F(1, 84) = 4.6, p = .04, \eta_p^2 = .052 \), with White patients endorsing higher symptom severity levels.

\[ b) \text{ Decreasing Depression} \]

The CESD-10 (Andersen et al., 1994) was used to measure patients’ depression symptom severity level. A 2x2 between-within repeated measures ANOVA was used to explore the interaction between Race (Asian vs. White patients) and Time (T1 to T2); Time was used as a within-subjects factor, and Race as a between-subjects factor. The effect for race x time interaction was not significant, \( F(1, 84) = .05, p = .82, \eta_p^2 = .001 \), however, the main effect for race was approaching significance, \( F(1, 84) = 3.82, p = .06, \eta_p^2 = .044 \), with White participants endorsing higher symptom severity levels. The main effect for time was significant, \( F(1, 84) = 89.77, p = .000, \eta_p^2 = .517 \) with lower depression scores after treatment. These findings indicate that regardless of race, depression symptoms decreased significantly after treatment completion.

Using the transformed data for CESD-10 for T2, no significance was found for the interaction between time x race, \( F(1, 84) = 2.10, p = .15, \eta_p^2 = .024 \). The main effect for time was significant, \( F(1, 84) = 313.76, p = .000, \eta_p^2 = .789 \), with lower symptom
severity levels at T2. The main effect for race was approaching significance, $F(1, 84) = 2.94, p = .09, \eta_p^2 = .034$, with White patients reporting overall higher levels of symptom severity.

c) Decreasing Anxiety

The PSWQ-A (Hopko et al., 2003) was used in this study to assess anxiety, with higher scores indicating higher levels of worry. A 2x2 between-within repeated measures ANOVA was used to explore the interaction between Race (Asian vs. White patients) and Time (T1 to T2); Time was used as a within-subjects factor, and Race as a between-subjects factor. Race x time interaction was approaching significance, $F(1, 84) = 3.05, p = .08, \eta_p^2 = .035$, with Asian patients endorsing a greater decrease in symptom severity levels from before treatment to after treatment. The main effect for race was found to be not significant, $F(1, 84) = 0.65, p = .42, \eta_p^2 = .008$. The main effect for time was significant, $F(1, 84) = 27.13, p = .000, \eta_p^2 = .244$ with lower scores after treatment. However, the PSWQ-A variables departed from normality, so it is important to be cautious when interpreting these findings.

d) Increasing Psychological Health

A 2x2 between-within repeated measures ANOVA was used to explore the interaction between Race (Asian vs. White patients) and Time (T1 to T2); Time was used as a within-subjects factor, and Race as a between-subjects factor. Neither racial group nor the race x time interaction were significant, $F(1, 84) = .99, p = .32, \eta_p^2 = .012$ and $F(1, 84) = .07, p = .80, \eta_p^2 = .001$ respectively. However, the main effect for time was significant, $F(1, 84) = 71.57, p = .000, \eta_p^2 = .460$ with higher scores after treatment. These
findings suggest that after finishing CBT treatment, the patients, regardless of race, experienced a significantly improved psychological health and well-being.

Using the transformed data during T1 for SOS are as follows: the main effects for both race as well as time x race interaction were found to be not significant, $F(1, 84) = 1.10, p = .30, \eta^2_p = .013$, and $F(1, 84) = 1.07, p = .31, \eta^2_p = .013$, respectively. However, there was a significant main effect for time, $F(1, 84) = 516.02, p = .000, \eta^2_p = .860$, with overall higher psychological health scores after treatment.

**Chapter Summary**

In summary, the results of the analyses supported the study’s research hypotheses, indicating that CBT treatment can influence the symptom severity levels of Asian American patients in a partial hospital setting. The results suggest that after completing CBT treatment at a partial hospitalization there is an overall significant improvement in symptom severity levels across several domains including functioning level, depression, anxiety, and psychological health. The findings also indicated that White patients rated their symptom severity levels higher than the Asian patients for functioning level as well as depression level. Additionally, although the findings did not reach significance, the analyses also suggest that White patients had a larger improvement in functioning level scores after CBT treatment, where as the Asian patients had a larger improvement in reducing their anxiety symptom levels after treatment. The findings for depression and overall psychological health suggested that regardless of racial background, there was an improvement in symptom levels, where the rate of symptom reduction was not significantly different between the Asian American and the White, Non-Hispanic patients.
CHAPTER FIVE:  
DISCUSSION  

This chapter summarizes the study’s findings. The implications from these findings will then be discussed, as well as how this study and its results will add to the current mental health literature and inform clinical practice. Finally, the study’s limitations will be discussed, in addition to the directions for future research and practice.  

Summary of Findings and Implications  

The primary aim of the present study was to examine the effectiveness of cognitive behavioral therapy (CBT) treatment in an acute partial hospital setting among Asian American patients receiving psychological treatment. CBT is one of the most commonly used and validated empirically supported treatments (ESTs) for a range of mental health issues and treatment settings (Langreth, 2007). The purpose of this study was to add to the small body of research on the effectiveness of CBT for Asian American mental health patients.  

The participants in this study received extensive CBT treatment in an intensive partial hospital setting through learning CBT coping skills, such as reviewing and challenging cognitive distortions, changing problematic behavior through behavioral activation, and using mindfulness, relaxation, and distress tolerance techniques. The patients developed coping skills from CBT through daily group therapy sessions as well as individually catered CBT treatment and practice of the skills during individual sessions with their clinical liaison.  

The findings from the present study support the hypothesis that there is a significant reduction of symptom severity levels from before treatment to after CBT
treatment. Previous research has suggested that Asian mental health patients would benefit from CBT as it aligns with their expectations of therapy as well as traditional Asian cultural values (e.g., Iwamasa, Hsia, & Hinton, 2006). These previous conceptual studies have suggested that the short-term, directive, symptom-focused, skill-building and practical problem-solving characteristics of CBT match the therapy expectations of Asian American patients (Hong & Ham, 2001). CBT also fits with Asian traditional cultural values such as the emphasis on education and self-improvement (Dandy & Nettlebeck, 2002) and Confucian ideals which may impact Asian patients’ preference to defer to the therapist to be the expert and to be more directive in therapy sessions (Hodges & Oei, 2007).

The results from the current study indicate that completing CBT treatment in a partial hospital is associated with significant improvement in psychological symptom severity levels across multiple domains, including depression, anxiety, functioning level, and overall psychological well-being of Asian American patients. The current study’s results suggest that CBT treatment in a short-term partial hospital setting, which is directive in nature, focusing on learning practical coping skills, and identifying and changing maladaptive thoughts and behaviors, is effective in helping the overall psychological functioning and mental well-being of Asian American patients suffering from a range of psychopathology symptoms.

These findings supplement and parallel the extensive clinical outcome studies that have suggested the influence of CBT on a range of psychological symptoms overall (e.g., see Hollon and Ponniah, 2010 for a review of EST for mood disorders). The results also support the preliminary findings from the limited, but growing number of empirical
studies supporting the efficacy of CBT treatments for patients with Asian cultural backgrounds suffering from depression (Alden et al., 2006; Wong, 2008), social anxiety (Chen et al, 2007), and PTSD (e.g., Hinton et al., 2004; 2005).

Furthermore, the findings may serve as a cross-cultural evidence for CBT because patients from both White, Non-Hispanic and Asian American backgrounds reported significant improvement in their overall functioning level, psychological well-being, as well as reduction in psychological symptoms such as depression and anxiety. The results for depression and psychological health suggest that there was no greater or lower amount of symptom reduction depending on the racial background of the patients; the Asian American and the White, Non-Hispanic patients’ depression and overall psychological health improved after CBT treatment at approximately the same rate.

The results also reflected a trend for Asian American patients to display greater symptom reduction in their anxiety severity level compared to their White counterparts. This finding parallels previous research that has found CBT to be beneficial in reducing anxiety symptoms among different Asian ethnic populations (e.g., Chen et al., 2007, Dai et al., 1999, Hinton et al., 2004). There are a few possibilities that may account for this trend. Mak, Law, and Teng (2011) discussed the Asian cultural concept of a more interdependent self-construal and theorized that it may partially account for the higher levels of social anxiety found in Asian Americans compared to European Americans. Therefore, treating those with anxiety symptoms in a group setting, similar to the BHPP, may lead to greater symptom improvement, as the Asian clients may be more likely to identify with the successes of other patients in the groups and to also associate that success to their own treatment outcomes (Carter, Mitchell, & Sbrocco, 2012).
Another possibility is that some of the skills reviewed as part of treatment, such as mindfulness techniques, are culturally relevant for Asian clients. For example, mindfulness was originally developed from Buddhist and Taoist core principles, which have influenced many Asian cultures and may be actively practiced by some of the Asian clients, and thus the Asian clients may be more responsive to mindfulness techniques in their CBT treatment (Hinton et al., 2004). Other aspects of CBT, including the use of homework and teaching specific skills, align well with common expectations of treatment among Asian patients (Foo and Kazantzis, 2007).

The findings also reflect a trend for greater symptom reduction and overall functioning level among White patients as compared to the Asian patients. This is reflected in the test results of BASIS-24 that assessed functioning level across six domains, including depression and functioning, interpersonal problems, self-harm, emotional lability, psychosis, and substance abuse and dependence. These findings are critical to consider, given that there is not an extensive literature on the effectiveness of CBT on Asian patients or the differential effectiveness of CBT treatment across different racial groups. These results suggest that although CBT may help in reducing a range of psychological symptoms for Asian patients, for some symptoms, CBT treatment may not reduce the severity levels for Asian patients as significantly as it does for the White patients.

There are a few possible explanations that might account for these findings. First, it could be that Asians may not identify overall functioning level in the same domains as are assessed by the BASIS-24. Another possibility may be that those types of symptoms may not be as successfully targeted by CBT. These findings may also indicate the need to
cater the CBT to the Asian clients’ cultural contexts (Hong & Ham, 2001). Another possibility for the interaction finding could be due to the White patients’ symptoms levels starting off at a higher symptom level, and thus possible more scope for change.

CBT, like any other form of psychotherapy, is not inherently value-neutral (Kantrowitz & Ballou, 1992), as the values of the dominant social group are often assumed to be universal, and the values of all other groups are either assumed to have the same values or not acknowledged. Therefore, in order to help increase treatment effectiveness, it may be necessary to modify the CBT treatment for the population in order to be more culturally appropriate (Dowd, 2003).

Originally, Aaron Beck (1995) outlined core concepts of CBT for what is considered normative and what is maladaptive, without acknowledging possible differences in what is considered adaptive based on different cultural values. For example, Beck described “magnification” and “minimization”, i.e., magnification of negative aspects about the self and minimization of positive aspects of the self, as forms of cognitive distortions in CBT as it is a Western assumption about self-esteem that it is in the individual’s best interest to think positively about him or herself. However, this assumption is counter to the Asian cultural value of humility, where modesty is highly valued, reflects wisdom, and helps to increase social harmony (Ying, 2002).

Another example of opposing cultural values that could impact differing treatment goals is the American cultural value of individuality, and the view of enmeshment as unhealthy, meaning that a CBT therapist may focus on autonomy as a treatment goal; however, a paramount cultural value across Asian cultures is the emphasis on collectivism and family and societal connection (Dowd, 2003), and thus achieving
personal happiness may be a less salient treatment goal (Tsai & Chensova-Dutton, 2002). Chung, Brodsky, and Ananth (2003) also discussed six Korean conceptualizations of emotion and cognition that differ from those originally postulated by CBT. For example, Beck (1995) identified “mind reading” as a cognitive distortion, in which one believes he/she knows what someone else is thinking but fails to consider other more likely possibilities. However, Chung, Brodsky, and Ananth (2003) reported that intuition was desirable among Koreans, the Korean concept of “nunchi” is important in regards to obtaining knowledge on how to act in social situations and the ability to gauge the moods of others.

It is also important to integrate cultural applications in CBT, such as taking into consideration the importance of cultural influences in a client’s life, considering the possibility of the client’s interaction in an oppressive environment, as well as considering culture-specific strengths and coping strategies (Hays, 1995). Utilizing culturally salient coping statements would help tailor the CBT to the unique cultural needs of each client. For example, challenging a client’s automatic thoughts with coping statement such as “nothing good or bad lasts forever” is based on yin and yang and that the universe is balanced, as well as culturally suitable treatment interventions such as mindfulness and progressive muscle relaxation techniques (Busch, 2005). Another example for clients for whom English may not be their first language, includes altering some of the technical language in CBT in order for the terms to be more easily understood (e.g., “unhelpful thoughts” rather than “cognitive distortions”). Future studies are still critically necessary to explore how to adapt CBT to be culturally sensitive to different patient populations, as
well as the need to continually assess for treatment effectiveness of the culturally adapted CBT with diverse populations.

Further findings from the current study also reveal that the White patients endorsed higher symptom severity levels as compared to the Asian patients, across all the symptom domains assessed, with significant differences for functioning level as well as trends for differences in depression levels. These findings could be reflective of the use of measures that were created by and normed on European American individuals and thus based on westernized cultural values and norms, and so may not be the most valid or culturally appropriate measures to use with Asian patients (Alvidrez et al., 1996). Not only would it be preferable to have the option for the measures to be administered in the patients’ native languages, it would also be necessary to have measures that were culturally valid as well (Dana, 1993). For example, research has suggested that Asians tend to express their negative affective states and psychosocial stressors through somatic symptoms (Dana, 2002). Therefore, it is also critical that measures that assess for psychological health, such as depression and functioning level, take into consideration or be adapted to Asian cultural values and beliefs of what is adaptive and maladaptive, how normal functioning is defined, and ways in which symptoms like depression manifest.

**Study’s Contribution**

*Research*

This current study expands upon previous research by exploring the use of CBT treatment for psychopathological symptoms among Asian American patients in an acute psychiatric partial hospital setting. Most of the treatment outcome research on CBT has primarily consisted of randomized controlled trials conducted in research settings.
Randomized controlled trials are commonly used to assess the efficacy of treatments within research settings under ideal conditions. However, it is also critical to assess treatment outcome findings with CBT in naturalistic settings in order to evaluate the treatment effectiveness in actual clinical practice (e.g., Chambless and Hollon, 1998). It is important to have both efficacy and effectiveness studies to provide comprehensive information regarding empirically supported treatments, such as CBT (Gartlehner et al., 2006). There has been a substantial amount of research on the efficacy of CBT. Hollon and Ponniah (2010) identified 125 efficacy studies using randomized controlled trials, with promising findings regarding the use of CBT for symptom reduction among individuals with mood disorders. However, further studies are needed to examine the treatment effectiveness of CBT in naturalistic settings to assess how CBT in research settings can also be generalized to routine clinical practice (Chambless and Hollon, 1998). Therefore, this current study adds to the growing literature on the effectiveness of CBT treatment for Asian Americans in a naturalistic setting, under “real world” conditions, such as at the psychiatric hospital.

Additionally, partial hospital programs are a growing treatment option particularly among patients with severe and chronic symptoms or experiencing acute symptom intensification (Kiser et al., 2010). On the continuum of clinical care, it is a step up from a traditional one-hour per week outpatient treatment and step before intensive 24-hour inpatient hospital level of care. In a preliminary study (Neuhaus et al., 2007), CBT treatment delivered in a partial hospital setting was found to have promising results in symptom reduction, but Neuhaus called for further research. This study further
contributes to the growing literature on assessing CBT effectiveness on reducing symptoms among patients at a partial hospital level of care.

Although CBT is the most widely used and empirically supported treatment for a range of diagnoses and symptoms, there have been few studies assessing CBT effectiveness among racial minority patients in the United States (Horrell, 2008). Specifically, Asian Americans are the fastest growing racial group in the United States (U.S. Census Bureau, 2010), yet they have traditionally been overlooked in mental health research, possibly due to the “model minority myth” (Sue & Sue, 1990). Multicultural research has found that contrary to the model minority myth, Asian Americans have reported higher rates of serious mental health problems than any other racial groups (Kursaki et al., 2002). Therefore, it is imperative for continued research on the effectiveness of CBT as a treatment among Asian American psychological patients. Not only does this study supplement the dearth of treatment outcomes research for Asian American patients, the previous empirical research only studied Asian American patients within an outpatient setting. Therefore, the current study’s analysis of the use of CBT with patients in a psychiatric partial hospital, explored the use of CBT among patients with more severe, acute, as well as chronic psychological symptoms. Thus, the current study’s results suggest that CBT is also effective among Asian Americans with higher symptom severity levels and at a higher level of psychiatric care.

In addition to being a naturalistic study, the patients in the current study were not recruited for research as the primary purpose, but were enrolled in the partial hospital to seek treatment for their symptoms. In previous empirical studies among Asian populations, the patients were recruited to participate in the research study specifically
because of their Asian backgrounds (e.g., Alden et al., 2006, Dai et al., 1999, Hinton et al., 2005). Furthermore, in all previous studies, the CBT treatment was administered to a group entirely of Asians, and sometimes the treatment was also provided by Asian clinicians. In contrast, in this study, the CBT treatment in the partial program was provided to patients regardless of racial background, and consequently the majority of the patients were from White, Non-Hispanic backgrounds. Therefore, the current study adds to the literature on CBT with Asian Americans, in that it does not have the possible confounding factor of feeling understood by fellow Asian patients or providers (Uba, 1994) that influences symptom reduction.

Lastly, the current EST literature has not focused on exploring the differential effectiveness of CBT treatment among different racial groups. Horrell (2008) has proposed that the lack of differential studies indicates an underlying assumption that CBT can be generalized to everybody to the same extent, without accommodating different cultures and worldviews. The current study is the first of its kind to assess whether CBT is as effective among Asian American patients compared to White patients across several domains, such as depression, worry, functioning level, and psychological well-being. The results found that the White patients’ functioning level (as measured by BASIS-24) improved more substantially after CBT treatment at the BHPP as compared to the Asian patients. Further research is needed to assess whether cultural modifications to CBT could further improve the treatment effectiveness among Asian patients as well as other racial groups.

Clinical Practice
In addition to research, the findings from this study further contribute to the mental health field through direct clinical practice as well. The study’s primary aim is to bring more attention to the use of CBT among multicultural patients. The study brings more cultural awareness about the use of CBT among different populations rather than the blanket use of CBT across all patients regardless of considering possible racial and cultural differences. The findings suggest that CBT is effective in treating a range of psychological symptoms for patients from diverse racial, educational, socio-economic, and medical history backgrounds. In particular, the findings support the use of CBT among individuals with more chronic and severe psychiatric symptoms. Moreover, the promising findings indicate that Asian patients, who can communicate with the therapists in English, can still benefit from CBT treatment in a general psychiatric hospital setting in the U.S., not just within only Asian specific treatment facilities among other Asian patients or the need to be ethnically matched with fellow Asian medical and treatment professionals. However, the findings from this study also indicate possible differing effectiveness of CBT across different racial groups, suggesting the need for more culturally adapted CBT for further increasing treatment effectiveness.

Limitations

It is also necessary to take the limitations of the present study into consideration. First, the participants for this study were all patients at one hospital’s Behavioral Health Partial Program in New England; therefore, the findings may not be generalizable to different settings. Additionally, the small sample size of Asian American patients impacts the power of this study. The limited statistical power may impact the study’s results not
reaching statistical significance and why in some of analyses only trends towards significance were found.

Another limitation of this study was that the partial program is run entirely in English, which meant that all the Asian American patients in this study needed to have a working knowledge of the English spoken and written language. All the measures used were only available in English, and there were no other translation versions used. Therefore, this study could not assess for the impact of CBT treatment on the mental health needs of Asian Americans who could not speak English. There also were no formal assessments for acculturation level or English literacy ability, and thus no way of assessing the Asian participants’ comprehension of the questions on the measures they were completing.

Also, due to the constraints of the dataset, this study was not able to assess the cultural relevancy or evaluate the presence of any bias in the measures. Although the measures have been found to have high validity and reliability amongst a range of populations and settings, and the normative samples have included Asian participants, the measures have not been directly assessed for cross-cultural validity. It is important to be aware that constructs for any test are culturally loaded, as tests reflect the culture they were developed and implemented in (Vazquez-Nuttall and Li et al., 2007). Since these tests were developed and assessed primarily among white participants, another limitation of this study was using measures that have not been specifically culturally validated for use among Asian American participants.

Additionally, all the outcome measures used in this study were self-report scales, which thus relied entirely on the patients’ evaluation of their own symptom severity
levels. Although self-report measures are important in assessing an individual’s own perceptions of change, the validity of their assessment is unknown, as well as the potential of response bias from patients’ subjectivity and possible social desirability bias.

Furthermore, since the measures were administered at the start of treatment and the end of treatment, there is the potential that the changes in symptom severity and functioning levels could be influenced not only by the CBT treatment, but also natural maturation or changes in patients’ own life circumstances that may also have occurred during the time period.

Also given the nature of this naturalistic study, there was no control group. Patients attended the program anywhere between 7-10 days, thus another limitation was the length of treatment which was not controlled. Another limitation in the findings is related specifically to the results using the PSWQ-A, as the findings from both pre-treatment and post-treatment departed from a normal distribution and the data could not be transformed. Since these variables violated one of the assumptions necessary to run our statistical analyses, it can affect the validity of the study’s findings.

Additionally, due to the small sample size, and the constraints of the dataset, inclusion in this study only required that the Asian American patients had self-identified their race to be “Asian.” The Asian racial group is extremely diverse; as previously mentioned, there are over 43 ethnic groups, and differing histories, languages, religions, beliefs, and values (Hong, 2001). There are also individual differences that were not accounted for in this study, including potential differences in acculturation, immigration status (e.g., first or second generation), English language proficiency, level of education, socio-economic status, racial and ethnic identity development stage. The dataset did not
provide information on the patients’ acculturation level and the degree to which they understood the tests and the therapists.

**Future Directions**

*Research*

More research is needed to continue expanding the literature on the effectiveness of CBT as an evidence-based treatment for Asian American mental health patients. The replication and extension of this study are necessary to further increase our understanding of the effectiveness of CBT for this group. For example, a larger sample size of Asian American patients in treatment at various mental health facilities will help expand the generalizability of the findings. Future studies should also address the diversity of the Asian population in regards to possible differences in generation status, acculturation level, racial and ethnic identity development, as well as other differences such as socioeconomic status and education level. A future empirical study could explore the correlation between Asian cultural values and ethnic identity development and the effectiveness of CBT as a form of mental health treatment.

Further research should also include more qualitative research and patient interviews, in order to understand from the patients’ direct experiences with the CBT treatment they received, if and how it assisted in reducing their symptom severity and improving their psychological wellbeing, and if they found it directly aligned with their cultural values and beliefs and expectations around therapy and mental health.

Additional studies would also explore how to make CBT more culturally sensitive towards the unique needs of Asian American patients. Some studies have suggested the need for modifications to be made to ESTs to be more culturally appropriate in order to
increase treatment effectiveness, such as adapting to the unique cultural values of each client (Dowd, 2003; Hays, 1995); for example, values such as assertiveness and personal autonomy may not be as emphasized among Asian clients who have more of a collectivistic mentality of valuing the greater whole rather than the individual.

Multiple sources of measurements of symptom severity and psychological well-being should also be considered. For example, using additional scales for the professional mental health providers to complete and assess the patients’ symptom severity levels would supplement the findings from the patients’ self-report responses. Culturally relevant assessments would also be important, in order to assess from a culturally appropriate context what is considered healthy versus maladaptive in terms of psychological symptoms such as depression, anxiety, or overall functioning. Often times, measures are directly translated into the different languages, however these measures are typically normed on U.S. or European populations, and using Western values around what is considered healthy or unhealthy, normative or maladaptive (Kurasaki, Okazaki, & Sue, 2002). The direct literal translation of the measures assumes that the same concepts of psychopathology developed in Western culture are equally valid and reliable for Asian American populations too. Thus, more culturally salient measures would be pertinent.

Practice

Currently, in the United States, similar to the psychiatric hospital that was used in this study, the services are provided exclusively in English, CBT treatment provided in other languages are minimal or non-existent. Therefore, it is important to expand the availability of services to the Asian American population that may not be able to access English-only services.
It is also important to note that mental health treatment has traditionally been based upon Western, Eurocentric perspectives and assumptions. An integral part of CBT treatment is to identify cognitive distortions and maladaptive behaviors, and then working towards finding alternative, more adaptive thoughts and behaviors. Dowd (2003) highlighted that cognitive distortions identified in White American culture such as magnification/minimization and emotional reasoning, do not always translate to all cultures. Additionally, what is deemed adaptive or maladaptive in terms of cognitions and behaviors is based on an individual’s cultural contexts and world view. Thus, beliefs regarding inequality versus equality of human beings, passive versus active coping, collectivism versus individualism, to name a few, would vary based on one’s culture. It is imperative that CBT, which focuses on identifying distortions in thoughts and assisting individuals in generating reality based beliefs, target maladaptive thoughts based on the individual’s culture, as well as adapt and modify CBT to be culturally sensitive to each patient’s culture (Hwang et al., 2006).

Carter et al. (2012) identified that although the treatment outcome studies to date have indicated that Asian Americans respond positively to standard CBT treatment protocols, there was an increased benefit and reduction in symptom severity from the culturally adaptive treatments (e.g., Hinton et al., 2004; Hinton, et al., 2006; Pan et al., 2011). For example, Hinton et al. (2004) utilized culturally adaptive CBT techniques such as meditation and mindfulness techniques to practice diaphragmatic breathing. They also used culturally appropriate visualization paired with muscle relaxation, for example, a visualization they paired with a neck muscle rotation exercise involved imagining a
lotus blossom that rotated in the wind on its stem, which incorporated an Asian cultural image of the lotus blossom and its symbolism of flexibility.

Research has also suggested that some Asians’ socioemotional and psychological symptoms may more likely manifest as physical ailments (Dana, 2002), so mental health treatment should also take into consideration how to alleviate the somatic symptoms. For example, Hinton, et al. (2006) developed somatic-focused CBT with Cambodian refugees with PTSD, which utilized CBT that focused on additional techniques such as identifying sore neck-associated trauma, exposure to sore neck sensations, desensitization and re-association to neck sensations, all within a culturally adaptive framework.

Additionally, future research and practice should work towards recognizing and differentiating the different ethnic groups within the Asian American population. Commonly in literature and treatment, Asians have been associated as one cultural monolith, rather than recognizing the heterogeneity of their histories, cultural values and practices, religions, languages, and beliefs. Work still needs to be done on how to adapt CBT treatment to be salient and effective across the varying ethnic backgrounds within the Asian group. For example, with the philosophy of Taoism having helped shape Chinese culture and way of life for several centuries, Zhang et al. (2002) incorporated Taoist principles into CBT treatment for Chinese patients with Generalized Anxiety Disorder. Further culturally tailored treatment could help increase treatment effectiveness and possibly treatment utilization among different ethnic groups within the Asian American population.


**Conclusion**

To conclude, the primary goal of the present study was to explore the effectiveness of cognitive behavioral therapy in treating Asian American patients in an acute psychiatric partial hospital setting. The Asian population is the fastest growing racial population in the United States (U.S. Census Bureau, 2010), with prior research indicating that Asian Americans have reported higher mental health issues compared to other racial groups (e.g., Kurasaki, Okazaki, & Sue, 2002; Okazaki, 1997; Uba, 1994). Despite these findings, there has been no commensurate growth in research on psychotherapy treatment for Asian American mental health patients (U.S. Department of Health and Human Services, 2001). Due to the “model minority myth”, Asian Americans have been traditionally overlooked in mental health research, as they have been erroneously assumed to be successful and exempt from the struggles faced by other racial groups (Sue & Sue, 1990).

In the field of mental health, there has been a growth in empirically-supported treatments (EST) (Chambless and Hollon, 1998), with cognitive behavioral therapy (CBT) as one of the most widely studied and used ESTs (Hays & Iwamasa, 2006). Although conceptual studies have suggested CBT would be a good fit for Asian American patients in regards to common Asian cultural values as well as expectations of mental health treatment, however, there is a dearth of empirical studies assessing for the effectiveness of CBT with Asian American patients.

The findings from this current study suggested that after completing CBT treatment, Asian American patients showed significant improvement in overall functioning across a range of symptoms, including reduction of depression and anxiety.
levels and improvement in overall psychological health and well-being. The findings suggest that CBT provided in an acute partial hospital setting is associated with overall well-being and global improvements in psychopathology. Further work is still necessary in exploring how to provide culturally adapted CBT.
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