The Chinese Mental Health Value Scale: Measuring Chinese College Students’ Cultural Values, Values of Mental Health, and Subjective Well-being

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Abstract

Mental health is a value laden phenomenon. It may be perceived and experienced differently by people from different cultural backgrounds or having different cultural values. Understanding cultural specific mental health values is necessary for any helping professions aiming at improving mental health services. The current study developed and validated a Chinese Mental Health Value Scale (CMHVS) in hope of aiding the effort to provide effective counseling to Chinese college students in China and around the world. The scale was developed by following DeVellis (2011) method step by step. Literature review, focus groups and a brief survey were used to generate a preliminary item pool. A pilot study was conducted to evaluate and improve prospective items. Using Qualtrics, the final data collection yielded a sample of 1058 Chinese college students. For statistical purposes, the sample was randomly split into two subsamples for EFA and CFA respectively. The analysis resulted in a 35-item, seven-factor model of Chinese mental health values for college students with strong psychometric quality. The seven factors are Expected Self, Relating to Others, Life Principle, Family, Purpose and Meaning, Achievement and Communication Style. To test the validity of the scale, four reference measures were used to examine its convergent validity. It was found that CMHVS was positively related with the Cultural Orientation Scale (Triandis & Gelfland, 1998), Asian Values Scale (AVS; Kim, Atkinson & Yang, 1999), and Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). Only factor 1 (Expected Self) was negatively related to Depression and Somatization subscales of the Brief Symptom Inventory-18 (BSI-18; Derogatis, 2000). Limitations and implications to future research were discussed.

**Keywords:** Mental Health, Chinese Cultural Values, Mental Health Values, Chinese College Students
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# Table of Contents

Abstract ........................................................................................................................ iii
Acknowledgements ....................................................................................................... iv
Table of Contents ......................................................................................................... vi
Chapter I: Introduction ................................................................................................. 1
  The Present Study ........................................................................................................ 5
Chapter II: Literature Review ....................................................................................... 7
  Definitions of Value ..................................................................................................... 7
  Development of Value Research ............................................................................... 8
  Theoretical Value Models ......................................................................................... 9
  Critique and Challenges of Cross-Cultural Value Studies ....................................... 12
    Limitations of cross-cultural value studies ............................................................. 12
    Limitations of specific Asian cultural value measures ........................................... 14
  Meaning of Mental Health ....................................................................................... 15
  Existing Measures for Mental Health ...................................................................... 16
    Summary of limitation of value and mental health measures .............................. 17
  Chinese Values related to Mental Health ................................................................ 18
    Relationship ............................................................................................................ 19
    Face ......................................................................................................................... 20
    Harmony .................................................................................................................. 21
    Hierarchy .................................................................................................................. 22
    Familial responsibility ............................................................................................ 23
    High context communication ................................................................................ 23
    Impact of Confucianism, Taoism, and Buddhism .................................................. 25
    Dialecticism ............................................................................................................. 27
  Import of Western Ideology to China ...................................................................... 29
  Modernization of Chinese in Contemporary Society .............................................. 30
Chapter III: Methods .................................................................................................... 33
  Study Design ............................................................................................................. 33
  Step 1: Construction of Preliminary Items Pool ......................................................... 33
    A brief survey .......................................................................................................... 33
    Focus groups .......................................................................................................... 34
    Expert review ......................................................................................................... 36
  Step 2: The Pilot CMHVS ......................................................................................... 37
    Purpose ..................................................................................................................... 37
    Participants and procedure ..................................................................................... 37
    Measures .................................................................................................................. 37
  Step 3: Construction of the Final Scale ................................................................... 38
    Procedure ................................................................................................................ 39
    Data Cleaning and Preparation. At the conclusion of data collection, ................. 39
    Participants .............................................................................................................. 40
    Measures ................................................................................................................ 40
  Step 4: Convergent Validity of CMHVS ................................................................. 40
    Primary measure ..................................................................................................... 40
    Referent measures ................................................................................................. 40
Appendix H-1: Asian Values Scale (AVS; English version) .......................................................... 114
Appendix H-2: Asian Values Scale (AVS; Chinese version) ...................................................... 115
Appendix I-1: Satisfaction with Life Scale (SWLS; English version) ........................................ 116
Appendix I-2: Satisfaction with Life Scale (SWLS; Chinese version) ....................................... 117
Appendix J-1: The Brief Symptom Inventory-18 (BSI; English version) ............................... 118
Appendix J-2: The Brief Symptom Inventory-18 (BSI; Chinese version) ............................... 119
Chapter I: Introduction

“I view culture as the rich complex of meanings, beliefs, practices, symbols, norms, and values prevalent among people in a society. The prevailing value emphases in a society may be the most central feature of culture… These…express shared conceptions of what is good and desirable in the culture, the cultural ideas. Cultural value emphases shape and justify individual and group beliefs, actions, and goals. Institutional arrangements and policies, norms, and everyday practices express underlying cultural value emphases in societies.”

----Schwartz, 2006. P. 138-139

Values reflect the most central feature of a society or a culture. They shape individual’s attitudes, beliefs, goals, actions, and life-styles, as well as institutional arrangements and policies (Schwartz, 2004). Many theorists, researchers, and practitioners have recognized and acknowledged that different cultures have different conceptions about what constitutes mental health, and how mental health values influence the way people present psychological problems, their belief about the problem etiology and help seeking behaviors, as well as perceptions of individuals’ healthy emotional adjustment (Suan & Tyler, 1990; Atkinson, Morten, & Sue, 1998). However, there is little agreement about specific domains and components of mental health, especially when it is examined in cultures where there hasn’t been significant research on mental health and related topics. China is one such example.

Mental health is a culturally constructed and socially defined concept, and mental health counseling theories and practice should be built upon given cultural values that dictate how mental health is defined and how it is pursued or achieved. What is considered healthy in one culture could be deemed unhealthy even morbid in another, and what is thought an effective counseling method may or may not hold its validity in another culture. In recent years, these
issues have elicited much discussion as counseling practice that originated in Western culture found itself in the midst of the westernization movement in various parts of the world. In China, for instance, the counseling profession has developed from being basically non-existent to currently having a visible presence in many sectors of the society in just a few decades (Chang et al., 2005). To a significant extent, Western forces (both people resources and training and service material) have led the development of the profession, and Western theories and products have dominated the market for mental health service.

To understand what is mental health, there have been attempts to specify mental health domains pertaining to European American cultural values and these efforts have resulted in identification of divergent characteristics such as independence, autonomy (Strupp, 1980), self-acceptance (Hearn & Seeman, 1971), undistorted reality perception (Hearn & Seeman, 1971), self-actualization (Schultz, 1958), affective complexity (Seeman, 1959), and self-control (Shoben, 1957) as important components of mental health. On the other hand, cross cultural research has found significant Eastern and Western cultural differences regarding social structures (Hwang, 1987), construct of self (Gudykunst, et al., 1996), romantic love (Simmons, Kolke, & Shimizu, 1986), parenting attitudes and skills (Kriger & Kroes, 1972; Leung & Bond, 1982), attributional styles (Bond, 1986), emotional expression (McDermott et al., 1983), and communication styles (Beaulne, 2012). Thus, one can easily and reasonably question the practice of copying mental health criteria from one culture to another, namely from the United States or European cultures to China.

It is essential to understand how mental health is viewed in Chinese culture and how people achieve and maintain mental health and well-being (Kitayama & Markus, 2000). There are many reasons that we question if the foundational philosophies and assumptions inherited in many
current Western psychological theories are applicable in Chinese culture. At the present time, however, most definitions and measures of mental health adopted by the Chinese mental health system are rooted in European Caucasian middle-class value systems that value independence, autonomy, self-regard, explicit and direct communication, and so on. What’s more, due to the lack of systematic academic teaching and training in psychotherapy in Chinese college education systems, many counselors have to receive training out of school, where only Western theory based training is available. One example is that classical psychoanalysis has become very popular in China in recent decades which led to the observation that “Freudians put China on the couch” (Tatlow, 2010, http://www.nytimes.com/2010/10/29/world/asia/29iht-letter.html). There have been arguments that without indigenous cultural considerations, psychoanalysis in China has produced outcomes “out of context” (Zhong, 2011; Yang, 2011).

Counseling or psychotherapy is not, and should not be, a value free profession. In the existing multicultural counseling literature, there is evidence that clients of color are more likely to seek out and use mental health services when their values and beliefs are congruent with the interventions provided (Smith, & Griner, 2006). Researchers have also pointed out the “ill-fit” between the Western theories and various local cultures (Adams, et al., 2012; Okazaki, David, & Abelmann, 2008), and the potential danger of viewing western theories as universally applicable. Yang (2006), a Chinese scholar, pointed out that the uncritical adoption of Western psychology has resulted in a “culture-ignoring psychology”, “pseudo-indigenous psychology”, and “a distorted non-Western copy of Western indigenous psychology”(p. 299), which was inadequate in understanding, explaining or predicting local psychological phenomena. Yang proposed the definition of indigenous psychology as “a discipline that applies the scientific method to the study of psychological and behavioral phenomena of people in a specific ethnic or cultural group,
in such a way that the theories, concepts, methods, and tools used are highly compatible not only with the studied phenomena, but also with their ecological, economic, social, cultural, and historical contexts. Indigenous psychology is spontaneously, naturally, and gradually formed through an endogenous process without the intrusion and domination of a powerful alien scientific psychology” (p. 299).

Responsible scholars and practitioners should be mindful that effective counseling is to facilitate psychological growth and adjustment and bring positive therapeutic changes defined in a given cultural context. Wampold (2001) emphasized the need to explicitly incorporate the cultural values of the client into therapy. Research has shown that effective mental health services are to be designed for local contexts. Those Asian American clients living in ethnic neighborhoods of Los Angeles who attended psychotherapy specifically designed for them had better therapy outcomes than those who attended mainstream mental health services (Yeh, Takeuchi, & Sue, 1994). Griner and Smith (2006) conducted a meta-analytic review to examine the effectiveness of culturally adapted mental health intervention, and found an average effect size (d = .45) indicating a moderately strong benefit of culturally adapted interventions across 76 studies. Specifically, interventions designed to a local cultural group were four times more effective than interventions provided to groups consisting of clients from a variety of cultural backgrounds, and interventions conducted in clients' native language (if other than English) were twice as effective as interventions conducted in English. Benish, Quintana and Wampold (2011) also confirmed that culturally adapted psychotherapy is more effective than unadapted through a multilevel-model, direct-comparison meta-analysis of published and unpublished studies.

The need for culturally adapted psychotherapy for Chinese is urgent both in and out of China. In China, psychological counseling has developed rapidly in recent years in response to the
emerging needs for professional psychological care (Li, Duan, Ding, & Yue, 1994; Chang, Tong, Shi, & Zeng, 2005). With a Chinese population of 1.3 billion (World Population Statistics), it has been estimated that there are at least 100 million people suffering from mental illness (Su, Huang, Yang, Li, Shen, & Xu, 2012) using the Western definitions of mental health and pathology. In the United States, Chinese formed the largest body of international students at universities and colleges with a well-documented number of 120,000 in 2012 (Asia and Pacific Regional Bureau for Education, 2013). Meanwhile, Chinese students in the United States are "growing younger." Almost 24,000 attended high school and another six thousand were in middle schools in 2011 (www.YaleEconMonicReview.org/archives/294). Schwartz (1992) found that value differences between the older generation and the younger generation were greater than the differences between neighboring countries (http://usdkexpats.org/theory/schwartzs-culture-model). Thus, to help the Chinese young generation psychologically, it would be essential to investigate what they value relates to their mental health and how it lives up to their mental health values. This understanding will help improve the utilization and effectiveness of psychotherapy for them. Recent studies have advocated that now is the time for researchers and practitioners to emphasize multiculturally competent mental health practices (Castro & Alarcon, 2002).

The Present Study

For a long time, value studies carried the stigma of attempting to codify, categorize, or delimit a certain a set of values, which seemed to prioritize and/or neglect others (Kulich, 2010). In this study, therefore, the major purposes are (1) to study mental health as a cultural phenomenon indigenous to the modern Chinese cultural contexts and (2) to lay a foundation for future research and theory development in Chinese mental health counseling by producing a mental health value assessment tool. Specifically, the study will (1) define and specify mental
health values among college students in China; (2) develop a Chinese Mental Health Value Scale (CMHVS) for use with the college population; and (3) validate CMHVS by examining its relationship with other relevant concepts. Throughout each step of the study, I tried to avoid ethnocentricity or making judgment about specific mental health values. Neither simplifying nor stereotyping Chinese values were my purposes. Instead, I used a phenomenological approach (Davidson, 2000; Jones, 2001) to inquire about Chinese college students’ perspectives of mental health values. Although phenomenologists believe that researchers cannot exclusively separate their presuppositions and biases from research process, and they should not pretend otherwise (Hammersley, 2000), I tried to be aware and used expert review in each step to minimize the interference of my own worldview and beliefs during the data collection and data analyze process.
Chapter II: Literature Review

Definitions of Value

Value has been extensively studied within the same culture and among different cultural and ethnic backgrounds. Among various definitions, two opposite implications exist regarding the consistency between value and behavior. One category of value definitions suggests that value is desired and preferred, but may not be consistent with behaviors. In other words, value is a standard or criterion, which does not mean everyone can successfully accomplish it. For example, Rokeach (1973) defined value as “an enduring belief that a specific mode of conduct or end-state is personally preferable to its opposite” (p. 5). Smith and Bond (1994) referred to value as “universalistic statements about what we think are desirable or attractive” (p. 52). The other category implies that value has a function that it could predict value-related human behaviors according to social adaptation theory (Kahle, 1984). Braithwaite and Scott (1991) stated that “values are presumed to encapsulate the aspirations of individuals and societies: they pertain to what is desirable, to deeply engrained standards that determine future directions and justify past actions” (p. 661).

Study of value has received considerable attention from various disciplines. For example, philosophers have discussed values as ethics, preference/interests, philosophical theories, or “metaphilosophy.” Anthropologists have studied cultural patterns and life styles, sociologists have focused on ideologies and morality, and psychologists on attitudes and motivations (Levitin, 1973, p. 490). Since value represents the intersectional interest between the individual and society, value research also has become less isolated and more applied within an interdisciplinary framework, such as intercultural communication and cross-cultural psychology (Kulich, 2000). Richard Kilby (1993) suggests that there are at least 29 related types, such as marital values,
gender (sex-role) values, work values, and political-economic structuring values, etc, which reflect the complexity and multi-layered nature of the topic. However, mental health values were not on the list, which will be the focus of the current study.

**Development of Value Research**

In the field of psychology, there is ample interest and diverse tools to measure value, but no one theoretical approach could dominate the study of value. Steve Kulich (2010) did a systematic analysis of the development of value studies in his dissertation, and traced value research back to models of “values of interests” in early occupational interest research, such as Spranger’s six types of men (1928). In 1956, Morris’s *Ways to Live* survey was developed to measure conceptions of the good life by the major religious and philosophical systems.

In 1960s, Allport and his colleagues attempted to developed a specific value survey (1960), assessing the relative importance of six basic interests or personality motives. Gordon’s *Survey of Interpersonal Values* (SIV, 1960) assesses relative importance of six values (support, conformity, recognition, independence, benevolence, and leadership), and the *Bales and Couch Value Profile* (1969) yields four orthogonal factors, acceptance of authority, need-determined expression vs. value-determined restraint, equalitarianism, and individualism. Additionally, England developed *Personal Value Questionnaire* (PVQ, 1967a), which is often-cited in value studies. Some scholars, such as Lynn Kahle and Schwartz, suggested that Maslow’s Hierarchy of Needs was interchangeable with the value schema and fit for values dimensions.

Rokeach’s value survey (1973) was the benchmark of value study, and it was the most cited and used survey. Later, Kahle developed *List of Values* (LOV, 1983) measured nine general values in consumer behavior research, including sense of belonging, warm relationships with
others, self-fulfillment, being well-respected, fun and enjoyment in life, excitement, security, self-respect, and a sense of accomplishment. In addition, Ronald Inglehart (1977) developed a bipolar Materialism—Postmaterialism (M—PM) index to explain political and societal change within nations. *World Values Survey* (WVS, 1981) is a global research to explore people’s values, as well as how they change over time and its impact on social and political life (www.worldvaluessurvey.org). Later, Inglehart and colleagues (Inglehart & Baker, 2000; Inglehart & Welzel, 2005) expanded the model to include two cultural dimensions of Traditional versus Secular-Rational values and Survival versus Self-Expression and proposed cultural map of the world based on the World Values of Survey.

Notable limitations of the above value measures include, (1) Many surveys lack empirical evidence to support their validity. (2) Use of value lists failed to cover the full range of value expressions that influence human attitude and behavior; (3) Some instruments are complicated and abstract, such as Morris’ Way of Live Survey; and some are oversimplifying or polarizing. The critics of the view of value as binary dimensional question how values can be perceived as realistic ranges of options. (4) Some surveys view value as separate and competing value priorities/preferences instead of integrated and coherent systems, such as Rokeach Value Survey. (5) Last but not the least, most measures were developed from a Euro-centric perspective, emphasizing independence, autonomy, and self-sufficiency in individualistic cultures. Those measures assume commonality and global uniformity. However, the approach of “one tool fits all” is not applicable in other cultures. Globalism of intellectual work should not be achieved at the cost of sacrificing localism. Culture has a supreme role in any understanding of values.

**Theoretical Value Models**
Many theorists have called for developing theoretical models to guide research and clinical practice. Two of the most well-known and well-researched sets of value surveys are Rokeach Value Survey (1973) and Schwartz Value Survey (1992). Social psychologist Milton Rokeach published his book *The Nature of Human Value* (1973), in which he provided extensive conceptual, theoretical, and empirical analysis of values and distinguished values from related concepts like attitudes and norms. Rokeach stated that values are “enduring beliefs that a specific mode of conduct is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence.” Significantly, two levels of values are identified and distinguished. They are instrumental (operative, practical) values and terminal (ideal or hoped for) values, and both of them give meaning to action. The instrumental values have 18 values, including Capable, Independent, Intellectual, Ambitious, Forgiving, etc., and the terminal values have 18 values, including Freedom, Family Security, Inner Harmony, etc. The Rokeach’s lists of values, especially the terminal values, are used in multiple research attempts to correlate values and actual attitudes or behaviors (Kristiansen & Hotte, 1996). In addition, cognitive consistency theory was developed based on his early idea of belief congruence, which has become a foundation for prejudice and racism studies.

Shalom Schwartz (1992) proposed a value model, which has been widely examined within and between more than 50 countries (Schwartz, 1992). Schwartz made a significant contribution to value research by acknowledging values as a system instead of concentrating on individual values. Schwartz defines values as “desirable transsituational goals, varying in importance that serves as guiding principles in the life of a person or other social entity” (Schwartz, 1994, p. 21). Schwartz’s value model consists of both individual and country levels. Ten basic human values at the individual level and seven at the country level are identified to serve different interests or
motivational goals (Schwartz, 1999). In Schwartz’s model, the goals and interests that values
serve can be either compatible or conflicting with each other. The ten basic, near-universal
human values include Power, Achievement, Hedonism, Stimulation, Self-direction, Universalism,
Benevolence, Tradition, Conformity and Security, which are presented as an integrated circular
structure consisting of two main dimensions: Self-Transcendence vs. Self-Enhancement, and
Openness to Change vs. Conservation.

These two dimensions provide a quasi-circular structure to capture the interrelationships,
conflicts, and compatibilities among value types. Self-transcendence refers to the motivation to
transcend selfish concerns and promote the welfare of others (such as Benevolence and
Universalism). Self-enhancement comprises values that motivate people to further their own
personal interests even at the expense of others (such as Power and Achievement). Openness to
change value refers to the motivation to follow one’s own intellectual and emotional interests
(such as Self-direction, Stimulation, and Hedonism), whereas conservation values refer to
preferring the status quo and the certainty provided by relationships with close others,
institutions, and traditions (such as Tradition, Conformity, and Security) (Helkama, et al., 2012).

At the country level, Schwartz (1999) identified three higher-order dimensions to respond to
three vital societal issues. The first dimension concerns the relationship between the individual
and the group, including Embeddedness (viewing people embodied in the collectivity) and
Intellectual and Affective Autonomy (encouraging individuals to express their uniqueness and
independence). The second dimension involves how people behave in certain societal structure,
which is represented by Hierarchy (ascribing unequal roles to keep social order) and
Egalitarianism (recognizing the equal positions). The third one is the relationship of humankind
to the natural and social world. The response to it is either Mastery (implying change of natural
and social world), or Harmony (making cultures strive to conform to existing environments). Schwartz (1999, 2004, 2006) developed and had several publications about the Spatial Maps, which reveals meaningful groups of cultural groups from every inhibited continent. Based on Schwartz’s cultural value model, China is characterized as high in Embeddedness and Hierarchy, which represent collectivism and power distance, respectively (Schwartz, 2006).

**Critique and Challenges of Cross-Cultural Value Studies**

**Limitations of cross-cultural value studies.** Numerous cross-cultural value studies have been conducted, and many compare the differences between Chinese and Americans populations (Schwartz & Bilsky, 1990; Egri & Ralston, 2004). The three main concerns of doing cross-cultural comparisons are a) differences in constructing the meaning of value terms, b) the social comparison process in evaluating values, and c) deprivation-based preferences. First, because most value measures are developed from a Western point of view, the value profile itself does not have face validity or cultural validity for two reasons. One is that many Chinese cultural values are not included in the profile, and the other is that Chinese would interpret the meaning of certain value terms differently. There are cross-culturally inconsistent meanings of value items, such as “sense of belonging,” “warm relationships with others,” and “a sense of accomplishment,” etc. Taking “humility/modesty” as an example, Western Catholicism requires that worshippers show humility before God and awareness of their sin, whereas Confucian philosophy requires that Chinese people realize the unknown and weakness even if the individual is the most learned person (Billington, 1997). Secondly, the cognitive process of social comparison is likely to impact individuals’ evaluation of their beliefs or values. The Chinese may often make judgments about their own values according to how majority of people would rate it or how other people would evaluate his/her judgments. It is possible that different cultural groups actually differ in
the importance of certain values in their life, but the social comparison process could reduce or even reverse the differences (Peng, Nisbett, & Wong, 1997). Thirdly, people often express stronger preferences for something they lack or do not have than they do for things they own (Crosby, 1976). For example, Chinese are more likely than Americans to place the value of freedom ahead of the value of respecting elders, because freedom is something highly desirable but not possessed, but they take the value of respecting elders for granted and practice it in their daily life. Americans, however, would place the two values differently for the same rationale (Peng et al., 1997).

Methodologically, rating and ranking are most widely used in cross-cultural comparison studies, but there are many limitations with the method. The major criticism of the ranking method is its assumption that everyone has fully developed value systems and could make a unique value rank. For example, Peng et al. (1997) did a correlation analysis of ranking results of Rokeach’s value survey among seven studies with different Chinese samples, and showed that the correlations range from low to moderate, with an average around .52 for Rokeach’s instrumental values and .45 for terminal values. Research also showed that ranking methods for Rokeach value survey could not produce consistent results for Chinese people, not even the top-ranked and bottom-ranked values (Katz et al. 1993). Similar results were found in studies using the rating method. Also, differences in response styles could be a problem in using a rating method because East Asian participants have a tendency to choose the middle point of a scale due to their moderacy cultural background compared to their Americans counterparts who are more likely to choose extreme scores (Chen, Lee, & Stevenson, 1995). To overcome the limitations found in cross-cultural value studies, Peng et al. (1997) suggests using attitudinal questions and behavioral scenarios as possible solutions. They found that attitude items could not
predict cultural experts’ independent judgments whereas a scenario method may. However, use of a scenario method is based on the assumption that individuals’ behaviors could reflect their values, which does not have a settled answer yet.

**Limitations of specific Asian cultural value measures.** Besides the cross-cultural value studies, some scholars have developed several specific Asian value measures. Currently, three cultural value scales are identified, namely the Chinese Values Scale (CVS; Chinese Culture Connection, 1987), Asian Value Scale (AVS; Kim, Atkinson & Yang, 1999), and Asian American Values Scale-Multidimensional (AAVS-M; Kim, Li, & Ng, 2005). Two of three measures focused on general Asian cultures instead of specific Chinese cultures. Zhang, Lin, Nonaka and Beom (2005) provided empirical evidence to show that East Asian countries should not be treated as a single cultural entity. Similarly, Asian American is also an inclusive term. The U.S. Bureau of the Census (2002) identified that Asian American included at least 24 different ethnic groups, and each of them presented its own unique history, cultural dynamics and characteristics, socioeconomic levels, language, traditions, education attainment, beliefs and customs, so between-culture differences among Asian countries could not be ignored. Researchers found that different ethnic groups (such as Japanese, Filipino, Indian, and Korean) showed significant differences in their level of adherence to each value dimensions (Yang, Atkinson, Wolfe & Hong, 2001) and have different cultural characteristics from Chinese (Yang, 1992).

Asian Value Scale (AVS; Kim, Atkinson & Yang, 1999) was developed using Asian Americans samples, but it has been applied directly to native Chinese populations (Xu et al., 2005). The Scale originally contained six dimensions of cultural values (conformity to norms, emotional self-control, family recognition through achievement, filial piety, and humility), and
was enriched with additional Asian cultural values, such as avoidance of family shame, deference to authority figures, and filial piety, etc (Kim & Atkinson, 2001). It is true that those identified cultural values are important for Chinese but the scale, to some extent, simplifies or stereotypes Asian cultures from a Western perspective. In addition, essential tenets of Chinese culture values are missed, such as the concept of balance, relationship beyond family, communication style, perception of spirituality, and philosophy of dialecticism. In addition, unlike people living in their home countries, Asian Americans were involved in the process of acculturation, and some of their behaviors and values might have changed to adapt to cultural values of the dominant culture. From a developmental perspective, generational differences may also be present because adherence to traditional cultural values may vary across generations. Chinese Value Survey which reflects traditional values may not reflect the whole contextual picture of a younger generation due to globalization and the fast development of the internet.

**Meaning of Mental Health**

Despite the significant attention to mental health and its central role in psychology, there is surprisingly little consensus on the definition of the construct. Various terms used for addressing mental health related issues include well-being (Keyes, 2006), happiness (Luo, 2001), subjective well-being (Diener, Oishi, & Lucas, 2003), and wellness (Myers & Sweeney, 2005), etc. In 1947, the World Health Organization (WHO) defined health in terms of wellness as “physical, mental, and social well-being, not merely the absence of disease” (WHO, 1958, p.1) and later defined optimal health as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (WHO, 1964, p.1). Dunn (1961) defined wellness as “an integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable” (p. 4). These theoretical conceptions led to two traditions in
operationalizing mental health in research (Keyes, 1998). The “clinical tradition” operationalizes well-being through the measure of depression, distress, anxiety, or substance abuse, whereas “psychological tradition” is reflected in using subjective evaluation of life satisfaction as an indicator of well-being.

**Existing Measures for Mental Health**

Although the definition and dimensions of mental health have been an area of diverse opinions, some alignment was made on the complex, multidimensional, synergistic, dynamic and flowing nature of well-being (Roscoe, 2009). Most measures include common components, such as Social, Emotional, Physical, Intellectual, and Spiritual dimensions. Occupational (Hettler, 1980) and Environmental wellness (Renger et al., 2000) were incorporated in later scale development to acknowledge the impact of one’s career and surroundings.

Due to diversity regarding the theoretical construction of mental health/wellness (Travis & Ryan, 1988; Jensen & Allen, 1994; Witmer & Sweeney, 1992; Hettler, 1980), researchers have developed measures to reflect their specific focus of mental health. Based on an extensive literature review, three groups of mental health measures exist. One group measures individuals’ current experience of physical, emotional and behavioral symptoms, such as Symptom Checklist 90 (SCL-90; Derogatis & Cleary, 1977), Brief Symptom Inventory (BSI; Derogatis & Spencer, 1993), Beck Depression Inventory II (BDI-II; Beck & Steer, 1990), Beck Anxiety Inventory (BAI; Beck, 1993), Pittsburgh Sleep Quality Index (PSQI; Buysse et al., 1989), the General Health Questionnaire (GHQ-12; Goldberg & Williams, 2000).

The second group uses single or multiple measures to assess subjective well-being, including open-ended questions about wellness/happiness, Life Satisfaction with Life Scale (SEIS; Diener,
Emmons, Larsen, & Griffin, 1985), Oxford Happiness Questionnaire (OHQ; Argyle, Martin & Crossland, 1989) and International Positive and Negative Affect Schedule Short Form (I-PANAS-SF; Thompson, 2007). Individual-oriented and Socially-oriented cultural conceptions of Subjective Well-Being scales (ISSWB scales; Lu & Gilmour, 2006) were developed to assess happiness in individualistic and collectivistic cultural contexts.

The last group focuses on areas of health and strengths. For example, Ryff (1989) proposed a seven-dimension model regarding psychological well-being, including self-acceptance, personal growth, a sense of purpose of life, positive relations with others, capacity to effectively manage one’s environment and autonomy. Later, Witmer and Sweeney (1992) and Meyer et al., (2000) proposed a holistic model named the Wheel of Wellness, including five life tasks (essence or spirituality, work and leisure, friendship, love and self-direction) and 12 tasks of self-direction (sense of worth, sense of control, realistic beliefs, emotional awareness and coping, problem solving and creativity, sense of humor, nutrition, exercise, self-care, stress management, gender identity, and cultural identity). Various measurements of wellness were developed based on the above theories, such as Life Assessment Questionnaire (LAQ; National Wellness Institute, 1983), Perceived Wellness Survey (PWS; Adams et al., 1997), Optimal Living Profile (OLP; Renger et al., 2000), Wellness Evaluation of Lifestyle Inventory (WEL; Myers, Sweeney, Witmer & Hattie 1998) and the Wellness Inventory (WI; Travis, 1981).

**Summary of limitation of value and mental health measures.** The only mental health value scale found in the current literature review is Mental Health Values Questionnaire (MHVQ; Tyler et al., 1983), which includes 8 factors, namely Self-Acceptance, Negative Traits, Achievement, Affective Stability, Good Interpersonal Relations, Untrustworthiness, Religious, and Unconventional Experiences. In sum, various value and mental health related measures have
been imported and translated to Chinese in China. The cultural validity is questionable when those measures are directly used in a different cultural context, as well as various methodological limitations presented earlier. There are definitional differences in the meaning of value and mental health terms. Western theory-based instruments could measure personal-oriented self-defined in Western terms, but were inadequate to measure the social-oriented self for Chinese populations (Lu, 2008). It is because the mainstream Western theories reflect the self that is defined in individualistic cultures, but Chinese culture is more collectivistic. Although some dimensions/items of value and mental health measures in Western and Eastern cultures may overlap to some extent, the content reflecting Chinese culture is missed in those measures.

**Chinese Values related to Mental Health**

Chinese cultural values are distinct in emphasizing collectivistic orientation, hierarchical relationships, and academic and occupational achievement, compared to salient cultural values such as individualism, autonomy, future orientation, and mastery of the environment held by European Americans (Atkinson et al., 1998; Sue & Sue, 2012). According to Kulich (2010)’s extensive research, nine generally agreed-upon and expert-confirmed Chinese values are Authority, Honoring parents and elders, Humble, Inner Harmony, Moderate, Respect for Tradition, Self-discipline, and Social Order (p. 277, table 5.12). Triandis (1995) also found that components of individualism include self-reliance, competition, emotional distance from in-groups, and hedonism, whereas interdependence, family integrity, and sociability for collectivism. In the context of mental health, the following values may determine the conditions in which individuals may or may not feel mentally healthy.
Relationship. One of the significant markers of the Chinese culture is collectivism, an ideology and a cultural system that emphasizes the subjugation of individuals to a collective. Relationship is central to any collective and culturally prescribed relationship and serves as the foundation of Chinese values of the self. In comparison, cultural collectivism regards self as field-dependent, contextual, relationship/family/others-oriented, holistic, interdependent, comprehensive, social-centric, and authoritarian-oriented (Yang, 2003), while cultural individualism views self as field-independent, separated, unique, self-sufficient, egocentric/auto-centric, self-absorbed, and egalitarian. In contrast to the typical Western “self” that is viewed positively with a tendency to achieve self-enhancement and positive self-relevant information (Heine, 2007), Chinese “self” is expected to exist in a relational context and is interconnected with others (Fiske, Kitayama, Markus, & Nisbett, 1998). In other words, the essence of the Western self is being independent and autonomous, while self-in-relation is the ultimate state of self in China.

In China, relationship is called guan xi (关系) and the phenomenon of guan xi has been extensively examined by linguists, psychologists, historians, anthropologists, as well as business and management scholars (Chen, Chen, & Huang, 2013). Researchers face challenges to define guan xi due to the richness and complexity of Chinese language and its social context. The earliest research on guan xi can be found in management literature, including the conceptual definitions and domains of guan xi, its measurement, its antecedents and outcomes, the factors impacting the quality of it, and its dynamics and processes (Chen et al., 2013). Yang (1992) noted that guan xi orientation has a central role in interpersonal interactions in China, and it shows five general characteristics, namely, formal relations (relational roles), relational
interdependence (reciprocity), relational harmony, relational fatalism, and relational determinism.

Fei (1948), a first-generation contemporary Chinese sociologist proposed “the Differential Mode of Association” (cha xu ge ju 差序格局) to conceptualize the Chinese interpersonal/social network and its psychological implications. Chinese have distinct social rules for navigating through different interactions with family, acquaintances, and strangers. Significant attention is expected to be paid to others, and an “others-orientation” is to be emphasized. “Others” is supposed to appear in a plural form, as it broadly refers to either real or imagined presence of various others including “audiences,” “listeners,” or unspecified others. Reflected in daily life, this others-orientation is expected to be translated into caring about others, conforming to others, honoring one’s roles in relation to others, and valuing reputation among others. In this context, Chinese interpersonal interactions likely involve a tendency to avoid punishment, teasing, refusals, embarrassment or conflict, and a pursuit of others’ compliment, acceptance, help and appreciation. This tendency is consistent with the known face culture in China.

Face. It is fundamentally important to understand the indigenous concept of Face (Mian zi, 面子). It is defined as a function of recognition of one’s social standing and position within one’s social network (Lockett, 1988). Thus, mian zi is a vital component in the dynamics of guan xi (Sherriff, Lorna, & Stephen, 1999). Hwang (1987) illustrated the social mechanism of the mian zi culture, where an interaction happens between two or three people and their psychological processes. It is viewed crucial for a Chinese to protect mian zi and do some “face work” in front of others, especially within the same social network (Hwang, 1987; p.960). The goal of mian zi is to shape and instill a particular favorable image in the minds of others by successfully
performing some specific social roles that are well recognized by others (Hu, 1944). For example, when asked to do a favor, the person usually first thinks of, “what is the guan xi between us? How strong is our guan xi? Do I need to save face for him/her?” Ho (1976) stated that whether or not or the extent to which an individual protects his/her mian zi might be derived from the person’s biologically and socially ascribed status such as sex, physical appearance, family background, etc. It might also be from achieved status, like personal qualities of knowledge, strength, ability, or non-personal factors, such as authority, social connections, and so forth. Chu (1983) found that when a Chinese is subjectively suffering from loss of mian zi, his/her self-esteem is injured, resulting in emotional uneasiness. Some common practices of saving face for others include: avoiding implicitly criticizing others, especially in public, and using equivocation when expressing disappointment about another person’s performance. In sum, saving mian zi for others could protect a person’s dignity and prestige, which enhances interpersonal trust, nurtures relationship and brings social resources to each other (Buckley, Clegg, & Tan, 2006).

Harmony. In the others-oriented cultural context, harmony has been highly valued in historical, contemporary and model China. In fact, maintaining social harmony has been established as a “National Policy” by the Chinese government in 2003 (http://cpc.people.com.cn/GB/64162/64168/64569/65444/4429125.html 中共十六大报告). There are also cultural rules and norms that aim at requesting individuals to harmonize themselves with their environment. Unlike Westerners’ preference for primary control in exercising one’s wills in changing the environment, Chinese are encouraged to focus on altering one’s psychological responses and managing strategies to fit the situation (Rothbaum et al. 1982). Chinese may experience “disharmonious anxiety” or “fear of conflict” when the harmony is
broken. However, Chinese sometimes could be over-careful in pursuing interpersonal harmony, and sometimes at the expense of making the “right” decision to eliminate conflict and resume harmony (Yang, 1992). Yang (1992) described four dominant dimensions of a social relational map, namely others-orientation, relationship-orientation, authority-orientation, and family-orientation, which are all emphasizing that harmony holds the highest importance in Chinese orientations toward interpersonal relationships.

Hierarchy. Chinese culture is often characterized by Western theories as being hierarchical (Kwang, 2012), which is consistent with the philosophic foundation of the culture, Confucianism. Confucius ideology which can be traced back to two thousand years ago values authoritarianism and social order. Ancient Chinese feudal society was rigidly stratified and patriarchal-centered, and the system was formed in certain historical and social conditions. The authority of parents has been over-generalized to institutional power of the emperor. Individuals in the autocratic family and social environment naturally shape a tendency to be over-sensitive, over-admiring, and over-dependent on authority figures. It is common for Chinese to arrange the precedence to show respect and courtesy according to each person’s family, social or occupational status.

In China, the social system is perceived as a big family with different hierarchies under the guidance of “Five Ethical Principles” and “Five Great Relationships.” The guidance outlines the hierarchical organization of a well-functioning environment, covering the relationships between ruler and subject, father and son, husband and wife, elder and younger brother, and friend and friend, which constrains Chinese people in every aspect of their daily life (Hwang, 2012). The harmony with family persists as the prototype and foundation of non-family relations. The family ties are characterized as obligation, reciprocity, and utilitarian, and the position of Chinese “self” is usually given by the social and family system that expects the person to fulfill social
obligations tied to that position. Family is the most common but essential part of the reciprocal relationship between the superior (parents) and subordinate (children). Chinese share the belief that “family dirt should not be aired outside the family,” which means that Chinese have more barriers to opening themselves up to non-family members because of the fear of bringing shame to family (Ng, 1985).

**Familial responsibility.** In traditional Chinese society, the functional and structural foundation of society is family instead of individual. Due to thousands of years of agriculture based economics and Confucius influence, family is the fundamental social unit that serves the primary functions of protection, generational extension, harmony and unity for society. Yang (1972) regards family as the most salient form of collectivism, which is called Chinese familial collectivism. It includes mainly six types of interdependent feelings (unity, belonging, reputation, responsibility, loyalty and security) and eight principles for behaviors (multiple descendants, ancestor worship, interdependence, toleration and repression, humility and conformity, achievement for the family, the proper order between young and seniority, and differentiation between insiders and outsiders). These rules and cultural expectations guide individuals’ behaviors and expect them to take family responsibilities as the primary. As the result, Chinese have a general tendency to prioritize family over self and be submissive to family needs. Qi (2014) also found that filial piety through family obligation continues to play a salient role even under the current conditions of cultural and social change in China.

**High context communication.** Hall (1959) stated “culture is communication and communication is culture” (p. 169), whereas Birdwhistell (1970) suggested that “culture and communication are terms which represent two different viewpoints or methods of representation of patterned and structured interconnectedness. As ‘culture’ the focus is on structure, as
‘communication’ it is on process” (p. 318). This argument highlighted the critical role of communication in a society. The etic approach focuses on explaining how communication in personal relationships is similar and different across cultures, but from the perspective of the emic approach, study of communication involves describing the meaning that people in specific cultures attach to their communication in personal relationships.

High-context and low-context communication refers to the degree to which speakers rely on context information other than pure words to convey meaning they intend to deliver (Kim, Pan & Park, 1998). Chinese culture is of high context, and features of high context communication include being indirect, having interpersonal sensitivity, using feelings to guide behavior, and using silence, whereas low context communication supports being direct, dramatic, animated, relaxed, attentive, open, contentious, and impression-leaving (Gudykunst, 2001). Empirical evidence has shown that communication of individuals with collectivistic values tends to reflect interpersonal sensitivity and indirect messages, compared to the precise communication style held by their European counterparts (Gudykunst et al., 1996; Park & Kim, 2008). Further, social status and interpersonal relationship structures have been found to be the invisible foundation for Chinese style of communication. Chinese may use different linguistic codes, such as plain, polite or honorific, depending on the social status, degree of intimacy, age, sex, and level of formality of the participants who are engaged in the communication in order to maintain personal harmony (Gao, 1998).

Chinese believe that effective communication is not merely in the eyes of beholder, or something the individual can simply decide upon, but something that is particularly context-sensitive (Gao, 1998). Four Chinese communication styles are valued and deemed culturally appropriate. Implicit communication (hanxu, 含蓄) means being contained, reserved
and indirect in interpersonal communication. The communicator does not tell everything and leaves the “unspoken” part to the listeners (Gao, Kao & Ting-Toomey, 1998). Listening-centered communication (ting hua, 听话), Chinese culture encourages people to listen instead of speaking in communication. People who feel entitled to speak are usually those with authority in seniority, age, experience, knowledge and expertise. Polite communication (ke qi, 客气), delivers “polite,” “modest,” “humble,” “considerate,” and “well-mannered” messages (Yao, 1983). Keqi reflects the values of modesty and humbleness, and could be applied differently in in-group and out-group contexts. Insider/in group-communication (zi ji ren, 自己人), means that the type of relationship determines what and how one should communicate. Chinese tend to enjoy being involved in conversation with people they know well, namely insiders, but hold back to strangers/outsiders. Face-directed communication implies that an individual not only needs to protect his/her moral reputation and prestige, but also the in-group interest. As Gao et al. (1998) stated, “the primary functions of [Chinese] communication are to maintain existing relationships among individuals, reinforce role and status differences, and to preserve harmony within the group.” Therefore, it is essential to understand how Chinese perceive and interpret messages because of its important functions of maintaining appropriate interpersonal interaction, which would enhance Chinese’ mental health.

**Impact of Confucianism, Taoism, and Buddhism.** Chinese believe that psychiatric symptoms come from the unbalanced relationships or disharmony between person and nature (Ng, 1985). The emphasis of maintenance of harmony is the most salient principle in Chinese society and family, the core of Chinese mindset; however, some Western value based psychotherapy emphasizes the individual and the process of individualization, which conflicts with traditional Chinese culture from a philosophical perspective. In folk wisdom, Chinese
perceived well-being to include material abundance, physical health, virtuous and peaceful life, and relief from death anxiety. Compared to the pursuit of personal happiness and enjoyment of life in a physical sense in Western societies, Chinese appear to be more solemn and introspective to seek a more balanced life style with integrating the social restrictions/social expectations/social roles into their sense of well-being (Lu & Gilmour, 2006).

**Confucianism.** Confucian happiness is achieved through knowledge, benevolence, and harmony of the group (Hwang, 2012), which focuses on constant self-reflection and self-cultivation as the way to attain social moral greatness. The aforementioned concepts regarding relationship and hierarchy are essential components of Confucianism. Confucian values and morality are always the focus of indigenous psychologists. Influences of important concepts like benevolence, righteousness, and decorum (ren, yi, li, 仁、义、礼). It is highly likely that people who conform to norms and mainstream values are perceived as mentally healthy by the society.

**Taoism.** Contrary to Confucian’s beliefs in moral greatness and material satisfaction, happiness in Taoism aims at following the force of nature and liberating humans from personal desires by doing nothing (wu wei, 无为) and enjoying a peaceful mind. Chinese value the “Way” (Dao, 道) that a harmonious lifestyle results in a range of special and highly valued goods (Csikszentmihalyi & Ivanhoe, 1999). Chinese believe in Dao that connects individuals to greater and deeper patterns, processes, and rhythms of life, which frees individuals from focusing on the ego. It is not saying that Chinese do not have ego, but a high emphasis on the development of ego may have a negative impact on their daily relationship. A narrow and overly self-centered conception of oneself contradicts Chinese philosophy. The pursuit of selflessness (wu wo; 无我)
and doing nothing, an Eastern form of selfhood and identity, is highly respected by Chinese. To Taoists, the ideal life is a simple life -- spontaneous, harmonious, and free from societal regulations and desire to achieve social ascendancy (Ho, 1995). It is well said that, “The perfect man has no self; the spiritual man has no achievement; the true sage has no name” (Graham, 1989, p. 193). Taoism itself is the embodiment of paradoxes and contradictions, so it may seem odd to Westerners to regard selflessness as the way to fulfill and make happiness.

**Buddhism.** Buddhism believes that all existence on earth was born with unhappiness and asserts that nothing is absolute and lasting (Takakusu, 2002). Only “nirvana” (ji le shi jie, 极乐世界) can offer salvation. Happiness in Buddhism is called “paradise of the west” after nirvana, where people could go beyond everyday misery of this world. Reflecting upon and eliminating human desires, doing physical exercises, practicing meditation and good deeds in daily life are ways to purify the soul and reach eternal happiness.

Most ordinary Chinese have ingeniously merged and utilized many aspects of each religion to promote a good life. Quah and Hwang (1995) noted the “Chinese pragmatism” that Chinese may act in accordance with Confucianism when they are interacting with other people, with Taoism when they are encountering the nature, and with Buddhism when they are confronted with life and death. Instead of seeking autonomy and freedom emphasized by Westener cultures, traditional Chinese culture values the ONENESS (he yi, 合一), the balanced and peaceful interdependence and interpersonal relationship (Ivanhoe, 2000), which are the common factors rooted in Chinese values regardless the various ways of expressing spirituality.

**Dialecticism.** Dialecticism is a set of cultural beliefs about the nature of the world and disciplines of functioning rooted in Chinese cultures (Wong, 2001). A central feature of
dialecticism is the Taoist notion of \textit{yin} (阴, negative and passive) and \textit{yang} (阳, positive and active), which represents opposing but harmoniously existing elements in all things in the world and in the self (Wong, 2011). \textit{Yin} and \textit{Yang} are interdependent and are equal in status (Peng, Spencer-Rodgers, & Nian, 2006). Dialecticism consists of three interrelated principles (Peng & Nisbett, 1999; Peng et al., 2006), including Contradiction (two opposing propositions may be simultaneously true), Change (the universe and life experiences are unpredictable and in a constant state of flux), and Holism (the interconnectedness of all things in the universe).

For most Chinese dialectical thinkers, being happy now does not guarantee happiness in the future; similarly, mental illness may be viewed as a relatively short-term phenomenon (Wong, Tran, Kim, Van Horn Kern, & Calfa, 2010). Chinese emphasize the dialectical relationship between happiness and unhappiness. Contrary to Westerners’ tendency to maximize the pursuit of possibilities, dialectical beliefs rooted in Chinese philosophy about mental health include the goal of attaining contentment. Lu (2005) did a happiness study and found that Chinese college students defined happiness in five aspects as (a) a mental state of satisfaction and contentment; (b) positive feelings/emotions; (c) a harmonious homeostasis; (d) achievement and hope; and (e) freedom from ill-being. Chinese students generally regarded happiness as a harmonious state of existence, and they emphasized a satisfied or content mood state, spiritual enrichment, and maintenance of a positive outlook for the future. Lu (2005) also found that wisdom is highly regarded as the way to achieve happiness, such as the wisdom of discovery, the wisdom of contentment and gratitude, the wisdom of giving, and the wisdom of self-cultivation.

Although dialecticism is a highly respected value in China, it is interesting that a few studies found the relationship between dialecticism and psychological well-being to be negative for Chinese (Spencer-Rodgers et al., 2004; Chen, Benet-Martínez, Wu, Lam, & Bond, 2013).
Researchers argued that the finding may be related to the principle of contradiction and holism that Chinese have a greater tendency to accept and report negative aspects of themselves, and a higher tolerance for self-evaluative inconsistency than European Americans. In addition, Chinese tended to choose ambivalent and moderate scoring when responding to items in questionnaires, and this tendency sometimes led to the perception of a low level of self-esteem from a Westerner perspective. However, high tolerance of the co-occurrence of positive and negative emotions may be consistent with Chinese mental health values and could predict good psychological outcomes in Chinese context. It is also worth noting that the dialectical worldview may buffer negative psychological effects of some stressful situations, because dialectical thinkers tend to identify and incorporate multiple perspectives into their process and coping strategies based on the principle of holism. Spencer-Rodgers et al., (2010) noted that the mental health benefits of dialecticism may appear more salient when individuals experience challenges because the tendency to “find the good in the bad” (p. 304). In sum, Chinese believe in “both-and” instead of “either-or,” and this holistic view would likely promote their mental health.

Import of Western Ideology to China

No human values are time-free (Rokeach, 1973). Value has been proposed as an essential construct in the socialization process, and it has been studied in cultural, religious, political, educational, occupational, and family research. As Hitlin and Piliavin (2004, p. 360) stated, “Values have historical and cultural variability in their content.” Although Chinese traditional cultural values have deep roots for thousands of years, the recent Western ideology input to China should not be ignored. Kulich (2010, p. 227) organized a timeline of several milestones to record the history, and the following scholars started importing the Western ideology into China. Fu Yan (复) the first scholar who translated and introduced several Western books at 1900s,

After the Opium Wars in 1800s, Youwei Kang (康有为), Qichao Liang (梁启超), and Zhidong Zhang (张之洞) were the influential leaders who led “self-strengthening modernization movement” to reform Chinese education. The May Fourth Movement (五四运动) in 1919 promoted the emerging cultural awareness. Hongming Gu (辜鸿铭), Shi Hu (胡适), and Yutang Lin (林语堂) revisited “Chineseness.” First generation cultural anthropologist, Guangdan Pan (潘光旦) initiated academic study and applied social science methodologies to his work.

Xiaotang Fei (费孝通) founded Chinese sociology and studied core Chinese cultural issues. Francis L. K. Hsu (许粮光) launched psychological anthropology and contributed to many cross-cultural studies. Godwin Chu (朱谦) studied mass communication, etc. At the same time, many Western scholars such as Edward Said (1978), Joanthan Spence (1998) and Colin Mackerras (2003) provided their observation about China. They described types of images of the Chinese that were being portrayed, and wrote books to compare China and Western cultures. The “Western views of China,” however, could not fully capture the real picture of Chinese values due to subjective biases and failure to take cultural elements in a complex and holistic perspective.

Modernization of Chinese in Contemporary Society

Values, beliefs and behaviors change along with political and economic changes. China has become the fastest growing country in the world during the past three decades since the implementation of China’s “open-door” policy in 1978. The abundant input of Western concepts, technologies, cultures and lifestyles have significant impact on contemporary Chinese society and culture. Along with the rapid development of the market-oriented economy, massive rural
and urban restructuring, and exposure to the internet, Chinese people in contemporary society emphasize more materialistic achievement and have a stronger urge to succeed and be wealthy than their previous generations (Chen et al., 2013). Influenced by the co-existence of traditional values and contemporary social forces, research indicates that Chinese people displayed some seemingly paradoxical behaviors patterns. For example, they may follow the traditional norms and values in some areas of life, but behave in a competitive and self-serving manner in others (Fang, 2010). Scholars and researchers propose that the existing framework of Chinese cultural values needs to extend if China continues the transformation (Fang, 2010).

However, these changes do not mean that the traditional Chinese culture is replaced by a new value system, instead they indicate that Chinese may live with the coexistence of old and new values in today’s society (Fang & Faure, 2011). Yang (2003) showed that traditionality/modernity (T/M) coexists in contemporary China. Some Chinese indigenous scales were developed to measure the phenomenon (Yang, Yu, & Ye, 1989), such as Chinese Individual Traditionality-Modernity Scale (CITMS), Social-oriented achievement motivation (SOAM) and Individual-oriented achievement motivation (IOAM), Multidimensional Scale of Chinese Individual Traditionality (MS-CIT) and Multidimensional Scale of Chinese Individual Modernity (MS-CIM).

Sun (2000) also found that Chinese are developing a dual-cultural self-system containing independent-self and interdependent-self, but the interdependent self was reported to be more important than the independent self. When interdependent self is threatened, the relationship with parents could effectively regain the balance of self-system, but validating personal values would not be helpful. It is also widely agreed that Chinese still endorse many traditional cultural values, such as the willingness to sacrifice personal interest for the family, acceptance of hierarchies, and
concerns for harmonious interpersonal relationships (Leung, 2008). Researchers pointed out that China’s rapid economic development has made the dialectical characteristics of Chinese culture and communication embedded in the Yin-Yang principle more salient. As Faure and Fang (2008) said:

“The impact of China’s modernization during the past three decades (1978–2008) on the changes of Chinese behaviours is salient. However, these changes have had an even greater impact on Chinese values. Indeed, China seems to have never given up its single most important cultural characteristic, the ability to manage paradoxes. Ancient Chinese society was an oxymoron melting pot. In the current age of globalization, Chinese society has retained and reinforced this unique feature even in the most significant socio-cultural changes. Nonetheless, in terms of the thinking process, modern Chinese society remains anchored to the classical Yin Yang approach.” (p. 194)
Chapter III: Methods

Study Design

The purpose of this study is to develop a Chinese Mental Health Value Scale (CMHVS). The four step scale development method by DeVellis (2011) was followed. At Step 1, learning about Chinese college students’ views and perceptions of mental health with a phenomenological approach, I conducted a thorough literature review, administered a brief survey and ran two focus groups. An initial item pool was built at the end of this step. At Step 2, a pilot study was conducted. The purpose of the pilot study was to evaluate and improve prospective items. At Step 3, the factor structure of CMHVS was established by Exploratory Factor Analysis and Confirmatory Factor Analysis. At Step 4, convergent validity of CMHVS was examined by conducting correlational analysis with four referent measures.

Step 1: Construction of Preliminary Items Pool

In order to maximize content validity (Worthington & Whittaker, 2006), both inductive and deductive approaches to item generation were adopted at this stage. Three ways were employed to identify initial items of Chinese mental health values: (1) reviewing the literature on Chinese cultural values; (2) using a brief survey to collect input from Chinese college students; (3) conducting focus groups. The literature review included journal articles, books, and dissertations related to values and belief systems, as well as mental health related resources. Through these three steps, data were collected to allow the dimensions of Chinese mental health values to emerge. Then through expert reviews, existing dimensions were revised.

A brief survey. Two general questions were asked, (1) what kind of people do you think are mentally healthy? (2) what kind of people do you think are mentally unhealthy?” Two questions
were sent to six staff counselors working at different college counseling centers in China. Besides clinical work, staff counselors in China also taught psychology related courses, so they forwarded the questions to their students (n = 166) and received 96 replies via WeChat.

I reviewed, organized, and coded the replies independently. To control for my subjective biases, a Chinese doctoral candidate (female; 34-year-old) in Educational Psychology who had various cross-cultural research experiences volunteered to review and code the responses without knowing the primary researcher’s coding. After extensive discussion between the two of us on the domains, we agreed on 7 domains with 16 sub-domains to reflect Chinese mental health values. After consultation with my academic advisor, a decision was made to use the 7 general domains to prepare structures and questions for semi-structured focus groups.

**Focus groups.** I conducted focus groups because focus groups can reveal rich and detailed information and deep insight through group interactions and stimulate memories, ideas and experiences in participants (Lindlof & Taylor, 2002). Focus groups also provide the opportunity for participants to use natural and daily language to describe their understanding about Chinese mental health values. Two focus groups were conducted and Chinese was used for these groups. The first focus group was administered in the US, and there were three female Chinese participants who had at least one year of clinical practice experience working with Chinese college students in China. Two of the three participants were in their late twenties. Both were doctoral students, one in the Applied Behavior Science program and the other in Counseling Psychology program at the University of Kansas. The third member was a Chinese visiting scholar, in her early 40s, an associate professor in Counseling Psychology at a comprehensive university in China. I was the group’s facilitator. I had taken a group therapy course, served as GTA for it, and had group experiences at my practicum site. All participants agreed to be audio
recorded and they signed an Information Statement Form and Consent for Audio Recording (See Appendix A and Appendix B). The semi-structured focus group lasted for one hour and a half, and went through three steps, (1) I introduced my research project and asked general questions like “what kind of people do you think are mentally healthy or unhealthy.” (2) group participants shared their views and perceptions about mental health in the Chinese cultural setting. For most of the time, I did not interrupt and allowed the sharing to flow unless participants deviated from the topic. I also facilitated the process by making brief comments and asking follow-up questions to elicit responses and interactions from participants. (3) towards the end, I provided a copy of the domain list that had been developed and asked for their professional opinions and suggestions. After the meeting, I transcribed the audio recording, and assigned each group member a code, for example “participant A,” so their real names did not appear in the transcription. I coded the transcription following a phenomenological approach described by Hycner (1999). First, I listened repeatedly to the audio recording and read the transcriptions to become familiar with the information. Second, to explicate the data, statements that seemed to illuminate research questions were extracted. I made a conscious effort to stay aware of my own presuppositions to avoid inappropriate subjective judgments. Third, I tried to identify significant domains by focusing on the meaning of the content within the holistic context, and grouping similar ideas into themes under domains. Fourth, common domains were summarized. To check the validity and truthfulness of my coding, participants in the focus group received a copy of the summarized domains and were asked to check if those domains reflected their perspectives. After going through the whole process, the domain list was sent to my academic advisor.

The second focus group was conducted at Tianjin University in China, and a full-time staff counselor (female, in her late 20s) was the group facilitator. I spent one hour training with her in
terms of what is a focus group, different types of focus groups and what she needed to pay
attention to when leading the focus group. I also discussed the research background and provided
some focus group material to her. In terms of potential impact of the setting on group
participants, the group facilitator had no direct or indirect influence on participants’ grade and/or
academic and professional evaluations. Five college students with different majors (ages ranged
from 19 to 21 years old) participated in the group, and it lasted for 1.5 hours. Each group
member, recruited from a psychology club, signed a Chinese version of Informed Statement
Form and Consent for Audio Recording before the group started. The structure and process was
similar to that used in the first focus group, except that the group facilitator did not give them the
domain list at the end because of time limit. The group facilitator sent me the scanned consent
forms with participants’ signatures and the audio record with a password protection. I transcribed
the audio recording, and coded the transcription using the same method as mentioned above.
Again, the revised domain list was sent to my advisor. After a careful discussion with my advisor,
we decided to keep 154 items in eight domains with 19 sub-domains at this stage of the scale
development.

**Expert review.** A panel review was conducted with four experienced Chinese
scholars/doctoral students. The expert reviewers were one Chinese psychologist, one Chinese
American psychologist, and two doctoral students in counseling psychology. All of them knew
Chinese culture well and were experienced in working with Chinese college students in
counseling. Each reviewer worked independently. They evaluated each item’s grammatical
accuracy and deleted ambiguous, redundant, or unrelated items, as well as reworded some items.
The reviewers also examined whether each item belonged to its assigned dimension, and whether
there were other dimensions/items not covered in the list. I also worked independently with each
expert reviewer and recorded questions which emerged during the individual discussion and forwarded them to other reviewers. The process happened either via face-to-face discussion or online video communication. This process resulted in 102 items describing eight domains, including Balance, Relationship, Emotion, Capacities, Following Norms, Self, Natural Tendency, and Modernization.

**Step 2: The Pilot CMHVS**

**Purpose.** This pilot study aimed at evaluating the feasibility, time and statistical variability of the prospective items, which helped make improvements in various areas.

**Participants and procedure.** The pilot study survey was entered into KU Qualtrics and the link was posted onto my WeChat. WeChat is a Chinese social media where people can share news and post ideas, and currently it has around 438 million users in China. Information Statement for the pilot study was provided at the beginning of the survey (See Appendix C). Sixty-seven participants (age ranged from 18 to 58, Mean = 32; 35 female, 32 male) finished the pilot survey. I also sent the link to ten Chinese doctoral students in counseling/clinical psychology for feedback, and six replied and provided suggestions.

**Measures.** One hundred and two items within eight domains were used for the pilot study. A fully anchored 7-point Likert-type scale, ranging from 1 (of no importance to me at all) to 7 (of supreme importance to me), was adopted (See Appendix E). The instruction was “please rate how important each item is to promote your mental health?” also followed by “please follow your feelings to respond rather than thinking of how other people would choose” because previous research showed that participants in collectivistic cultures are likely to be influenced by
perceived choices of others. After the survey, participants were asked about their age, gender, and their opinions and/or suggestions related to the items in the survey.

The descriptive results showed that only one item (#95 “One should lead a Western life-style as much as possible”) was below 4 (M=3.27), and the mean scores of twelve items were between 4 and 5, sixty-three items between 5 and 6, and twenty-six items between 6 and 7. One observation about the results is that almost all items were perceived as important by participants -- two-thirds of items were rated as “very important” and one-fifth as “super important.” In addition, participants also provided verbal comments, including items sounding “intuitively important,” “politically right,” and “like common sense” to them. Some of them said that “I cannot apply all of these in my life” and “it would be great if people can really do these.”

Based on the responses and feedback offered by these participants, three main concerns arose and were subsequently addressed to improve the precision of the instrument. (1) Some items were edited to allow participants to disagree either by reversing the meaning or adding some absolute adverb, such as “should,” “only,” or/and “must.” (2) All items were reviewed to see whether there was confusion in meaning, inaccuracy or inappropriateness of wording, and misfit to the instruction, etc. (3) Items scored under 5 indicating “of little importance to me” were scrutinized within the “expert” team. This process resulted in an improved version of 94-item CMHVS for step 3.

**Step 3: Construction of the Final Scale**

Step 3 aimed at (1) establishing the factor structure of CMHVS via exploratory factor analysis (EFA), and (2) testing the measured model derived from EFA via confirmatory factor analysis (CFA).
**Procedure.** The survey was entered into KU Qualtrics and distributed in two ways. 1) I reached out to course instructors and staff counselors working in Universities/colleges in China. Those who agreed to participate in the current research forwarded the survey link to their students. 2) I posted the link on my social media WeChat.

In the survey package (see Appendix D), participants were presented a written consent form with information including the purpose of current research, the procedure of participation and length of time needed, participants’ responsibilities and benefits, potential risk and corresponding coping strategies, as well as endurance about participation being anonymous and voluntary. Participants who agreed with the informed consent would click on the “yes” option at the bottom of the informed consent. At the end of the survey, participants could choose to enter a lottery by providing their email address. Ten 100RMB (nearly $20) gift cards were given to ten randomly selected recipients after the data collection was complete. If participants withdrew during the research process, s/he still was still eligible for the prize.

**Data Cleaning and Preparation.** At the conclusion of data collection, 1,597 cases were collected. The data cleaning and preparation was done through the following steps. First, 33 (out of 94) reverse items in CMHVS and AVS were computed accordingly. Second, the data were examined for missing values, the normality of distribution, linear relationships, homoscedasticity, and univariate and multivariate outliers. For the whole sample, 223 cases with more than 75% of the total responses missing were deleted (Worthington, Dillon, & Becker-Shutte, 2005). Then, 289 cases were deleted because those participants failed to provide the correct answer to the validity-check items (“Please choose ‘not important to me at all.’”). The remaining missing values were replaced by the value of -999. To check for univariate outliers, I examined the z scores (i.e., above 3.29) for each of the scale totals (Tabachnick & Fidell, 2001). Twelve cases above 3.29
were identified and treated as missing values and replaced with EM. In addition, Mahalanobis distances among the variables were used to examine multivariate outliers. 15 cases were identified as multivariate outliers (probability of Mahalanobis $D^2$ is less than 0.001) and were eliminated.

**Participants.** After the data cleaning, 1,058 cases remained, and the data was then randomly split into two data sets, Sample A (n = 529) and Sample B (n = 529). Sample A was to be used for EFA and Sample B for CFA. There were 529 students ($M_{age} = 21.63$, $SD_{age} = 3.04$) in Sample A, and 529 students ($M_{age} = 21.64$, $SD_{age} = 3.12$) from Sample B. Demographics are provided in Table 1.

**Measures.** Participants filled out a demographic questionnaire about their age, gender, year in college, location of college, major, religious orientation, number of siblings and their birth order, highest level of education, relationship status, and geographical area of hometown residence.

**Step 4: Convergent Validity of CMHVS**

**Primary measure.** The primary measure was a 94-item scale, which uses a 7-point Likert scale, ranging from 1 “of no importance to me at all” to 9 “of supreme importance to me” to record participants’ answers.

**Referent measures.** Due to the lack of indigenous measures for mental health values, the following measures were used to test the convergent validity of CMHVS. These measures assess individual-collectivistic cultural orientation, Asian cultural values, satisfaction of life and a symptom checklist.
**Cultural orientation scale.** The theoretical foundation of this scale (Triandis & Gelfland, 1998) argues that both individualism and collectivism may be horizontal (emphasizing equality) or vertical (emphasizing hierarchy). The ways in which these relative emphases combine with individualism and collectivism produce four distinct patterns: Horizontal Individualism (HI), Vertical Individualism (VI), Horizontal Collectivism (HC), and Vertical Collectivism (VC). There is a 9-point Likert, 16-item scale where 1 stands for “never or definitely no”, and 9 represents “always or definitely yes” (See Appendix G). The scale has four dimensions, namely HI, VI, HC, and VC. Four sample items for each dimension are “I often do "my own thing," “When another person does better than I do, I get tense and aroused,” “The well-being of my coworkers is important to me.” and “It is my duty to take care of my family, even when I have to sacrifice what I want.” This scale was theoretically defined and multimethod-multitrait matrices measuring the constructs supported the convergent and divergent validity. The four-way typology fits well with varieties of empirically supported cultural patterns (Fiske, 1992) and analysis of political systems (Rokeach, 1973). Factor loadings of the four subscales ranged from .40 to .68. Triandis and Gelfland (1998) did correlation analysis between the four dimensions of the scale and some individualistic-collectivistic measures, such as Interdependent Construal scale (Gudykunst et al., 1994) and Interdependent Construal scale (Singelis et al., 1995), and found that those who emphasized VI scored especially high on competition and hedonism; those who emphasized HI were not competitive but scored high on self-reliance; those who emphasized VC scored especially high on family integrity and sociability and low on emotional distance from in-groups; those who emphasized HC scored high on sociability and interdependence but not on family integrity.
Asian Values Scale. AVS (AVS; Kim, Atkinson & Yang, 1999) is used to measure client adherence to Asian cultural values. The AVS is a 7-point Likert type scale (1 = strongly disagree; 7 = strongly agree) containing 24 statements reflecting Asian cultural values such as collectivism, conformity to norms, emotional self-control, family recognition through achievement, filial piety, and humility (See Appendix H). Kim et al., (1999) reported coefficient alphas of .81 and .82, and a 2-week test–retest reliability of .83. Support of AVS's construct validity was obtained through an exploratory factor analysis, in which the results showed six distinct factors representing various aspects of Asian cultural values. Concurrent validity was obtained through a confirmatory factor analysis, in which a factor structure comprising the AVS, Individualism–Collectivism scale (Triandis, 1995), and the Suinn–Lew Asian Self-Identity Acculturation Scale (SL-ASIA; Suinn, Rickard-Figueroa, Lew, & Vigil, 1987) was confirmed. Discriminant validity was evidenced in the low correlation between the AVS scores, which reflect values acculturation, and the SL-ASIA scores, which represent behavioral acculturation. The sample items are, “Following familial and social expectations is important,” and “One should consider the needs of others before considering one’s own needs.”

Satisfaction with Life Scale. The five-item SWLS (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) measures people’s general degree of satisfaction with their lives. It is a self-report measure in a seven-point Likert scale format, with options ranging from 1 – Strongly Agree to 7 – Strongly Disagree. Sample items are, “In most ways my life is close to my ideal.” and “So far I have gotten the important things I want in life” (See Appendix I). Factor analyses indicate a one-factor structure that explains 66% of the variance (Diener et al., 1985). Internal consistency reported by Pavot and Diener (1993) ranges between .79 and .89. Convergent validity evidence is established by positive correlations between the SWLS and measures of positive affect, while
discriminant validity evidence is shown in negative correlations between the SWLS and measures of negative affect and symptoms of mental disorders (Pavot & Diener, 1993).

**Psychological Distress.** The Brief Symptom Inventory-18 (BSI-18; Derogatis, 2000) is a psychological distress assessment instrument designed to screen for elevation on depressive, anxious, and somatic symptom dimensions. It consists of 18 items that ask the respondents to rate how often they have experienced anxiety, somatization, and depressive symptoms within the past 7 days on a 5-point Likert scale ranging from “1 = not at all” to “5 = extremely” (See Appendix J). Scores can be obtained for the anxiety, depression, and somatization dimensions in addition to the Global Severity Index (GSI) score. The subscale and overall scores from the BSI-18 have been shown to be highly correlated with corresponding subscales from the SCL-90-R (rs ranged from 0.91 to 0.96; Derogatis, 2000). On the basis of the same community sample, the BSI-18 has shown adequate to good internal consistency (α= .74, .84, .79, and .89, for somatization, depression, anxiety, and GSI, respectively; Derogatis, 2000). The GSI is generally considered as the best single indicator of the BSI and was used in this study. The BSI-18 has shown good internal consistency (.92) for the GSI in Chinese samples (Wang & Mallinckrodt, 2006; Wang, Heppner, Fu, Zhao, Li, & Chuang, 2012). The alpha coefficient of GSI for current study was .94.
Chapter IV: Results

Exploring Factor Analysis

Exploratory factor analysis (EFA) with Sample A (N= 524) was conducted by using the maximum likelihood estimation method in Mplus program (6th Version). Four primary fit indices were used to test the fit of the model to the data: the Comparative Fit Index (CFI; a value close to .90 or greater suggests a reasonably good model fit), the Tucker-Lewis Index (TLI; a value close to .90 or greater suggests reasonable good model fit), the Root-Mean-Square Error of Approximation (RMSEA; a value of .06 or less suggests a good error of approximation), and the Standardized Root-Mean-Square Residual (SRMR; a value of .08 or less suggests an good model fit).

When including all 94 items, a parallel analysis indicated that two factors should be retained. EFA was conducted and the results showed that most reverse items (32 out of 33) loaded on one factor and rest of the items loaded on the other factor. However, there was no systematic difference in item content that distinguished this factor from the other. Given that the reverse items were randomly selected from the original item pool without any systematic patterns, the 2-factor model was more likely to reflect a response pattern instead of item content. Additionally, the contents of the reverse items were well represented by other non-reverse items. Therefore, 33 reverse items were dropped and 61 non-reverse items were used in the following analysis.

Although 10 factors were pre-set in Mplus for the EFA, Mplus stopped estimating after 7 factors because the data was convergent and the number of iterations exceeded, which meant that models with 8 or more factors were not supported by the data. Therefore, table 2 presented indices of 7 models, representing 1-, 2-, 3-, 4-, 5-, 6-, 7-factor models. To identify the number of
factors to extract from, the underlying dimensions of each model were carefully examined and compared to each other under the scrutiny of the expert panel (the same panel for the pilot study). After extensive discussion, the panel members and I agreed that the 7-factor model could be adequately explained according to the theoretical framework recognized in the literature review section. Additionally, AIC and BIC were used to identify the parsimony of models, and the fit statistics supported that the 7-factor model was more parsimonious than other models.

Three criteria were used for the item retention: (a) loadings at least .40 on one factor, and (b) cross-loadings not exceeding .30, and (c) retaining factors that had at least three items per factor (Kahn, 2006; Worthington & Whittaker, 2006). Based on the 7-factor model, 7 items (#15, #21, #22, #31, #46, #50, #51) with low loading (less than .35 on each factor) were deleted, which resulted in improved fit indices: \( \chi^2 (1074) = 2128.21 \), CFI = .933, TLI = .910, SRMR = .025, RMSEA = .043. Then, items with loadings less than .30 (#29, #42, #94) and items with cross-loadings higher than .30 (#34, #76) were deleted, and presented improved fit indices: \( \chi^2 (854) = 1736.032 \), CFI = .937, TLI = .913, SRMR = .025, RMSEA = .044. The scale was modified through the same iterative process of deleting the weakest items (#30, #58, #79, #82, #85) and crossing loaded items (#68, #78, #79). Therefore, new factor analyses with the remaining items were conducted and items based on the new solution were assessed (Kahn, 2006). In addition, the meaning of each item was examined, and those unfit to the belonging factors were removed (#26, #44, #77, #81, #83, #88). It was worth noting that items were removed individually and the model was run multiple times until getting the final model.

In summary, a total of 26 items were eliminated in addition to the 33 reverse items because they failed to meet minimum criteria mentioned above. As a result, a 7-factor solution with 35 items was retained, which was conceptually distinctive and theoretically supported. The final
7-factor model indicated good fit indices, $\chi^2 (371) = 709.117$, CFI = .964, TLI = .943, SRMR = .022, RMSEA = .042, 90% confidence interval (.037, .046). Specifically, the final scale contained 11 items for Factor 1, 7 for Factor 2, 3 for Factor 3, 4 for Factor 4, 4 for Factor 5, 3 for Factor 6, and 3 for Factor 7. Although loadings of three items (#18, #29, #35) were below .40, they were retained in the scale for two reasons. One is the theoretical framework strongly supported their existence. The other is their loadings were distinctively higher on the factor than their loadings on other factors. Table 3 presented the seven factors and their respective items, as well as factor loadings.

Factor 1 (F1; 11 items) was labeled Expected Self. The first factor appears to reflect mental health values in terms of emotional regulation, daily life functioning, mental strength and resilience, balance of mental health and physical wellbeing, as well as balance between private and social life. The highest loading items were, “Being aware of one’s own negative emotions” (能对自己负性情绪有觉察) and “Adjusting to changes at different life and developmental stages” (顺应人生不同阶段的发展变化).

Factor 2 (F2; 7 items) was labeled Relating to Others. This factor describes the value of connecting and maintaining harmonious relationships with others. All items emphasize what an individual self can contribute to others’ wellbeing, and how an individual self can relate to others, including being capable of loving others and feeling gratitude. The highest loading items were, “Bringing positive energy to others” (给别人带去积极的能量) and “Helping people in need” (他人有困难时，可以伸出援助之手).

Factor 3 (F3; 3 items) was labeled Life Principle. This factor reflects the Confucian value of being modest and prudent. Modesty is one of the core values in Chinese culture, which not only
teaches unpretentiousness and avoiding bragging but also promotes humbleness in relating to others. The highest loading items were “Being modest” (谦虚) and “Being prudent” (谨慎).

Factor 4 (F4; 4 items) was labeled Family. This factor demonstrates the value of one’s family, especially having a close relationship with parents. The highest loading items were, “Having healthy parents and family members” (父母家人身体健康) and “Having a harmonious family” (家庭和睦). Among all items, the mean scores of four items belonging to this factor were the highest (ranged from 5.74 to 6.33).

Factor 5 (F5; 4 items) was labeled Purpose and Meaning. This factor reflects the value of pursuing purpose and meaning in life. The highest loading items were “Having clear goals in life” (生活有明确的目标) and “Being self-aware” (对自我有清楚的认知).

Factor 6 (F6; 3 items) was labeled Achievement. This factor reflects the value of accomplishments in career, academic and social status. The highest loading items were “Seeking career success” (追求事业的成功) and “Seeking academic success” (追求学业的成). Among all items, the mean scores of three items in this factor were the lowest (ranged from 4.23 to 4.97).

Factor 7 (F7; 3 items) was labeled Communication Style. This factor reflects a high-context communication style (i.e., implicit and indirect), and behaviors (i.e., accepting criticism and not deviating from the norm set by the mainstream). The highest loading items were “Being able to implicitly express one’s opinions and emotions when in disagreement with others” (意见不同时，能含蓄地表达情绪观点) and “Being capable of expressing one’s emotions and opinions appropriately” (表达情绪观点时有分寸).

Confirmative Factor Analysis
A confirmatory factor analysis was conducted on the 35-item Chinese Mental Health Value Scale with Sample B (N = 529) using the maximum likelihood estimation method. Like EFA, four primary fit indices were used to test the fit of the model to the data, including CFI, TLI, RMSEA and SRMR. Seven-factor model indicated the following fit indices: $\chi^2 (539) = 1179.119$, CFI = .905, TLI = .895, SRMR = .052, RMSEA = .047, 90% confidence interval (.044, .051).

Due to the low indices of TLI, modification provided by Mplus output was considered to improve the indices based on theoretical and statistical justifications (Muthén & Muthén, 1998-2009). Under careful examination, four modifications were included in the final CFA model because of associations of underlying meanings between each pair. Specifically, correlations between item 39 and item 38 (factor 3), item 49 and item 33 (factor 4), item 65 and item 64 (factor 2), and item 2 and item 1 (factor 1) were added. As a result, the final 7-factor model with modifications indicated good fit indices, $\chi^2 (535) = 1009.080$, CFI = .930, TLI = .922, SRMR = .041, RMSEA = .045, 90% confidence interval (.037, .045). It was the best-fitting and most theoretically-sound model. See final version of CMHVS in Appendix F.

**Reliability**

Reliability estimates were conducted for both Sample A (n = 524) and Sample B (n = 529), and internal consistency coefficients for the subscales of the CMHVS and the whole scale were acceptable to very good. For Sample A, the results showed that adequate internal reliability for the whole CMHVS was .955 (Cronbach’s alpha), and for its seven subscales were .870, .878, .836, .828, .850, .723, and .811, respectively. For Sample B, the internal reliability for the total scale was .948, and for its seven subscales were .868, .866, .812, .801, .824, .699, and .766. The seven latent factors were strongly
correlated with each other, ranging from .511 to .849. Correlations between the factors were presented in Table 4.

**Convergent Validity**

**Validity of referent measures.** Before conducting validation related analysis for CMHVS, CFA was used to examine the validity of four referent measures by Mplus because all referent measures were developed in Western culture and there was a lack of cultural validity of using them in another culture.

Initial CFA of Asian Values Scale (AVS) indicated poor fit indices, $\chi^2 (276) = 4347.080$, CFI = .621, TLI = .559, SRMR = .103, RMSEA = .080, 90% confidence interval (.076, .083). AVS does not seem to be a cultural appropriate measure. A few reasons might explain the poor indices of AVS. First, 10 reverse items disproportionately represented in the subscale of AVA, and Chinese college students may not respond well to reverse items as shown in their response to CMHVS. Second, AVS was developed based on Asian American college students who represented more than 10 Asian ethnicities, so AVS may not apply to Chinese native population. Therefore, a decision was made to delete items with loadings lower than .35 (#1, #2, #16, #17, #19, #20, #21, #23). Four out of six subscales had 2 items in each, so constrains of two items were applied to equalize item loadings. Fit indices were improved, $\chi^2 (76) = 303.925$, CFI = .932, TLI = .906, RMSEA = .054, SRMR = .053, 90% confidence interval (.093, .105). After examining the reliability of all subscales, three subscales with 2 items (Family Recognition through Achievement, Emotional Self-control, and Filial Piety) were deleted because of low reliabilities (.548, .443, and .537). One subscale named Collectivism with 2 items was deleted because there was a referent measure testing for individualism and collectivism specifically,
although its reliability was acceptable (.697). Eventually, only two subscales (Conformity to Norms and Humility) with more than three items and adequate reliability (.688 and .731) were used in subsequent analysis.

CFA of Satisfaction with Life Scale (SWLS) with a modification indicated good fit indices, \( \chi^2 (4) = 8.934, \text{CFI} = .995, \text{TLI} = .987, \text{SRMR} = .012, \text{RMSEA} = .049, 90\% \text{ confidence interval (.000, .092)} \). A modification was added to the correlation between item 4 (“So far I have gotten the important things I want in life”) and item 5 (“If I could live my life over, I would change almost nothing”). The reliability for the scale was .859.

CFA of the Brief Symptom Inventory-18 (BSI-18) with modifications indicated good fit indices, \( \chi^2 (114) = 332.304, \text{CFI} = .927, \text{TLI} = .913, \text{RMSEA} = .062, \text{SRMR} = .090, 90\% \text{ confidence interval (.057, .072)} \). Item 17 (pessimistic thoughts of life) was deleted because it was cross-loaded on all three subscales. The modifications were correlations between item 15 and item 14, item 14 and item 11, item 18 and item 12, item 2 and item 1, and item 18 and item 3. Although the value of SRMR was high, the other indices were good to support the validity of the scale. The reliability for the total scale was .931, and for its three subscales, Somatization, Depression, and Anxiety, were .800, .846, and .888, respectively.

CFA of Cultural Orientation Scale (COS) with modifications indicated good fit indices, \( \chi^2 (92) = 179.328, \text{CFI} = .939, \text{TLI} = .920, \text{SRMR} = .048, \text{RMSEA} = .044, 90\% \text{ confidence interval (.034, .053)} \). Five correlations were added to the modifications between item 5 and item 1, item 12 and item 11, item 16 and item 15, item 2 and item 1, item 6 and item 3. The reliability for the total scale was .804, and for its four subscales (HI, VI, HC, and VC) were .643, .597, .696, and .687.
Validity analyses. Five hypotheses were proposed related to the validity of CMHVS (1) all subscales of CMHVS would be positively associated with two subscales of AVS. (2) all subscales of CMHVS would be positively associated with SWLS. (3) all subscales of CMHVS would be positively related to Horizontal Collectivism (HC) and Vertical Collectivism (VC), and negatively related to Horizontal Individualism (HI) and Vertical Individualism (VI) of COS. (4) all subscales of CMHVS would be negatively related to Anxiety, Somatization and Depression of BSI-18. (5) total score of CMHVS would be positively related to the total score of AVS, SWLS and Collectivistic scales of COS, and negatively related to individualistic scales of COS and BSI-18.

Using structural equation modeling (SEM), bivariate correlations were conducted via Mplus. As predicted, hypothesis 1 and hypothesis 2 were fully supported that both AVS and SWLS were positively and significantly correlated with 7 subscales of CMHVS. Inconsistent with prediction of hypothesis 3, all four subscales (HI, VI, HC, and VC) of COS were positively and significantly correlated with 7 subscales of CMHVS. It was worth noting that the magnitude of the correlations was consistently larger for Collectivism related subscales than Individualism subscales, and peak correlations appeared between Horizontal Collectivism and CMHVS. Hypothesis 4 was not supported that there were no significant correlation between 3 subscales of BSI-18 and 7 subscales of CMHVS except significantly negative correlation between Factor 1 of CMHVS and Somatization and Depression. Hypothesis 5 was partly supported that CMHVS was positively correlated to AVS, SWLS, and Individualism and Collectivism of COS. No significant correlation was found between CMHVS and BSI-18. Results are presented in Table 5 and Table 6.
Chapter V: Discussion

Psychometric Quality of the CMHVS

The primary purpose of the study was to develop a conceptually and psychometrically solid scale to measure cultural values in mental health held by Chinese college students. Results from the exploratory factor analysis and confirmatory factor analysis suggested that the Chinese Mental Health Value Scale (CMHVS) was best depicted as a 35-item scale with seven underlying factors: (1) Expected Self, 11 items; (2) Relating to Others, 7 items; (3) Life Principle, 3 items; (4) Family, 4 items; (5) Purpose and Meaning, 4 items; (6) Achievement, 3 items; (7) Communication Style, 3 items. Each factor represents an important construct about how those college students perceive mental health values within Chinese cultural context. Loadings of the 35 items across these seven factors ranged from .35 to .95, with only 3 items below .40.

Reliability. The internal consistency of the scale was estimated by Cronbach’s alpha. The alpha coefficients of seven factors ranged from .72 to .88 for Sample A, and from .70 to .87 for Sample B. Alpha coefficients of the whole CMHVS in both samples were .96 and .95, respectively. The results suggested that these factors had high reliability. Additionally, the mean score of all items belonging to seven factors was slightly above the midpoint (ranged from 4.23-6.33), indicating that items in CMHVS were standing out to Chinese college students. The standard deviations for all items were relatively small, ranging from 1.07 to 1.51, which seemed to imply an absence of ceiling and floor effects or considerable variability across individuals. From a scale constructive perspective, this characteristic is desirable.

Convergent validity. The positive correlations between CMHVS and Asian Value Scale (AVS) and Cultural Orientation Scale (COS) support CMHVS’s convergent validity. Participants’
CMHVS overall and subscale scores were positively correlated with those of AVS and COS. It is interesting that 7 factors of CMHVS are positively correlated to all four subscales of COS, which means that individualism and collectivism are not dichotomous but co-existent for contemporary Chinese college students, although participants reported higher endorsement in collectivism than individualism. There is a noticeable pattern that among all, the peak correlations exist between Horizontal Collectivism (emphasis on sociability and interdependence) and almost all subscales of CMHVS, which shows that Chinese college students highly value relationships. However, the high correlations between both Hierarchical and Vertical individualism scales and Achievement (Factor 5) of CMHVS seemed to show that participants were aware that they need to work hard and be competitive to succeed or excel. This phenomenon may be due to the large population and great academic stress in China. As expected, CMHVS is positively correlated to SWLS, which means that Chinese young college students’ mental health values may have a role in their life satisfaction. It appears that following the guidance of their cultural values in life may contribute to individuals’ level of life satisfaction. This speculation is indirectly supported by the fact that CMHVS by and large did not correlate with psychological symptoms measured by BSI-18 except for the negative correlation between Somatization and Depression and Expected Self (Factor 1). It is worth noting that many items of Expected Self describe personal strengths and resilience, such as being aware of one’s negative emotions, controlling one’s negative emotions, and accepting adversities in life. It is expected that such personal strengths may prevent depression and somatization symptoms.

**Characteristics of Mental Health Values among Young Chinese College Students**

**Relationship orientation.** Relationship is a reoccurring theme throughout the whole scale, which is expected and confirming based on what we know about Chinese culture. Fostering
A harmonious relationship is a central value in both the traditional and contemporary Chinese culture (Fang & Faure, 2011). It is also an indigenous and distinctive feature that differentiates from individual orientation of Western psychology. CMHVS explicitly portrayed it by Relating to Others (Factor 2), Life Principles (Factor 3), Family (Factor 4), and Communication Style (Factor 7). Clearly being harmonious is important for all relationships including interpersonal, familial, and social relationships. This cultural theme can be traced back to thousands of years ago and remains clear and distinct even post the recent Westernization trend in China, (Zhang, Lin, Nonaka, & Beom, 2005). As suggested by Hwang (2000), a relational orientation is the essence of the spirit of Chinese culture, and it guides Chinese social behaviors in contemporary society, such as situation-centeredness, psychosocial homeostasis, collective orientation, and social orientation.

It should be noted that Expected Self (Factor 1) appears to focus on self, but it actually emphasizes the self within a self-in-relation framework (Hwang, 2000). Self-in-relation is a key concept in the understanding of Chinese relationalism. It serves the essential functions of maintaining a harmonious relationship with others, beyond the realm of ego or limited personal qualities defined by Western theories. For example, “Being able to see things from others’ perspectives” (能站在别人的角度上考虑问题) and “Getting along well with others” (与人相处融洽) described Chinese college students’ expectations and requirements towards themselves. It seems that the Chinese self is rooted in relationships, reflecting a collectivistic cultural framework.

Life Principle (Factor 3), such as being modest and prudent, may serve both social and emotional functions in maintaining good relationships for Chinese. From a social relational
perspective, practice of modesty in daily interaction with others helps one avoid being perceived as arrogant or becoming a source of threat, which assists interpersonal harmony. From an emotional perspective, being modest restrains Chinese from feeling overconfident and encourages them to stay sensitive to other’s feelings in interpersonal interactions. Under competitive and pressured conditions, adherence to the cultural value of modesty help Chinese college students stay emotionally calm and be perceived as contributing to (vs. threatening) harmony. Further, these life principles reflect more about a state of being than a state of action, which may help individuals develop self-awareness, self-examination, self-monitor, self-education and self-cultivation.

Family tie is an essential part of relationships for Chinese college students, which is captured by Factor 4. Chinese are socialized to honor “Five Great Relationships”, which refer to kindness in the father and obedient devotion in the son, gentility in the eldest brother and humility and respect in the younger, righteous behavior in the husband and obedience in the wife, humane consideration in elders and deference in juniors, and benevolence in rulers and loyalty of ministers and subjects. This hierarchical structure of family is extended to all other relationship, including relationships with bosses, friends, acquaintances, coworkers.

Among the items in Family factor, filial piety is a salient value reflected by “Showing filial piety to parents” (孝顺父母), which refers to one’s loyalty and fulfillment of obligation to parents and family. Filial piety includes a series of socially desired attitudes and behaviors, as well as interaction guidelines (Wang & Song, 2010). Chinese college students may show filial piety by minimizing parents’ worries, bringing glory to parents, and treating parents with respect and loyal (Chuang & Yang, 1990), as well as providing financial and emotional support when parents are old (Ho, 1986). Filial piety is not only valued within one’s family, but also observed
and evaluated by outsiders in a larger social context in which individuals’ level of morality is judged. Therefore, the value of filial piety may be one element of Chinese college students’ relationship in and outside of their families.

High context communication is highlighted as an independent factor in CMHVS, showing that effective communication relies on the context in which meaning is conveyed. The item “Being able to implicitly express one’s opinions and emotions when in disagreement with others” (意见不同时，能含蓄地表达情绪观点) reflects this other-focused consideration in communication. This practice may help protect listeners from losing face, avoid interpersonal conflicts, and eventually maintain harmonious relationship between the communicator and the listener. Instead of being clear, direct and explicit, effective communication in Chinese context tends to be subtle and indirect to express politeness, humbleness and thoughtfulness.

**Purpose and Meaning.** Searching for life purpose and meaning is a basic human motivation, which emerges as an emphasis in of the CMHVS. Items such as “Having clear goals in life” (生活有明确的目标) and “Looking for meaning in life” (追寻生活的意义) are examples. In the Chinese cultural context, meaning in life may be expressed by academic or career achievements, a good family, close relationship with others, and/or being helpful to others. Among this subscale, there are other items such as “Being self-aware” (对自我有清楚的认知), and “Feeling satisfied” (有满足感) that demonstrate a traditional Chinese cultural characteristic, namely, feeling satisfied, content and fulfilled in life is an ultimate goal. Chinese philosophy tends to encourage people to accept their fate and life no matter how hard their circumstances are. People are respected for being able to transcend their life challenges and live well with their present
circumstances. Such an orientation helps maintain a harmonious person-environment relationship.

**Comparison between Chinese and Western Cultural Values in Mental Health**

Mental health is a culturally and socially constructed concept upon which counseling theories and practice are built. The results of this study suggest that mental health is a culturally indigenous phenomenon, and cultural values related to mental health in China bear differences from those held by Westerners. Comparing the content of CMHVS to current mental health value measures, it is easy to observe the “ill-fit” between the Western theories and Chinese culture. For instance, Mental Health Values Questionnaire (MHVQ) developed by Tyler (1983) included 8 subscales, Self-acceptance, Negative Traits, Achievement, Affective Control, Good Interpersonal Relations, Untrustworthiness, Religious, and Unconventional Reality. The fundamental differences between the individualistic Western and collectivistic Chinese cultural values exist. Constructs and items in MHVQ are rooted in individualistic values such as independence, autonomy, self-acceptance, self-reliance, and explicit and direct communication. Sample items are, “The person accepts full responsibility for his or her actions,” “the person seldom gets upset” and “The person communicates directly and honestly with others.” In contrast, the CMHVS highly emphasizes the collectiveness and relatedness in human relationships.

In the view of self, MHVQ emphasizes individual abilities (e.g., “The person likes his or her own capacities”), while CMHVS focuses on self-in-relation (e.g., “Being able to see things from others’ perspectives” and “Maintaining harmony in interpersonal relationships”). Although both scales include Relationship construct, MHVQ emphasizes personal qualities and characteristics presented in the relationship (e.g., “The person is able to play” and “The person is
dependable/friendly”), and CMHVS stresses what individuals do for others and how to relate with others (e.g., “Feeling gratitude” and “Bringing positive energy to others”).

Unlike Westerners’ primary focus on emotional expression and taking active actions, CMHVS addresses one’s capacity to control negative emotions and accept life adversities. Chinese value taking “a step back” to accept and adapt to adversities. As a Chinese proverb says, “tolerance and compromise will make a conflict much easier to resolve” (忍一时风平浪静, 退一步海阔天空). The meaning of the proverb may sound passive and pessimistic to Westerners, but it means stable, peaceful, and calm emotions and positive strategies to avoid conflict for Chinese.

There are a few mental health values that are unique to Chinese culture. Family (Factor 4) is an independent factor in CMHVS, which demonstrates the essential role of family’s well-being in individual’s mental health and Chinese unique cultural value in filial piety. Impacted by Confucian, Taoism and Buddhism philosophies, Life principles (Factor 3) reflects Chinese folk wisdom in being modest, which differs from the mainstream religious beliefs important in MHVQ. In a multicultural context, it may happen that Chinese college students’ values in modesty are misperceived by their Western counterparts as reflecting lack of confidence or lack of assertiveness. Additionally, Western counseling theories assert that one needs to solve problems by logical and rational means, but Chinese value and practice the concept of balance in their daily life from a holistic perspective, which is reflecting by “Balancing physical and mental wellbeing” (身心平衡) and “Balancing one’s private life and social life” (个人生活和社交活动之间的平衡). For Chinese, health is the state in which physical, emotional, interpersonal and spiritual components are in a balanced and harmonious state. Besides emphasizing on “doing”
(take actions), CMHVS seems to show a higher status of “being” including “having a peaceful mind,” “being modest,” “Feeling gratitude,” and “Feeling satisfied.”

**Comparison between Traditional and Current Chinese Values in Mental Health**

Culture is never static and it develops and changes along with environmental changes. As noted earlier, Chinese cultural values in mental health have evolved and continue to evolve under the influence of both traditional values and contemporary social forces. On one hand, CMHVS portrays the traditional values in relationship, self-in-relation, and harmony very well. It is apparent that Chinese college students still endorse many traditional cultural values, and Chinese cultural system is not replaced by a new value system under the influence of westernization. On the other hand, a few items of CMHVS reflect current young generation’s adoption of some Western values such as autonomy and independence, reflected by the items “Taking responsibility for the consequences of one’s choices” (能承担选择的后果) and “Being self-aware” (对自我有清楚地认知). As described in literature review section, Chinese in contemporary society may focus more on individual success than before as a result of rapid development of economic-driven environment. So, it is necessary and desirable for young Chinese college students to be independent and self-reliant in some areas (e.g., academic and career competition), which is not the case in other areas of life (e.g., family).

The positive correlations between the individualism subscales of COS and 7 factors of CMHVS also support the coexistence of traditionality and modernity value systems in contemporary China. I will take Achievement (Factor 6) as an example to illustrate the coexistence of old and new value system. It is widely known that Chinese value education as a stepping stone to success since ancient times. This does not seem to have changed. In today’s
society, education is still viewed as the only avenue toward a bright future by many Chinese college students. However, it is interesting that the mean scores of three items in Achievement subscale are the lowest -- only items below 5 among seven factors. Clearly, pursuing higher education, securing decent jobs or having privileged social status is important, but not the only standard by which one’s success is judged. Diversified and individualized personal goals may be gradually accepted and appreciated.

**Limitations**

A few limitations of this study should be noted. First, the impossibility of random selection of participants limited the representativeness of Chinese college population, although current research recruited participants from over 50 cities. Future study including a wide range of geographic locations and minority groups for sampling may help to improve generalizability of findings. Second, although the sample size of the study was large enough, there was a methodological limitation that the data were randomly spitted into two samples for EFA and CFA. Therefore, the two samples may reflect high similarities of sampling bias, measurement bias, expectancy effects or experimenter effects. Third, although most reverse items were proportionately represented by other non-reverse items, it was a great loss to remove 33 reverse items in EFA due to the responding patterns (most reverse items were loaded on one factor). However, the fact cannot be ignored that Chinese may not respond to reverse items well, especially to value related measurements, because reverse items may cause confusion about whether the items ask “whether you agree or disagree with the statement” but not “how important it is to your mental health.” Fourth, four out of six subscales of Asian Value Scale were removed due to the poor psychometric indices, so the measure for convergent validation check was limited. Fifth, items of CMHVS have high means (most are higher than 5), which
means small variation. Finally, an English version of the CMHVS was obtained by employing the translation and back-translation process (Brislin, 1980), but Chinese version is preferred for use if the scale takers can read Chinese because the translation may not convey the subtlety of the language in the original form.

**Implications for Practice and Research**

By producing a culturally valid and sensitive mental health assessment tool, the current study may contribute to practice and theory development in mental health counseling and inform future research effort in understanding Chinese young college students. Specifically, the study may shed light on our understanding of (1) integrate multicultural awareness into clinical practice when providing service for clients holding different cultural values, and (2) the need for a paradigm shift in counseling Chinese college students from using Western theories to developing and using theories rooted in the culture.

As shown in CMHVS, self-in-relation is the essence of being for Chinese in the Chinese context, which contrasts the self-focused framework derived in Western culture. Along with the lack of indigenous theories, many practitioners conduct psychotherapy without recognizing some of the foundational differences in terms of clients’ cultural contexts. As Rai and Moodley (2010) stated, “it is crucial to note that a gap is formed, primarily when counseling psychologists and mental health practitioners fail to acknowledge and value the belief systems of their clients” (p. 116). Therefore, practitioners need to be aware of their own values and ensure that their mental health values would not override those of their clients. It is important that practitioners are culturally self-aware, aware of their clients’ values without judgment and negative stereotyping, and willing to process cultural and value related conflicts in counseling process. Hopefully,
CMHVS may provide a tool for counselors to assess Chinese clients’ mental health values, which could assist them to form culturally appropriate counseling goals and treatment plans.

Future research may exam the relationship between the degree of Chinese clients’ adherence to Chinese mental health values and counseling process-outcome, such as its impact on therapist’s conceptualization and intervention approaches, client perceived therapist empathy, establishment of working alliance, interaction with therapist’s cultural values, and designs of appropriate multicultural intervention and evaluation, etc. From a developmental perspective, generational differences in mental health values may be an interesting area to explore, because there is no doubt that values would vary across generations with the ever changing environment. For example, researchers can examine whether CMHVS is applicable to middle-aged or senior Chinese, and identify factors that may contribute to the generational differences. Additionally, it may be meaningful to explore whether and to what extent Chinese people would use those values to monitor their behaviors and guide their daily life. Last but not the least, due to the fast increasing number of Chinese international students in the United States or other countries, researchers may apply CMHVS to this population to examine its cross-sample validity and its association to these students’ acculturation and cultural identity.

Summary

Current Western theories based measures may mask the cultural role played in understanding Chinese college students’ perceptions of mental health values, goals of counseling services, and dynamics in the counseling process. On one hand, Chinese practitioners and researchers have fully embraced fundamental assumptions, principles and methods of Western psychology during last two decades. Professional development of psychotherapy in China is still largely depending on the importation of Western theories. However, the needs of professional
transition from dependence to autonomy have gradually drawn more and more attention from researchers, practitioners and public due to the ill-fit between Western theories and local needs. On the other hand, Western researchers and practitioners need to be aware of their privilege and power during the process. Cultural dimensions of mental health values in China, such as self-in-relation, filial piety, face, and communication styles, are beyond current understanding of Western psychology. Therefore, it would be a professional and ethical way to address the theoretical paradigm shift from Western psychology to indigenous psychology. Researchers and practitioners need to reflect upon their own cultural roots and embrace multicultural informed counseling theory and practice.
### Table 1: Participant Demographics in EFA (n = 529) and CFA (n = 529)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>EFA</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
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</tr>
<tr>
<td><strong>Gender</strong></td>
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<td>Male</td>
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<tr>
<td><strong>Age</strong></td>
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<td></td>
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<tr>
<td>18-22</td>
<td>351</td>
<td>66.35%</td>
</tr>
<tr>
<td>23-26</td>
<td>152</td>
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</tr>
<tr>
<td>27-30</td>
<td>16</td>
<td>3.02%</td>
</tr>
<tr>
<td>30-40</td>
<td>10</td>
<td>1.89%</td>
</tr>
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<td><strong>Degree</strong></td>
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</tr>
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<tr>
<td>Master’s</td>
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</tr>
<tr>
<td><strong>Grade</strong></td>
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<tr>
<td>Sophomore</td>
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<tr>
<td>Junior</td>
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<td>Senior</td>
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<td>Philosophy</td>
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<tr>
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<td>Zhuang</td>
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<tr>
<td>Hui</td>
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</tr>
<tr>
<td>Man</td>
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<tr>
<td>Miao</td>
<td>3</td>
<td>0.57%</td>
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<tr>
<td>Others</td>
<td>16</td>
<td>3.02%</td>
</tr>
<tr>
<td>Characteristics</td>
<td>EFA</td>
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</tr>
<tr>
<td>-------------------------------</td>
<td>-----</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Religious beliefs</td>
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<tr>
<td>No</td>
<td>476</td>
<td>89.98</td>
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<tr>
<td>Yes</td>
<td>49</td>
<td>9.26%</td>
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<tr>
<td>Missing</td>
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<td>0.76%</td>
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<tr>
<td>Only Child</td>
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<td>226</td>
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<tr>
<td>No</td>
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<td>57.28%</td>
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<tr>
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<tr>
<td>Dating</td>
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</tr>
<tr>
<td>Married</td>
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<td>03.02%</td>
</tr>
</tbody>
</table>

*Note.* EFA = Exploratory factor analysis; CFA = confirmatory factor analysis.
Table 2: Fit Statistics for EFA Models with initial 61 Items

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>SRMR</th>
<th>AIC</th>
<th>BIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstructured</td>
<td>5819.05**</td>
<td>1769</td>
<td>.770</td>
<td>.762</td>
<td>.066</td>
<td>.052</td>
<td>92897.376</td>
<td>93678.967</td>
</tr>
<tr>
<td>2 Factors</td>
<td>5120.83**</td>
<td>1709</td>
<td>.806</td>
<td>.792</td>
<td>.061</td>
<td>.045</td>
<td>92319.158</td>
<td>93357.008</td>
</tr>
<tr>
<td>3 Factors</td>
<td>4445.93**</td>
<td>1650</td>
<td>.841</td>
<td>.824</td>
<td>.057</td>
<td>.039</td>
<td>91762.252</td>
<td>93052.090</td>
</tr>
<tr>
<td>4 Factors</td>
<td>3830.55**</td>
<td>1592</td>
<td>.873</td>
<td>.854</td>
<td>.052</td>
<td>.034</td>
<td>91262.874</td>
<td>92800.430</td>
</tr>
<tr>
<td>5 Factors</td>
<td>3523.46**</td>
<td>1535</td>
<td>.887</td>
<td>.865</td>
<td>.049</td>
<td>.032</td>
<td>91069.786</td>
<td>92850.788</td>
</tr>
<tr>
<td>6 Factors</td>
<td>3201.58**</td>
<td>1479</td>
<td>.902</td>
<td>.879</td>
<td>.047</td>
<td>.030</td>
<td>90859.911</td>
<td>92880.088</td>
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<tr>
<td>7 Factors</td>
<td>2902.64**</td>
<td>1424</td>
<td>.916</td>
<td>.892</td>
<td>.044</td>
<td>.027</td>
<td>90670.967</td>
<td>92926.049</td>
</tr>
</tbody>
</table>

** p < .001. CFI = the Comparative Fit Index; TLI = the Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual; AIC = Akaike; BIC= Bayesian.
<table>
<thead>
<tr>
<th>Factors and items</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1: Expected Self</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Being aware of one’s own negative emotions</td>
<td>0.64</td>
<td>-0.01</td>
<td>-0.02</td>
<td>-0.01</td>
<td>0.02</td>
<td>-0.01</td>
<td>5.18</td>
<td>1.24</td>
<td></td>
</tr>
<tr>
<td>2. Adjusting to changes at different life and developmental stages</td>
<td>0.61</td>
<td>-0.00</td>
<td>-0.05</td>
<td>-0.01</td>
<td>0.02</td>
<td>0.08</td>
<td>-0.01</td>
<td>5.45</td>
<td>1.21</td>
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<tr>
<td>3. Taking responsibility for the consequences of one’s choices</td>
<td>0.54</td>
<td>0.13</td>
<td>0.04</td>
<td>0.04</td>
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*Note. N = 529. Bold values represent factor loadings exceeding .35. Using the varimax for orthogonal rotations.*
Table 4: Correlations Among Seven Factors of CMHVS

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Note. CMHVS = Chinese Mental Health Value Scale

** Correlation is significant at the .001 level
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<td>0.21**</td>
<td>0.52**</td>
<td>0.33**</td>
<td>0.45**</td>
<td>0.44**</td>
<td>--</td>
<td></td>
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</tr>
<tr>
<td>14 COS_VC</td>
<td>0.29**</td>
<td>0.38**</td>
<td>0.36**</td>
<td>0.47**</td>
<td>0.42**</td>
<td>0.27**</td>
<td>0.29**</td>
<td>0.27**</td>
<td>0.49**</td>
<td>0.43**</td>
<td>0.49**</td>
<td>0.71**</td>
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<tr>
<td>15 BSI_Anxiety</td>
<td>-0.07</td>
<td>-0.02</td>
<td>-0.02</td>
<td>-0.03</td>
<td>0.04</td>
<td>0.01</td>
<td>-0.04</td>
<td>-0.13**</td>
<td>-0.12**</td>
<td>-0.34**</td>
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<td>0.09</td>
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<td>-0.11**</td>
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<tr>
<td>16 BSI_Soma</td>
<td>-0.12**</td>
<td>-0.01</td>
<td>-0.02</td>
<td>-0.07</td>
<td>0.04</td>
<td>-0.02</td>
<td>-0.03</td>
<td>-0.14**</td>
<td>-0.19**</td>
<td>-0.21**</td>
<td>0.01</td>
<td>-0.01</td>
<td>-0.16**</td>
<td>-0.13**</td>
<td>0.82**</td>
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<tr>
<td>17 BSI_Depre</td>
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<td>-0.03</td>
<td>-0.04</td>
<td>-0.05</td>
<td>0.03</td>
<td>0.00</td>
<td>-0.05</td>
<td>-0.12**</td>
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<td>-0.43**</td>
<td>0.04</td>
<td>0.13**</td>
<td>-0.21**</td>
<td>-0.11**</td>
<td>0.95**</td>
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</table>

Note: CMHVS = Chinese Mental Health Value Scale; 1-7 = seven factors of CMHVS; AVS = Asian Value Scale; AVS_norm = AVS_Consistency to Norms; SWLS = Satisfaction with Life Scale; COS = Cultural Orientation Scale; HI = Hierarchical Individualism; VI = Vertical Individualism; HC = Hierarchical Collectivism; VC = Vertical Collectivism; BSI = Brief Symptom Inventory.

*p < 0.05, **p < 0.01.
### Table 6: Correlations among Total Scores of CMHVS and Referent Measures

<table>
<thead>
<tr>
<th></th>
<th>CMHVS</th>
<th>AVS</th>
<th>SWLS</th>
<th>COS_Indi</th>
<th>COS_Coll</th>
<th>BSI</th>
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<tr>
<td>AVS</td>
<td>.29**</td>
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<tr>
<td>SWLS</td>
<td>.14**</td>
<td>-.03</td>
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<td></td>
</tr>
<tr>
<td>COS_Indi</td>
<td>.32**</td>
<td>.04</td>
<td>.08*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COS_Coll</td>
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<td>.28**</td>
<td>.25**</td>
<td>.34**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSI</td>
<td>-.05</td>
<td>-.14*</td>
<td>-.31**</td>
<td>.07*</td>
<td>-.15**</td>
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</tbody>
</table>

*Note. CMHVS = Chinese Mental Health Value Scale; AVS = Asian Value Scale; SWLS = Satisfaction with Life Scale; COS = Cultural Orientation Scale; COS_Indi = COS_Individualism; COS_Coll = COS_Collectivism; BSI = Brief Symptom Inventory. *

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

English and Chinese versions of appendices are presented below that 1 stands for English version and 2 for Chinese version.

Appendix A-1: Information Statement for Focus Group (English version)

**Introduction**
The Department of Psychology and Research in Education (PRE) at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time without penalty.

**Purpose and Procedure of the Study:**
We are conducting this study to explore how Chinese cultural values influence Chinese college students’ view of mental health, which would help clinical practitioners use cultural adaptive interventions to Chinese clients. The focus group is semi-structured that the group facilitator will have a few questions to ask and then you will share your views about Chinese cultural values and mental health.

**Your Time Commitment**
The focus group is expected to take one hour and half.

**Risks and Benefits**
The focus group should cause no more discomfort than you would experience in your everyday life. Although participation may not benefit you directly, we hope the result of the study will enhance counseling practitioners' understanding of and attention to their clients' cultural values.

Your Confidentiality
The focus group will be audio recorded; however, I can skip questions, turn off the audio recording device, or withdraw at any time during the study without any penalty. Transcripts will be created by the primary researcher and the audio recordings will be destroyed. Transcripts will be shredded within 2 years of the interview. Access to the data will be limited to the primary research and her faculty supervisor of this study. The transcription of the focus group will be kept private, and it will not include any information that will directly identify you. All participants are encouraged to share as honest and open as they can, but please be mindful of the limits on the researcher's ability to protect everyone’s privacy because other group members may repeat what they say outside the group.

Your name will not be associated in any publication or presentation with the information collected about you or with the research findings from this study. Instead, the researcher will use a pseudonym rather than your name.

**Your Rights**
Your participation is strictly voluntary. You may decline or withdraw from participation at any point during the process. There will be absolutely no negative consequences for not participating or withdrawing your participation at any point. Your name will not be associated in any way with the research findings.

Participant Certification
I have read this Informed Consent form. I have had the opportunity to ask, and I have received answers to, any questions I had regarding the study. I understand that if I have any additional questions about my rights as a research participant, I may call (785) 864-7429 or (785) 864-7385, write the Human Subjects Committee Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7563, or email irb@ku.edu. I may also contact the principle investigator: Yujia Lei, MS., Psychology and Research in Education, School of Education, The University of Kansas, Lawrence, KS 66045 via leiyujia@ku.edu.

I agree to take part in this focus group as a research participant. By my signature I affirm that I am at least 18 years old and that I have received a copy of this Consent and Authorization form.

_______________________                              __________________
Print Participant’s Name                                        Date

_______________________
Participant’s Signature

Yujia Lei, MS.                          Changming Duan, Ph.D.
Principal Investigator                  Faculty Supervisor
Joseph R. Pearson Hall                   Joseph R. Pearson Hall
1122 W Campus Rd                        1122 W Campus Rd
University of Kansas                    University of Kansas
Lawrence, KS 66045                      Lawrence, KS 66045
leiyujia@ku.edu                        duanc@ku.edu
Appendix A-2: Information Statement for Focus Group (Chinese version)

研究参与者须知

美国堪萨斯大学的心理学和教育研究部通过并支持此研究。提供以下信息供您决定您是否愿意参加本研究。如果您同意参加，也有随时退出的权利，且不必承担任何责任。

这项研究是为了更好地了解中国大学生是如何看待中国文化价值观与心理健康的关系。您将和三至五个大学生参与一个焦点小组，分享你们对中国文化，对价值观，对心理健康的理解。时间约为一个半小时。这个焦点小组是半结构化的，小组领导将会提一些问题，之后您会分享您的理解。

这个焦点小组不会对您的日常生活造成不利影响。虽然您不太可能直接从参与此研究中获益，但是这项研究获得的信息将帮助我们更好地了解中国大学生群体对心理健康的理解，从而改进咨询师的培训项目，推进对中国本土心理学的理论发展及实践改良。

焦点小组会被录音，但是我知道我可以不回答某些问题，或者要求在小组过程中要求关掉录音设备，我也可以任意时候退出小组而不受任何惩罚。我了解主要研究者会誊录小组录音。誊录稿两年后会被删除。只有主要研究者和她的导师可以阅读誊录稿。誊录稿会被保存好，不会有任何信息能够识别出您的个人信息。

您的参与是完全自愿的。您可以拒绝参与或在任何时候退出研究，绝对不会对您造成任何负面影响。研究结果中不会以任何形式呈现您的名字。

谢谢！

雷雨佳

此研究要求我年满十八岁，并自愿参与这个研究。通过以下的签名，我将同意参与小组。如果我有任何问题，可与研究人员雷雨佳联系，邮箱：leiyujia@ku.edu.

_______________________  __________________
签名  日期
Appendix B-1: Consent for Audio Recording for Focus Group (English version)

I have been fully informed about the procedures listed above. I also understand the following statements: I affirm that I am 18 years of age or older. I have read and fully understand this consent form. I sign it freely and voluntarily.

By signing below, I give my consent to be audio recorded during the focus group. I understand that I can skip questions, turn off the audio recording device, or withdraw at any time during the study without penalty. A copy of this form will be given to me.

_________________________________  __________________________
Participant’s Signature                      Date
Appendix B-2: Consent for Audio Recording for Focus Group (Chinese version)

焦点小组录音 知情同意书

我明白以上描述的焦点小组的步骤。我年满 18 岁，同意我在焦点小组中的分享可以被录音。我理解我可以不回答某些问题，在小组进行的任何阶段要求关掉录音设备，或者在任何时间退出小组而没有任何不良后果。

_______________________                             ___________________
参与者签名                          日期
Appendix C-1: Information Statement for Pilot Study (English version)

Introduction
The Department of Psychology and Research in Education (PRE) at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time without penalty. The whole survey is expected to take approximately 15 minutes to complete.

Purpose and Procedure of the Study
We are conducting this study to explore how Chinese cultural values influence Chinese college students’ view of mental health, and how helping professionals could use cultural adaptive interventions to clients with different cultural values. You will be asked to fill out a survey.

Your Confidentiality
Your name will not be associated in any publication or presentation with the information collected about you or with the research findings from this study. It is possible, however, with internet communications, that through intent or accident someone other than the intended recipient may see your response.

Your Time Commitment
The whole survey is expected to take approximately 15 minutes to complete.

Risks and Benefits
The content of this questionnaire should cause no more discomfort than you would experience in your everyday life. Although participation may not benefit you directly, we believe that the result of the study will enhance counseling practitioners’ understanding of and attention to their clients’ cultural values.

Your Rights
Your participation is strictly voluntary. You may decline or withdraw from participation at any point during the process. There will be absolutely no negative consequences for not participating or withdrawing your participation at any point. Your name will not be associated in any way with the research findings.

Completion of the survey indicates your willingness to participate in this project and that you are over the age of eighteen (18).

If you have any additional questions about your rights as a research participant, you may call (785) 864-7429, write the Human Subjects Committee Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7563, or email irb@ku.edu. You may also contact the principle investigator: Yujia Lei, MS., Department of Educational Psychology, School of Education, The University of Kansas, Lawrence, KS 66045 via leiyujia@ku.edu.

Sincerely,
Yujia Lei, MS.
Principal Investigator
Joseph R. Pearson Hall
1122 W Campus Rd
University of Kansas
Lawrence, KS 66045
leiuyjia@ku.edu

Changming Duan, Ph.D.
Faculty Supervisor
Joseph R. Pearson Hall
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University of Kansas
Lawrence, KS 66045
duanc@ku.edu
研究参与者须知

美国堪萨斯大学的心理学和教育研究部通过并支持此研究。提供以下信息供您决定您是否愿意参加本研究。如果您同意参加，也有随时退出的权利，且不必承担任何责任。这项研究是为了更好地了解中国大学生是如何看待中国文化和价值观与心理健康的联系。您将填写一份调查问卷。这份问卷大约需要 20 分钟完成。

问卷的内容不会对您的日常生活造成不利影响。虽然您不太可能直接从参与此研究中获益，但是这项研究获得的信息将帮助我们更好地了解大学生群体对有效心理咨询师的期待与喜好，从而改进咨询师的培训项目。

您的参与是完全自愿的。您可以拒绝参与或在任何时候退出研究，绝对不会对您造成任何形式的负面的影响。研究结果中不会以任何形式呈现您的名字。

此研究要求您年满十八岁，并自愿参与这个研究。作为参与者，如果您有任何问题，可与研究人员雷雨佳联系，邮箱：leiyujia@ku.edu.

谢谢！

雷雨佳
Appendix D-1: Information Statement for Formal Study (English version)

Introduction
The Department of Psychology and Research in Education (PRE) at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time without penalty. The whole survey is expected to take approximately 30 minutes to complete.

Purpose and Procedure of the Study:
We are conducting this study to explore how Chinese cultural values influence Chinese college students’ view of mental health, and how helping professionals could use cultural adaptive interventions to clients with different cultural values. You will be asked to fill out a survey.

Your Confidentiality
Your name will not be associated in any publication or presentation with the information collected about you or with the research findings from this study. It is possible, however, with internet communications, that through intent or accident someone other than the intended recipient may see your response.

Your Time Commitment
The whole survey is expected to take approximately 30 minutes to complete.

Payment:
Any participant who submits the name and email on the Qualtrics without having to complete the survey will automatically be entered into a lottery for a prize (7 prizes, each is 100RMB, nearly $20). If you withdraw part way through the research, you still can be entered into the lottery.

Risks and Benefits
The content of this questionnaire should cause no more discomfort than you would experience in your everyday life. Although participation may not benefit you directly, we believe that the result of the study will enhance counseling practitioners' understanding of and attention to their clients' cultural values.

Your Rights
Your participation is strictly voluntary. You may decline or withdraw from participation at any point during the process. There will be absolutely no negative consequences for not participating or withdrawing your participation at any point. Your name will not be associated in any way with the research findings. Completion of the survey indicates your willingness to participate in this project and that you are over the age of eighteen (18).

If you have any additional questions about your rights as a research participant, you may call (785) 864-7429, write the Human Subjects Committee Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7563, or email irb@ku.edu. You may also contact the principle investigator: Yujia Lei, MS., Department of Educational Psychology, School of Education, The University of Kansas, Lawrence, KS 66045 via leiyujia@ku.edu.

Sincerely,

Yujia Lei, MS. Changming Duan, Ph.D.
Principal Investigator Faculty Supervisor
Click on the “I Agree” link below to indicate that you have read and understand the information above, and you agree to participate.
If you do not want to participate, please click on the “I Do Not Agree” link below.
研究参与者须知

美国堪萨斯大学的心理学和教育研究部通过并支持此研究。提供以下信息供您决定您是否愿意参加本研究。如果您同意参加，也有随时退出的权利，且不必承担任何责任。

这项研究是为了更好地了解中国大学生是如何看待中国文化价值观与心理健康的关系。您将填写一份调查问卷。这份问卷大约需要 20 分钟完成。

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研究参与者，如果愿意请留下您的姓名和邮箱，参加抽奖（7 个名额，每个人 100 元人民币）。如果您没有完成问卷的填写，您仍将有机会参与抽奖。

您的参与是完全自愿的。您可以拒绝参与或在任何时候退出研究，绝对不会对您造成任何负面影响。研究结果中不会以任何形式呈现您的名字。

此研究要求您年满十八岁，并自愿参与这个研究。此项研究是华中师范大学心理学院和堪萨斯大学的合作研究，作为参与者，如果您有任何问题，可与研究人员雷雨佳联系，邮箱：leiyujia@ku.edu。

谢谢！

雷雨佳
Appendix E-1: Chinese Mental Health Value Scale for Pilot Study (English version)

**Instruction in English:** the aim of this survey is to understand your mental health values. Please read each statement carefully and indicate how important for a person to be mentally healthy in your mind? Use the scale from 1 to 7 that 1 stands for “of no importance to me at all, and (7) stands for “of supreme importance to me.” Be sure to answer every item and try to be as honest and accurate as possible in your responses.

1--------------2-------------3---------------4----------------5----------------6----------------7

Of no importance at all of supreme important

Please follow your feelings to respond rather than thinking of how other people would choose. Thank you!

Note. There are 102 items generated for the pilot study. Because the survey was administered in Chinese, only constructs and some sample items of the survey were translated into English.

**Balance of life**
Eg. Body and mind needs to be in a balanced state.
Eg. Individual needs to balance personal space and social life.

**Emotion management**
Eg. Individual could aware his or her emotional state.
Eg. Individual should not feel over-happy or over-sadness.

**Harmonious relationship**
Eg. Individual is able to establish and maintain close relationship.
Eg. Individual is able to take other’s perspectives to understand others.

**Capacities**
Eg. Individual could adjust to different environment.
Eg. Individual is willing to donate to help others.

**Go with the flow**
Eg. Individual accepts adversities in life.
Eg. Individual complies with the natural development in different life stages.
Keep with mainstream culture
Eg. Personal development should keep with mainstream culture.
Eg. Individual should do things according to social and moral standards.

**Self**
Eg. Understand the reason of being happy or being sad.
Eg. Independent ability to think.

**Changes of cultural values**
Eg. Selectively identify with Western values.
Eg. Avoid internet addiction.
Appendix E-2: Chinese Mental Health Value Scale for Pilot Study (Chinese version)

指导语：这项研究是想了解您对下述内容用于描述心理健康的重要程度的评估，用 1 到 7 来评分，（1）代表对您一点也不重要，（7）代表对您极其重要。分数越大表示这个描述对您越重要。

1----------2---------3---------4---------5---------6---------7
一点也不重要                          极其重要

请根据您的感受回答，而不是想别人会怎么选择！

1. 身心尽可能处于平衡状态。
2. 身体症状不能反应出有心理问题。
3. 能平衡生活中的喜怒哀乐。
4. 能够辩证地看待事物的两面性。
5. 不需要维持家庭期待和内在自我期待关系的平衡。
6. 要平衡道德规范和个人选择之间的关系。
7. 协调个人空间和社交之间的平衡。
8. 保持生活中各种关系的和谐状态。
9. 能够平衡学业/事业追求与家庭的关系。
10. 崇尚天人合一的境界。
11. 人与自然和谐相处。
12. 说话不需要掌握分寸。
13. 做事要得体。
14. 做人要张弛有度。
15. 凡事不走极端。
16. 知行合一。
17. 自身充满积极情绪。
18. 给别人带去积极的能量。
19. 心态消极悲观。
20. 享受快乐。
21. 感到满足。
22. 对生活充满希望。
23. 能够体察自己的情绪状态。
24. 意识到自己的负性情绪，如焦虑、痛苦、紧张、恐惧等。
25. 不能够控制负面情绪。
26. 管理好自己的情绪和欲望。
27. 对自己的心情有一定的掌控能力。
28. 心理状况容易受外界干扰。
29. 不会过喜或者过悲。
30. 日常生活中情绪不稳定。
31. 不能够及时调整负面情绪。
32. 主动想办法化解自己的负面情绪。
33. 能够处理生活中遇到的挫折，胜不骄败不馁。
34. 不能真实地表达情绪。
35. 不会利用自己的负面情绪折磨自己。
36. 不会利用自己的负面情绪折磨他人或伤害他人。
37. 在负面情绪中看到积极正向的意义。
38. 帮助维持家庭和睦。
39. 孝顺父母。
40. 把个人的成就与家族的兴旺发达紧密相连。
41. 能够建立并维持亲密关系。
42. 谦虚谨慎。
43. 不能与他人相处融洽。
44. 有团队意识。
45. 追求个人价值和团队价值的双赢。
46. 主动争取他人支持。
47. 能够接受外界对自己的批评。
48. 不会为了集体的利益而牺牲自我的利益。
49. 避免与他人冲突。
50. 保有自己的独立并和周围人相处融洽。
51. 能够换位思考，理解他人。
52. 能够站在别人的角度上考虑问题。
53. 说话做事不去考虑他人的感受。
54. 做事要顾及他人的面子。
55. 人情世故要照顾的周到。
56. 与人为善。
57. 不给别人找麻烦。
58. 能意识到自己所做的事对周围人所造成的影响。
59. 不能适应不同的环境。
60. 能够与和自己不同背景的人（地域，宗教，民族等）相处。
61. 没有感恩之心。
62. 参与志愿者活动。
63. 捐款捐物帮助他人。
64. 不感受到生活的有意义。
65. 有爱他人的能力。
66. 睡眠好。
67. 不能灵活应变生活发生的事情。
68. 常锻炼身体。
69. 没有良好的生活习惯。
70. 表达情绪要直截了当。
71. 表达情绪时要含蓄。
72. 表达情绪时要有度。
73. 在合适的时间地点说合适的话。
74. 表达观点时点到为止，不要说透/说破。
75. 尽人事，听天命。
76. 心态平和。
77. 不接受生活中的逆境。
78. 待人接物不不强求。
79. 顺应人生不同阶段的发展变化。
80. 不顺应自然规律。
81. 相信缘分天注定。
82. 不相信谋事在人，成事在天。
83. 个人的发展不符合社会主流。
84. 不偏离大多数人的行为。
85. 遵守社会道德规范做事。
86. 什么时间就做什么样的事（例如读书，谈恋爱，工作，结婚，生孩子）。
87. 对自己的心理状况有正确的认识。
88. 没有客观的自我评估。
89. 不了解自己快乐或沮丧的原因。
90. 接受自己的不完美。
91. 不具备分辨是非对错、真假善恶的能力。
92. 独立的思考能力。
93. 可以做出选择。
94. 不能承担选择的后果。
95. 尽可能按照西方人的生活方式生活。
96. 选择性地认同西方价值观。
97. 赡养父母不再是义务。
98. 不认同中国的传统文化。
99. 不用控制上网的时间。
100. 不能平衡网络社交和面对面社交。
101. 网络为生活带来的便利。
102. 避免沉溺于网络。
Appendix F-1: Final version of Chinese Mental Health Value Scale (English version)

Direction: Each culture has unique values that impact people’s attitudes, opinions, behaviors and life styles. The aim of this survey is to understand your values with regard to mental health. Please read each statement carefully and rate how important it is in promoting your personal mental health? Use the scale from 1 to 7 in which 1 stands for “of no importance to me at all”, and (7) stands for “of supreme importance to me.” Be sure to answer every item and try to be as honest and accurate as possible in your responses.

1----------2---------3--------4---------5--------6--------7
Of no importance to me at all                      of supreme importance to me

Please follow your feelings to respond rather than thinking of what other people would choose. Thank you!

Factor 1 (11)
1. Being aware of one’s own negative emotions
2. Adjusting to changes at different life and developmental stages
3. Taking responsibility for the consequences of one's choices
4. Balancing physical and mental wellbeing
5. Being able to see things from others’ perspectives
6. Getting along well with others
7. Accepting life’s adversities
8. Maintaining normal functioning in daily life activities such as sleeping, eating, working, and studying
9. Being able to control one’s negative emotions
10. Maintaining harmony in interpersonal relationships
11. Balancing one’s private life and social life

Factor 2 (7)
12. Bringing positive energy to others
13. Helping people in need
14. Having a peaceful mind
15. Being capable of loving others
16. Feeling gratitude
17. Getting along well with people from different backgrounds (i.e., geographical, religious, ethnic, etc.)
18. Having dialectical views of people and events

Factor 3 (3)
19. Being modest
20. Being prudent
21. Being neither arrogant about winning nor discouraged after losing

Factor 4 (4)
22. Having healthy parents and family members
23. Having a harmonious family
24. Showing filial piety to one’s parents
25. Having a sense of belonging in one’s family
**Factor 5 (4)**
26. Having clear goals in life
27. Being self-aware
28. Feeling satisfied
29. Looking for meaning in life
**Factor 6 (3)**
30. Seeking career success
31. Seeking academic success
32. Having a respectable social status
**Factor 7 (3)**
33. Being able to implicitly express one’s opinions and emotions when in disagreement with others
34. Being capable of expressing one’s emotions and opinions appropriately
35. Being able to avoid interpersonal conflict with others
Appendix F-2: Final version of Chinese Mental Health Value Scale (Chinese version)

指导语：不同的文化会有不同的价值观影响并塑造人们的态度、观点、行为以及生活方式。本研究想要了解您对心理健康价值观的理解。请认真阅读每个题目，并为每项内容对于促进您心理健康的重要程度评分，（1）代表对您一点也不重要，（7）代表对您极其重要。分数越大表示这个价值观对您越重要。

1------------------2-------------------3-------------------4-------------------5-------------------6-------------------7
一点也不重要     有点重要     比较重要     极其重要

1 对我完全不重要
2 不重要
3 有点重要
4 重要
5 比较重要
6 非常重要
7 对我极其重要

第一因子：期待的自我

1. 能对自己负性情绪有觉察。
2. 顺应人生不同阶段的发展变化
3. 能承担选择的后果。
4. 身心平衡。
5. 能站在别人的角度上考虑问题。
6. 与人相处融洽。
7. 接受生活中的逆境。
8. 能维持日常生活的正常运行，例如睡觉、饮食、工作和学习。
9. 能控制负面情绪。
10. 生活中各种关系处于和谐状态。
11. 个人生活和社交活动之间的平衡。

第二因子：与他人的关系

12. 给别人带来积极的能量。
13. 他人有困难时，可以伸出援助之手。
14. 心态平和。
15. 有爱他人的能力。
16. 心存感恩。
17. 能与和自己不同背景的人（地域、宗教、民族等）相处。
18. 对事物的辩证看法。
第三因子：生活准则

19. 谦虚。
20. 谨慎。
21. 胜不骄、败不馁。

第四因子：家庭

22. 父母家人身体健康。
23. 家庭和睦。
24. 孝顺父母。
25. 对家庭有归属感。

第五因子：意义与目标

26. 生活有明确的目标。
27. 对自我有清楚的认知。
28. 有满足感。
29. 追寻生活的意义。

第六因子：成就

30. 追求事业的成功。
31. 追求学业的成功。
32. 拥有受人尊重的社会地位。

第七因子：沟通方式

33. 意见不同时能含蓄地表达情绪观点
34. 表达情绪观点时有分寸。
35. 能避免与他人冲突。
Appendix G-1: Cultural Orientation Scale (COS; English version)

Scale: The items should be mixed up prior to administering the questionnaire. All items are answered on a 9-pointscale, ranging from 1= never or definitely no and 9= always or definitely yes.

Horizontal individualism items:
1. I'd rather depend on myself than others.
2. I rely on myself most of the time; I rarely rely on others.
3. I often do "my own thing."
4. My personal identity, independent of others, is very important to me.

Vertical individualism items:
1. It is important that I do my job better than others.
2. Winning is everything.
3. Competition is the law of nature.
4. When another person does better than I do, I get tense and aroused.

Horizontal collectivism items:
1. If a coworker gets a prize, I would feel proud.
2. The well-being of my coworkers is important to me.
3. To me, pleasure is spending time with others.
4. I feel good when I cooperate with others.

Vertical collectivism items:
1. Parents and children must stay together as much as possible.
2. It is my duty to take care of my family, even when I have to sacrifice what I want.
3. Family members should stick together, no matter what sacrifices are required.
4. It is important to me that I respect the decisions made by my groups.
Appendix G-2: Cultural Orientation Scale (COS; Chinese version)

集体主义-个体主义量表

指导语：这些项目要在实测前打乱顺序。所有的项目将根据 9 点量表来评分，1 分代表绝对不是，9 分代表绝对是。

平行个体主义项目:

我愿意依靠自己而非他人。
我大部分时间都依赖自己；我很少依赖他人。
我经常做“我自己的事情。”
我的个人认同，及独立性对我是非常重要的。

垂直个体主义项目:

我比别人做的工作好对我是非常重要的。
赢是一切。
竞争是自然法则。
当别人比我强时，我感觉到紧张和被激发。

平行集体主义项目:

如果我的同事得到了奖励，我感到非常骄傲。
我同事的幸福感对我非常重要。
对我来说，与别人在一起的时光是愉快的。
当我和他人合作时，我感觉很好。

垂直个体主义项目:

父母和孩子应该多的尽量待在一起。
照顾我的家人是我的责任，即使这意味着我要牺牲我想要的。
家人应该团结在一起，无论需要怎样的牺牲。
尊重我所在团体做出的决定对我来说是非常重要的。
Appendix H-1: Asian Values Scale (AVS; English version)

INSTRUCTIONS: Please read the following statements, then respond to each of the following statements by circling your answer using the scale from "1 = Strongly disagree" to "7 = Strongly agree" to indicate your agreement and disagreement of these statement.

1. One should not deviate from familial and social norms.
2. Occupational failure does not bring shame to the family.
3. One need not follow the role expectations (gender, family hierarchy) of one’s family.
4. The ability to control one’s emotions is a sign of strength.
5. Modesty is an important quality for a person.
6. Following familial and social expectations is important.
7. One should think about one’s group before oneself.
8. Children need not take care of their parents when the parents become unable to take care of themselves.
9. One need not follow one’s family’s and the society’s norms.
10. Educational failure does not bring shame to the family.
11. One should consider the needs of others before considering one’s own needs.
12. One’s family need not be the main source of trust and dependence.
13. One need not conform to one’s family’s and society’s expectations.
14. Family’s reputation is not the primary social concern.
15. One need not achieve academically to make one’s parents proud.
16. Parental love should be implicitly understood and not openly expressed.
17. One’s achievements should be viewed as family’s achievement.
18. One should not be boastful.
19. Children should not place their parents in retirement homes.
20. The worst thing one can do is bring disgrace to one’s family reputation.
21. Elders may not have more wisdom than younger person.
22. One should be humble and modest.
23. When one receives a gift, one should reciprocate with a gift of equal or greater value.
24. One should have sufficient inner resources to resolve emotional problems.
Appendix H-2: Asian Values Scale (AVS; Chinese version)

价值观问卷

说明：下列陈述句描述了一些亚洲社会的价值观。请阅读下列陈述句，并根据您对每句观点的态度，同意或不同意，选择（从 1 非常不同意到 7 非常同意）。

1. 人不应该违背家庭和社会的行为标准。
2. 事业上的失败不会使家庭蒙羞。
3. 人不需要遵从他的家庭要他在家里所扮演的角色（例如，性别、家庭地位等等）的期待。
4. 能够控制情绪表明他强大。
5. 谦虚是一个人重要的品质。
6. 遵从家庭和社会的期望是重要的。
7. 人应该先考虑集体再考虑个人。
8. 当父母没能力照顾他们自己的时候，孩子们是不需要照顾他们的父母的。
9. 人不需要遵从家庭和社会的行为准则。
10. 学业上的失败不会使家庭蒙羞。
11. 人应该先考虑别人的需要，再考虑自己的需要。
12. 一个人不需要把他的家庭作为他主要信任和依靠的根源。
13. 人不需要遵从家庭和社会寄予的期望。
14. 家庭的名声名誉不是社会上主要看重的。
15. 人不需要取得学业上的成功而让家长为之自豪。
16. 父母应该含蓄（不明言）地表达对孩子的爱，而不是公开地表达。
17. 个人的成就应该被视为是家庭的成就。
18. 人不应该自吹自擂。
19. 孩子们不应该把其父母放在养老院。
20. 一个人能做的最坏的事情就是令家庭的名誉蒙羞（或让家庭丢脸）。
21. 年长的人不一定比年轻人有更多的智慧。
22. 人应该谦虚且谦逊。
23. 收到礼物时人们应该以相当价值或更高价值的礼物回赠。
24. 人应该内心强大以助于他解决情感上的问题。
Appendix I-1: Satisfaction with Life Scale (SWLS; English version)

Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

7 - Strongly agree
6 - Agree
5 - Slightly agree
4 - Neither agree nor disagree
3 - Slightly disagree
2 - Disagree
1 - Strongly disagree

____ In most ways my life is close to my ideal.
____ The conditions of my life are excellent.
____ I am satisfied with my life.
____ So far I have gotten the important things I want in life
____ If I could live my life over, I would change almost nothing.
Appendix I-2: Satisfaction with Life Scale (SWLS; Chinese version)

生活满意度量表

请在每个题目后面圈出最符合您的标号。请开放、诚实的回答。

1-完全不同意
2 - 不同意
3 - 略不同意
4 - 既不同意也不反对
5 - 略同意
6 - 同意
7 - 非常同意
1、在很多方面，我现在的生活接近我的理想生活。
2、我的生活状况非常好。
3、我对自己的生活很满意。
4、目前为止，我已经得到了生活中想要的重要的东西。
5、如果我能重新活一次，我几乎不会做出任何改变。
Appendix J-1: The Brief Symptom Inventory-18 (BSI; English version)

Please report the extent to which you have been distressed or bothered in the previous 7 days by each symptom. Use the scale below.

1----------------------2----------------------3----------------------4----------------------5
Not At All __________________________ Extremely

1. Faintness
2. No Interest
3. Nervousness
4. Chest Pains
5. Lonely
6. Tense
7. Nausea
8. Blue
9. Scared
10. Short of Breath
11. Worthlessness
12. Panic Episodes
13. Numb or Tingling
14. Hopelessness
15. Restlessness
16. Body weakness
17. Pessimistic thoughts of life
18. Fearful
Appendix J-2: The Brief Symptom Inventory-18 (BSI; Chinese version)

简明症状问卷
请在下表中选出你在过去7天里是否有被如下的状况所困扰。

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>完全没有</td>
<td></td>
<td></td>
<td></td>
<td>非常</td>
</tr>
</tbody>
</table>
1. 头晕
2. 失去兴趣
3. 情绪不安
4. 胸口疼痛
5. 孤独
6. 紧张
7. 反胃
8. 沮丧
9. 害怕
10. 气短
11. 失去意义
12. 恐慌症状
13. 麻木或异常兴奋
14. 没希望
15. 烦躁不安
16. 身体虚弱
17. 有自杀的想法
18. 恐惧