MENTAL HEALTH AND SOCIAL CAPITAL IN URBAN THAILAND

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DEDICATION

To my parents, who believed in me, my friends, who supported me, my teachers, who educated me and my fellow graduate students, who cheered me on, I dedicate this thesis. I could not have achieved it without you.

MENTAL HEALTH AND SOCIAL CAPITAL IN URBAN THAILAND

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Using a sample of married women from Bangkok, Thailand, this thesis examines the mitigating effects of different forms of social capital on depressive symptoms. It expands the current social science research on depressive symptoms by exploring an understudied predominant Buddhist population through a social capital lens. It investigates the influence of multidimensional social capital such as social networks, faith-based engagement and civic engagement on depressive symptoms using multiple linear regression technique. Consistent with research expectations, statistical analyses show that net of statistical controls both faith-based social capital (e.g., religious participation) and social networks (e.g., friendship ties) significantly reduce depressive symptoms. Though civic engagement also mitigates depressive symptoms, its effect is less robust than that of faith-based social capital and social networks. Overall, these results shed new light on social science research on depression and illustrate the critical role social capital plays in mitigating depression in a cross-cultural context.

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CHAPTER ONE: INTRODUCTION

Depressive symptoms, referred to more generally as depression, are a leading cause of morbidity across the world. Depression is a debilitating and complex disease with potentially fatal outcomes. More than 18.8 million Americans or approximately 9.5% of the U.S. population suffers from depression (National Institute of Mental Health, 2004). Worldwide, depression affects approximately 121 million people and is among the leading causes of disability in the world (World Health Organization, 2012). At any given time, 6% of the world's population meets the criteria for a major depressive disorder (Keller et. al., 1992). Teenagers and the elderly are most at risk for depression, most likely due to their limited power in society (Mirowsky & Ross, 1992). In almost all cultures, depression affects more women than men (Nolen-Hoeksema, 1987; Koss-Chionio, 1999; Sloan & Sandt, 2006). Even though depressive symptoms have been linked to differential gender roles, varying levels of stress and genetic factors, no single cause has been isolated.

Characterized by feelings of worthlessness, poor concentration, low energy and a lack of interest in the world around them, individuals with depression often have trouble managing daily tasks and have poorer physical health than those without depression (Aneshensel, Frerichs & Huba, 1984 & Salovey et. al., 2000). They are also more likely to commit suicide than the general population. In addition, a 2002 meta-analysis found a high risk of mortality in all depressive disorders compared to the general population. The authors argued that all forms of depression must be considered life-threatening disorders (Cuijpers & Smit).

There is a high social cost due to depression as well. Depression is the leading cause of days lost from work (Broadhead et. al., 1990). Depression has been characterized as second only to heart disease in terms of global health burden (Scott & Dickey, 2003). A study found that there

were more people on disability benefits in England for depression than people who were currently unemployed and searching for jobs (Centre for Economic Performance, 2006). Smith and Smith's (2010) longitudinal study, tracking children into adulthood, found that adults who suffered from depression had lower educational attainment and lower lifetime income compared to adults who did not suffer from depression. Taken as a whole, the empirical evidence shows that depression is a major disease category, and its impact on both individuals and society cannot be underestimated. The importance of combating depression and finding ways to mitigate its effects is paramount when discussing this disease.

Culture also plays an important role in the experience of depression. While depressed American respondents showed less overt sadness when watching a sad film, depressed Asian respondents showed much higher overt sadness (Chentsova-Dutton et. al., 2007). Asian women experiencing prenatal depression had different concerns based on cultural factors. For instance, their depression was especially influenced by the gender of the infant (Roomruangwong & Epperson, 2011). The role of culture in dictating the way people express depressive symptoms cannot be overlooked. Currently, there are few studies available on depression in Asian societies. The ones that do exist are done with translated instruments originally written in English instead of using indigenous cultural measures of depression (Leong, Okazaki & Tak, 2003). These studies indicate an incidence of depression comparable to America and other Western countries (Chiu, 2004). However, very little is known about depressive symptoms in Thailand. One study found that depression is rising in Thailand and that the prevalence rate had “increased from 56 per 100,000 population in 1997 to 197 per 100,000 population in 2007” (Thailand Department of Mental Health, 2007). But the recognition of depression as a serious mental health problem as opposed to personal deficiency has not been extensively studied in Thailand.

The sociocultural context of Thailand is critically important for this study. Thailand is an East Asian country that holds collectivist values and emphasizes close familial ties. Unlike the industrialized West, collectivist culture in Thailand emphasizes interdependence among its members and prioritizes group well-being over individual well-being. In this collectivist society, individuals are expected to consider others before themselves and to maintain close familial or kinship ties. Given the presence and prevalence of tighter social networks and closer kin networks, social capital is a vital and dynamic aspect of daily life in urban Thailand. As such, all data analyses and research findings must be rendered and discussed in this collective context.

In sum, depression is a disease with a heavy burden on both the individual sufferers and the societies they reside in. To help better understand this worldwide epidemic, this thesis theorizes that the lack of social capital can both create and exacerbate depression through social isolation. It also argues that social capital can help alleviate depression. The social capital perspective views social networks and exchanges as a currency with multiple inherent benefits, including reinforcement of self-worth and loans of social and emotional resources that can greatly benefit individuals with depression. By giving these individuals access to positive social capital and by relieving the pressures of social isolation, social capital acts as a buffer against depression and poor mental health. There are also positive but indirect effects of social capital, such as alleviating stress and monitoring health, so that individuals who suffer from mental illness are encouraged to seek appropriate help.

To determine which type of social capital can best prevent or alleviate depressive symptoms in married Thai women, this thesis proposes to examine three specific types of social capital, namely, social networks, civic engagement and faith-based engagement. Since there has been a small body of research on the linkage between social capital and mental health, this study

can provide unique insights for cross-cultural studies on mental health in Southeast Asian societies.

CHAPTER TWO: THEORETICAL FRAMEWORK

Conceptualizing Depression

Depression is a difficult disease to conceptualize and capture completely in an individual. Doctors and psychiatrists categorize depression as a disease or a series of diseases with variable symptomatology and different conditions of onset. They focus more strongly on the role of chemical and neurological factors. Sociologists and psychologists, on the other hand, focus on the role of stress in depression and typically characterize depression as a series of emotive statements; that is, the emotional, social and cognitive state of the individual. They have argued to categorize different experiences of depression—i.e. depression experienced after a traumatic event versus intermittent, unexplained depression—as different diseases (Licinio & Alvarado, 2002).

Depression is also a disease with cultural differences. For instance, in African populations, suicidal ideation is very uncommon among depressed individuals, as is commission of suicide (Binitie, 1975). In an East Asian study, postpartum depression was found to be affected by cultural factors, especially the strength of normative infant gender preference (Klainin & Alvarado, 2009). Cultural background and social norms play important roles in the way depression is thought of and dealt with.

For the purposes of this thesis, depressive symptoms are used in lieu of formal diagnoses of depression in accordance with the CES-D, one of the most commonly used self-report depression scales (Radloff, 1977). The survey used for this thesis asked respondents multiple questions focused on the three key elements of depression: depressed mood, a lack of pleasure in normally pleasurable activities and reduced energy or exhaustion. These three key elements are

used to create a robust index that allows us to examine major depressive symptoms and how social capital can alleviate these symptoms.

Social Capital Theory

Pierre Bourdieu popularized the term social capital. He described social capital as a capital that was distinct from other types of capital and based on both material and symbolic exchanges. Bourdieu's original use of the term focused on social capital in a group sense and defined it by the social aspects that allowed the group to try and improve its standing. He presumed a kind of social capital that is separate from cultural capital and indicated by the strength of the credit available to members of different groups (Bourdieu, 1986). These groups could also be loosely affiliated networks, something other scholars drew on to create more recent theories of social capital that focused on both group and individual level interactions.

Social capital was drawn down to the level of individual interactions by James Coleman (1988), who defined three forms of social capital: obligations and expectations, information channels and social norms. Coleman's definition of social capital was the first to contain some of the key elements of the current definition used by most scholars, including the definition of trust as an important element of social capital. The inclusion of trust turned social capital into a theory less focused on maintaining or increasing group position than into a theory about social support and symbolic exchanges in a closed network. Coleman's original article analyzed the effects of social capital on whether high school students dropped out of school. One of his major variables was the attachment as a form of social capital in the community, measured by how often families moved and how much connection families had to their communities. The study also examined how religious communities and connections could compensate for a lack of social capital in the family (Coleman, 1988). Coleman shows the multiple kinds of social capital an individual can

possess and illustrates how a network of support, either inside the family or in a larger community, can buffer against negative consequences, such as dropping out of school.

These theorists represent the forebears of social capital, but this thesis will follow the guidance from the work of Nan Lin, who proposed a more personal and specific definition of social capital. Lin separated the elements of social capital related to other sociological concepts, such as norms and values, out of the term and defined social capital as "investment in social relations with expected returns in the marketplace" (Lin, 19). Lin recognized a specific subset of social capital he named reinforcements and described it as "essential for the maintenance of mental health and entitlement to resources" (Lin, 20). These reinforcements "reinforce" identity and worth in the society by providing social support and access to resources. It is this concept of reinforcements that I wish to explore in this thesis and the effects of these kinds of networks, with their give and take of social capital, on mental health.

Social Capital and Mental Health

There is currently only a small body of work available on mental health and social capital. Much of this body of research focuses on specific areas (e.g., social isolation) and specific populations, (e.g., the elderly). Though the theory of social capital has broad appeal to sociologists who study how social interactions affect all aspects of life, it is still a relatively unexplored area with many facets to be examined. Using a social capital approach to study mental health, social scientists can not only examine how the import of social ties buffer against stress and poor mental health, but also facilitate the use of social capital for poor mental health treatment. In fact, it is part of holistic approach to health care, viewing individuals not as just a collection of symptoms but as part of larger social networks that can change their outcomes.

There is also some evidence of correlation between social capital and socioeconomic status which warrants further study (Mitchell & LaGory, 2002; Caughy, O'Campo & Muntaner, 2003). Social capital is often studied in poorer communities that may have higher rates of bonding social capital, social capital within communities, but not necessarily of bridging social capital, social capital outside communities. Bridging social capital is more readily accessible to individuals of a higher social standard and can be inherited. This means that social capital in impoverished communities may benefit individuals in terms of mental health, but not necessarily in terms of social advancement or connections (Layte, 2011; De Silva, Mckenzie, Harpham & Huttly, 2005). However another study found that even among the homeless, social capital could still alleviate distress (Irwin, LaGory, Ritchey & Fitzpatrick, 2008). This is indicative that the field of social capital may be further divided along socioeconomic lines.

Another interesting subset of mental health and social capital research that has risen empirically in the last few years has been the incorporation of gender into the equation. Multiple studies have looked at gender differences in social capital, often focusing on what aspects of a community lead to higher social capital for women. Social capital is often discussed, especially bridging social capital, as another type of inequality between the rich and the poor. However, recent studies on gender indicate that women are more likely to have low social capital than men and suffer poor mental health from low social capital. Factors, such as high community trust and unemployment rate, can alter how much social capital women have in a community (Thomas, 2003; Stafford et. al., 2004).

Types of Social Capital

There are multiple classifications of social capital used by social scientists. However, this thesis aims to study three subsets of social capital: social networks defined as friend and family

social capital, civic engagement and faith-based engagement. Some other types of social capital that are particularly important to the theory are not measured directly by the available data, thus touched on briefly.

According to recent and limited studies, social networks such as friendship and familial ties can have positive effects on mental health status. Evidence suggests that having positive relationships with social support networks can minimize poor mental health. Studies show that a strong social network can help encourage healthy norms and behaviors, such as limiting alcohol intake and encouraging regular exercise, can bolster good mental health (Kawachi & Berkman, 2001). On the other hand, a lack of social capital can have detrimental effects on mental health. Among older adults, social isolation has been shown to be one of the biggest predictors of poor mental health (Oxman et. al., 1992). A study of family social capital in China found that high family social capital moderated adolescent's depressive symptoms and that female children were more likely to exhibit higher levels of depression due in part to having a lower "share" of family social capital (Wu et. al., 2010). A longitudinal study on depression and social capital found that social capital and especially social support could alleviate some of the symptoms of depression (Webber, Huxley & Harris, 2011). One study using only twin pairs found that social capital still played a large role in mitigating poor health after controlling for things such as early childhood environment and genetic factors (Fujiwara & Kawachi, 2008). Another found that depression among the bereaved was ameliorated by the amount and quality of social support received, especially contact with friends and relatives (Sherkat & Reed, 1991). These conclusions lead to the clear correlation of high social capital with better mental health. In Thailand especially, families are expected to rely on each other for support. Adult children still care for their parents, as opposed to institutionalization. Children send money home to their parents when they get their

first jobs. These norms indicate that social capital within kinship networks should be especially strong, due to the cultural norms of Thai society. Therefore, this thesis hypothesizes that measures of social network and familial closeness will be negatively correlated with depressive symptoms based on the literature reviewed (*Hypothesis 1)*.

Civic and faith-based engagements have been shown to mitigate mental health in multiple circumstances (Thoits & Hewitt, 2001; George, Larsons, Koeing & McCullough, 2000; Bergin, 1983). Civic engagement, as defined by the American Psychological Association, is individual and collective actions designed to identify and address issues of public concern. This can include any form of volunteering or political activism. This is normally attributed to the social support mechanisms derived from this kind of group membership. It has also been shown to protect against distress through social integration and community involvement (Lin, Ye & Ensel, 1999). One study in Russia found that community integration through measures such as group attendance could account for large variations in mental health (Rose, 2000). Another study found that social cohesion minimized incidences of poor mental health in London (Boydell, McKenzie & Van Os, 2002). Another study found correlations with reduced mental health symptoms compared to the general population, as well as improved optimism and self-efficacy in college students (Constance & Bundick, 2012). Since civic engagement is almost always self-selecting, there is an argument that the relationship is correlational but not causative, since individuals who have better mental health are more likely to select into these activities. However, a longitudinal study showed that individuals who participated in civic engagement were more likely to have better mental well-being but also to show improvement in their well-being from participating in civic engagement (Thoits & Hewitt, 2001). This relationship between community participation

and more coping resources, as well as a stronger social support network, allows me to hypothesize that civic engagement will be negatively correlated with depressive symptoms.

Faith-based engagement is the individual's involvement in a religious community, which is primed to provide a good source of social support. While Buddhism is the state religion of Thailand and has not been studied in the context of mental or physical health, it shares some common elements with other religious or spiritual practices—mainly the attendance of ritual events meant to reinforce the practice of that religion. This group practice of religion creates social capital by reoccurring social contact in an environment with a shared purpose. There is evidence that shared religious activity creates positive mental health (Seybold & Hill, 2001) Faith-based engagement has also been shown to buffer against negative physical and mental health consequences and reduce stress (George, Larsons, Koeing & McCullough, 2000; Bergin, 1983). A recent review of the research on religion and mental health found that religious involvement consistently buffered against psychological distress (Levin, 2010). Religious service attendance has been found to be correlated with a decline in anxiety and depression (Jansen, Motley & Hovey, 2010). It was also correlated with weak protection against depression and suicidal ideation in adolescent women (Rasic, Kisley & Langille, 2011). Religion has also been shown to provide social support and encouragement for healthier lifestyle choices, such as minimizing drinking, which in turn encourages better mental health (Hackney & Sanders, 2003). Faith-based engagement has been shown to decrease depression by increasing social support as well as creating a network of sustained beliefs reinforced by other members of the group. Frequent attendance has been shown to increase that feeling of social support. One study found that individuals who attended church more frequently reported feeling that their congregation was more cohesive and therefore offered stronger social support (Ellison, 2009). Therefore, this

thesis will hypothesize that there will be a strong and significant negative correlation between faith-based engagement and depressive symptoms.

It is important to briefly mention two other kinds of social capital often mentioned in the literature, though they are beyond the scope of this thesis. Bridging and bonding social capital are types of social capital introduced by Robert Putnam in his book *Bowling Alone* and have since been used to discuss issues pertaining to mental health in multiple studies (De Silva, McKenzie, Harpham & Huttly, 2005; Kim, Subramanian & Kawachi, 2006). Bonding social capital is defined as social capital within communities, while bridging social capital occurs outside of or between communities, often in groups or organizations. Bonding social capital is often seen as a necessary precursor to bridging social capital and bridging social capital is often seen as the kind of capital that individuals leverage to get ahead socially. The presence of high bonding social capital buffers against stress by providing a social support mechanism. This can be through community or close-knit social network support, where neighbors, friends and families provide social support networks for each other. High bridging capital also buffers against stress with social support and integration through civic or faith-based engagement. This data set does not contain adequate measures to fully assess bridging and bonding social capital, so these two types of social capital are not examined in this thesis.

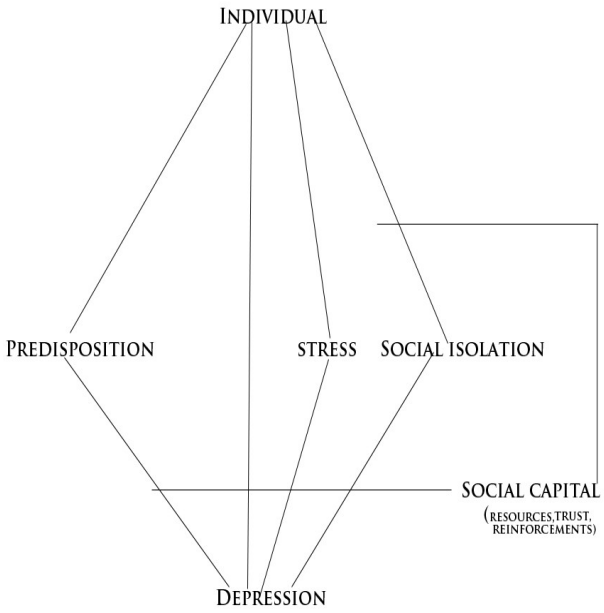
Negative Social Capital

Negative social capital is a new kind of social capital being discussed and merits a brief discussion for both its theoretical and practical implications on mental health. It was most famously outlined by Alejandro Portes, who discussed four negative dimensions of social capital: exclusion of outsiders, excess claims on group members, restrictions on individual freedoms and downward leveling norms (1998). For instance, one study found that in poor communities, a

parent's attachment to the community was positively correlated with their child's behavioral problems (Caughy, O'Campo & Muntaner, 2003). Another study found that individuals in poor communities who were more tightly tied into their community felt they had less control over their lives (Moore, Daniel, Gauvin & Dube, 2009). Negative social capital has some interesting theoretical implications for social capital researchers, as an addition to the basic theory of social capital. It is almost tautological in Coleman's original theory that social capital is a positive social capital defined by the benefit derived from the individual's original investment. Negative social capital implies that that same investment can be undertaken for a negative benefit. The second negative facet of social capital, excess claims on group members, has been found to negatively affect some individuals with high civic engagement and is the clearest intersection of mental health and negative social capital. Individuals who are overburdened and over-obligated are clearly more likely to experience stress, which can negatively impact mental health. It is also noteworthy that the majority of studies on negative social capital are related to bonding social capital, though one study did find lower mental health in individuals who were involved in a large number of organizations in an impoverished neighborhood, which was ascribed to over-obligation (Mitchell & LaGory, 2002).

The following diagram indicates the mechanism of action by which social capital decreases depressive symptoms at a various points. Three inputs are shown that lead to an expected output of high depressive symptoms. Stress is the compilation of all the negative affective and instrumental pressures on an individual that could create depressive symptoms. This thesis cannot directly measure stress and can only measure long-term depressive symptoms. However, a large body of social science research has studied the relationship between stress and depression (Kessler 1997, Mazure 1998, Monroe & Hadjiyannakis 2002, Paykel 2003, Tennant

2002). Predisposition implies the possibility of a genetic or biological component to depression, which has been proposed by many scientists. Though this measure is beyond the scope of this thesis, it is included for completeness. Social isolation is simply an individual's lack of social capital, which has been shown on multiple occasions to be highly correlated to depression (Roberts, Kaplan, Shema & Strawbridge, 1997; Thoits, 1983; Chesney, 1993). There are other components and inputs leading to higher depressive symptoms, but the above theoretical model



emphasizes three of the main inputs in order to show how social capital interacts differently with these inputs to decrease depressive symptoms.

Theoretical Mechanism

Figure 1: Theoretical Mechanism

The input most easily influenced by social capital is social isolation. Individuals with high levels of social isolation lack affective social capital, which in turn leads to a lack of social resources and social support as coping mechanisms. An introduction of social capital, such as increased civic or faith-based engagement, can also decrease depressive symptoms by increasing the individual's access to resources. Studies have shown that interventions that decrease social isolation among the elderly decrease depressive symptoms (Andersson, 1985; Caserta, 1996). In addition, social capital provides individuals with access to reinforcements and coping mechanisms via social support structures. This can help buffer against high depressive symptoms and allow a decreased amount of stress. It can also provide social reinforcement and access to acceptance, which can validate the emotional distress individuals may experience, thereby providing another venue to decrease depressive symptoms. This theoretical mechanism shows how social capital works to alleviate high depressive symptoms. Based on the assumptions listed above, several hypotheses are formulated; that is, the coping mechanisms, reinforcements, social support and erasure of social isolation provided by high social capital all contribute directly and indirectly to a decrease of the depressive symptoms.

Social capital cannot directly affect biological predictors, but it can alleviate some of the negative effects by providing individuals with coping mechanisms and societal support. As the diagram illustrates, biological predictors can be mediated or moderated by social capital. Unfortunately, these assertions cannot be tested in this study.

Cultural Influences

Despite a recent trend toward more women entering the work force and becoming better educated, Thailand still has many hallmarks of a highly patriarchal society. While Thai women are often better off than women from other Southeast Asian countries, patriarchal values and

norms are prevalent in Thailand. Patriarchal societies are characterized by women having lower social status and less access to resources. Women are often considered second class citizens and inferior to men (Willis, 1985; Tantiwiramanond, 1997). Cultures that devalue women also have higher rates of domestic violence and more acceptance of domestic violence (Counts et. al., 1992). Women experience more depression in societies where they are undervalued (Kuehner, 2003). However, a review of 29 countries showed that women in low gender equity countries experienced more depression overall, though the sex gap was higher in high gender equity countries (Hopcroft & Bradley, 2007). This could be theorized as role acceptance in that a woman accepts her role in society and doesn't recognize the inequality inherent in the system.

The main religion of Thailand is Theravada Buddhism, which plays an important role in building cultural norms in Thailand. Because 94.6% of Thai residents identify themselves as Buddhist, the traditions of this religion play a strong part in guiding norms, including the treatment of women. According to religious doctrines, Thai women are not allowed to become Buddhist monks or take time off work for religious training. If they work hard to earn karma, they will become men in their next lives. This common religious belief places Thai women as second-class citizens who can strive to achieve first class only in the next life. It is believed that women should be obedient to their husbands and expected to be more passive than men. With this in mind, the statistical analyses will control for traditional gender ideologies and decision-making power in the relationship in order to be cognizant of cultural factors. For the same reason, religious affiliation will be taken into consideration.

As mentioned previously, East Asian societies such as Thailand exhibit a high level of collectivism dissimilar to widespread individualism in Western countries that affects the development and transmission of social capital within Thai society. One study found that

collectivist cultural values in East Asian countries buffered against depression (Chiao & Blizinsky, 2010). The interplay of cultural capital and social capital in East Asian societies means that social relationships, especially affective social networks and kinship networks, are more important than in Western societies, which emphasize individuality over collectivism.

Hypotheses

By way of concluding this chapter, three hypotheses formulated previously are reiterated below.

H1: Kinship- and friendship-based social capital will be negatively associated with depressive symptoms due to the social reinforcement and coping mechanisms provided by regular and positive social contact such as visitation.

H2: Civic engagement will be negatively associated with depressive symptoms because of the associated social participation, reinforcement and access to a wider social network.

H3: Faith-based engagement will be negatively associated with depressive symptoms because of the social support provided by shared spiritual activities, social and cultural reinforcement and access to coping resources.

Chapter 3: Methods and Data

This thesis uses survey data from a cross-sectional study of married women in Bangkok, Thailand in 2000. Approximately 1, 340 married women were originally contacted, using a multistage probability cluster sampling technique. Five districts were randomly selected from each of the five geographic regions inside Bangkok. From these twenty five districts, four blocks were randomly chosen from each major street within the selected districts, for a total of 204 blocks. From these blocks, four housing units (some contained multiple households) were chosen through a systematic random sampling procedure. Finally, one married woman from each household was contacted. Out of the original group contacted, 816 agreed to be interviewed, a response rate of 61%. Five women were excluded because they had been married less than six months at the time of the study. A listwise deletion of data based on the dependent and independent variables yielded a final sample of 794 respondents.

The survey instrument was created in English and translated into Thai. In order to check the translation accuracy, it was back-translated into English by a native Thai speaker. Every effort was made to consider unique Thai cultural and grammatical issues when developing the survey. This survey instrument was pre-tested on twenty married Bangkok women who lived in districts not selected for the project, and minor revisions were made accordingly. The revised instrument was then used in face-to-face interviews that were conducted by ten trained professional interviewers. All survey interviews took place in the respondent's home and lasted forty minutes, on average.

Interviewers were required to attend a three day intensive training workshop because of the sensitive nature of the survey. This workshop consisted of lectures on important cultural facets, interview practice and evaluation that focused on the importance of the survey project.

Interviewers were trained to only survey the respondents when husbands were not present. In the event that an interview began and the husband returned home, interviewers were told to end the interview. The study was approved by a university's institutional review board and informed consent was obtained from all participants.

Dependent Variable

The dependent variable used in this thesis is an index variable composed of twenty questions that address the most common depressive symptoms, based on the Center for Epidemiological Studies Depression Scale (CES-D). The dependent variable (an index) had a Cronbach's alpha of .81, indicative of high reliability or internal consistency. Respondents were asked on a scale from Never (1) to Very often (5) how often they: (a) were unusually bothered by things, (b) had poor appetite, (c) could not shake off sadness, (d) felt just as good as other people, (e) couldn't concentrate, (f) felt depress, (g) thought everything was an effort, (h) felt hopeful about the future, (I) felt life had been a failure, (j) felt fearful, (k) experienced restless sleep, (l) felt happy, (m) talked less than usual, (n) felt lonely, (o) felt people were unfriendly, (p) enjoyed life, (q) had crying spells, (r) felt sad, (s) felt other people disliked you and (t) felt you could not get going. The index variable was created by summing up the 20 items with higher scores indicating higher levels of depressive symptoms.

Major Independent Variables

There are six major independent variables used to investigate the effects of a spectrum of social capital. Respondents were asked 1) how often their parents, 2) siblings or 3) friends visited them, 4) how often they visited their friends, 5) how often they attended religious events and 6) how often they attended non-religious groups or meetings. Each variable was measured from

Very Often (5) to Never (1). The following table indicates the frequency distribution of each variable.

The first four variables measure social capital in terms of friendship and kinship networks. Parental and sibling visits are dummy-coded because the original variables included a sixth category, parents or siblings who live with the respondents. There are a large number of possible economic, medical or social reasons a parent or a sibling might reside with an adult child or sibling, many of which do not necessarily reflect social capital. Therefore, both the parental and sibling visitation variables were recoded to eliminate the sixth category, with the "never visit" category serving as the reference. This design allows a stronger focus on the social network capital provided by those sources. The friendship variables are left as rank-ordered variables (a continuum is assumed to underlie the rank-ordered categories) since they do not include the problematic sixth category. Both how often respondents visit friends and how often friends visit respondents are included as measures of social network capital because both acts show a maintenance of social networks and will theoretically increase or maintain respondent's social capital.

Attending religious events measures faith-based engagement. The frequency of attendance was used as a proxy for the strength of social capital within a community of shared beliefs. Respondents who attend more often can augment their social networks and increase their access to social support. By the same taken, attendance at meetings outside the home is a proxy measure of civic engagement that indicates how invested respondents are in communities or

groups, which in turn can give them access to more social capital resources and prevent social isolation. Both variables were recoded such that 1 = Never and 5 = Very often.

Control Variables

A wide array of control variables was included in this study. These controls include the respondent's age, employment status, monthly income, education level and whether or not she identified herself as religious. Husband's monthly income was included as well. The following table shows the percentages and means of the control variables utilized in the statistical analysis.

The mean age for this study sample is 39. Since only married women were selected for the study, the age distribution is toward middle age. The income variable was recoded into a categorical variable with each category being equidistant. For the religiosity variable, respondents were asked to describe whether they were religious or not, which was dummy-coded. Interestingly, a large proportion of respondents described themselves as non-religious despite the fact that the vast majority of the Thai population self-identified themselves as Buddhists. The religious identity was dummy-coded so that the effects for Muslims and Christians were compared against that of being a normative Buddhist in order to estimate the effect of being affiliated with a religious minority in a country that is predominantly Buddhist.

The education variable indicates an interesting dichotomy. The majority of respondents had less than a primary school education but of those who had an education above primary level, the majority had a bachelor's degree. This helps explain, in part, Thai women's struggle with the treatment of women in a society transforming from traditional to non-traditional gender roles. In addition, most of the women in the sample worked full time, indicating that the gender

traditionalism often present in Thailand is in sharp contrast to the number of women who have careers outside the home.

Depression Controls

Several non-traditional controls were included in the analysis because they were theoretically linked to depression. These were dichotomized psychological abuse, physical abuse and sexual abuse, traditional gender ideology, marital decision-making power, arranged versus free choice marriage, alcoholism, and number of children.

The average number of children in the sample was two. Traditionally, especially in societies where caretaking was seen as the woman's role, a large number of children could be a stressor on a woman, since it would lead to more caretaking responsibilities and an increased financial burden (Weissman, 1987; Baruch, Biener, Barnett & Rosalind, 1987). Husband's work status was also included as a control variable because of the presumed impact on finances of respondent's husband's work status. Arranged marriages are a slowly fading Thai tradition. This variable was included as a control for cultural factors and to determine if the nature of the marriage impacted respondent's depression. Alcohol consumption has long been linked to depression, both as a comorbidity and as an exacerbation of already present depression (Skaff, Finney & Moos, 1999; Greenfield et. al., 1998; Davidson, 1995). There is a clear gender differential in the frequency of alcohol consumption in Thailand—women rarely or never drink. Moreover, a dichotomized variable was established for whether respondents were currently living with their parents, which might reflect extra caretaking responsibilities or poor financial status. Both of which would be expected to exacerbate depressive symptoms respondents experience.

Traditional gender ideology was measured by ten questions: (a) a women's place is in the home, (b) a woman's most important task is to take care of her husband, (c) taking care of the

children is the job of the mother, (d) a working woman should give up her job whenever it is inconvenient for her husband, (e) a working mother should give up her job whenever it is a hardship for the children, (f) a woman should not try to get ahead in the way a man does, (g) a man's chief responsibility should be his job, (h) a man is the head of the household, (i) financial support of the household is the job of the husband, and (j) a husband has more responsibility to enforce rules for the children than a wife. These questions were rated from strongly disagree (1) to strongly agree (4). Gender ideology was then calculated as an indexical mean of the previous ten questions, with higher scores indicating higher level of traditional gender ideologies.

The husband's decision-making power in the relationship was similarly calculated by asking eight questions about who should have more authority in matters of (a) when to have children, (b) number of children to have, (c) when to have sex, (d) who initiates sex, (e) where to live, (f) what job a wife works, (g) whether a wife should work or not, and (h) how much money should be spent on food per week. Questions were rated from wife always has the power (1) to husband always has the power (5). These values were once again summed into a mean index variable, with higher scores indicating more decision-making power for the husband.

These two variables were included as controls to control for the effects of traditional gender roles and unequal power relationships in the marriage, which could be expected to be affect depressive symptoms by unbalancing the power in a pivotal social relationship. These are also factors that are still prevalent in Thai society, which has a more recent history of devaluing women and making them lesser partners in marital relationships. However, the mean values for both measures show that most Thai women favor more egalitarian relationships.

Three dichotomized abuse variables were included as controls. Each was dichotomized from a larger index variable by recoding absence of abuse into 0 and presence of abuse into 1.

Survey questions were taken from the Revised Conflict Tactics Scale (Straus, Hambey, Boney-McCoy & Sugarman, 1996). For psychological violence, respondents were asked how often their spouse (a) shouted or yelled at them, (b) stomped out of the room or house or yard during a disagreement, (c) insulted or swore at them, (d) called them names (e) accused them of being a poor lover, (f) destroyed something belonging to them, and (g) threatened to hit or threw something. The response categories were coded from never happened (0) to more than 20 times in the past year (6). For physical violence, respondents were asked how often their spouse: (a) grabbed them, (b) pushed or shoved them, (c) threw something that could hurt them, (d) slapped them, (e) twisted their arm or hair, (f) kicked them, (g) punched or hit them with something that could hurt them, (h) slammed them against the wall, (I) choked them, (j) burned or scalded them, (k) beat them up, and (l) used a knife or gun on them. The response categories were coded from never happened (0) to more than 20 times in the past year (6). Finally, for sexual violence, respondents were asked how often their partners forced them to (a) have sex without a condom, (b) have sex with physical force, (c) insist on having sex when they didn't want to, and (d) make them perform oral or anal sex. Once gains, the response categories were coded from never happened (0) to more than 20 times in the past year (6).

These dichotomized abuse variables were included because of the expectation that being in an abusive marriage would have a dramatic impact on depressive symptoms due to the trauma and psychological impact of abusive behaviors. By controlling for this behavior within the marriage, the effects of social capital despite such events can be more easily examined. Dichotomized variables were used over index variables in order to clearly see the effects of high abuse.

Analytic Strategy

The index variable of depressive symptoms was regressed on the control and major independent variables as a series of nested multiple linear regression models. Ordinary least squares (OLS) regression was chosen because the preliminary data analysis indicated that the dependent variable was almost perfectly normally distributed. Thus, no transformation was deemed unnecessary. One OLS regression model was estimated with only the control variables, and then five more models were run testing how often parents visited the respondent, how often siblings visited the respondent, how often the respondent visited friends and was visited by friends, how often the respondent attended meetings outside the home and how often the respondent attended religious events. These nested models had the same number of cases so as to facilitate cross-model comparisons. A full model was fit using all major independent variables as well as the control variables. Collinearity checks were performed on each model and no problems surfaced. This nested modeling strategy allowed an estimation of the robust effects of the independent variables on the dependent variable.

Chapter 4: Results

Model 1 in Table 4 is the baseline model. It displays the regression effects of statistical controls without the effects of key independent variables. Some interesting findings emerged from this regression model. As can be seen from the table, husband's employment is significantly associated with the wife's depressive symptoms. As expected, physical abuse experienced by the Thai wife significantly increases their depressive symptoms. However, contrary to our expectations, neither psychological abuse nor sexual abuse is a good predictor of Thai wives' depressive symptoms. The lack of significance for sexual abuse in the sample might be due to the fact that very few respondents reported such experience. Consistent with research expectations, husband's monopoly of decision making power in the relationship is significantly and positively associated with depressive symptoms. Finally, it is noted that both husband's income and respondent's income are significantly and negatively associated with depressive symptoms, indicative of the buffering role of socio-economic resources against depression.

While the remaining controls are insignificant in the model, a few offer some interesting theoretical insights. Consistent with prior research, traditional gender ideology is negatively associated with depressive symptoms, though it is not statistically significant. It is speculated that because of the role agreement, women who hold traditional gender views in traditional societies such as Thailand are more likely to experience less stress. Education is also insignificant but positively associated with depressive symptoms, which may demonstrate possible stress from non-traditional gender roles, since well-educated women may experience more stress by breaking away from gender traditionalism.

Social Capital: Kinship/Parent Ties

Table 5 displays the effects of various kinship- and friendship-based social capital measures on depressive symptoms. The regression parameter estimates in Model 2 indicate that only the category of frequent parental visit is statistically significant (at the .01 level) and strongly and negatively associated with depressive symptoms. This means that net of statistical controls Thai wives whose parents visit them often reported significant lower levels of depressive symptoms as compared to their counterparts whose parents never visit them. This provides partial support for Hypothesis 1 by confirming the theorized expectations regarding the strength and direction of the effects of kinship-based social capital.

Social Capital: Kinship/Sibling Tie

Similarly, the regression coefficients in Model 3 show that holding other variables constant Thai wives whose siblings visit them very frequently and frequently reported significantly lower levels of depressive symptoms as compared to those whose siblings never visit them. Since both categories are strongly and negatively associated with depressive symptoms, the findings provide further support for Hypothesis 1.

Social Capital: Friendship Ties

As can be seen from Model 4 in the same table, two variables were used to measure friendship-based social capital. Consistent with Hypothesis 1, on average respondents whose friends visit them experience less depressive symptoms than those whose friends are not regular visitors. However, contrary to our theoretical expectations, whether respondents visit their friends is not statistically significant in the model, and it is surprisingly positively associated with depressive symptoms. This could be a manifestation of reciprocal responsibilities and obligations as implied by the theory of negative social capital (or coercive social capital),

namely, respondents who visited their friends often might feel over-burdened or socially distressed.

Taken together, the regression models included in Table 4 indicate that nearly all forms of kinship and friendship based social capital can help alleviate depressive symptoms in urban Thailand. As expected, strong primary group ties such as basic social kinship and friendship networks are the fundamental social fabrics in today's Thailand, a collective society that fosters social connectedness and reduces depressive symptoms. On the other hand, social capital generated by respondents is statistically negligible.

Social Capital: Civic Engagement

Model 5 in Table 6 tests the independent effect of civic engagement on depressive symptoms. The regression coefficient suggests that there is a significant (at the .001 level) and negative association between meeting participation outside the family and depressive symptoms. More specifically, the regression result shows that else being equal as the frequency of formal or informal meeting attendance outside the home increases, the severity of depressive symptoms decreases. As a result, Hypothesis 2 is statistically supported, suggesting that individuals who have a brood social support network away from home are socially engaged thus experiencing less depressive symptoms.

Social Capital: Faith-Based Engagement

Model 6 in Table 6 estimates the effects of faith-based engagement on depressive symptoms among married Thai women. The regression coefficient shows a significant (at the . 001 level) and negative association between attendance at religious activities and depressive symptoms. More specifically, the significant result indicates that net of statistical controls as the frequency of religious participation increases, the severity of depressive symptoms decreases. This regression result lends credence to Hypothesis 3. Since religious communities tend to focus on social as well as spiritual support, they offer unique opportunities for individuals to access social capital resources and build support networks, which in turn can help reduce social isolation and stress, thus decreasing depressive symptoms.

Unlike social capital derived from primary group affiliations such as kinship and friendship ties, the above two regression models estimated the effects of social capital based on secondary group affiliations or public social networks, namely civic and faith-based engagement. Consistent with other forms of social capital, frequent civic engagement and participation in religious activities in urban Thailand can buffer against depressive symptoms. These results systematically support the Hypotheses 2 and 3.

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Social Capital: Combined Effects

Model 7 in Table 7 is a full regression model with all independent variables included. A careful examination suggests that only three social capital variables remain statistically significant, indicating that the effects of parental visit, sibling visit and civic engagement are not as robust as the other social capital measures. While the frequency of friends' visitation and

faith-based engagement continuously and robustly support Hypothesis 1 and Hypothesis 3, the frequency of respondents' visitation is significant but opposite to the hypothesis. Since civic engagement became statistically insignificance as other social capital variables were added to the full model, Hypothesis 2 is only partially substantiated. Substantively, this means that civic engagement in urban Thailand may not offer as much social support as it has been theorized.

Both friendship tie variables were significant in the full model. However, the frequency with which respondents visited their friends was positively associated with depressive symptoms, suggesting that respondents who visited friends frequently were prone to experiencing more depressive symptoms. As commented previous, this may stem from a sense of over-commitment or obligation that can become a source of distress.

The most significant key independent variable was the frequency of friends' visitation. While familial visits had a negative association with depressive symptoms, they were no longer statistically significant in the full regression model. This can be explained by the nature of close interpersonal friendship ties which can be less obligatory than familial visits.

The last key independent variable that was significant in the full model was faith-based engagement, measured by how often respondents attended religious events. Because religion can enhance community cohesion via shared rituals, faith oriented network interactions and broadened social support it is not difficult to observe stronger and more systematic buffering effects exhibited by faith-based social capital on depressive symptoms than that of civic engagement. In other words, religious communities can create shared and stronger social capital than civic engagement that is more instrumentally oriented.

Chapter 5: Discussion and Conclusion

The goal of this thesis was to explore three types of social capital and their effects on depressive symptoms in a non-Western society. By examining how social capital is linked to depressive symptoms in urban Thailand, we observed systematic mitigating effects of all three dimensions of social capital on depression. While only two of the original three hypotheses were supported by more stringent statistical tests, there is clear support for the notion that social capital can help reduce depression in a non-Western society, which warrants further discussion.

Civic Engagement

The first major finding of this thesis was that civic engagement as a form of social capital was significant in the reduced regression model. The result showed that civic engagement was negatively associated with depressive symptoms, suggesting that attending formal or informal meetings or gatherings outside of the home can help married Thai women better copy with depressive symptoms in urban Thailand. This finding is congruent with the previous scholarship on civic engagement in that civic engagement is conceptualized as a positive force in battling depression and considered as a promising and effective avenue by which individuals can generate and receive social capital.

However, this result was eclipsed in the full regression model; that is, the regression coefficient was no longer statistically significant as more confounding factors were considered. This less robust finding might be attributable to the nature of civic engagement that is more instrumental than affective. Indeed, individuals can meet for achieving a specific political or social goal that is less personal. Referring back to the original theoretical argument, this finding means that though civic engagement does decrease social isolation and offers social reinforcement through self-worth, it does not, however, necessarily provide or give access to rich

coping mechanisms. In other words, civic engagement is so outwardly focused in the public sphere that may not have the same sense of belonging as faith-based engagement. In the context of Thailand, civic engagement may not offer the same amount of social or cultural capital as religious networks. For example, Buddhist rituals and events are shared by an overwhelming majority of the population such that it can produce an enormous extended network for the participants as a source of spiritual, emotional and social support and mutual aid.

Faith-Based Engagement

This thesis also found that Thai women who frequently attended religious events outside the home could better cope with depressive symptoms. This finding is consistent with an emerging body of research conducted in the West and supports the idea that religion/ spirituality is a positive force and source for social and emotional support. For instance, religious ceremony is inwardly focused with an emphasis on shared belief and practice. It lends itself to internal collectivism by creating a group bound together by similar beliefs, which can create and foster social resources in a way civic engagement cannot. It encourages affective social capital. This focus makes it easier for faith-based networks to be a source of social support and social reinforcement.

In a society with a state religion that is such a large part of its identity, there may be another reason for the strong effect of faith-based engagement. Since Buddhism is a Thailand's state sanctioned religion, participating in religious activities outside the home may allow the respondents to generate both cultural and social capital, thus decreasing depressive symptoms.

Social Networks

Three kinds of social network variables were explored in this thesis. All three of these variables provided support for the social capital hypotheses formulated earlier in this study.

Parents and siblings are part of the same kinship network. In a collectivist society such as Thailand, kinship networks are expected to remain both physically and socially close. Adult children are expected to care for their parents and grandparents. Families are expected to be a unit with members sharing common goals. Children often send remittance to their parents when they are employed. Due to the expectations of modern life and the rise of the two income household in Thailand, studies find that fewer families are able to care for the elderly as well as before (Caffrey, 1992). But the social expectation about familial closeness is still in place. While kinship social capital was not significant in the full regression model, parents' frequent visit was shown to be significantly and negatively associated with depressive symptoms in the reduced models. This is also the case for siblings' visit. Taken together, these findings suggest that strong social networks within kinship groups can decrease depressive symptoms in urban Thailand.

The lack of significance of the kinship network variables in the full regression model implies that though societal norm expects adult children to visit their parents or siblings, this type of association may not be as powerful as friendship networks in providing support for those who suffer from depression. Albeit less robust, this finding does support the idea that kinship networks can reduce depressive symptoms through increased familial interactions and decreased social isolation. It is recommended that parental and sibling relationships should be more carefully studied in relationship to depressive symptoms in both collectivist and individualistic societies.

Of all the social capital factors tested in this thesis, the friendship variable provides the strongest and the most direct support for the argument that social capital can decrease depressive symptoms. It was shown that individuals whose friends visited them more often received the benefits of high social capital. Since friendship ties are more social than any other kinds of

capital discussed here, it can directly reduce depressive symptoms. This result affirms the idea that high social networking capital, with other variables controlled for, can directly decrease the negative effects associated with high depressive symptoms. This agrees with the current literature and adds additional insights into a mostly unexplored culture, as well as adding support for the social capital hypothesis.

There is also an interesting finding pertaining to negative social capital. This study tested how often respondents visited their friends as an indicator of mutual obligation or pressure for reciprocal visits. It turns out that respondents' visit to friends increased depressive symptoms among married women in urban Thailand. Though the root cause of this significant but unanticipated effect is unknown, it does lead to a possible advancement of the theory on negative social capital. While friendship ties are routinely conceptualized as positive social relationships, the reciprocal and coercive nature can yield negative effects on individuals' mental health, especially when these ties become overwhelming obligations.

This thesis substantiates the idea of social capital as a positive force that decreases depressive symptoms by offering social support, reinforcements and coping mechanisms, which can act in concert to reduce social isolation. In this sense, a social capital approach is important for researchers to better understand mental health issues and concerns. It has enormous practical implications in treating mental health diseases such as depression.

Directions for Future Research

Before concluding, a few caveats in the study should to be addressed. First, the survey data used in this thesis are cross-sectional, capturing only a snapshot of the respondents' possession of social capital and experience of depressive symptoms. Depression is a disease that has, as one of its manifestations, a propensity to make individuals disinterested in leaving the

home or interacting with others. The absence of the longitudinal measures can create a serious research problem known as the selection bias. In other words, without knowing the onset of depression and the temporal order of social capital formation and depression, respondents who were less engaged in civic or religious activities could be due to the fact that they were more depressed. This is a problem that plagues social capital research and can only be mitigated by longitudinal data.

Though the findings add valuable information and support to the theory of social capital and mental health, this study is generalizable to a subset of the Thai population, namely, married Thai women. Future research should collect information from Thai respondents that represent the characteristics of the general population. Moreover, since gender and ethnicity influence the formation of all forms of social capital, gender and ethnic comparisons in urban Thailand should be considered in the near future.

As conceded previously, this study relied on a secondary dataset with limited number of social capital measures. Most notably, information about how social networks are formed and developed is unavailable. In addition, a more developed cultural approach should be considered along with the social capital theory as respondents who are from a collective culture with tighter extended family relationships may create and maintain different social capital with their family than those from a more individualistic culture with less expectation of familial closeness. Similarly, the way friendships are cultivated and maintained in Thailand is an important but intricate concept which remains to be fully captured and studied in the future. Qualitative studies such as in-depth interviews could nicely be triangulated into the survey data used for this thesis. This promising venue for future research should be pursued by scholars who conduct cross-cultural studies on social capital and mental health.

The notion of negative social capital, a rising field, could benefit future studies. At times social bonds can be coercive and the associated cost can be high. It is in this context that coercive social capital can create a negative burden of obligation on the individuals who utilize it the most. Unfortunately, due to the data limitation, this idea cannot be adequately tested in Thailand. Consequently, how negative or coercive social capital affects depressive symptoms or any other mental health outcomes in a collective culture remains to be explored in the future.

Thailand is a Southeast Asian country with rising rates of depression and rich social capital. Like its neighboring Buddhist countries, Thailand is characterized by traditional gender roles and social values. With a rapid movement toward urban centers thus away from traditions such as arranged marriage, it is a land in transition with strong influences from both religion and traditional cultural norms (Limanoda, 1995; Quicker, 2002). Thailand is a collectivist society that stands in stark contrast with the individualistic West. It emphasizes social support and values tightly netted kinship networks. As such, a high level of social capital and the stigmatization of poor mental health are not unexpected. It thus provides an excellent study site to test the relationship between social capital and mental health.

As revealed in this study, there is a clear and strong association between multifaceted social capital and depressive symptoms in urban Thailand. In particular, faith-based engagement and social networks are found to be the most significant kinds of social capital that buffers against depressive symptoms among married women in urban Thailand. These research findings can be used as guides for future cross-cultural studies on social capital and mental health in Buddhist societies. These future endeavors can continue to elucidate the role of social capital in the worldwide fight against depression as a common outcome of poor mental health.

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