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Factors Underlying Beliefs of Traditional Chinese Medicine Efficacy for Psychiatric and Physical Disorders among Chinese Americans: Implications for Mental Health Service Utilization

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Abstract

We examined how community attitudes towards traditional Chinese conceptions of health and Western dichotomization of illness might affect perceptions of Traditional Chinese Medicine (TCM) efficacy to examine factors underlying psychiatric service underutilization among Chinese-Americans. We administered an experimental vignette to assess perceived illness severity and beliefs of TCM efficacy for physical and psychiatric disorders among 90 Chinese-Americans ascertained through a national telephone survey. Perceived illness severity was unrelated to assessment of TCM effectiveness. However, psychiatric conditions tended to be viewed as distinct from physical disorders, and TCM use was endorsed as less effective for psychiatric illnesses when compared with physical illnesses. Furthermore, differences in perceived TCM efficacy appeared to be magnified among U.S.-born respondents, with U.S.-born respondents endorsing lower efficacy for psychiatric disorders than foreign-born respondents. These findings suggest that TCM use for psychiatric disorders may decrease with Westernization, but might yet delay access to psychiatric services among first-generation immigrants.

Keywords

Traditional Chinese Medicine; Service Utilization; Beliefs of Efficacy; Help seeking; Chinese American

Introduction

In 2006, Asian-Americans accounted for 4.4% or 13.1 million of the U.S. population, with the largest subgroup of this population being Chinese-American (U.S. Census Bureau, 2006). Traditional Chinese Medicine (TCM) is an often-used alternative treatment among this group for both physical and mental disorders (Feng et al., 2006). TCM use frequently takes place prior to, complements, or replaces Western medical (Ma, 1999) and mental

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health service use (Lai & Chappell, 2007). Because TCM practitioners are often first contacted for treatment of illness among Chinese immigrants (Lin, 1983), such healers might act as the sole provider or as gatekeepers in this community. Understanding the factors that determine TCM use becomes especially important in the context of psychiatric service utilization, as TCM utilization has been suggested as a reason for this group's consistent underuse and delay in accessing Western psychiatric services (DHHS; 2001).

Chinese-Americans represent an ideal group to study the factors that underlie TCM utilization because of their dual exposure to traditional holistic conceptions of health and their potential contact with Western biomedicine that advances an epistemology based on anatomical knowledge of disease. TCM is a medicinal practice strongly influenced by traditional Chinese philosophies such as Confucianism and Taoism that systematically address ailments as life energy (or *qi*) imbalances. Practiced on the body via acupuncture, herbal medicine and other physical treatments (e.g., massage), TCM is conceptualized as balancing the flow of vital energy to address illness conditions (Kuriyama, 2002). Stemming from this conceptualization, TCM makes little or no distinction between the cause and treatment of physical and psychiatric illnesses as Western medicine does (Liu, 1981).

Because of this model's holistic assumptions, several frameworks arise as possibilities for determining TCM use. First, a prevalent view exists among the Chinese that while Western medicine treats symptomatology, TCM more effectively (if more gradually) addresses the fundamental cause of illness (Lam, 2001). From this perspective, TCM might be preferred for those illnesses perceived as more 'deeply rooted' (i.e., serious) in nature. Other characteristics of illness that might be closely linked to how deep-seated an illness is include illness course (i.e., whether a problem endures for an entire lifetime) and chronicity (i.e., likelihood of symptoms returning). Evaluation of how deeply entrenched an illness is might influence assessment of TCM's effectiveness for various conditions.

A second framework-- exposure to mainstream U.S. culture and Western biomedicine-- acts to challenge the holistic focus of TCM and may greatly affect perceptions of TCM efficacy among Chinese-Americans. Western medicine dichotomizes illness into physical and psychiatric forms in contradiction to TCM's holistic focus. If adopted, this dichotomy (which originates from Greek notions of soma and psyche; Kuriyama, 2002) might affect assessments of TCM efficacy because TCM directs the flow of *qi* primarily through somatic means (i.e., the body is manipulated to regulate *qi* flow). Thus, if Chinese-Americans come to view psychiatric conditions as distinct from physical illnesses, psychiatric disorders (particularly those that might be seen as detached from the body, such as schizophrenia) may be viewed as less amenable to the somatic focus of TCM treatments.

This report utilizes a sample of Chinese-Americans ascertained from a national sampling frame to examine factors underlying beliefs about TCM efficacy. Because of the prominent role that TCM might play in the well-documented pattern of delayed use and underutilization of mental health services among Chinese-Americans (DHHS, 2001), we focus on beliefs of TCM efficacy for psychiatric disorders, using results about physical disorders as a benchmark to understand these findings. We propose two distinct, but not mutually exclusive, sets of hypotheses: (1) that perceptions of how 'deeply entrenched', or

perceived severity and chronicity of the illness (i.e., 'is more serious', 'will be a problem for entire life', and 'might return at any time') will increase beliefs in the efficacy of TCM. Due to exposure to the Western dichotomization of psychiatric versus physical illnesses, we also propose a second set of hypotheses: (2a) that psychiatric disorders will be perceived as distinct from general physical disorders- i.e., psychiatric conditions will be viewed less as 'an illness like any other' when compared with physical illnesses; (2b) that psychiatric disorders will be perceived as less amenable to treatment by TCM when compared with physical illnesses, and; (2c) that the magnitude of these differences between beliefs of TCM efficacy for psychiatric and physical disorders will vary by exposure to Western norms (measured by place of birth- i.e., U.S. born vs. China/Taiwan born).

Methods

Sample and Procedures

This study draws on a unique opportunity to study these phenomena via a dataset based on a national sampling frame that oversampled Chinese-Americans. To test our hypotheses, we employed a vignette experiment in a national telephone survey where subjects were provided one of two vignettes describing a person with either a mental or a physical illness. Each respondent received only one vignette and then responded to questions regarding the person described in the vignette. Data from the Chinese-American subsample ($n = 90$) is presented (see Yang et al, 2008).

The target population was composed of persons age 18 and older, living in households with telephones, in the continental U.S. The sampling frame was derived from a list-assisted, random-digit-dialed (RDD) telephone frame. Because the RDD sample yielded few (13) Chinese-American respondents, an oversample of seventy-seven additional Chinese-Americans was randomly selected by using ethnic surnames in a national telephone directory. Similar to other telephone surveys with Chinese-Americans (Sasao, 1994), the response rate for the Chinese-American oversample was 24%, which was lower than the 62% response rate for the RDD sample. Interviews were conducted in English ($n = 63$) or Chinese (Mandarin or Cantonese; $n = 27$).

Demographic characteristics—Our Chinese American subsample was mostly female ($n = 54$ or 60%), averaged 41.8 years ($SD = 15.8$) of age, and had a median family income of \$56,880. Respondents were primarily college-educated or above (57.8% or $n = 52$) and 75.4% were foreign-born ($n = 18$ U.S.-born, $n = 55$ China/Taiwan born and $n = 17$ 'Other'). In terms of religious preference, participants endorsed 'none' (44.4%), Buddhism (28.9%), Christianity (21.1%) or 'Other' (5.5%). Our sample does not differ appreciably on age, percent foreign-born, or family income from the 2000 Census data on the nationally-representative Chinese-American community (Yang et al, 2008). However, like the larger RDD sample, the Chinese American subsample is more highly educated and proportionally more female than the national group.

Measures

Vignettes—Subjects were randomly assigned one of two vignette experiments that were quite similar. Data from both vignette experiments were combined to maximize sample size. Chinese American subjects receiving vignette experiment #1 responded to a vignette describing a person with the symptoms and diagnosis of schizophrenia ($n=20$), major depressive disorder (MDD; $n=22$), or a physical illness (ruptured disc; $n=1$). Respondents receiving vignette experiment #2 were randomly assigned to a schizophrenia ($n=8$), MDD ($n=6$), or a physical illness (heart disease, $n=6$; diabetes, $n=14$; arthritis, $n=7$; or melanoma, $n=6$) vignette. Subjects receiving the schizophrenia ($n=28$) and MDD vignettes ($n=28$) were combined to form the psychiatric illness vignette condition ($n=56$). The physical condition vignettes were likewise combined ($n=34$). Vignettes were translated and independently backtranslated. The vignette subject's race/ethnicity was Chinese-American, although vignette character gender was randomly assigned.

Examples from Vignette Experiment #1 are provided below and describe the illness and its treatment (for simplicity, the vignettes and dependent variable measures refer to a Chinese-American man). The vignettes from Vignette Experiment #2 are similar in describing symptomatology and hospitalization experience to Vignette Experiment #1 and are available upon request. For the physical condition, only the most commonly administered vignette (diabetes) is presented.

Vignette Experiment #1- Schizophrenia: Imagine a person named Jung. He is a single, 25-year old Chinese-American man. Usually, Jung gets along well with his family and coworkers. He enjoys reading and going out with friends. About a year ago, Jung started thinking that people around him were spying on him and trying to hurt him. He became convinced that people could hear what he was thinking. He also heard voices when no one else was around. Sometimes he even thought people on TV were sending messages especially to him. After living this way for about six months, Jung was admitted to a psychiatric hospital and was told that he had an illness called “schizophrenia”. He was treated in the hospital for two weeks and was then released. He has been out of the hospital for six months now and is doing OK.

Vignette Experiment #1- Major Depressive Disorder: About a year ago, Jung started feeling very down and unhappy. He found it very hard to get out of bed, get dressed, go to work, or do anything. He just didn't get any pleasure out of anything the way he normally would. He often didn't feel like eating and he had trouble sleeping. Jung also felt completely worthless and even had thoughts about killing himself. After having these problems off and on for about six months, Jung was admitted to a psychiatric hospital and was told that he had an illness called “major depressive disorder”. He was treated in the hospital for two weeks and was then released. He has been out of the hospital for six months now and is doing OK.

Vignette #2- Physical Illness (Diabetes): Jung has an illness the doctors diagnosed as “diabetes” and on several occasions he has had to go to the local hospital for treatment. Because of his condition, Jung has high blood sugar levels that can result in complications such as frequent infections, heart disease or kidney failure.

Dependent Variables—Each respondent received the following questions and statements. For Hypothesis #1, three questions assessed underlying dimensions of illness. The first, “How serious would you consider the problem to be?” had a response set of: 1) Not serious at all; 2) Not very serious; 3) Somewhat serious; 4) Very serious. The remaining two items consisted of, “Jung will probably continue to have problems like the ones described for his entire life,” and “Even if Jung has been doing fine for years, the problem might return at any time.” For Hypothesis #2a, one question, “Jung’s problem is an illness just like any other illness,” assessed the perceived distinctiveness of psychiatric from general physical disorders. These three items shared a response format of: 1) Strongly disagree; 2) Somewhat disagree; 3) Somewhat agree; 4) Strongly agree. For Hypotheses #2b and #2c, one question measured beliefs of TCM efficacy. This question, “How likely is it that a practitioner of Traditional Chinese Medicine-- who uses, for example, acupuncture, herbal medicine, Qigong, or other physical treatment-- can help with problems like Jung has?” had a response set of: 1) Not likely at all; 2) Somewhat unlikely; 3) Somewhat likely; 4) Very likely.

Results

Hypothesis #1 asserts that underlying dimensions of illness will predict beliefs of efficacy for TCM. However, none of the Pearson correlations between ‘illness seriousness’ ($r(86) = .14$), ‘illness might return at any time’ ($r(86) = .07$), and ‘will continue to have problem for entire life’ ($r(86) = -.02$) were significantly associated with beliefs about TCM efficacy (all p values $> .10$; all tests 2-tailed).

Hypothesis #2a states that psychiatric disorders will be perceived as distinct from general physical disorders. Consistent with this hypothesis, independent sample t-tests reveal a trend for respondents to rate psychiatric illnesses as less ‘an illness like any other’ ($M = 2.89$, $SD = 1.2$) when compared with physical illnesses ($M = 3.29$, $SD = .87$; $t = 1.81$ (85), $p = .07$). We next examined Hypothesis #2b which states that psychiatric disorders will be perceived as less treatable by TCM when compared with physical illnesses. Supporting Hypothesis #2b, Chinese-Americans endorsed TCM as less efficacious for psychiatric illness ($M = 2.28$, $SD = .97$) than for physical illnesses ($M = 2.88$, $SD = .82$; $t = 2.60$ (88), $p < .01$). When the TCM efficacy variable was dichotomized into “not likely at all/not very likely” vs. “somewhat likely/very likely” to help, only 41.5% ($SD = .50$) agreed that TCM would be efficacious for psychiatric disorders while 78.7% ($SD = .42$) endorsed TCM efficacy for physical disorders ($t = 3.75$ (77), $p < .001$).

To test the effects of acculturation (Hypothesis #2c), we examined whether these beliefs in TCM efficacy by condition differed by place of birth (dichotomized into U.S. vs. China/Taiwan born; $n = 18$ and 55 , respectively) by conducting a 2×2 ANOVA to examine this potential interaction. A trend existed for differences in perceived TCM efficacy for psychiatric vs. physical conditions to vary by whether the respondent was born in the U.S. or China/Taiwan (F ratio = 3.35 { $1, 68$ }, $p = .07$). The U.S. born group ($n = 11$) found TCM to be less efficacious for psychiatric disorders ($M = 1.82$, $SD = .60$) when compared with the China/Taiwan-born group ($n = 35$; $M = 2.46$, $SD = .98$). In contrast, scores were quite similar when the U.S. born group ($n = 7$) rated TCM for effectiveness for physical disorders

($M = 2.86$, $SD = .38$) when compared with the China/Taiwan-born group ($n = 16$; $M = 2.94$, $SD = .85$). The difference in magnitude of perceived TCM efficacy between the U.S.- and foreign-born group thus appeared to be driven by the U.S.-born group perceiving TCM treatment for psychiatric disorders as less effective than did the foreign-born group.

A post-hoc comparison of the efficacy scores by place of birth revealed that the U.S. born group in fact found TCM to be less helpful in treating psychiatric disorders when compared with the China/Taiwan born group, $t(44) = -2.03$, $p < .05$. Dichotomizing the TCM efficacy variable as above further reveals that only 9.1% ($SD = .30$) of the U.S. born group found TCM to be efficacious in treating psychiatric disorders compared with 51.4% ($SD = .51$) for the China/Taiwan born group ($t(29) = -3.39$, $p = .002$). However, no differences were found between the two groups when comparing beliefs of TCM efficacy for physical illnesses ($t(44) = .24$, ns). Lastly, any potential confounding effect of sociodemographic variables on the results from Hypotheses #2a–2c are effectively controlled because vignette type (psychiatric vs. physical) was randomly assigned to subjects and was not significantly correlated with any sociodemographic variable (all p values $> .10$).

Discussion

Our results support an interpretation that the core epistemology espoused by TCM—that health is determined by a holistic balancing of vital energy—appears challenged by dichotomization of illness into psychiatric and physical forms, and that the effects of this dichotomization become more pronounced as acculturation to Western norms increases. Rather than TCM efficacy being assessed by how fundamentally-rooted an illness might be, a trend exists for Chinese Americans to perceive psychiatric disorders as being distinct from other illnesses, with such disorders being seen as significantly less treatable by TCM than general physical disorders. This argument is further buttressed by the fact that exposure to Western norms appears to play an influential role in the perception of TCM efficacy for psychiatric disorders; 51.4% of the China/Taiwan born group agreed that TCM would be helpful in treating such disorders compared with only 9.1% of the U.S.-born group. This difference is made even more striking by the fact that assessment of TCM efficacy for physical disorders remained quite similar across the foreign- and U.S.-born respondents.

Our results also contribute to a better understanding of the factors that underlie the pattern of underuse and delay in accessing mental health services evidenced by Chinese Americans (DHHS, 2001). Because TCM has been identified as commonly utilized before entry into Western psychiatric treatment among Chinese Americans (Lai & Chappell, 2007), our results suggest that TCM might play a prominent role in delayed access to Western mental health services among first generation immigrants specifically. This remains a significant issue since immigrants comprised 62.7% of the Chinese American group in 2006 (U.S. Census Bureau, 2006). However, our results also suggest that the role that TCM might play in mental health utilization patterns appears to greatly diminish among second generation Chinese Americans. This is congruent with findings indicating that U.S.-born members of this group are more likely to utilize and benefit from psychiatric services, since their perspectives on treatment are more likely to match those of Western mental health professionals (Ying & Miller, 1992). Further, our findings are consistent with Hsiao et al.

(2006), who found that Chinese-Americans who have lived longer than 10 years in the United States use less complementary medical services, suggesting that acculturation is an important factor in determining TCM use.

Our findings also have important implications for understanding the circumstances by which Chinese Americans might combine TCM and Western health service use. While it appears that this group might utilize both TCM and Western health services for physical and psychiatric conditions as first generation immigrants, our results suggest that such combined use might only continue for physical disorders among the second generation. Thus, our findings are consistent with research in which a sample of Chinese-Americans who used emergency hospital services reported using TCM for physical disorders at very similar rates whether they were first- or second-generation immigrants (44% and 42%, respectively; Pearl, Leo & Tsang, 1995).

This study also has several limitations. First, no measure of TCM use, or behavioral intent to utilize TCM is asked of respondents. Rather, beliefs of efficacy are used as a proxy for actual TCM utilization. Second, when interpreting the interaction findings, the number of respondents in the U.S. born psychiatric and physical disorder group was very small (11 and 7 respectively), indicating that these results should be interpreted cautiously. Third, the low response rate and nonprobability nature of our sample limits generalizability of our findings to the Chinese American group nationally. In particular, that our sample appeared to be more highly educated than the national Chinese American group (thus suggesting more Westernizing influences) might have affected our results. However, that beliefs of TCM efficacy differed in a predicted manner according to place of birth argues against a global effect of higher education (or more Westernized norms) towards subjects' responses. Further, that our sample appeared to be more highly educated and proportionally more female than the national population is consistent with the RDD sample of the larger study (which had a satisfactory response rate of 62%) and is typical of survey research generally. Lastly, we operationalized our constructs with single-item measures rather than multiple-item scales, which did not allow us to assess reliability of the items. However, we still did find hypothesized differences in beliefs of TCM efficacy even though our single-item measures might not be as reliable as we would ideally like them to be.

Conclusion

This study provides valuable data from a national telephone survey on community attitudes concerning how Chinese Americans perceive the efficacy of TCM for different illness conditions. No evidence supported the hypothesis that underlying characteristics such as perceived illness severity or chronicity influenced assessment of TCM efficacy. Instead, our results suggest that psychiatric disorders were seen as distinct from physical disorders, that TCM was viewed as less effective for psychiatric disorders than for physical disorders, and that the perceived efficacy of TCM for psychiatric disorders decreased with exposure to Western norms. As native Chinese encounter increasing Westernization- whether via immigration to Western settings or the globalization of biomedicine- such traditional beliefs might be the subject of increasing transformation. Future studies—in addition to investigating how TCM beliefs change once in contact with such forces-- might also

examine how these traditional healing beliefs might be replaced by, co-exist with, or become synergistic with Western conceptions of health. Such knowledge would greatly advance our understanding of the myriad roles that modernization might play in impacting traditional conceptions of psychiatric disorders, and other illness conditions more generally.

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