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Attitudes toward mental health services: Age-group differences in Korean American adults

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Abstract

The present study examined the attitudes toward mental health services held by younger (aged 20-45, n = 209) and older (aged 60 and older, n = 462) groups of Korean Americans. Following Andersen's (1968; A behavioral model of families' use of health service, Center for Health Administration Studies) behavioral health model, predisposing (age, gender, marital status and education), need (anxiety and depressive symptoms) and enabling (acculturation, health insurance coverage and personal experience and beliefs) variables were considered. In the mean-level assessment, younger and older adults were found to hold a similar level of positive attitudes toward mental health services. In the multivariate analysis, culture-influenced beliefs were shown to have a substantial contribution to the model of attitudes toward mental health services in both age groups. The belief that depression is a medical condition was found to be a common predictor of positive attitudes across the groups. In the older adult sample, more negative attitudes were observed among those who believed that depression is a sign of personal weakness and that having a mentally ill family member brings shame to the whole family. Our findings show that older adults are not only more subject to cultural misconceptions and stigma related to mental disorders, but also their attitudes toward service use are negatively influenced by the cultural stigma. The findings provide important implications for interventions targeted to improve access to mental health care among minority populations. Based on the similarities and differences found between young and old, both general and age-specific strategies need to be developed in order to increase effectiveness of these programs.

Keywords

mental health; service utilization; Korean American adults

Introduction

Racial/ethnic disparities in physical health and health care have for more than two decades represented priority areas for research and public policies (Smedley, Stith, & Nelson, 2003). Initiated by the Surgeon General's report (US Department of Health and Human Services, 1999) and further reinforced by the President's New Freedom Commission on Mental Health (2003), attention has been extended to mental health arena. It is now recognized that racial/ethnic minorities are more likely to have mental health problems than non-Hispanic whites, while at the same time minorities are less likely to utilize mental health services (Lin & Cheung, 1999; US Department of Health and Human Services, 2001). In the findings from the National Comorbidity Survey Replication, unmet needs for mental health services were pronounced among elders and racial and ethnic minorities (Wang et al., 2005). Numerous studies have

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explored risk factors of mental distress in minorities (e.g. low socioeconomic status, poor health conditions and acculturative stress) and potential barriers to service use (e.g. lack of insurance, limited English proficiency, stigma and cultural misconceptions; US Department of Health and Human Services, 2001).

One of the major challenges in research with ethnic minorities is oversimplification or lack of attention to within-group variations. Little attention has been paid to the effects of age and aging on a wide variety of psychological functioning and behavior. Indeed, few researchers have focused on age-group differences in mental health service utilization even within nonminority populations. Studies using actual utilization as an outcome criterion have usually found that older adults are less likely to use mental health services than their younger counterparts (e.g. Crabb & Hunsley, 2006; Wang et al., 2005). For attitudinal outcomes, however, findings are mixed, with some studies suggesting more negative views held by older populations (e.g. Lundervold & Young, 1992) and others finding no age differences (e.g. Robb, Haley, Becker, Polivka, & Chwa, 2003; Segal, Coolidge, Mincic, & O'Riley, 2005).

Because younger and older adults represent distinct cohorts with different life experiences and exposures to mental health issues, their perceptions of and attitudes toward mental health and service utilization may vary. Information on age difference will be useful to develop interventions that effectively address the specific needs of different age groups of minorities. The goal of the present study was to explore whether attitudes toward mental health services and their predictors differ between younger and older adults of one ethnic group, Korean Americans.

Korean Americans are currently ranked as the fourth largest Asian American subgroup, and they are projected to have continuous demographic growth over the next few decades (US Census Bureau, 2000). Despite their population demographics, relatively little is known about the psychological experiences of Korean Americans. The limited literature that is available suggests that Korean Americans may be at particular risk for mental distress (Hughes, 2002). Studies using standard depressive symptom inventories (e.g. the Center for Epidemiologic Studies – Depression, CES-D, scale and the Geriatric Depression Scale, GDS) have found higher scores for Koreans than for other racial/ethnic groups. This is the case both in younger adult samples (e.g. Yeh, 2003) and in older samples (e.g. Min, Moon, & Lubben, 2005). Although the high scores may be partly attributed to cultural response patterns to symptom inventories, the findings call attention to the heightened needs for mental health services in Korean American communities.

Although there are reasons to suspect that Korean Americans may be experiencing considerable distress, studies indicate they tend to underutilize available mental health services and hold negative perceptions of service use (Kim, 1995; Shin, 2002). Because negative perception is a critical impediment to service use (Diala et al., 2000; Leaf et al., 1988), exploration of correlates of attitudes toward mental health services is an essential step in understanding the target population's conceptions of mental health and help-seeking behaviors and in developing intervention strategies. However, previous work (e.g. Jang, Kim, Hansen, & Chiriboga, 2007b; Yi & Tidwell, 2005) has been limited by the restricted age ranges of samples and lack of attention to age-group difference.

Another limitation in existing research with Korean Americans is the lack of appropriate theoretical models. The present study incorporated Andersen's (1968) model of health services use. This model has been frequently employed in research not only on actual utilization of mental health services but also on attitudinal outcomes (e.g. Leaf et al., 1988). The original model proposes that health services use is determined by societal factors, health services system factors and individual factors. Furthermore, individual factors are categorized as needs,

enabling factors and predisposing factors. The model has been successfully applied to various racial/ethnic groups, including Asians, with recommendations to incorporate cultural factors (Andersen, Harada, Chiu, & Makinodan, 1995). In the present study, demographic characteristics such as age, gender, marital status and education were conceptualized as predisposing factors. Individuals' overall mental health condition, as indicated by anxiety and depressive symptoms, was considered to represent needs. The third component, enabling factors, deserves much attention because it explains barriers and facilitators to service use, which in turn can be targets of interventions.

The enabling variables included in the current assessment were acculturation, health insurance coverage, prior experiences with counseling and personal beliefs about mental illness. Studies with immigrant populations have consistently shown that higher acculturation levels are positively linked to favorable perceptions of mental health services (Tata & Leong, 1994). Given that health insurance is an important enabler for service use and that minorities are more likely to be uninsured than nonminorities (Brown, Ojeda, Wyn, & Levan, 2000; Lillie-Blanton & Hoffman, 2005), lack of insurance may lead to negative attitudes toward mental health services. Having had prior contact with mental health professionals has been shown to be associated with more openness to service use (Tijhuis, Peters, & Foets, 1990).

Personal belief about mental illness is thought to shape one's openness to service use (Karasz, 2005). Minority elders in particular are known to be subject to cultural misconceptions and stigma related to mental illness (Lin & Cheung, 1999; US Department of Health and Human Services, 2001). Many Asian Americans view depressive symptoms as a sign of weakness or lack of discipline and willpower (Leong & Lau, 2001). It is also known that Asian Americans tend not to accept the medical model of depression that portrays depression as a disease requiring professional treatment (Karasz, 2005). Based on Confucian ethics, Asians tend to believe that self-concealment of emotional trouble is a virtue (Yi & Tidwell, 2005). Given these cultural characteristics, emotional symptoms and distress are often internally tolerated, and stoic approaches are usually encouraged in response to emotional distress (Lin & Cheung, 1999).

Stigma and discrimination against people with mental disorders, indeed, are common throughout world (World Health Organization, 2001). Asian cultures, however, are relatively unique in that stigma is attached not only to the affected individual but often to the individual's family as well (Lin & Cheung, 1999; Okazaki, 2000). In many Asian cultures, one's mental illness is perceived not only as a personal matter but also as a threat to the homeostasis and harmony of the whole family (Lin & Cheung, 1999; Okazaki, 2000), as having a family member with a mental illness negatively reflects on family lineage and brings dishonor to the family name. It is generally recognized that cultural misconceptions and stigma against mental illness have adverse impacts on attitudes toward mental health services (Karasz, 2005; Lin & Cheung, 1999). Although older adults are expected to be more subject to disbeliefs in the medical model of depression and in cultural stigma, it is unclear how those culture-related beliefs about mental illness contribute to the attitudes toward mental health services in different age groups.

Using samples of young and old Korean Americans, our objective with this exploratory study was to assess (a) whether there is an age-group difference in attitudes toward mental health services and (b) whether the predictability of predisposing, need and enabling variables to attitudes differ by age group.

Methods

Samples

The older adult sample was drawn from a survey of community-dwelling Korean American elders (aged 60 or older) conducted between October 2005 and May 2006 in Florida. Because Korean elders represent a relatively low proportion of residents, a multisource sampling strategy was used. The sources included local Korean churches, other religious groups, senior centers, elder associations and a directory of Korean residents in Florida. The survey itself consisted of a standardized questionnaire in the Korean language. The survey was originally drafted in English, then the Korean version of the questionnaire was developed using a backtranslation method. In places where visits were made, surveys were self-administered. Trained Korean-speaking interviewers were available for anyone who needed assistance. For those who were recruited through means other than visits (e.g. via calling individuals listed in the directory of Korean residents and self-referrals), a mail survey approach was used. The resulting sample included 472 participants. Preliminary assessment showed that, compared with the individuals whose data were collected by mail surveys, participants recruited by visits were less likely to be married ($\chi^2 = 16.5$, p < 0.001) and were less educated ($\chi^2 = 9.97$, p < 0.01). The finding suggests that sole reliance on mail surveys would have excluded individuals with characteristics associated with greater distress. Detailed information on the sampling procedures is available elsewhere (Jang, Kim, Chiriboga, & King-Kallimanis, 2007a).

For the purpose of comparison, between January and May 2007, the survey was replicated with Korean Americans (n = 212) aged 20 to 45. Questionnaires were in Korean and included selected measures from the earlier survey. Participants were again recruited from multiple sources (e.g. Korean Student Associations and clubs, Korean businesses, local Korean churches and referrals). Similar to with the older adults, both self-administration at selected sites and a mail survey approach were employed. There were no differences in demographic variables between younger participants recruited by either of the two methods.

After we excluded individuals who had missing information for more than 10% of the variables used in the present analysis, the final sample consisted of 209 younger adults and 462 older adults.

Measures

Attitudes toward mental health services

A 10-item version of the Attitudes Toward Seeking Professional Psychological Help Scale (Fischer & Farina, 1995) was adopted to assess individuals' propensity to use mental health services. The scale includes five positive statements (e.g. 'If I believed I was having a mental breakdown, my first inclination would be to get professional attention', 'A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help') and five negative statements (e.g. 'The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts', 'A person should work out his or her own problems; getting psychological counseling would be a last resort'). Individuals were asked to rate each statement using a three-point scale ranging from 0 (disagree) to 2 (agree). Responses to the negative statements were reverse-coded, and all responses were summed into total scores. Total scores could range from 0 to 20, with higher scores indicating more positive attitudes toward mental health services. Internal consistency for the scale was satisfactory for both younger adults ($\alpha = 0.75$) and older adults ($\alpha = 0.78$).

Predisposing variables

Demographic variables included age (in years), gender (1 = male, 2 = female), marital status (1 = not married, 2 = married), and educational attainment (1 = no education to 5 = college or more).

Need variables

Anxiety was measured with the three items adapted from the Aging Status, and the Sense of Control (Drentea, 2002). The items ask how many days during the past week the respondents (a) worried a lot about little things, (b) felt tense or anxious and (c) felt restless. Individual responses were summed for total scores. The scores could range from 0 to 21, with higher scores indicating greater levels of anxiety. The symptom scale approach is commonly used in community settings and is known to have good psycho-metric properties (Drentea, 2002). Internal consistency of the scale was high in the present samples ($\alpha = 0.93$ for younger adults, $\alpha = 0.92$ for older adults).

A short form of the Center for Epidemiologic Studies – Depression (CES-D; Andresen, Malmgren, Carter, & Patrick, 1994) scale was included to assess depressive symptoms. The 10 items are rated on a four-point scale for how often symptoms such as loneliness, feelings of fearfulness and restless sleep were experienced during the past week. The CES-D has been translated into the Korean language, and its psycho-metric properties have been validated in previous studies. Internal consistency in the present samples was high ($\alpha = 0.85$ for younger adults, $\alpha = 0.80$ for older adults).

Enabling variables

Acculturation was assessed with a composite measure adopted from several studies on acculturation and validated with Korean American elders (Jang et al., 2007a). The scale contains 12 items on language proficiency, frequency of language use, audiovisual media consumption (e.g. TV, video), print media consumption (e.g. newspaper, magazine), food consumption at home, food consumption outside the home, ethnicity of friends, social gathering, sense of belonging, getting along, familiarity to culture and custom, and celebration of holidays. Total scores could range from 0 to 36, with higher scores indicating greater knowledge of and familiarity with the mainstream American culture. Internal consistency in the present samples was high ($\alpha = 0.87$ for younger adults, $\alpha = 0.92$ for older adults).

A single item asked about health insurance coverage and used a yes/no response format. A series of questions asked about prior contact with mental health professionals and personal beliefs about mental illness. The items, adopted from a National Mental Health Association (1996) survey questioned whether participants (a) had previously received psychological counseling or treatment, (b) thought depression is a sign of personal weakness, (c) thought depression is a medical condition that needs treatment, (d) thought keeping emotional troubles to oneself is a virtue, and (e) thought having a mentally ill family member brings shame to the whole family. Responses were coded as 1 (yes) or 0 (no).

Results

Characteristics of the samples

Results of descriptive analyses comparing the two age groups are shown in Table 1. The 209 younger adults and 462 older adults had a relatively equal gender distribution but differed in other demographic characteristics. The average length of stay in the United States was 6.37 years (SD = 5.37) for the younger adults and 24.9 years (SD = 10.8) for the older adults. As expected, younger adults were more likely to be married and to have at least a high school

education. Of interest is that younger adults scored higher on anxiety and depressive symptoms than did older adults, and younger adults were more likely to be uninsured.

Older adults were more likely to believe that depression is a sign of personal weakness and that having a mentally ill family member brings shame to the whole family. In contrast, younger adults were more likely to accept the idea that depression is a medical condition that needs treatment. No statistical age-group difference was found for prior contact with mental health professionals, but the proportion reporting contact in both groups was less than 8%. Similarly, there were no group differences in beliefs that keeping emotional troubles to oneself is a virtue or in the outcome criterion, attitudes toward mental health services.

Regression models of attitudes toward mental health services

Table 2 summarizes the results of the hierarchical regression models of attitudes toward mental health services among younger and older adults. As a preliminary analysis, bivariate correlations and variance inflation factor statistics were assessed. All zero-order correlations (results are not shown in tabular form) were below 0.51. The absence of collinearity was also confirmed in the regression by the absence of variance inflation factors greater than 1.68.

For each age group, a separate regression model was estimated with the same sets of predictors entered in the following order: (a) predisposing variables (age, gender, marital status and education); (b) need variables (anxiety and depressive symptoms) and (c) enabling variables (acculturation, health insurance coverage, and personal experience and beliefs).

In the younger adult sample, women and those with more education were found to have more favorable attitudes toward mental health services. Need variables had no significant impact. In the final step, prior contact with mental health professionals and belief in the medical model of depression were identified as significant enablers for positive attitudes toward mental health services. The total amount of variance accounted for by the estimated model was 25% (F(13, 195) = 4.56, p < 0.001).

In the older adult sample, none of the demographic variables reached statistical significance. One need factor, depressive symptoms, was found to be significant, but the relationship was counterintuitive. Individuals with higher levels of depressive symptoms were more likely to have a more negative attitude toward mental health services. In the final step, a personal belief that depression is a medical condition was associated with more positive attitudes toward mental health services, whereas believing that depression is a sign of personal weakness and that having a mentally ill family member brings shame to the whole family predicted more negative attitudes. The total amount of variance accounted for by the estimated model was 16% (F(13, 385) = 5.25, p < 0.001).

Discussion

Responding to the priority placed on reducing racial/ethnic disparities in mental health and service utilization (e.g. US Department of Health and Human Services, 2001), the present study assessed the attitudes toward mental health services held by younger and older groups of Korean Americans. Predictors of the attitudes were selected and organized according to Andersen's (1968) behavioral health model. Our findings show similarities and differences between younger and older adults in the level of attitudes toward mental health services and their predictors.

In the mean-level assessments, younger and older adults were found to hold a similar level of positive attitudes toward mental health services. Studies using actual utilization as an outcome criterion have usually found that older adults are less likely to use mental health services than

their younger counterparts (e.g. Crabb & Hunsley, 2006). For attitudinal outcomes, however, more similarities than differences have been observed between the young and old (e.g. Robb et al., 2003; Segal et al., 2005). The findings of this study with Korean American adults are consistent with the pattern found among nonminority American adults.

The scores of depressive symptoms reported by the present samples of Korean Americans were notably high. When the suggested cutoff score of the short form CES-D (\geq 10) is applied, approximately 40% of the younger adult sample and 35% of the older adult sample falls within the category of probable depression. Those rates are relatively high but consistent with findings from previous studies with Korean populations (e.g. Hughes, 2002). The corresponding rates for white and African Americans range from 9 to 16% (e.g. Blazer, Landerman, Hays, Simonsick, & Saunders, 1998).

Taking into account the small proportion of the present samples who reported any contact with mental health professionals (7.5% of the younger adults and 6.5% of the older adults), our findings demonstrate an important set of disparities among Korean American adults: the high levels of mental health problems yet low utilization of mental health services. The higher levels of anxiety and depressive symptoms observed in the younger adult sample should be considered in the light of varying levels of exposure to life stresses and their intensity in different age groups. Compared with older adults, younger immigrants may be more prone to education or job-related stressors, family conflict and discriminatory experiences, and those stressors may have detrimental influence on younger adults' well-being. The findings suggest the importance of exploration of age-specific risk factors and use of the information in age-relevant intervention strategies.

Another notable finding is that a substantial proportion of younger adult sample (31.3%) and older adult sample (24.5%) reported being uninsured. This finding is consistent with previous studies showing higher rates of being uninsured among minorities (Lillie-Blanton & Hoffman, 2005), particularly Korean Americans (Brown et al., 2000; Carrasquillo, Carrasquillo, & Shea, 2000). A lack of insurance among immigrant populations may be due to the absence of employer-sponsored health insurance and government coverage (Brown et al., 2000; Carrasquillo et al. 2000). Data from the 1990 US Census indicated that the self-employment rate of Korean Americans, at 24.3%, ranks highest among US ethnic groups, and many of these self-employed individuals are small entrepreneurs who may not be able to afford self-coverage. Although its impact on attitudes toward mental health services was not significant in the present multivariate model, health insurance coverage has consistently been a critical factor in access to health services as well as satisfaction with services (Jang, Kim, & Chiriboga, 2005).

Gender, education and prior contact with mental health professionals were significant predictors of attitudes toward mental health services only in the younger adult sample. Parallel findings exist in the literature for nonminority as well as minority populations. Women, for example, are generally more willing to talk about their emotions and seek outside help (Tata & Leong, 1994); similarly, education is positively associated with professional help seeking (Yi & Tidwell, 2005). Also, studies have reported that prior experiences with mental health professionals facilitate future use of the services (Tijhuis et al., 1990).

The predictors were different in the older adult sample. For older adults, depressive symptoms were a significant predictor of attitudes toward mental health services, with more symptoms associated with a more negative attitude. Overall the findings suggest a concerning gap between mental health service needs and attitudes toward services. Older adults were likely to believe that depression is a sign of personal weakness and that having a mentally ill family member brings shame to the whole family, whereas younger adults were likely to accept the medical conceptualization of depression. Consequently, within an Asian cultural value system in which

tolerance or suppression of personal emotion is respected as a virtue, it may be difficult, especially for older Korean Americans who are more invested in traditional values, to recognize that one's internal distress is an indicator of a need for care and to initiate active treatment-seeking (Jang et al., 2007b; Leong & Lau, 2001). Cultural response to mental health needs deserves much attention, and such information should be incorporated in developing outreach programs for ethnic minorities.

In both age groups, culture-influenced beliefs about mental illness contributed substantially to the predictive models of attitudes toward mental health services. In both age groups, positive attitudes toward mental health services were observed among those who accepted the medical model of depression. In the older adult sample, stigma related to personal weakness and shame predicted negative attitudes toward mental health services. Our findings show not only that older Korean adults are more subject to cultural misconceptions and stigma related to mental disorders, but also that their attitudes toward service use are negatively influenced by the cultural stigma.

The findings related to cultural beliefs have important implications for interventions targeted to improve access to mental health care among minority populations. In light of the similarities and differences found between young and old, both general and age-specific strategies need to be developed in order to increase the effectiveness of these programs. Because the belief in depression as a medical condition was a common predictor across the age groups, educational interventions to increase mental health literacy may be beneficial for all individuals regardless of age. Programs for older individuals should pay particular attention to reducing cultural misconceptions and stigma surrounding mental disorders because these individuals tend to hold more negative stereotypes and biases that consequently lead to unfavorable attitudes toward mental health services. Interventions tailored to the characteristics of the target group, especially age and cultural beliefs, would bring a strong appeal to the target populations.

Some limitations to the study should be noted. Owing to the use of a cross-sectional design and geographically constrained, nonrepresentative samples, causal inference and generalizability are not warranted. The present assessment was focused on the attitudinal criterion, and future research must examine whether attitudes are indeed associated with actual utilization of and satisfaction with services. In the present study, the assessment of predictive variables was limited to the individual level (e.g. personal characteristics and beliefs); future studies need to consider a wide spectrum of variables, including at the environmental and system levels. Despite these limitations, the present study expands our knowledge of age-group differences in the attitudes toward mental health services of an understudied ethnic minority group. Findings may serve as a basis for interventions to increase mental health awareness and service access for diverse ethnic minorities.

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Table 1 Descriptive characteristics of samples and study variables.

| | $M \pm SD$ (rai | nge) or % | |
|---|---------------------------|---------------------------|-------------|
| Variable | Younger adults (n = 209) | Older adults (n = 462) | $t(\chi^2)$ |
| Age | 29.1 ± 6.21 (16–44) | 69.8 ± 7.02 (60–90) | -71.8*** |
| Female | 54.0 | 57.9 | 0.70 |
| Married | 43.1 | 24.8 | 68.4*** |
| High school education or more | 98.6 | 63.6 | 89.9*** |
| Anxiety | $6.93 \pm 5.98 (0-21)$ | $3.71 \pm 4.86 (0-21)$ | 7.35*** |
| Depressive symptoms | $8.58 \pm 4.57 \; (0-23)$ | $7.58 \pm 4.85 \; (0-26)$ | 2.49* |
| Acculturation | $17.2 \pm 5.52 (1 35)$ | $13.7 \pm 7.27 \ (0-34)$ | 6.34*** |
| No health insurance | 31.3 | 24.5 | 3.62* |
| Prior contact | 7.5 | 6.5 | 0.24 |
| Sign of personal weakness | 43.8 | 70.7 | 43.8*** |
| Medical condition | 84.2 | 67.2 | 20.4*** |
| Self-concealment | 25.4 | 22.8 | 0.45 |
| Shame | 6.2 | 13.7 | 8.12** |
| Attitudes toward mental health services | 13.1 ± 3.76 (3–20) | $12.9 \pm 4.42 \; (0-20)$ | 0.16 |

^{*} p < 0.05;

^{**} p < 0.01;

^{*} p < 0.001.

NIH-PA Author Manuscript **Table 2** Regression models of attitudes toward mental health services. NIH-PA Author Manuscript

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| | | | Younger adults | adults | | | Older adults | adults | |
|---|---------------------------|-------|----------------|--------|--------|-------|--------------|--------|--------|
| | Step/predictor | В | Я | t | AR^2 | В | Ø | ı | AR^2 |
| _ | Age | 60:0 | 0.14 | 1.53 | 0.07 | 0.01 | 0.02 | 0.37 | 0.01 |
| | Gender | 1.56 | 0.21 | 2.94** | | 0.17 | 0.02 | 0.32 | |
| | Marital status | -0.49 | -0.07 | 69.0- | | 0.85 | 0.08 | 1.43 | |
| | Education | 1.93 | 0.15 | 2.14* | | 0.01 | 0.00 | 0.02 | |
| 2 | Anxiety | -0.00 | -0.00 | -0.02 | 0.01 | 0.02 | 0.03 | 0.46 | 0.01 |
| | Depressive symptoms | -0.07 | -0.08 | -0.89 | | -0.11 | -0.12 | -2.04* | |
| 3 | Acculturation | 0.05 | 0.07 | 1.07 | 0.17 | -0.01 | -0.02 | -0.35 | 0.14 |
| | Health insurance | -0.57 | -0.07 | -0.99 | | 0.18 | 0.02 | 0.34 | |
| | Prior contact | 1.93 | 0.13 | 1.97* | | 0.92 | 0.05 | 1.04 | |
| | Sign of personal weakness | -0.26 | -0.03 | -0.49 | | -1.15 | -0.12 | -2.42* | |
| | Medical condition | 3.90 | 0.38 | 5.51** | | 2.87 | 0.30 | 6.14 | |
| | Self-concealment | -0.35 | -0.04 | -0.62 | | -0.71 | -0.07 | -1.30 | |
| | Shame | -0.01 | -0.00 | -0.01 | | -1.71 | -0.13 | -2.52* | |
| | Overall R^2 | | 0.25 | * | | | 0.16 | *** | |

p < 0.05;** p < 0.01;*** p < 0.01;***