

PA' QUE TÚ LO SEPAS: DOES ETHNIC IDENTITY AFFECT COLONIAL MENTALITY AND MACHISMO IN PUERTO RICANS?

PA' QUE TÚ LO SEPAS: ¿LA IDENTIDAD ÉTNICA AFECTA LA MENTALIDAD COLONIAL Y EL MACHISMO EN LAS PERSONAS PUERTORRIQUEÑAS?

Recibido: 3 de noviembre de 2023 | Aceptado: 14 de octubre de 2024

DOI: <https://doi.org/10.55611/rep.3502.09>

Adriana **Colom Cruz**¹, Darianna **Frontera-Villanueva**², Nicole **Mendoza-Rivera**³, Denise **Cortés-Cortés**⁴,
Darinel **López-Feliciano**⁵, Laura **Baéz Nieves**⁶, Anayeli **Gamino**⁷, Marquis **Schieber**⁸

¹. Saga Education, Chicago, United States of America

². University of East Anglia, Norwich, England

³. University of Puerto Rico, Río Piedras Campus, San Juan, Puerto Rico

⁴. University of Puerto Rico, Mayagüez Campus, Mayagüez, Puerto Rico

⁵. Climate Action Investigation, San Juan, Puerto Rico

⁶. Ponce Health Sciences University, Ponce, Puerto Rico

⁷. Volunteer Behavioral Health, Nashville, United States of America

⁸. Wake Forest View, North Carolina, United States of America

ABSTRACT

Building off prior limited research examining colonized people, the present study explored correlational and causal relationships between ethnic identity, colonial mentality, and machismo in Puerto Ricans. Participants ($n = 69$; 64.0% female) were randomly assigned to two groups: the experimental group ($n = 39$) discussed Puerto Rican ethnic identity, while the control group ($n = 30$) participated in an unrelated trivia game. Afterward, participants completed an online survey that measured ethnic identity, colonial mentality, and machismo. We predicted ethnic identity to reduce colonial mentality and to have a negative relationship with machismo. Our findings supported a negative correlation between colonial mentality and ethnic identity ($r = -.35$, $p = .002$). Although colonial mentality remained unchanged between conditions ($p > .05$), machismo was marginally higher in the control condition ($p = .082$). Additionally, colonial mentality was positively correlated with caballerismo ($r = .62$, $p = .002$), but not with machismo ($p > .05$). In-person priming and a larger sample are needed to fully comprehend the association between colonial mentality, ethnic identity, and machismo. Future research should examine the role of ethnic identity in buffering beliefs and attitudes linked to adverse psychological consequences like colonial mentality and machismo.

KEYWORDS: Colonialism, Ethnic identity, Machismo, Puerto Rico.

RESUMEN

Basándonos en investigaciones sobre poblaciones colonizadas, exploramos relaciones correlacionales entre mentalidad colonial, identidad étnica y machismo en personas puertorriqueñas. Las personas participantes ($n = 69$; 64.0% mujeres) fueron asignadas al azar a dos grupos: grupo de intervención ($n = 39$) con discusión sobre identidad étnica, y grupo de comparación ($n = 30$) con un juego no relacionado. La identidad étnica, mentalidad colonial y machismo fue evaluada mediante una encuesta. Se esperaba (1) que el grupo de intervención tuviera menos mentalidad colonial que la comparación, (2) una relación negativa entre mentalidad colonial e identidad étnica, y (3) una relación positiva entre machismo y mentalidad colonial. Según predicho, la mentalidad colonial e identidad étnica correlacionaron negativamente ($r = -.35$, $p = .002$). Aunque la mentalidad colonial permaneció igual entre las condiciones ($p > .05$), el machismo fue marginalmente más alto en el grupo control ($p = .082$). Incluso, la mentalidad colonial correlacionó positivamente ($r = .62$, $p = .002$) con el caballerismo, pero no con el machismo ($p > .05$). El estudio debe realizarse con una muestra más amplia. Futuras investigaciones podrían examinar el rol de la identidad étnica en amortiguar creencias y actitudes vinculadas a la mentalidad colonial y machismo.

PALABRAS CLAVE: Colonialismo, Identidad étnica, Machismo, Puerto Rico.

Correspondencia de este artículo debe ser dirigida a Adriana Colom Cruz. E-mail: adriana.colom1@upr.edu

The present study examined the relationship between colonial mentality, ethnic identity, and gender roles among mainland (i.e., Puerto Ricans living in the United States of America) and island Puerto Ricans (i.e., Puerto Ricans living in Puerto Rico). To understand the implications of these results, one must first understand the context of the colonized population, in this case, Puerto Ricans. Puerto Rico, an archipelago composed of the main island, three smaller islands (i.e., Vieques, Culebra, and Mona), various islets and cays, was first colonized by Spain in 1508. As a Spanish colony, Borikén, the native Taíno name for the archipelago, experienced the genocide of its Taíno population, the enslavement of African people, and the exploitation of its natural resources (Chavez-Dueñas et al., 2014). In 1898, during the Spanish-American War, Puerto Rico was transferred from Spain to the United States of America (USA), which initiated a new hegemonic colonial control over the Caribbean archipelago (Dietz, 1986; Picó, 1987; Scarano, 1993). Two years after the USA invasion, the Foraker Act of 1900 ensured a civilian government in Puerto Rico. Nevertheless, it gave White Americans, rather than native Puerto Ricans, key government positions. The Jones Act of 1917 granted Puerto Ricans U.S.A. citizenship (Martínez Avilés, 2012; Picó, 1987). However, this act was controversial at the time because months later, over twenty thousand Puerto Rican men were drafted to fight on behalf of the USA Army in World War I (Franqui-Rivera, 2013). In 1953, establishing the Commonwealth of Puerto Rico marked the beginning of a second, more covert type of colonial control on the island (Beauchamp et al., 1980). Puerto Rico was removed from the United Nations Non-Self Governing Territories' list after the *Estado Libre Asociado*, or the Commonwealth, was established in response to the growing nationalist and pro-independence movements. Despite the implementation of citizenship, Puerto Ricans were unable to vote for their governor until 1946, when Luis Muñoz Marín, a Puerto Rican native, was elected as Governor of Puerto

Rico (Martínez Avilés, 2012; Monge, 1999; Picó, 1987).

Nowadays, Puerto Rico's currency, defense, external relations, communications, postal service, social security, and interstate commerce remain under the jurisdiction of the USA federal government (Godreau & Bonilla, 2021). Additionally, Puerto Ricans cannot vote in USA presidential elections and lack voting representation in the USA Congress (Baruffi, 2002). Most recently, colonialism has been prevalent through austerity measures and gentrification. Since 2006, Puerto Rico has been experiencing a complex crisis involving multiple layers of economic, legal, political, environmental, and humanitarian issues that have "further damaged the already stagnant Puerto Rican economy and its legal and sociopolitical institutions" (Atilés, 2022, p. 962). For example, in 2016, the government of the USA Congress imposed, undemocratically, the Puerto Rico Oversight, Management and Economic Stability Act to manage the \$72 billion debt and regulate the archipelago's finances (Villanueva, 2019). The economic crisis has partially been driven by tax incentives that grant tax exemptions and benefits to foreign investors (Act to Promote the Export of Services, 2012; Act to Promote the Relocation of Individual Investors to Puerto Rico, 2012; Espada, 2021). Unfortunately, these tax incentives have caused a housing crisis and increased the cost of living on the archipelago (Alaejos, 2023), displacing locals and gentrifying neighborhoods in Puerto Rico (Alaejos, 2023; Alfaro, 2022). Puerto Rico currently faces one of the largest political, economic, social, and humanitarian crises in its modern history (United Nations, 2017; 2019) due to its colonial status (Cabán, 2020).

What is Colonial Mentality?

Post-colonial critique initially conceptualized coloniality along two axes: power (Mignolo, 2001; Quijano, 2000) and knowledge (Mignolo, 2001; Fals Borda, 1971). Coloniality of power is the coercive establishment of

economic, political, cultural, and social policies, institutions, and hierarchies that sustain and expand white supremacy (Mignolo, 2001). Coloniality of knowledge exemplifies how colonization forcibly imposes the epistemologies, reasonings, traditions, and values of White Western European cisgender men on the colonized (Fanon, 1963; Fals Borda, 1971; Memmi, 1965; Mignolo, 2001). Because coloniality of power and knowledge set in motion an ethics of violence, exclusion, and exploitation that seeks to exterminate and dominate the colonized, Maldonado-Torres (2007) identified a third axis of coloniality, coloniality of being. According to Maldonado-Torres (2007), the coloniality of being thematizes how coloniality of power and coloniality of knowledge together put the colonized in a condition of not being or not being fully human “in the eyes of the white” (p. 253).

Colonialism is “a form of oppression characterized by relations of domination and submission,” creating economic and psychosocial imbalances (Martínez Avilés, 2012, p. 28). The colonial relationship portrays everything associated with the colonized as negative and inferior compared to the colonizer, leading to their negative self-perception and portrayal (Fanon, 1986). Additionally, colonialism exerts political and economic control over a nation and faults all levels of the national identities of the colonized (Varas-Díaz & Serrano-García, 2003). This disparity creates a power imbalance that perpetuates internalized feelings of oppression in oppressed people, which may lead to perceiving the colonizer as superior and themselves as inferior. This is referred to as colonial mentality, often occurring early in life since it is primarily transferred via cultural cues and transgenerational information (Capielo Rosario et al., 2019). David (2008) suggests that having a colonial mentality helps justify the oppression and regulate the stress and depression colonized people may be experiencing.

Psychological Consequences of Colonialism in Puerto Ricans

There is limited research in psychology on colonial mentality in Puerto Ricans, especially using quantitative methodologies. We found three empirical quantitative studies on colonial mentality and mental health (Capielo Rosario et al., 2019), system justification (Rivera-Pichardo et al., 2021), and ethnic identity (Gamino et al., 2021) in Puerto Ricans. Compared to other groups of Latin Americans living in the USA (e.g., Cuban-Americans, Mexican-Americans, and island Puerto Ricans), mainland Puerto Ricans suffer from higher rates of depression (Capielo Rosario et al., 2019). They are also more likely to suffer from acculturative stress and depression if they are high in colonial mentality. Rivera-Pichardo et al. (2021) found that internalization of inferiority among island Puerto Ricans was associated with a tendency to defend, justify, and bolster the USA hegemonic system and its ongoing presence in Puerto Rico. Lastly, Gamino et al. (2021) found a negative correlation between colonial mentality and ethnic identity in Puerto Ricans. Interestingly, they also found that colonial mentality mediated the relationship between ethnic identity and mental health help-seeking stigma.

Colonial Mentality and Ethnic Identity. Green et al. (2015, p. 676) defined ethnic identity as a “sense of belonging based on one’s ancestry, cultural heritage, values, traditions, rituals and often language and religion.” Prior research on colonized communities suggests a negative correlation exists between colonial mentality and ethnic identity in various populations, including Filipino Americans (David & Okazaki, 2006; Tuazon et al., 2019), Ghanaian young adults (Utsey et al., 2015), as well as Puerto Ricans (Gamino et al., 2021). As revealed by work done by Moore et al. (2020), identity formation and marginalization may hinder help-seeking during the transition to adulthood and may ultimately lead to health disparities. Byrow et al. (2020) further expanded on this by exploring barriers that prevent refugees from

seeking mental health help. The results revealed three principal critical barriers to help-seeking: (a) cultural barriers, which included mental health stigma; (b) structural barriers, which included financial strain, language proficiency, unstable accommodation, and a lack of understanding of how to access services, and (c) barriers specific to the refugee experience, which included immigration status, a lack of trust in authority figures and concerns about confidentiality. Since colonial mentality mediates the relationship between ethnic identity and mental health help-seeking attitudes (Gamino et al., 2021), could ethnic identity act as a buffer to colonial mentality and some of its negative consequences? Because inferiority complexes are inherent in having a colonial mentality, individuals might be hesitant to delve into the significance of their heritage or fully embrace it as an essential aspect of their identity.

Colonialism, Ethnic Identity, and Gender. Glass and Owen (2010) define ethnic identity as the degree to which individuals recognize themselves as part of a specific group with a shared culture, history, and gender roles. For example, the stereotypical Latin American masculinity, also known as machismo, is characterized by overt heterosexuality and courage that blends into aggression (Hardin, 2002). On the contrary, caballerismo emphasizes respect, honor, and courtesy toward women, including providing for their families (Nuñez et al., 2015). Most studies have shown that ethnic identity and machismo are negatively correlated in USA Latino communities. Additionally, although statistically insignificant, ethnic identity and caballerismo are positively correlated (Arciniega et al., 2008; Glass & Owen, 2010). However, the few existing studies on ethnic identity and sexism have focused on USA Latinos communities rather than those living in Latin America. In the present study, we addressed this gap by examining the intersection of gender and ethnic identity within a colonized context.

Colonialism often disrupted or suppressed indigenous gender expressions, forcing them to conform to Western binary notions of gender. These norms were often enforced through legal, political, and economic systems, resulting in the marginalization and subordination of women (Hardin, 2002; Martinez, 2019). This binary idealized men who showed traits such as being white, heterosexual, powerful, educated, and the head of a family (Segato, 2015). Through the process of colonization, toxic masculinity became embedded in Latin American culture (Martinez, 2019). For example, results have shown that Filipino Americans with higher levels of internalized inferiority reported more experiences of sexism and racism. Additionally, those who showed higher levels of colonial debt showed lower experiences of sexism (Felipe, 2016). These results not only showcase how one's exposure to oppressive experiences may lead to negative internalized feelings but also suggest that these forms of oppression may be justified due to the perception of indebtedness towards the colonizer. Do the correlations between sexism and colonial mentality replicate in Puerto Ricans? Could having a positive ethnic identity decrease both colonial mentality and machismo in Puerto Ricans? It is crucial to further explore the interplay of power dynamics when referring to ethnic identity, machismo, and colonialism.

The Present Study

The present study contributes to the existing literature gap by (1) examining causal rather than correlational relationships between ethnic identity and colonial mentality and by (2) replicating results related to colonialism and sexism found in Filipino Americans (Felipe, 2016) that have not yet been studied in Puerto Ricans. Building off of Gamino et al.'s (2021) results, we aimed to further examine the relationship between colonial mentality and ethnic identity among mainland and island Puerto Ricans through an intervention, priming participants with ethnic identity. Besides self-report methodology via

Qualtrics, participants were required to participate in online group discussions with at least four other Puerto Ricans. These group discussions held on Zoom were used to either prime ethnic identity (i.e., intervention condition) or to play an irrelevant game (i.e., comparison condition). Does a positive ethnic identity reduce self-reported colonial mentality in Puerto Ricans?

Additionally, we sought to include the historical impact of colonialism on gender norms in Latin America by examining concepts like machismo and caballerismo through self-reported questionnaires. Based on prior research (Felipe, 2016; Martinez, 2019; Segato, 2015), we can grasp that colonialism involves the imposition of certain cultural beliefs, which may further contribute to the prevalence of patriarchal ideologies. Is there a positive relationship between machismo and colonial mentality? By establishing this, the research intends to add literature to the complex interaction between societal, cultural, and historical components that may influence the role of gender dynamics in Latin American culture.

Importance

There is a significant gap in psychological research that studies people living in nations still colonized or under some territorial control. Unlike Puerto Ricans, most populations studied in the field currently come from nations that are now completely independent, such as the Philippines and India. The USA Census Bureau (2019) also estimates approximately 3.3 million island Puerto Ricans and 5.8 million mainland Puerto Ricans. According to the Pew Research Center (2023), a little over a million Puerto Ricans have migrated to the USA in the last decade, a significant rise compared to earlier decades, demonstrating the importance of studying both mainland and island Puerto Ricans. As mentioned previously, compared to other groups of USA Latin Americans, mainland Puerto Ricans report higher rates of depression (Capielo Rosario et al., 2019), underscoring the importance of adding to the

growing decolonial literature in psychology. The present study is the first to study the causality between colonial mentality and ethnic identity, and to examine associations between colonial mentality and sexism in Puerto Ricans.

Predictions

Because colonial mentality fully mediated the relationship between ethnic identity and indifference to mental health help-seeking stigma (Gamino et al., 2021), we predicted ethnic identity might lead to a decrease in colonial mentality. In other words, we expected lower levels of ethnic identity in the intervention compared to the comparison condition. Additionally, we sought to replicate Tuazon et al.'s (2019) and Gamino et al.'s (2021) studies, which showed that colonial mentality was negatively associated with ethnic identity in Filipino Americans and Puerto Ricans, respectively. Lastly, we expected a positive correlation between machismo and colonial mentality since imperial powers often impose and reinforce patriarchal systems in colonized societies (Hardin, 2002; Martinez, 2019; Segato, 2014, 2015). Lastly, we explored the potential for causality between colonial mentality and sexism without any particular prediction in mind.

METHOD

Participants

We recruited 89 participants via flyers and social media. Participants had to be (1) Puerto Rican, (2) live in Puerto Rico or the USA, and (3) be at least 21 years old. After excluding inattentive participants, the sample consisted of Puerto Ricans ($N = 75$) living in the USA or Puerto Rico and were at least 18 years of age. The sample comprised 34.7% males, 64.0% females, and 1.3% non-binary folk. The sample ranged from 21 to 52 years old, with an average age of 25.45 ($SD = 6.22$). Most identified with more than one racial background. Participants were 58.7% White, 20.0% Black or African American, 5.3% American Indian or Alaska Native, and 40.0%

identified as another or mixed race. Most Puerto Ricans surveyed lived on the archipelago (70.7% lived in Puerto Rico, 26.7% lived in the USA, and 2.7% frequented both). We compensated the first four participants with \$10 Amazon e-gift cards. The remainder received \$20 Amazon e-gift cards with the approval of the IRB.

Materials

Participants were either primed with ethnic identity or assigned to a comparison condition. Then, they answered the following scales: the Colonial Mentality Scale for Mainland Puerto Ricans ($\alpha=.89$; Capielo Rosario et al., 2019), the Ethnic Identity Scale ($\alpha=.85$; Umaña-Taylor et al., 2004), and Machismo and Caballerismo Scale ($\alpha=.91$; Arciniega et al., 2008).

Priming Ethnic Identity

Participants were sent a Zoom link to join a group of at least four other participants. They were required to use video and audio during the half-hour session. Because the Ethnic Identity Scale (Umaña-Taylor et al., 2004) consists of the following three subscales: affirmation (e.g., “I feel negatively about my ethnicity.”), exploration (e.g., “I have read books/magazines/newspapers or other materials that have taught me about my ethnicity.”), and resolution (e.g., “I have a clear sense of what my ethnicity means to me.”), we decided to base our script and discussion questions on these. As seen in Table 1, we asked five questions and allowed participants to discuss in Spanish or English. Conversations and follow-up questions naturally emerged and were encouraged among participants. These semi-structured focus group discussions lasted approximately 30 minutes. Participants were then required to fill out a reflective question at the end of the session.

TABLE 1.
Focus Group Interview Questions.

<ul style="list-style-type: none">• What makes you proud of being Puerto Rican?• What are some of the best characteristics of the Puerto Rican people?• Which well-known Puerto Rican figure do you admire most? And why?• For mainland Puerto Ricans: If you ever lived on the island, what do you miss most about Puerto Rico?• For mainland Puerto Ricans: When you visit Puerto Rico, what can you not leave without doing?• For island Puerto Ricans: After hearing the diaspora respond to what they miss most about the island, what would you miss the most if you left?

Measures

The Colonial Mentality Scale for Mainland Puerto Ricans. The Colonial Mentality Scale for Mainland Puerto Ricans is a 23-item scale ($\alpha=.91$) modified by Capielo Rosario et al. (2019) to assess the degree of colonial mentality in individuals across three subscales. These are Puerto Rican inferiority and American superiority (e.g., “There are situations where I feel inferior because of my Puerto Rican background.”), physical

characteristics (e.g., “I would like to have a skin-tone that is lighter than the skin-tone I have.”), and colonial debt (e.g., “Puerto Ricans should be thankful to Spain and the U.S. for transforming the Puerto Rican ways of life into a White/European American way of life.”). Participants rated agreement for statements corresponding to the three subscales on a 6-point scale from 1 (strongly disagree) to 6 (strongly agree). Respondents with higher scores had higher levels of colonial mentality.

The Ethnic Identity Scale. The Ethnic Identity Scale (Umaña-Taylor et al., 2004) consists of 17 items ($\alpha=.83$) on a 4-point Likert scale that measures three separate subscales: affirmation (e.g., “If I could choose, I would prefer to be of a different ethnicity.”), exploration (e.g., “I have experienced things that reflect my ethnicity, such as eating food, listening to music, and watching movies.”), and resolution (e.g., “I know what my ethnicity means to me”). In other words, the scale explores whether individuals choose to affirm the role that their ethnic identity plays in their lives, engage in the process of identity exploration, and resolve their feelings (Umaña-Taylor, 2003).

The Machismo and Caballerismo Scale. The Machismo and Caballerismo Scale (Arciniega et al., 2008) is a 20-item scale ($\alpha=.74$) that assesses the degree of machismo and caballerismo in individuals across two subscales. These scales include traditional machismo (e.g., “A man should be in control of his wife.”) and caballerismo (e.g., “Men should respect their elders.”). Participants rated agreement for statements corresponding to each subscale on a 7-point scale from 1 (Very Strongly Disagree) to 7 (Very Strongly Agree). Respondents with higher scores had higher levels of machismo.

Procedure

The Institutional Review Board of Sewanee: The University of the South reviewed and approved our study (Protocol #: 2020110007). In order to obtain informed consent from the participants, they were notified about the potential risks involved when participating in the study, which were determined to be minimal. These risks included feeling uncomfortable answering some questions or using their webcam. To minimize and mitigate any possible discomfort, they were explicitly informed that they could skip any questions that made them feel uncomfortable and assured they could withdraw from the study at any time without penalty by closing the survey. We disclosed that the study was anonymous

and emphasized that no information about their identity would be collected or retained. Additionally, the Zoom sessions would be confidential and not recorded. Research records would be coded and secured using password-protected files on password-protected computers.

Once participants consented, they chose a time and date from ten available time slots. Depending on the time and date, participants were either assigned to the ethnic identity condition or a neutral condition. Participants in the ethnic identity condition were exposed to a positive Puerto Rican ethnic identity through semi-structured focus group discussions. Those in the neutral condition played an irrelevant trivia game on topics such as sports, history, and geography on Kahoot!, an online learning platform where users can create trivia and quiz games. These online Zoom sessions consisted of at least five participants in total. Once finished, participants answered an online survey via Qualtrics and were debriefed on the purpose and hypotheses of the study.

RESULTS

As seen in Table 2, correlational analyses were conducted to test the associations between colonial mentality, ethnic identity, and machismo. Colonial mentality and ethnic identity were significantly correlated, $r = -.35$, $p = .002$. There was a medium negative correlation between colonial mentality and ethnic identity, indicating that those with higher levels of colonial mentality had lower levels of ethnic identity. Additionally, although traditional machismo and colonial mentality were not significantly correlated, $r = .19$, $p = .110$, caballerismo and colonial mentality were, $r=.31$, $p = .005$.

As a manipulation check, an independent sample t-test was conducted to evaluate whether participants in the intervention (i.e., the priming of positive ethnic identity) would have higher levels of reported ethnic identity than participants in the comparison condition (i.e., playing Kahoot! trivia game). The test

was marginally significant, $t(67) = -1.43$, $p = .078$. As expected, those in the intervention ($M = 3.62$, $SD = .35$) reported higher levels of ethnic identity than those in the control condition ($M = 3.49$, $SD = .39$). Provided our limitations discussed below, we expected there to be significant differences at the $p < .05$ level in a similar study with higher power and stronger priming.

As seen in Table 3, our central hypothesis that participants in the experimental condition would have lower levels of colonial mentality than participants in the control condition was not supported. The independent-sample t-test was insignificant, $t(67) = .12$, $p = .451$. Unlike our initial hypothesis, there were no significant differences in colonial mentality between those who discussed culture and resilience ($M = 1.65$, $SD = .61$) and participants who played the trivia games on Kahoot! ($M = 1.67$, $SD = .63$).

TABLE 2.
Correlations Between Self-Reported Colonial Mentality, Ethnic Identity, Machismo, and Caballerismo.

Variables	1	2	3	4	<i>M</i>	<i>SD</i>
1. Colonial Mentality	-				1.67	.61
2. Ethnic Identity	-.35**	-			3.56	.37
3. Traditional Machismo	.19	.15	-		4.53	.94
4. Caballerismo	.31**	-.09	.62**	-	2.46	.59

* $p < .05$ ** $p < .01$

TABLE 3.
Means and Standard Deviations on the Measures of Colonial Mentality, Traditional Machismo, and Caballerismo as a Function of the Study's Condition.

Variables	Experimental		Control	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Ethnic Identity	3.62	.35	3.49	.39
Colonial Mentality	1.65	.61	1.67	.63
Traditional Machismo	4.34	.93	4.66	.97
Caballerismo	2.49	.63	2.36	.51

Note: * indicates $p < .05$. ** indicates $p < .01$

Exploratory Analyses

As seen in Table 3, exploratory analyses demonstrated further differences between participants in the intervention versus the comparison conditions. An independent-sample t-test exploring differences in traditional machismo was marginally significant, $t(67) = 1.41$, $p = .082$. Those in the experimental condition ($M = 4.34$, $SD = .93$) had lower levels of traditional machismo than those in the control condition ($M = 4.66$, $SD = .97$). In other words, participants primed with ethnic identity reported lower traditional machismo. On the other hand, the independent-sample t-test exploring differences in caballerismo was not significant, $t(67) = .97$, $p = .17$.

DISCUSSION

Our predictions were partially supported. Like Tuazon et al.'s (2019) and Gamino et al.'s (2021) studies, colonial mentality and ethnic identity were negatively associated. Building off of Gamino et al.'s (2021) mediation model, in which colonial mentality mediated the relationship between ethnic identity and mental health help-seeking, this study aimed to establish an intervention priming participants' ethnic identity. Unlike predicted, there were no differences in colonial mentality between those primed with ethnic identity and those in the comparison condition. The general pattern of results was as we expected in any case. Those in the intervention had lower levels of colonial mentality, albeit insignificant.

The negative relationship between colonial mentality and ethnic identity could have profound implications for Puerto Ricans. As colonialism implies social, economic, and political changes, this can directly affect the development of positive individual and collective identities (Varas-Díaz & Serrano-García, 2003), affecting Puerto Rican's ethnic identity. The loss of ethnic identity that comes from the need for cultural assimilation could erode values, traditions, and behaviors associated with being Puerto Rican. This transition could have further implications as an added stressor to the losses caused by recent natural disasters and financial distress of the last decade, similar to those experienced by people who have migrated to a new country (Sánchez Mimbela, 2017).

Unlike predicted, the relationship between colonial mentality and traditional machismo was insignificant. However, colonial mentality and caballerismo were positively associated. Due to the unfavorable connotations often associated with traditional machismo and the positive traits associated with caballerismo, participants were possibly hesitant to display negative stereotypes of machismo while being more predisposed to display the virtuous qualities of caballerismo. These relationships may imply an association with traditional macho attitudes and being Puerto Rican (Martínez, 2019). The positive social connotations of benevolent sexism (i.e., seemingly positive, yet limiting and stereotypical, attitudes toward women) may apply to people's perception of how men might act in certain situations (Glick et al., 2004). However, the notion that Puerto Ricans experience sexism, whether it be machismo or caballerismo, in relation to colonial mentality, emphasizes how the perception of gender roles reflects on different aspects of life and the need for collective measures to be taken on the matter. Our results can contribute to the development of public policies that intend to lower levels of sexism and colonial mentality in Puerto Rico. Similarly, ethnic identity can be reinforced in school curricula and through representation in the media. Finally, our

results can contribute to other studies that explore ethnic identity and colonial mentality, which may ultimately help come to more robust conclusions that may be used to improve mental health in Puerto Ricans.

Exploratory analyses demonstrated marginally significant differences in traditional machismo between participants in the experimental and control conditions. Those primed with ethnic identity reported lower levels of traditional machismo. Although there were no significant differences in caballerismo between conditions, those in the experimental condition had lower levels of caballerismo than those in the control condition, following a similar pattern to traditional machismo. Since the method used to prime Puerto Rican culture accentuated its favorable characteristics, it may have felt contradictory to exhibit the negative attributes of machismo. Previous research has demonstrated that ethnic identity buffers negative psychological consequences like self-harm in young Latina adults (Madubata et al., 2020) and discrimination in Asian Americans (Yoo & Lee, 2008). Future research should explore whether ethnic identity can also buffer against colonial mentality and sexist attitudes, such as machismo and marianismo, in Hispanic and Latin American cultures.

Limitations and Future Directions

The present study's limitations included (1) the Colonial Mentality Scale (Capielo Rosario et al., 2019), which is designed for mainland Puerto Ricans, (2) our sample size (N=69), and (3) the priming of ethnic identity. Currently, the only scale measuring colonial mentality in Puerto Ricans was designed to be used with those living on the mainland. Items from the original scale (Capielo Rosario et al., 2019), such as "In general, I do not associate with newly-arrived Puerto Ricans," only applied to Puerto Ricans living on the mainland. As a result, items 4, 12, and 30 from the subscale "Puerto Rican Inferiority and American Superiority" did not apply to the context of island Puerto Ricans, who were a

large portion of our sample. However, because the items mentioned above did not change the direction or significance of any results, they were not removed when analyzing data. Future research that examines the psychological consequences of colonialism experienced by Puerto Ricans should address this gap. The scale could be expanded by developing a different version for island Puerto Ricans.

The sample size (N=69) was relatively small and underpowered. With a larger sample size, the significance of our results would be more substantial. In the future, we aim to reach more Puerto Ricans with diverse educational and sociodemographic backgrounds. Furthermore, we aim to recruit an equal number of mainland and island Puerto Ricans to identify any within-group differences. Finally, addressing the gender distribution, we suggest that future samples have an equal quantity of female and male participants and include members of gender minorities. Comparison analyses in a highly powered and representative study sample would help us explore between-group differences.

Lastly, the method for priming ethnic identity could have been more robust. After the focus group or Kahoot! session, some participants would wait to answer the online questionnaire, potentially reducing the priming effect. Additionally, the priming method could have been strengthened through various media types (e.g., video and audio) related to Puerto Rican ethnic identity. Therefore, we recommend that future studies implement longer in-person ethnic identity sessions and administer questionnaires immediately after.

General Conclusion

Centuries of colonialism have shaped how Puerto Ricans personally and collectively view themselves (Tuazon et al., 2019). Not only do the results suggest a direct link between colonial mentality and Puerto Ricans' ethnic identity and demonstrate that the levels of

colonial mentality alter their perception of themselves. This, in turn, contributes to their willingness to seek mental health services and, additionally, how structured gender roles alter our interactions with others and ourselves.

Like many other Latin Americans, Puerto Ricans have machismo deeply embedded in their culture. When considering Puerto Rico's and Latin America's colonial history, we would expect to find associations between these two concepts. We argue that sample size and low statistical power limited the results, and that additional research is needed to understand further how gender roles interact with colonialism and ethnic identity. Additionally, research shows more parallels than differences between Puerto Ricans from the mainland and those from the islands.

Colonialism directly affects Puerto Ricans, regardless of whether they live within the archipelago or in the USA. In addition to presenting the consequences of years of colonialism in Puerto Rico, this study aims to open the discussion and shed the importance of studying these themes. Even though the Puerto Rican condition is unique, the effects of colonialism and the perseverance of colonial mentality can be found in many cultures around the globe (Felipe, 2016; Tuazon et al., 2019; Utsey et al., 2015). Since there are not many studies on colonial mentality in Puerto Ricans, this inquiry is crucial and can pave the way to further research on colonial mentality and how 125 years of USA colonialism has shaped and affected Puerto Ricans at the psychological level; as well as serve as groundwork for research on the effects of colonialism, policy and educational initiatives.

Research Ethical Standards

Funding: The University of the South and the Society for Personality and Social Psychologists funded our work.

Declaration of Conflicting Interest: The authors have no known conflicts of interest to disclose.

Approval from the Institutional Review Board for Human Research: This study was approved by The University of the South's IRB (Approval No.: 2020110007).

Informed Consent/Assent: In order to obtain informed consent from the participants, they were notified about the potential risks involved when participating in the study, which were determined to be minimal.

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