ACCULTURATION AND FEMINIST ENDORSEMENT ON CONTROL OF HEALTH
AND HEALTH BEHAVIORS IN HISPANIC FEMALES

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Hispanic women are the fastest growing population in the United States. Thus, it is important to explore health disparities that affect this population and better understand potential causes. Several explanations have been proposed for disparities that exist including turning to cultural alternatives rather than conventional medicine, low numbers of health insurance enrollments among Hispanics, and acculturation. However, little attention has been given to explanations that take into account the unique experiences of Hispanic women. The present study explored these experiences through investigation of endorsement of feminist attitudes (e.g., gender role adherence and beliefs that men and women should be treated equally in society) and level of acculturation. Undergraduate Hispanic women (18-24 years of age, $M = 20.25$, $SD = 1.51$) at the University of North Texas completed measures including the Multidimensional Health Questionnaire, the Acculturation Rating Scale for Mexican Americans-II, and the Liberal Feminist Attitude and Ideology Scale. Although results indicate that acculturation was not significant in the sample, feminist endorsement was found to be positively correlated with health-esteem, health-efficacy, and internal-health locus of control. Limitations and recommended directions for future research are explored.
ACKNOWLEDGEMENTS

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ACCULTURATION AND FEMINIST ENDORSEMENT ON CONTROL OF HEALTH AND HEALTH BEHAVIORS IN HISPANIC FEMALES

According to the U.S. Census Bureau (2012) the Hispanic population in the U.S. is expected to increase from the projected population rate of 17% of the total US Population in 2012 to 31% in the year 2060. More specifically, the female Hispanic population is the fastest growing population in the U.S. Given the trend in population toward Hispanic Americans becoming the ethnic majority, it is important to consider current health differences experienced by Hispanic Americans that may affect healthcare in the future. According to Larkey, Hecht, Miller, and Alatorre (2001) Hispanics are less likely than other ethnic groups to participate in behaviors associated with early illness detection and less likely to engage in preventative health behaviors. Ransford, Carillo, and Rivera (2010) have suggested several reasons that Hispanic individuals may be less likely to seek healthcare. They first suggest that the lower rates of healthcare-seeking may be due to the high number of uninsured Hispanic Americans nationwide. The Center for Disease Control’s (CDC) Health Disparities and Inequality Report (2011) estimates that 41.6% of Hispanic Americans lack health insurance.

Ransford et al. (2010) continue that Hispanic individuals are also more likely to turn to cultural alternatives rather than conventional medicine. These alternatives are often more affordable than organized healthcare and include seeking help from folk-healers such as curanderos who may provide spiritual guidance and herbal remedies. Antshel (2002) suggests that Latinos are also more likely than Anglos to endorse fatalismo (fatalism) or the belief that their health, including illness, is determined by God and therefore health concerns should be accepted rather than addressed by medical professionals. Another reason Hispanics may be less likely to seek medical care is that they are more likely to turn to faith and prayer when dealing with illness.

Examining these barriers to healthcare is especially important given that Hispanics have higher rates of death due to obesity, chronic liver disease, cirrhosis of the liver, diabetes, AIDS, and medical conditions originating around the perinatal period than non-Hispanic Whites (Center for Disease Control and Prevention, 2010). In addition, according to Larkey et al. (2001) infrequent doctor visits and delayed treatment when symptoms of illness are present is especially prevalent in Hispanic individuals who are less acculturated. They continue that this discrepancy is not necessarily indicative of lower-health related problems in Latinos compared to non-Hispanic Whites. When we look more closely at health in Hispanic women we find that they are less likely to know the signs of certain illnesses and are less likely to seek medical attention when symptoms first appear. For example, although Hispanic women may experience lower rates of breast cancer, they do not seek immediate care, which often leads to the disease being caught in later stages, thus leading to higher mortality rates than would be expected (Larkey et al., 2001). According to the National Cancer Institute (NCI, 2008) Hispanic women also have a higher incidence of cervical cancer than all other ethnic groups, which is caused by persistent infection of the human papillomavirus (HPV). The NCI suggests that lack of screening and preventative care through access to the HPV vaccine in this population may contribute to the high incidence rate.

According to the Center for Disease Control and Prevention (2011), although Mexican Americans die at a lesser rate from heart disease Mexican American women are diagnosed with heart disease at a greater rate than non-Hispanic White females. Mexican Americans also have higher rates of excess weight and obesity, which are two leading risk factors for heart disease. It is evident that some of the barriers of access to early detection of illness and conventional healthcare
may be cultural in nature. Therefore, it is necessary to look at potential cultural differences in
addition to the reliance on alternative medicines and religion previously discussed that may affect
health beliefs in Hispanic females. Possible differences in healthcare seeking for Hispanic women
may be related to the level of endorsement of feminist beliefs and the adherence to traditional
gender roles that are often observed in less acculturated Hispanic individuals.

Acculturation can be understood as an individual or group’s acquisition and/or adaptation
to the social norms of another culture. These social norms may include eating habits, clothing,
language, and other daily life decisions. Contradictory research findings have been reported
regarding the relationship between acculturation and various risky health behaviors and health
promoting behaviors. Lara, Gamboa, Kahramanian, Morales, and Hayes Bautista (2005)
highlighted some of the conflicting findings; they suggest that while acculturation has a negative
effect on substance use, dietary practices, and birth outcomes, acculturation is positively
associated with healthcare use and self-perceptions of health. O’Malley and colleagues’ (1999)
research supports the finding that those who are more acculturated utilize healthcare more
frequently. The authors found that Hispanic women reporting higher levels of acculturation were
more likely to have received a clinical breast exam and mammogram than did less acculturated
women. Similarly, Weller and colleagues (1999) found that those with higher levels of
acculturation and education had a greater understanding of diabetes and therefore had a higher
diagnostic potential. However, other results indicate that for pregnant Hispanic women, health
promoting behaviors are more common in the extremes, e.g., those who are either not acculturated
or are strongly acculturated, suggesting that those in the process of transitioning to a different
culture may display the least positive health behaviors (Bond, Jones, Cason, Campbell, & Hall,
2002).
Guin (1998) found that less acculturated Mexican American adolescents were more likely to endorse a powerful-others health locus of control, while more acculturated individuals are more likely to endorse an internal health locus of control. Individuals with high internal locus of control are more likely to believe that outcomes are a direct result of their own actions or behavior. Those individuals with high external locus of control are more likely to believe that outcomes are generally determined by fate, chance, or powerful others (e.g. family, physicians, and nurses). This suggests that those who are more acculturated may be more likely to take responsibility for their own health through their actions and beliefs.

The effects of acculturation extend to sexual health and safe-sex practices. Unmarried Hispanic women regardless of primary language spoken have been found to have fewer sexual partners than unmarried Hispanic men and non-Hispanic men and non-Hispanic women (VanOss Marin, Tschann, Gomez, & Kegeles, 1993). A survey conducted by the National Center for Health Statistics (2011) had similar findings, indicating that Hispanic women report having fewer sexual partners than White and African American Women. However, they are also the least likely to report condom use, and Spanish speaking Hispanic men and women are less likely than non-Hispanic Whites to report that they take action to avoid AIDS, leaving them more vulnerable to sexually transmitted diseases (VanOss Marin, Tschann, Gomez, & Kegeles, 1993). Davila (2000) suggests that Hispanic Women are less likely to engage in safe-sex practices due to having less power in heterosexual relationships and Hispanic men exercising authority in the relationship. She continues that sexual interactions are embedded within gendered power relations and that Hispanic women’s’ sexual encounters and behaviors are restricted by their male partners. Therefore, even when they are aware of potential risks of AIDS and other sexually transmitted diseases they may not be as able to exercise power to prevent these risks.
Galanti (2003) found that recent immigrants with lower levels of acculturation might be more likely to embrace traditional gender roles as well as the machismo and patriarchal authority evident in many traditional Mexican American families. According to Galanti, machismo is common among traditional Mexican American males and involves the exaggerated sense of masculinity that stresses strength and domination of women. Patriarchal authority refers to the male’s position as head of the household and male control of both individual family member and family unit decisions (Galanti, 2003). According to Denner and Dunbar (2004), the traditional female aspect is marianismo and refers to cultural expectations that include family commitment, respect for authority, and restricted mobility. In addition, the traditional female role includes acting as housewife and mother while deferring all authority to male family members (Galanti, 2003; Niemann, Romero, & Arbona, 2000). However, it may be that Hispanic women are more likely to make family decisions related to health due to their role as care giver for the family.

In addition to adherence to traditional gender roles, the custom of simpatia may also affect Hispanic individuals experience with healthcare. Simpatia refers to the practice of acting respectful and keeping agreement and harmony in relationships. This may translate to patients agreeing to advice of healthcare providers when they either do not understand the advice or do not have any intention of complying with treatment (Triandis & Marin, 1984). Given that cultural values such as simpatia may affect experiences with health care, it is also important to consider the possible implications that gender roles, which are a product of culture and society may have on individual health care experiences. There is currently a lack of research examining the influence that adhering to a traditional gender role (which may be characterized by limited mobility and deferred authority) versus a non-traditional role may have on Hispanic women’s health. One possible method to explore differences in traditional versus non-traditional gender
roles is through a feminist perspective.

Historically, American culture has favored the perspective of the European-American male in many domains, including social, political and economic arenas, while marginalizing the experiences, realities, and perspectives of women and minorities (Gary, Sigsby, & Campbell, 1998). While there have been improvements in the status of women and minorities in the past several decades, reaching equal status in the arenas mentioned above is an ongoing process.

Feminism seeks to integrate perspectives across genders, to identify inequalities, find solutions to these inequalities, and create equal respect for the concerns and experiences of women (Gary, Sigsby, & Campbell, 1998; Potter, 2001). Since Feminist theory emphasizes disparities in equality, it has been used to highlight health care inequalities that exist in the assessment, treatment, and access to care that are evident for women and minorities (Travis & Compton, 2001; Gary, Sigsby, & Campbell, 1998). The overall goal of feminism in public health is to improve the health of gender-subordinated groups (Hammarström, 1999). Health interventions based in feminist theory differ from traditional health interventions in that they include a focus on women in the context of their relationships, the influence of socioeconomic status and race/ethnicity, and they reject the status quo (Harrison, 1993). For example, Kelly et al. (2004) suggests that a feminist intervention targeted at improving safe sex practices of teenage women would not focus on sex as a pathological act, but rather incorporate potential consequences of unprotected sex with focus on empowerment and understanding of sex in a social, biological, and developmental framework.

Exposure to feminist beliefs and attitudes has been shown to produce higher levels of performance self-esteem and non-traditional gender-role attitudes (Roy, Weibust, & Miller, 2007). In addition, it has been suggested that endorsing feminist beliefs may lead to an increased
feeling of control over achievements as well as self-esteem (Carpenter & Johnson, 2001; King & King, 1986). Reitzes and Mutran (2006) found that self-esteem is related to a positive and statistically significant change in functional health. Self-esteem has also been associated with higher health behaviors, including diet, exercise, and a healthy Body Mass Index in young adults (Kristjánsson, Sigfúsóttir, & Allegrante, 2010). The increase of perceived control seen in individuals endorsing feminist beliefs may lead to individuals becoming more likely to follow through and persist in their pursuits (Turner, Pickering, & Johnson, 1998). In addition to many psychological and behavioral constructs, locus of control has been explored as it relates to physical complaints, treatment adherence, and preventative health behaviors. One such recent study found that lung transplant patients with a higher internal Health Locus of Control (HLOC) had higher survival rates than those who had higher external HLOC (Burker, Evon, Galanko, & Egan, 2005). Additionally, higher internal HLOC has been associated with a history of preventative health behaviors, lower rates of smoking, alcohol consumption, and higher rates of healthy eating and exercise (Walston, Walston, & Kaplan, 1987).

Women reporting a feminist identity are also more likely to report higher levels of self-efficacy (Eisele & Stake, 2008). In relation to health, high levels of self-efficacy indicate that the individual believes that she has the ability to perform certain health behaviors such as compliance with medication, diet adherence, and general health promoting behaviors that are necessary for their treatment plans (Sarkar, Ali, & Whooley, 2009; Jackson, Tucker, & Herman, 2007). Although the relationships between feminist endorsement and constructs that have previously been linked to health behaviors (e.g., self-esteem, locus of control, and self-efficacy) have received some attention, little research has been conducted to explore the direct relationship between feminist endorsement and health attitudes and behaviors.
Research has investigated the relationships between acculturation and health, acculturation and gender role adherence, and feminism and gender roles. However, little has been done exploring how gender role and feminist endorsement may vary depending on acculturation and how these variables taken together may impact health behaviors. This study seeks to clarify these relationships with the following expectations:

- Females who are more acculturated will report higher levels of feminist endorsement.
- Positive relationships will exist between feminist endorsement and health self-efficacy, health assertiveness, and health esteem.
- Females who are less acculturated will report lower use self-efficacy and lower rates of condom use than those who are more acculturated.
- Participants who are less acculturated will report healthier diets and more exercise than those who are more acculturated.
- Females who are more acculturated will report stronger internal health locus of control than those who are less acculturated.
- Females who are less acculturated will be more likely to report stronger powerful-others or chance luck health locus of control than those who are more acculturated.
- Females who are more acculturated will report higher levels of health efficacy and health assertiveness than those who are less acculturated.
- Both acculturation and feminist attitudes will explain a significant proportion of variance in health efficacy, health assertiveness, health esteem and internal health locus of control.

Methods

Participants

Participants were recruited through SONA, the psychology department research website for the University of North Texas. Participants included 89 self-identified Hispanic females (62 Mexican American, 3 Puerto Rican, 1 Dominican, 3 Cuban, 5 Salvadoran, 15 of other Hispanic origin) between the ages of 18-24 ($M = 20.25, SD = 1.51$). No financial compensation was offered, but participants received course credit for their participation. Electronic Informed
Consent was obtained prior to participation.

Measures

The Multidimensional Health Questionnaire (MHQ; Snell & Johnson, 1999) is a measure of psychological correlates to health behaviors consisting of 20 subscales with 5 items each. Participants were asked to rate the extent to which given statements are characteristic of themselves on a 5-point Likert scale (A, not at all characteristic of me to E, very characteristic of me). Item scores range from 0 to 4 with specified items reversed, higher scores indicate higher degrees of each respective health-related tendency. The reliability for the MHQ has been demonstrated to be in the .7 to .8 range. Snell and Johnson (1999) reported all subscales to have reliability over .70 with the exception of the Chance-Luck with a reliability of .6. Additionally, 11 of the 20 scales had reliability greater than .80. Six out of the 20 subscales (30 items total) were used: Health Efficacy (measure of belief that one has the ability to take care of their own health), Chance Luck Health Control (measure of belief that health is determined by influences outside of one’s control), Health Assertiveness (measure the characteristic of being assertive about one’s health), Health Esteem (measure of the degree of esteem one feels from the way in which one handles their own health), Powerful-Other Health Control (measure of the extent that one believes powerful others such as family and health professionals have control over their health), Internal Health Control (measure the belief that one is in control of one’s own health). Subscales consists of items such as “I’m very direct with people when it comes to my own physical health needs” and “I am proud with the way I deal with and handle my health”.

Acculturation was measured using the Acculturation Rating Scale for Mexican Americans-II (ARSMA-II; Cuellar, Arnold, & Maldonado, 1995). Although the ARSMA-II can be administered in English and Spanish, it was administered only in English since students at the
University of North Texas are required to show proof of English language proficiency.

Additionally, in order to broaden the population to which the ARSMA-II applies, some terms relating to participant ethnicity were changed (e.g., Mexican was changed to Hispanic/Latina). The ARSMA-II contains two distinct scales that yield four acculturation modes: integration and assimilation, and separation and marginalization. Only the first scale was used which contains two subscales measuring orientation towards Mexican and Anglo culture independently: the Anglo Orientation Subscale (AOS) (13-item) and the Mexican Orientation Subscale (MOS) (17-item). The AOS consists of 13 items (2, 4, 7, 9, 10, 13, 15, 16, 19, 23, 25, 27, and 30) assessing Anglo orientation through statements such as, “I associate with Anglos” while the MOS consists of 17 items (1, 3, 5, 6, 8, 11, 12, 14, 17, 18, 20, 21, 22, 24, 26, 28, and 29) assessing Mexican orientation through statements such as, “My friends now are of Mexican origin.” Respondents were asked to rate their agreement or disagreement with each statement on a 5-point Likert scale (1, not at all to 5, extremely often or always). A Total Acculturation Score was calculated by subtracting the MOS mean from the AOS mean (e.g., total acculturation = AOS (mean) – MOS (mean)). The Total Acculturation Score was then used to determine level of acculturation with the cut-off criteria set by Cuellar, Arnold, and Maldonado, 1995. Level of acculturation can be categorized into five levels: 1 = very Mexican oriented, 2 = Mexican oriented to approximately balanced bicultural, 3 = slightly Anglo oriented bicultural, 4 = strongly Anglo oriented, 5 = very assimilated, anglicized. Both subscales have demonstrated good reliability (Cronbach’s alpha = .86 and .88 for the AOS and MOS subscales respectively). For the purpose of this study, the continuous level of acculturation was used in analyses rather than the acculturation categories. An item on participant socioeconomic status was added to the demographic section on the ARSMA-II.
The Liberal Feminist Attitude and Ideology Scale (LFAIS; Morgan, 1996) consists of 70 items assessing an individual’s feelings related to feminism. The LFAIS measures participants feelings related to three feminist domains: Gender role attitudes, goals of feminism, and feminist ideology. The responder is asked to rate their agreement with each item on a six-point Likert scale (1, strongly disagree to 6, strongly agree). For the purpose of this study participants were asked to respond to the scales assessing Gender Roles, Goals of Feminism – Global Goals, and Feminist Ideology – Discrimination and Subordination. The Gender Roles scale consists of 10 items that measure the degree to which respondents endorse traditional gender roles in regards to women’s balance of career and family and men’s authority in the home (e.g.” Both husband and wife should be equally responsible for the care of young children”). The Global Goals subscale within the domain of Goals of Feminism is 10 items and consists of items such as “Access to education is a crucial part of gaining equal right for women” that assess beliefs that men and women should have equal status in society. The subscale of Discrimination and Subordination within the Feminist Ideology domain is 10 items and assesses agreement with the belief that women have been treated unfairly in the past and continue to be treated unfairly through items such as “Women have fewer choices available to them as compared to men.” The Cronbach’s alpha for the scale was .94 and a test-retest reliability of .83. Reverse scoring is used on specified items and the total score is obtained by adding the results of the Likert-scale responses. The higher the total result the stronger the agreement with a feminist position.

The Health and Well-being Assessment (HWB; Mills, 2005) is a 20 items risk appraisal questionnaire specifically designed for corporate settings. It was originally designed for a British population, therefore some wording was changed to American English (e.g., fibre changed to fiber/grains). While it can be used in corporate settings it covers ten general areas of health and
well-being: medical health status, presence of pain, habitual levels of physical activity, nutritional balance, sleep status, symptoms of stress, job satisfaction, smoking status, alcohol consumption, and body mass index. It is a combination of 5-point Likert scales and structured multi-choice questions. Higher scores indicate a healthier lifestyle and better subjective well-being. It has a demonstrated test-retest validity of $r = 0.90$. Items assessing healthy diet and frequency of exercise were used for analyses of the present study.

The Condom Use Self-Efficacy scale (CUSES; Bradford & Beck, 1991) was used to assess the individual’s self-perceptions of their ability to use condoms. The responder was asked to rate their agreement with each item on a 5-point Likert scale (1, strongly agree to 5, strongly disagree) with specified items being reverse scored. The total points were added with higher scores indicating lower feelings of self-efficacy regarding condom use. For this study one of the four subscales from the CUSES was used. The Assertive scale measures the ability to persuade a partner to use a condom and consists of 3 items such as “I feel confident in my ability to discuss condom usage with any partner I might have” and has a Cronbach alpha = 0.80. Two items regarding safe sex practices were also included in this measure such as “Do you use latex-based condoms or dental dams when engaging in sexual activity?”

Data Analysis

An a priori power analysis was conducted to determine the sample size (68) required to achieve power of .8, with a medium effect size in a design which utilizes 2 independent variables (G*Power; Faul & Erdfelder, 1992). Data screening was completed prior to analyses. Screening included double-checking data entry, addressing missing data, identifying outliers, and assessing normality of data distribution through assessment of skew and kurtosis. Next, we conducted several statistical analyses to test our hypotheses, with our sample size of 89. Post-hoc power
analyses revealed power ranging from .05 to .71. Given the fact that a sample size of 68 should have detected a significant effect, the limited power is likely more indicative of the significance of our predictors rather than an issue of having too small a sample to detect an effect.

After exploring and cleaning data, a correlation analysis was performed to test the above hypotheses. Positive correlations were expected between acculturation (ARSMA-II scores), level of endorsement of feminist attitudes and ideology (LFAIS scores), internal locus of control, health-efficacy (MHQ subscale scores), and health assertiveness (MHQ subscale scores).

Positive correlations were also expected between level of endorsement of feminist attitudes and ideology and health-efficacy, health assertiveness, and health esteem (MHQ subscale score).

Negative correlations were expected between acculturation, condom self-efficacy use and frequency of condom use (CUSES scores). Given results of previous research, healthy diet and exercise (HWB diet and exercise responses) was expected to be negatively correlated with acculturation.

A linear regression analysis was then conducted to determine the amount of variance in health efficacy, health assertiveness, health esteem and internal health locus of control being explained by acculturation and level of feminist endorsement. The predictors in this model were acculturation and level of feminist endorsement. The criterion was health efficacy, health assertiveness, health esteem and internal health locus of control.

Results

Sample Descriptives

Average Acculturation for this sample was 0.74 (SD = 1.05), with a range from -1.62 to 3.65, suggesting that on average the acculturation level of the sample was slightly Anglo oriented.
The average level of Feminist Endorsement received for the sample was 141.85 ($SD = 15.84$), with a range from 105 to 171, indicating that in general the sample agreed with feminist statements.

Variables of interest related to personal health beliefs included Health-Efficacy, Health Assertiveness, Health Esteem, and Condom Use Assertiveness. The average reported level of Health-Efficacy for our sample was 19.82 ($SD = 3.99$), with a range from 10 to 25, indicating the sample felt that the ability to care for their own health was moderately characteristic of themselves. Health Assertiveness had an average of 16.36 ($SD = 4.53$), with a range from 7 to 25, indicating that they somewhat identified with the characteristic of being assertive about one’s own health needs. Health Esteem had an average of 15.57 ($SD = 5.74$), with a range from 5 to 25, suggesting that on average the sample felt somewhat positive about the way they cope with their health. The average condom use and condom assertiveness was obtained only for those reporting ever having sex ($n = 69$). The average condom assertiveness was 5.07 ($SD = 3.57$), with a range from 3 to 15. This suggests that overall; participants felt confidence in their ability to persuade a partner to use a condom.

In terms of health locus of control, the average internal health locus of control for our sample was 21.89 ($SD = 3.96$), with a range from 9 to 25. The average powerful-others locus of control was 8.31 ($SD = 4.22$), with a range from 5 to 20 and the average chance-luck health locus was 9.98 ($SD = 4.44$), with a range from 5 to 23. The averages of the subscales related to health locus of control indicate that on average the sample had higher endorsement of internal health locus of control and lower endorsement of powerful-others and chance-luck locus of control.

Regarding health behaviors, the average reported nutrition score was 42.88 ($SD = 16.16$), with a range from 8.33 to 83.33 and the average reported physical activity score was 47.47 ($SD =$
40.25), with a range from 0 to 100. This indicates that in general the sample was more likely to have diets consisting of slightly more high-fat foods compared to low-fat foods. In addition, the physical activity average suggests that they are likely to engage in moderate physical activity on most days of the week. Average frequency of condom use had was 3.41 ($SD = 1.46$), with a possible range of 1 to 5, indicating that on average the sample used condoms just over half of the time. (See Table 1 for summary of univariate statistics.)

Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD)</th>
<th>Possible Range</th>
<th>Actual Range</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Acculturation</td>
<td>0.74 (1.05)</td>
<td>-4-4</td>
<td>-1.62-3.65</td>
<td>-</td>
</tr>
<tr>
<td>Anglo Orientation Subscale</td>
<td>4.13(.43)</td>
<td>13-65</td>
<td>2.54-5.00</td>
<td>.71</td>
</tr>
<tr>
<td>Hispanic Orientation Subscale</td>
<td>3.40 (.90)</td>
<td>17-85</td>
<td>1.12-5.00</td>
<td>.93</td>
</tr>
<tr>
<td>Liberal Feminist Attitude and Ideology</td>
<td>141.85 (15.84)</td>
<td>30-180</td>
<td>105-171</td>
<td>-</td>
</tr>
<tr>
<td>Gender Roles</td>
<td>44.68 (6.67)</td>
<td>10-60</td>
<td>24-60</td>
<td>.68</td>
</tr>
<tr>
<td>Global Goals</td>
<td>51.84(7.42)</td>
<td>10-60</td>
<td>15-60</td>
<td>.83</td>
</tr>
<tr>
<td>Discrimination and Subordination</td>
<td>41.80(7.45)</td>
<td>10-60</td>
<td>19-60</td>
<td>.81</td>
</tr>
<tr>
<td>Health Self-efficacy</td>
<td>19.82(3.99)</td>
<td>5-25</td>
<td>10-25</td>
<td>.85</td>
</tr>
<tr>
<td>Health Assertiveness</td>
<td>16.36(4.53)</td>
<td>5-25</td>
<td>7-25</td>
<td>.81</td>
</tr>
<tr>
<td>Health Esteem</td>
<td>15.57(5.74)</td>
<td>5-25</td>
<td>5-25</td>
<td>.95</td>
</tr>
<tr>
<td>Internal Health Locus</td>
<td>21.89(3.96)</td>
<td>5-25</td>
<td>9-25</td>
<td>.90</td>
</tr>
<tr>
<td>Powerful Others Health Locus</td>
<td>8.31(4.22)</td>
<td>5-25</td>
<td>5-20</td>
<td>.87</td>
</tr>
<tr>
<td>Chance Health Locus</td>
<td>9.98(4.44)</td>
<td>5-25</td>
<td>5-23</td>
<td>.81</td>
</tr>
<tr>
<td>Condom Use Assertiveness (N=69)</td>
<td>5.17(3.64)</td>
<td>3-15</td>
<td>3-15</td>
<td>.97</td>
</tr>
<tr>
<td>Lower scores indicate greater assertiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condom Use (N=69)</td>
<td>3.42(1.45)</td>
<td>1-5</td>
<td>1-5</td>
<td>-</td>
</tr>
<tr>
<td>Physical Activity</td>
<td>47.47(40.25)</td>
<td>0-100</td>
<td>0-100</td>
<td>-</td>
</tr>
<tr>
<td>Healthy Diet</td>
<td>42.88(16.16)</td>
<td>0-100</td>
<td>8.33-83.33</td>
<td>.58</td>
</tr>
</tbody>
</table>
Correlates of Acculturation

A bivariate correlation was performed to test the hypothesis that total acculturation is positively related to feminist endorsement. There was no significant correlation between Acculturation and Feminist Endorsement ($r = -0.103, p = 0.33$). Additional bivariate correlations were performed to test the hypotheses that acculturation is positively related to personal health beliefs including assertiveness and health efficacy. Acculturation was not significantly associated with health assertiveness ($r = -0.04, p = 0.73$) nor Health efficacy ($r = -0.02, p = 0.85$).

Acculturation was not significantly correlated with condom use assertiveness ($r = 0.06, p = 0.65$). Bivariate correlations were performed to test the hypothesis that acculturation would be positively associated with an internal health locus of control and negatively associated with powerful-others and chance-luck health locusts of control. No significant correlations were found between total acculturation and internal health locus ($r = -0.19, p = 0.07$); acculturation and powerful-others locus ($r = -0.13, p = 0.23$); or acculturation and chance luck locus ($r = -0.001, p = 0.99$).

The hypotheses regarding acculturation and health behaviors were that there would be a positive relationship between acculturation and frequency of condom use and negative relationships between acculturation and healthy diet and exercise. Bivariate correlations did not reveal a significant correlation between acculturation and condom use ($r = 0.06, p = 0.61$). There were no significant correlations between level of acculturation and nutrition and exercise ($r = 0.01, p = 0.93; r = 0.06, p = 0.59$, respectively). There was a significant correlation between nutrition and exercise ($r = 0.41, p < .001$) such that higher levels of healthy nutrition was associated with greater levels of physical activity. (See Table 2 – Correlation Matrix for summary of variable correlations)
Correlates of Feminist Endorsement

Bivariate correlational analyses were conducted to test the hypothesis that positive relationships exist between feminist endorsement and health self-efficacy, health assertiveness, and health esteem. Feelings of Health-efficacy for managing health was positively correlated with endorsement of feminist attitudes ($r = 0.22, p < 0.05$), such that higher feminist endorsement was associated with greater belief in one’s ability to effectively manage their own health.

Furthermore, feminist endorsement was positively correlated with esteem one feels related to how they are handling their own health ($r = 0.24, p < 0.05$), such that greater feminist endorsement was associated with more esteem related to health management. There was no significant correlation between endorsement of feminist attitudes and beliefs and Health Assertiveness ($r = 0.12, p = 0.26$). (See Table 2 – Correlation Matrix for summary of variable correlations.)

Regressors of Health Attitudes

Simple linear regressions were run to test the hypothesis that acculturation and feminist attitudes would explain a significant proportion of variance in health efficacy, health assertiveness, health esteem, and internal health locus of control. Acculturation and feminist endorsement were used as predictors in all four regressions. Only the model predicting internal health locus of control was significant. (See Table 3 – Regressors of Health Attitudes)
<table>
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<td>.29**</td>
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<td>-.18</td>
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Table 3

Regressors of Health Attitudes

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<th>t</th>
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The first linear regression was run with health efficacy as the dependent variable. The model was not significant with total variance explained by the predictors at 2.5% (adj. $R^2 = .025$, $F(2, 86) = 2.12, p = .13$).

The second linear regression was run with health assertiveness as the dependent variable. The model was not significant with total variance explained by the predictors at -.8% (adj. $R^2 = -.008$, $F(2, 86) = 0.67, p = .52$).

The third linear regression was run with health esteem as the dependent variable. The model was not significant with total variance explained by the predictors at 4% (adj. $R^2 = .04$, $F(2, 86) = 2.83, p = .07$).

The fourth linear regression was run with internal health locus of control as the dependent variable. The total variance explained by the model as a whole was 8.4% (adj. $R^2 = .084$, $F(2, 86) = 5.03, p < .01$). Feminist endorsement was the sole contributor to internal health locus of control ($\beta = .26, t = 2.55, p < .05$).

Discussion

This study investigated the relationship between Acculturation, Feminist Endorsement, and health attitudes. In terms of acculturation, it was hypothesized that it would be positively associated with feminist endorsement and protective health practices and beliefs (condom use self-efficacy, rates of condom use, and perceptions of health efficacy and health assertiveness, internal health locus of control). Based on results of previous research, it was also hypothesized that acculturation would be negatively associated with a health locus of control due to powerful others, chance-luck health locus of control, healthy diet, and exercise. Further, it was hypothesized that acculturation and feminist endorsement would account for a significant proportion of variance in health efficacy, health assertiveness, health esteem and internal health
locus of control.

The hypotheses regarding acculturation were not supported. This may be partially attributed to the lack of diversity in our sample. The inclusionary criteria were fairly narrow, i.e., 18-24 year old Hispanic females at the University of North Texas who were enrolled in undergraduate psychology courses. Therefore, it is likely that “level of acculturation” was not a salient characteristic for the individuals in our sample. In addition, our acculturation measure, the ARSMA-II, was normed on a sample from a South Texas border region including students enrolled in the English Language Institute, which was attended primarily by residents of Mexico studying English in the United States. The current study had participants from a restricted region (North Texas) and, as students of UNT, they already demonstrated English Language proficiency as a requirement prior to enrollment. This suggests that individuals in the current sample had already reached a certain level of acculturation as a requirement for enrollment in college courses at UNT. Furthermore, the normative sample of the ARSMA-II included equal numbers of participants (both males and females) from each of five generational statuses. The current study did not focus on recruiting based on generational status. This may have further restricted variance in acculturation and limited validity of the use of the ARSMA-II for the study sample. Comparing the Anglo Orientation Subscale (AOS) scores of the normative sample (M=3.82) to the current sample (M=4.13) it further suggests a tendency towards a greater Anglo Orientation in our sample.

Besides having a narrow sample, failure to support our hypotheses may also be related to how we chose to measure acculturation in our sample. Although the ARSMA-II is considered an accurate measure of acculturation, acculturation is a very complex construct that cannot be fully measured by unidimensional or bidimensional measures. Cabassa (2003) outlined several
limitations of current acculturation measures including the ARSMA-II and suggested directions for improvement. He suggests that proxy measures (including generational status, language preferences, etc.) only provide an indirect measure of acculturation and often leave us with fragmented understanding of the experience of the acculturation process. Cabassa continues that as a result of having limited measures of acculturation, research examining the relationship between acculturation and adaptation outcomes is often inconsistent. The ARSMA-II also lacks items that tap into beliefs and attitudes that may be important in acculturation, as changes in attitudes may reflect cultural change. Contextual factors to the acculturation process such as reasons for immigrating and changes in certain attitudes over time may be important to understanding acculturation (Cabassa, 2003). Especially relevant to the current study is the finding that certain cultural values tend to remain relatively stable, while other values such as gender roles tend to change relatively rapidly (Marín & Gamba, 2003). However, these shifts in cultural values that may indirectly affect beliefs related to the current study (health attitudes, locus of control, and feminist endorsement) are not reflected in current measures of acculturation. Therefore, the development of acculturation measures that address these limitations and provide a more comprehensive understanding of acculturation may have lead to greater understanding of the relationship between acculturation, health attitudes, and feminist endorsement in our sample.

Other measurement issues that may have affected the results include modifications to the ARSMA-II in the current study so that it could apply to individuals of diverse Hispanic heritage in addition to Mexican heritage. For this study the word “Mexican” was altered to “Hispanic/Latino” to increase the application to a wider range of individuals. Although most of the sample reported a Mexican heritage, it is possible that this modification reduced the validity of using the ARSMA-II to measure acculturation across ethnic backgrounds. It may be more
appropriate to use individual acculturation measures for each Hispanic heritage.

In regards to feminist endorsement, this study investigated the relationship between feminist endorsement and health attitudes (health-efficacy, health assertiveness, health esteem, and internal health locus of control). It was hypothesized that feminist endorsement would be positively associated with protective health attitudes. Further, it was hypothesized feminist endorsement and acculturation would account for a significant amount of variance in these health attitudes. Feminist endorsement was found to explain a significant proportion of the variance in internal health locus of control and was the sole contributor when looking at both feminist endorsement and acculturation. The relationship between feminist endorsement and IHLOC is discussed below.

Health assertiveness was not correlated with feminist endorsement. However, feminist endorsement was significantly correlated with health-efficacy, health-esteem, and internal health locus of control. It may be that feminist endorsement plays more of a role in positive attitudes regarding perception of ability and capability to handle personal health (health efficacy, health-esteem, and IHLOC) and less important in decisiveness in how to handle personal health (health assertiveness). As cited previously, adopting a feminist identity has been shown to be associated with higher levels of general self-efficacy (Eisele & Stake, 2008). Little research has examined the relationship between feminist identity and endorsement and feelings of self-efficacy related to the specific ability to care for one’s own physical health. Similarly, higher levels of general self-esteem have been associated with feminist endorsement and people with higher general self-esteem tend to have higher function health and engage more frequently in health behaviors (Reitzes & Mutran, 2006; Kristjánsson, Sigfúsdóttir, & Allegrante, 2010). Internal locus of control has been demonstrated to be stronger in women endorsing feminist attitudes and has also
been related to possible increase in preventative health behaviors and higher survival rates.

Although feminist endorsement has been associated with all three of these personal beliefs (self-efficacy, self-esteem, and internal locus of control) and these personal beliefs have been associated with positive health outcomes, there is a lack of research directly examining the relationship between feminist endorsement and these beliefs in regard to women’s own health. The current research provides support that feminist endorsement is associated not only with general feelings of self-efficacy, self-esteem, and internal locus of control, but also in their relation to health. It appears that women who more strongly agree with aspects of feminism (e.g., gender role equality at home, equality in society, and agreement that historically women have had a subordinate position) feel that they are more capable to take care of their own physical health, they feel more positive about how they are handling their health, and feel that they influence their own health. Empowerment or the motivation to act on one’s own behalf is considered a central tenet of feminist theory and in the context of health it may be that women who endorse feminist beliefs may feel more empowered over their health. This supports the use of public health interventions based on increasing feelings of empowerment in women.

Other noteworthy findings of the study that were not included in hypotheses were that healthy diet and physical activity were correlated with positive health attitudes (health efficacy, health assertiveness, and health esteem). Intuitively, these findings make sense in that those individuals who feel that they have the capacity to make beneficial changes to their own health would report higher rates of exercise and healthier diets. Similarly, those who are more assertive about their health and therefore more decisive are more likely to take an active role in their health behaviors (diet and exercise). Unsurprisingly, those who both engage in more exercise and report a healthier diet also report deriving a higher sense of esteem and satisfaction with how they
manage their health compared to those who report lower exercise frequency and poorer diets. It may be that they put conscious effort into their choices regarding diet and exercise and therefore experience more positive emotions related to better management of these behaviors (e.g., more exercise and healthier diet). Lastly, a higher rate of physical activity was negatively correlated with having a chance-luck health locus of control. This suggests that individuals who exercise more are less likely to feel that their health is related to chance and therefore may feel more personal responsibility for their health.

As mentioned previously, there were several limitations to the current research. The sample was restricted in age, acculturation, and were recruited from undergraduate psychology classes at UNT. Therefore, generalizability of the sample is restricted as results may reflect characteristics unique to the sample. Future research may address this by sampling from multiple sites including border regions and more anglicized regions. Additionally, as acculturation measures improve, future research may be better able to more fully capture this process and its relationship to other constructs. These measures would include changes in values and attitudes in addition to behavioral aspects of culture (e.g., language and food preferences). Despite these limitations, the current study did provide support on possible future health interventions aimed at empowering women to manage their health, as they might be more likely to derive a sense of efficacy, internal control, and esteem from their efforts.
REFERENCES


