Machismo: Assessing its Effects on Stress and Depression Among Latinx Adults

A graduate project submitted in partial fulfillment of the requirements
For the degree of Master of Social Work

By
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in collaboration with
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May 2021
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___________________________________________________________________________  ____________
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___________________________________________________________________________  ____________
Dr. David McCarty-Caplan  Date

___________________________________________________________________________  ____________
Dr. Hyun-Sun Park, Chair  Date
Dedication

This study is dedicated to those who have aided me while on my journey. To my partner, Jose Valencia, thank you for striving for success and putting in the work necessary to achieve a worthy goal. A special dedication to my mother, Noemi Garcia. She who has been my inspiration and whose strength and resilience I aim for.

- Ricardo Bello
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Abstract

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By

Ricardo Bello

Master of Social Work

Purpose: Latinx individuals are the fastest-growing minority group. This study aimed to explore the relationship between machismo ideology and its impact on mental health outcomes including stress and depression.

Methods: Measurements included in this study were the Hispanic Stress Inventory (HSI), Center of Epidemiology Studies Depression Scale (CES-D 10), and subscale of the Traditional Machismo and Caballerismo Scale (TMCS). Descriptive analysis and correlation analyses were conducted on the sample size. The sample of this study consisted of eighty-four Latinx identified participants recruited through social media platforms.

Results: Higher levels of machismo were associated with higher levels of depression and stress. Participants who reported higher educational attainment also reported with lower levels of machismo ideology.

Discussion and Implications: This study suggests that machismo has a negative effect on Latinx individuals mental health, specifically increased stress and depression. Future research should use appropriate measurements tailored to the Latinx population to address mental health barriers and concerns.

Keywords: machismo, mental health, stress, depression, Latinx
Literature states that the presence of Latinx in the United States is extensive and rapidly growing. Ojeda and colleagues (2012) indicate that Latinos comprise approximately 14% of the U.S. population and have more than doubled since 1980. “Latino youth represent one of the faster growing ethnic minority groups in the United States (U.S.), with estimates suggesting that this cohort will compromise nearly 40% of the youth population by 2060” (Haack et al, 2016, p. 2315). Kim and Fredriksen-Goldsen (2016) reported that by 2050, almost 20% of the older adult population will consist of Hispanic older adults which will make them the largest ethnic and racial minority group. Kim and Fredriksen-Goldsen (2016) also report that Hispanics, 50 years or older, are more likely to report poor mental health when compared to non-Hispanic Whites of similar age. The study of machismo has not previously received much scientific attention. According to Estrada and Jimenez (2018) machismo is a male archetype characterized by hypermasculine traits like stoicism, aggression, sexism, and heavy drinking, which have been linked to risky behavior and interpersonal difficulties among Latino adults. Herrera, Owens, and Mallinckrodt (2013) state masculinity has become an increased area of study in recent years, because traditional masculine gender roles have been linked to mental health risk. Herrera and colleagues (2013) also state that men who adhere to traditional gender norms may be more likely to experience negative consequences such as low self-esteem, anxiety, depression, and a lower willingness to seek mental health assistance especially for emotional issues.

Purpose of the Study

The purpose of this study is to gain a deeper understanding of the notion of machismo and its psychological effects on Latinx adults. Therefore, this study poses the question: what is
the relationship between machismo and mental health outcomes such as stress and depression among Latinx adults? Those psychological facets impacted include stress and depression; key mental barriers the Latinx community encounters. This study focuses on assessing levels of understanding on machismo ideology as well as assessing levels of stress and depression among Latinx adults. It is important to recognize that the Latinx community spreads from a multitude of ethnicities. Therefore, this study includes participants from Mexico, Central and South America. This study shines light into the commonalities and differences among these distinct ethnic groups in terms of gaging levels of understanding for all desired variables.

Considering the lack of knowledge pertaining to the desired topic, more research must be done to fully understand the machismo ideology. Current research focuses on gender specific archetypes in the Hispanic culture including marianismo and caballerismo – both counterparts to machismo. Yet, there is not much focus on the mental impacts it may elicit. This study could open the door for further exploration on gender characteristics in hopes to increase therapy retention among the target population. This is often caused due to mistrust in the mental health system, desire to handle one’s own problems, and avoidance of potential stigma/discrimination (Falgas et al., 2017). In addition, this exploration can be beneficial to clinicians who purposefully aim to address toxic masculinity and other mental health issues - while incorporating gender workshops and psychoeducational classes to deconstruct machismo (Torres, Solberg, & Calstorm, 2002). Therefore, this study is looking to contribute to the body of literature to improve mental health services for Latinx adults, destigmatize mental health, develop culturally appropriate interventions, and deconstruct the narrative of machismo.
Literature Review

Machismo Ideology

The concept of toxic masculinity continues to shed light into the restrictions that allow men to conform to their designated gender roles, creating a negative relationship between gender role conflict and mental health problems. Machismo is explained as the societal beliefs and expectations regarding the role of men, its set values, attitudes, and beliefs about masculinity; what it means to be a man (Nunez et al., 2016). Research on masculinity remains extensive; however, research on machismo, the Hispanic depiction of masculinity, remains limited or inconclusive (Saez, Casado, & Wade, 2009). Available research details a significant relationship between machismo and mental health outcomes including depression, stress, anxiety, negative cognitions, and relationship satisfaction (Daniel-Ulloa, Sun, & Rhodes, 2017). Fragoso and Kashubeck (2000), developed their study to understand the dynamic between machismo and mental health outcomes and concluded that higher levels of machismo were associated with higher levels of depression, stress, and gender role conflict. These findings may be linked to the limitations as to why Latinx/Hispanic men show retention in mental health services.

Latino men are more likely to endorse their gender roles compared to their female counterparts. In addition, there is inconclusive knowledge as to how machismo affects women as most research is tailored to their specific role - marianismo. Former research suggests that there is a resistance to cultural roles which leads to feelings of depression, loneliness, and despair among Hispanic women (Mayo & Resnick, 1996). In the case of men, Latino men who follow the norms perpetuated by machismo experience detrimental emotional and health outcomes including depression, anger, anxiety, exacerbated social stress, and family dysfunction (Nunez et
Examining themes of machismo and its influence on mental health outcomes, may assist in moving toward a trajectory of providing services to the Latinx/Hispanic population. Additionally, research on machismo’s conceptualization presents itself differently throughout the years. Former research on machismo focused on the negative attributions of masculinity including violent, aggressive, and sexualized behaviors among Hispanic men (Arciniega et al., 2008; Daniel-Ulloa, Sun, & Rhodes, 2017). Arciniega et al. (2008) have worked to establish a more inclusive conceptualization of machismo which includes positive behaviors known as caballerismo. Caballerismo demonstrates qualities of family centeredness, social connectedness, and family honor as well as prosocial behaviors - that encourage emotional connectedness toward family and friends (Arciniega et al., 2008; Estrada & Jiménez, 2018). Although the scale utilized in this study focuses solely on male experiences, it is deemed beneficial to apply the machismo and caballerismo measures on women to identify trends among sexes. Applying a more inclusive approach to the Latinx/Hispanic masculine ideology can help destigmatize the toxicity of family cohesion, mental health support, and on what being a male in a Latinx/Hispanic household aims to be.

**Depression**

Literature states marginalized minorities groups, such as Latinos, experience greater hardships in securing employment and higher rates of unemployment due to language barriers, lack of education, and discrimination which places Latinos and their families at higher risk for depression (Trevinio et al., 2007). A study found that Latinos who are symptomatic or may need preventative services do not access mental health services due to lack of insurance coverage (Alegria et al., 2007). Latinos continue to be uninsured due to language barriers, immigration
status, and being employed in jobs less likely to provide insurance coverage. Literature suggests that Latinx individuals experience greater levels of depression than non-Latinx. Another study concluded that Latinos, when compared to Whites and African Americans, were more likely to experience persistently high depressive symptoms (Liang et al., 2011). The findings of this study suggest depression may be more prevalent among Mexican Americans than Whites and African Americans (Liang et al., 2011). Holahan and colleagues (2006) report that racial and ethnic minorities experience higher levels of stress, incompetent medical care to cope with stress, and have inadequate knowledge of appropriate health behavior. According to Smith and colleagues (2018), men and women tend to experience different types of mental health illnesses, as women are considered to have higher rates of internalizing disorders such as depression and men are considered to have higher rates of externalized disorders such as aggressive behavior, oppositional defiant disorders and substance abuse. A study by Nunez and colleagues (2016) concluded that the endorsement of traditional gender roles by Latinos is related to worse psychological health, regardless of level of acculturation to U.S. society, sex, or background group.

**Stress Among Latinx Population**

Stress is depicted as the physical and emotional reaction that appears when a drastic change appears in a person’s life. Stress is a broad area in mental health that holds several avenues of exploration including general stress, social stress, and most notable - acculturative stress. Acculturation is the process in which changes take place as a result of contact with dissimilar groups, people, and social influences; often common among immigrants, asylum seekers, etc. (Schwartz, Unger, Zamboanga, & Szapocznik, 2010). Within this notion, acculturative stress presents itself as the loss of adjusting or integrating into a new system of
social rules, norms, beliefs, and routines. Caplan (2007), found that Mexican migrants experience social stress as a result of poor navigation of social networks, family support, language barriers, challenges seeking employment, stigma, and discrimination. Furthermore, it was determined that there is a positive association with higher depressive symptoms as well as higher levels of stress in Hispanic women attempting to conform to their gender roles.

Acculturative stress has also been linked to poor mental health including hopelessness, anxiety, loss, anger, inferiority, and depression (Cheung, Bhowmik, & Hue, 2020). Cheung and colleagues (2020), found a directional relationship between acculturative stress and depressive symptoms; suggesting an increase in social support to combat symptoms.

Being a minority in an English dominated society comes with multiple barriers. Hispanic men and women who experience stress through different facets. Salgado de Snyder, Cervantes, and Padilla (1990), found that women experience higher levels of psychological distress due to immigration, familialism, and abiding by their role. Whereas men’s stress stems from occupation and the inability to attain personal growth and job advancements. The American Psychological Association (APA), developed a national study focused on identifying the causes of stress among Latinx/Hispanic adults. It was reported that respondents experience stress due to family health issues (34%), occupational (25%), and financial (28%) (National survey reveals Hispanic engage in health behaviors to manage stress more than the general population, 2006). Stress among the Latinx/Hispanic population is encompassed by acculturation, adherence to gender differences, and relation to an occupation which impact other facets of mental health. Cervantes, Padilla, and Salgado de Snyder (1990) utilized the Hispanic Stress Inventory (HSI) to assess stress severity among Latinx participants. The HSI focuses on assessing marital status, occupational/economic
barriers, parental stress, family/cultural conflict, and immigrant stress. Utilizing this scale helps understand the multiple factors contributing to stress within the Latinx population.
Methods

Sample

Participants for this study were between the ages of 18 and 64 years old, identified as Latinx/Hispanic (i.e. identify with ethnic descent from Mexico, Central and/or South America), and spoke monolingual Spanish, English, or bilingual. Spanish and English measures were taken into account by providing participants with the appropriate language survey. Participants were recruited through the use of social media platforms such as Facebook and Instagram. Before accessing the study, participants had the opportunity to consent to the process or opt out. Participants were directed to the Participant Information Form (PIF) and reviewed the study’s purpose, risks, voluntary participation, and confidentiality. Participants interested in their involvement in this study checked the box and agreed to engage in the study. Convenience sampling was utilized for this study as recruitment lies primarily on the use of social media platforms. Convenience sampling is viewed as an inexpensive method to disseminate the survey and results have demonstrated social media to be an effective recruitment method (Topolevec-Vranic & Natarajan, 2016). This notion is convenient because it draws upon nonprobability sampling, meaning that not all members of the population have an equal chance of participating in this study.

Anticipated problems surrounding subject recruitment may include language barriers, time constraints, and disregard of recruitment posts. Although the Spanish version of the study is available, many participants may focus to participate in the English version, instead. The IRB approved this study as well as its desired sample size. Sample size was aimed to have 100 participants; however, only 84 decided to participate in this study. Out of the 84 participants,
seventy-eight completed the English version of the study and six participants completed the Spanish version. Time constraints may be attributed as a problem to some as it requires participants to read the PIF thoroughly before commencing the study. If they move forward with their participation, then more time must be allocated to them to complete the survey in its entirety. Finally, a disregard of recruitment posts may contribute to recruitment issues. Social media platforms allow for many to view and share information; however, many may not find the content on the recruitment posts appealing or convincing enough to the audience.

**Data Collection Procedure**

The online survey is completely anonymous as identifying information about the participants was not collected. All data was obtained via participant self-report completion of the survey. Participants answered questions based on their understanding of machismo as well as their levels of stress and depression. A total of 50 questions were outlined onto Qualtrics, detailing areas of general demographics, machismo, stress, and depression. Fifteen to twenty minutes was the average completion time for the survey, but participants were allowed as much time as needed because the survey was online. Qualtrics was utilized, as it is broadly used for academic research, as it offers an array of question types to select from, the ability to score surveys, and offer clear analytical reports. Furthermore, researchers demonstrated honesty and integrity throughout data collection and completion of the study by ensuring ethical use of practice and accountability.

**Measurements**

*Machismo*

Machismo was measured by implementing the revised version of the Traditional
Machismo and Caballerismo Scale (TMCS) 71-item scale used to assess participant’s behavioral and cognitive aspects of machismo (Arciniega et al., 2008). The 20-item Machismo and Cabellerismo subscale was utilized to measure machismo ideology. The TMCS utilizes a 7-point rating scale (1 = not at all; 7 = very much so). Higher scores indicate stronger beliefs on machismo and caballerismo (Herrera, Owens, & Mallinckrodt, 2013). A sample item of this scale includes, “In a family, a father’s wish is law.” Arciniega et al. (2008), found that within the Traditional Machismo scale, internal consistency was held with $\alpha = .85$, the shortened scales correlated highly with the scales derived from the original factor analysis, Traditional Machismo ($r = .94$).

**Depression**

Depression was measured by the revised Center of Epidemiology Studies Depression Scale (CES-D 10) which assesses depressive symptomatology over a week (Bjorgvinsson et al., 2013). Participants were asked to rate the 10 items on a 4-point rating scale (0 = less than one day; 3 = 5-7 days), to demonstrate descriptive notion to the severity of depressive symptoms. Reversed scoring is done for items 5 and 8, which suggest positive statements. Total scores range from 0 to 30; higher scores indicating more severity of symptoms (Baron, Davies, and Lund, 2017). A sample item of this scale includes, “I had trouble keeping my mind on what I was doing.” According to Bjorgvinsson and colleagues (2013), the CES-D 10 demonstrates strong psychometric properties, determined by good reliability and construct validity in older adults, multicultural populations, adolescents, and has shown to sufficiently screen for suicidality and hopelessness in community samples. Miller and colleagues (2008), determined an internal consistency for CES-D-10 with a Cronbach’s alpha of .86.
Stress

The Hispanic Stress Inventory (HSI) 79-item scale is a culturally appropriate, self-report instrument that assesses psychosocial stress was implemented for this study (Cervantes, Padilla, and Salgado de Snyder, 1991). The HSI assesses psychosocial metrics on 5 distinct facets; (1) marital status, (2) economic/occupational barriers, (3) parental stress, (4) family/cultural conflict, (5) immigrant stress. In this current study, the HSI has been adopted from the original scale and was reduced to be a 15-item measure, rated on a 5-point rating scale (1 = not at all; 5 = extremely), to assess psychosocial stress among participants. Researchers reduced the items based on identifying those items that would resonate and would be most applicable to the sample population. Scoring is calculated by averaging the responses to the items within the scale. Scores range from 1 to 5 with higher scores indicating higher levels of stress (Arbona et al., 2010). A sample item from this scale includes, “I watched work quality so others do not think I am lazy.” Cervantes et al. (1990), conclude that internal consistency of the HSI possessed acceptable levels of internal consistency.

Demographic

Five demographic variables in this study focused on age, gender, preferred language, level of education, and annual salary. The current study is looking at individuals who are between the ages of 18 and 64, identify as male, female, or nonbinay, and gauge preference in language. Additionally, education level and annual income were assessed as well.
Results

Data Analysis

This study aimed to assess the relationship between machismo and mental health outcomes including stress and depression. Researchers utilized SPSS Software to run both descriptive and correlation tests. Descriptive analysis was conducted to identify characteristics among demographic variables. Correlation analyses were conducted to understand the relationship between machismo, stress, and depression. In addition to understanding the relationship between annual income, education, and machismo beliefs. Data cleaning processes consisted of removing irrelevant variables created by Qualtrics and removing missing data from the final analysis. The final sample size was a total of 84 participants.

Descriptive Analysis

Of the 84 participants, a little over half (59%) identified themselves in the early adulthood age range of 25-34 years old. With the given sample size, about half (58%) of participants identified as female. This percentage was much higher than expected as machismo is an ideology that affects men more than women (Nunez et al., 2016). The language variable demonstrated that about half (48%) of the participants identified English as their language of choice. Whereas, (45%) had the preference of being Bilingual. Looking at participants’ education level, nearly half (44%) of them held a Bachelor’s degree. This is relevant to previous data as depicted in Table 1, where the majority of participants ranged from 25-34 years of age, indicating that these participants are those who pursued higher education. Finally, the sample reported an average annual income of 34,618.07 dollars (SD=26951.39).
Correlations

Correlation test was conducted to determine the impact machismo had on stress and depression. Table 2 outlined the representations of these variables and found that mental health outcomes, stress and depression, demonstrated being strongly correlated, \( r(84) = .43, p < 0.001 \). Participants that reported higher levels of stress, were more likely to report higher levels of depression. Machismo was analyzed by looking at its association with both stress and depression. Machismo and depression showed a strong, positive, and small correlation, \( r = .25, n = 84, p = 0.025 \). In addition, there was a strong, positive correlation between machismo and stress, \( r = .58, n = 84, p < 0.001 \).

Table 3 demonstrates a correlation between annual income, education level, and machismo. Annual income and education level held a small, positive correlation, \( r = .23, n = 84, p = .03 \). This signifies that individuals who report higher levels of education tend to report higher levels of annual income. Therefore, it may imply that individuals with less education are more likely to report less annual income. Machismo and education held a negative correlation, \( r = -0.24, n = 84, p = .03 \). This indicates that a higher level of education correlates with having less machismo beliefs. Finally, machismo and annual income did not have a significant relationship.
Discussion

The findings of this study focused largely on the role of machismo ideology and its influence on stress and depression in Latinx adults. Results of this study supported the research question as machismo ideology played a significant role on each mental health outcome. For example, higher levels of machismo were associated with higher levels of stress and depression. Additionally, this present study found that stress held a higher correlation with machismo compared to depression. Prior research found that higher levels of masculine ideology were correlated to higher levels of stress and depression (Fragoso & Kashubeck, 2000). As a result, these findings suggest that there is a potential prevalence of psychological distress on other mental health measures. Nunez et al. (2016) conquered that individuals who abide by gender norm beliefs (i.e. machismo) were more likely to show a stronger association of negative cognitive-emotion including anger, anxiety, and depression, thus, highlighting the association between mental health wellness and the endorsement of gender norms.

This study also aimed to find associations between machismo ideology, education level, and annual income. Data findings exemplified a negative correlation between machismo and education levels as well as machismo and annual income. Previous research notes that men who have received higher education demonstrate weaker associations with conforming to gender norms (Hammer, Vogel, & Heimerdinger-Edwards, 2013). In relation to this study, findings correspond to previous research as participants with a higher level of education reported lower levels of machismo. With regard to annual income and education level, a positive correlation was identified. For example, those who identified receiving higher education are more likely to receive higher wages. Research notes that income is widely recognized to have a positive relationship with education level (Fullerton, 2001).
Future research should take into consideration the variability of masculine ideology within different cultures. It is important to examine the associations between masculine ideology and mental health outcomes among a large, diverse group of Latinx identified individuals in order to better understand the relationship between masculine ideology and psychological distress. Future research should be conducted with a diverse sample of men including other ethnic minority males, LGBTQ+ identified individuals, and across all age spans (i.e. children, adolescents, older adults). In addition, practitioners working with the Latinx population need to be culturally competent in areas of culture, identity, and gender norms. Mental health is highly stigmatized within the Latinx community; therefore, outreach might be beneficial as an effort to provide the necessary mental health services to this community. Future research should tailor to identify the relationship between machismo and help-seeking attitudes in the Latinx community to promote mental health wellness.
Limitations

A few limitations were encountered by researchers that need to be taken into consideration to better understand the study. First, the desired sample size of one hundred participants was not achieved as many participants did not complete the study’s survey in its entirety. Therefore, these participants were withdrawn from the final data analysis, bringing the sample size to a total of 84 participants. Having a small sample size comes with the disadvantage of affecting the generalizability of the study findings. Second, the use of the Hispanic Stress Inventory was also a limitation as some questions highlighted the importance of family, children, and spouse. Participants may have found it difficult to or not been able to respond to these questions if they did not have a child or were not married. Although this scale was tailored to Latinx population, researchers did not take into account the different experiences of participants who identified as single and without children.

Additionally, the majority of participants were female (58%) which led to a lack of gender diversity. This is a limitation as the construct of machismo primarily describes beliefs and expectations regarding the role of men in society. Equal male participation would increase the ability to generalize findings to the general population. Another limitation includes the exclusive use on online surveys. Due to the COVID-19 pandemic, in-person surveys were not a feasible option limiting our assessable participants. Finally, social desirability bias was another limiting factor. This factor contributes to study limitations as the study participants might falsely or inaccurately respond to the survey questions.

To conclude, the present study aimed to identify the relationship between machismo, stress, and depression among Latinx adults. The relationship of machismo with education and annual income were also explored. The study findings suggest that machismo ideology plays a
significant role in both stress and depression, although the prevalence is higher among stress.

Findings also indicated that education level and annual income held a negative association with machismo ideology, thus indicating that individuals with higher levels of education endorse lower levels of machismo. Lastly, researchers noted that machismo has the potential to increase stress and depression symptomatology in Latinx individuals. Findings suggest that culturally appropriate mental health services are necessary to support the community in addressing the disparities that impact their mental health.


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Appendix A
The Findings Tables - Machismo: Assessing its Effects on Stress and Depression Among Latinx Adults

Table 1

*Characteristics of Demographic Variables (N=84)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>%</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>33</td>
<td>39.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>49</td>
<td>58.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonbinary</td>
<td>2</td>
<td>3.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>18</td>
<td>21.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td>50</td>
<td>59.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-44</td>
<td>3</td>
<td>3.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45-54</td>
<td>9</td>
<td>10.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55-64</td>
<td>4</td>
<td>4.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Preferred Language</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>41</td>
<td>48.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanish</td>
<td>5</td>
<td>6.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bilingual</td>
<td>38</td>
<td>45.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Highest Level of Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Education</td>
<td>2</td>
<td>2.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some High School/ GED</td>
<td>4</td>
<td>4.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some College</td>
<td>18</td>
<td>21.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associates Degree</td>
<td>5</td>
<td>6.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>37</td>
<td>44.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>16</td>
<td>19.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctorate</td>
<td>2</td>
<td>2.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Annual Income ($)</strong></td>
<td></td>
<td></td>
<td>34618.07</td>
<td>26951.389</td>
</tr>
</tbody>
</table>


Table 2

*Correlations among Machismo and Mental Health*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Depression</th>
<th>Stress</th>
<th>Machismo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depression</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Stress</td>
<td>.43*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Machismo</td>
<td>.245*</td>
<td>.588*</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05

Table 3

*Correlations among Education, Income, and Machismo*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Education</th>
<th>Income</th>
<th>Machismo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Income</td>
<td>.233*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Machismo</td>
<td>-.235*</td>
<td>-.089</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05
Appendix B
Measurement Tool - Machismo: Assessing its Effects on Stress and Depression Among Latinx Adults

Demographics - Here you will be asked general questions regarding your background.

1. What is your age?
   a. Age (18-64 drop down menu)
2. What do you identify as
   a. Male, Female, NonBinary
3. What is your preferred language?
   a. English, Spanish, Bilingual
4. What is your highest level of education?
   a. No Education
   b. Some High School/GED
   c. Some Colleges
   d. Associates Degree
   e. Bachelor's Degree
   f. Masters Degree
   g. Doctorate
5. What is your annual salary?
   a. Fill in the blank

Machismo - In this section, you will be asked to answer questions about your knowledge on machismo ideology. You will be asked to indicate a response that best reflects your understanding.

1=Strongly Disagree, 2= Disagree, 3=Disagree Somewhat, 4=Uncertain, 5=Agree Somewhat
6= Agree, 7 = Strongly Agree

1. Men are superior to women
2. Men want their children to have better lives than themselves.
3. In a family, a father’s wish is law.
4. A real man does not brag about sex.
5. Men should respect their elders.
6. The birth of a male child is more important than a female child.
7. Men hold their mothers in high regard.
8. It is important not to be the weakest man in a group.
9. Real men never let down their guard.
10. The family is more important than the individual.
11. It would be shameful for a man to cry in front of his children.
12. Men should be willing to fight to defend their family.
13. A man should be in control of his wife.
14. It is necessary to fight when challenged.
15. Men must exhibit fairness in all situations.
16. It is important for women to be beautiful.
17. A woman is expected to be loyal to her husband.
18. The bills should be in the man’s name.
19. Men must display good manners in public.
20. Men should be affectionate with their children.

Stress: In this section, you will be asked how stressed you have felt/been feeling throughout the week. Please indicate which response corresponds best to you.

1= Not a lot, 2=A little, 3=Moderately, 4=Very, 5=Extremely

1. Since I am Latino I am expected to work harder.
2. Legal status problem in getting a good job.
3. Watch work quality so others do not think I am lazy.
4. Due to money problems, I had to work away from family.
5. Felt my children’s ideas about sexuality too liberal.
6. My children have been drinking alcohol.
7. Thought about children living independently.
8. Spouse expected me to be more traditional in relationships.
9. Hard for me to combine Latin/American culture.
10. Since I do not know English, I have a hard time interacting with others.
11. I had serious arguments with family members.
12. Some family members have become too individualistic.
13. Personal goals conflict with family goals.
14. Felt unaccepted by others due to my Latino culture.
15. Spouse and I disagree about who controls the money.

Depression: This section will ask about how you might have felt or behaved. Please identify how often you have felt this way during the past week.

1=Rarely or none of the time (less than 1 day), 2=Some or a lot of the time (1-2 days), 3=Occasionally or a moderate amount of the time (3-4 days), 4=Most or all of the time (5-7 days)

1. I was bothered by things that usually do not bother me.
2. I had trouble keeping my mind on what I was doing.
3. I felt depressed.
4. I felt that everything I did was an effort.
5. I felt hopeful about the future.
6. I felt fearful.
7. My sleep was restless.
8. I was happy.
9. I felt lonely.
10. I could not get going.
Appendix C

ADDENDUM –

Machismo: Assessing its Effects on Stress and Depression Among Latinx Adults

**Machismo: Assessing its Effects on Stress and Depression Among Latinx Adults** is a joint graduate project between **Ricardo Bello** and **Jose Valencia**. This document will explain the division of responsibilities between the two parties. Any additional information can be included in a separate document attached to this Addendum page.

**Ricardo Bello** is responsible for all the following tasks/document sections:

- Researched background information on the depression variable and wrote the introduction of the paper which described the importance of the study.
- Before data analysis, cleaned and analyzed the data obtained to complete the study.

**Jose Valencia** is responsible for all the following tasks/document sections:

- Researched background information on the machismo and stress variables and wrote the results of the final data analysis.
- Created recruitment posts to distribute among social media platforms in both English and Spanish.

Both parties shared responsibilities for the following tasks/document sections:

- Wrote Discussion and Limitation sections and collaborated in providing suggestions for further research.
- Acquired the English survey questionnaire and translated it into Spanish for Spanish speaking participants.
- Collaborated and completed Methods section of the paper
- Uploaded recruitment posts on social media networks (Facebook and Instagram) to advertise the survey.
- Analyzed our paper and developed a powerpoint presentation for class presentation.
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