American Psychological Association

Journal of Counseling Psychology

© 2019 American Psychological Association
0022-0167/19/$12.00

2019, Vol. 66, No. 4, 396–408
http://dx.doi.org/10.1037/cou0000347

A Caballo Regalao no se le Mira el Colmillo: Colonial Mentality and Puerto Rican Depression

Cristalís Capielo Rosario, Amber Schaefer, Jorge Ballesteros, and Roberto Rentería
Arizona State University

E. J. R. David
University of Alaska Anchorage

Dignifying the colonizer and depreciating the colonized is a reflection of internalized colonial oppression (i.e., colonial mentality). The current study examined the effect of colonial mentality on depression symptoms in a sample of mainland Puerto Ricans ($N = 352$). A structural equation model was examined, in which colonial mentality was hypothesized to be directly and positively associated with depression symptoms. The proposed model also tested the indirect effect of colonial mentality on depression symptoms via acculturative stress. Results indicated that a full mediation structural equation model (SEM) had a better fit to the data than our hypothesized partial mediation model. Bias-corrected bootstrapping indicated that the effect of colonial mentality on depressive symptoms was mediated by acculturative stress. That is, colonial mentality increased the risk of experiencing depression symptoms in Puerto Ricans when they felt pressured to maintaining a connection with Puerto Rican culture and society and when they experienced rejection by the society they want to emulate (acculturative stress). The current results underscore the need for researchers and clinicians to consider and assess colonial mentality when conceptualizing depression symptoms among mainland Puerto Ricans.

Public Significance Statement
The historical and contemporary colonization of Puerto Rico negatively influences the psychological health of mainland Puerto Ricans. Stronger colonial mentality (internalization of the colonized society and culture as inferior while believing the culture and society of the colonizer is superior) was indirectly linked (via acculturative stress) with more depression symptoms. This investigation offers important information that can help psychologists understand depression disparities among mainland Puerto Ricans.

Keywords: colonial mentality, mainland Puerto Ricans, depression, acculturative stress

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

Colonialism begins with the occupation of a territory's land and exploitation of its resources (Fanon, 1965). This is followed by cultural hegemony imposed by the colonizer and the portrayal of the colonized as inferior compared to the colonizer (David, 2008). This colonial condition has persisted in Puerto Rico for over 500 years, first as a Spanish colony, and currently as a United States (U.S.) colony. Scholars have suggested that Puerto Rico's colonization may explain why depression continues to be the most significant mental health concern among mainland Puerto Ricans (Puerto Ricans in the U.S. mainland; Alegría et al., 2007; Sánchez et al., 2014). However, this link remains unexamined in the literature. Colonial mentality, a form of internalized oppression in which the colonized culture and society are considered inferior to the culture and society of the colonizer (David & Okazaki, 2006), is a sequela of colonization we believe contributes to depression disparities among mainland Puerto Ricans.

Colonial mentality has been identified as a determinant of depression symptoms among Ghanaian (Utsey, Abrams, Opare-Henku, Bolden, & Williams, 2015) and Filipino American (David, 2008) adults. However, the internalization of colonial mentality seems to occur early in life through a process of intergenerational transmission of culture (transfer of cultural information between generations; Schönpflug, 2008; David & Okazaki, 2006). To illustrate, in a sample of Filipino American adults, David and Nadal (2013) found that messages about the cultural and societal superiority of White Americans over Filipinos were often communicated to participants during childhood and prior to their migration to the United States. Once internalized, colonial mentality can be later activated by stressful cultural interactions (e.g., simultaneous

This article was published Online First April 18, 2019.

Cristalís Capielo Rosario, Amber Schaefer, Jorge Ballesteros, and Roberto Rentería, Counseling and Counseling Psychology, Arizona State University; E. J. R. David, Department of Psychology, University of Alaska Anchorage.

Results from this study were presented at the at the 2018 Annual Convention of the American Psychological Association in San Francisco, California and the Biennial Conference of the National Latinx Psychological Association in San Diego, California.

Correspondence concerning this article should be addressed to Cristalís Capielo Rosario, Counseling and Counseling Psychology, Arizona State University, Payne Hall, Suite 446, PO Box 870811, Tempe, AZ 85287-0811. E-mail: cristalis.capielo@asu.edu

demands to assimilate and reject White American culture) with members of the colonized and colonizing groups (David & Okazaki, 2006). Thus, the link between colonial mentality and depression symptoms may be mediated by acculturative stress (e.g., pressure to preserve Puerto Rican culture and discrimination from White Americans); a correlate of depression symptoms among mainland Puerto Ricans (Capielo, Delgado-Romero, & Stewart, 2015; Conway, Swendsen, Dierker, Canino, & Merikangas, 2007). However, the direct association of colonial mentality and its indirect relationship via acculturative stress on depression symptoms has not received empirical attention. To address this gap, we evaluated a partial mediation model of colonial mentality on depression symptoms in a sample of mainland Puerto Ricans.

Although colonial mentality across island Puerto Ricans (Puerto Ricans in Puerto Rico) and mainland Puerto Ricans (Puerto Ricans in the U.S. mainland) may follow a similar pattern of intergenerational communication of culture (Rivera Ramos, 1998), island Puerto Ricans' experiences of colonialism is direct and persistent, whereas for mainland Puerto Ricans, colonialism may be experienced indirectly and intermittently. Thus, colonial mentality may help island Puerto Ricans justify daily experiences of colonialism. In turn, colonial mentality may help regulate stress associated with colonization (David, 2008). Conversely, colonial mentality among mainland Puerto Ricans may put this group at risk of experiencing depression symptoms when pressured to maintain contact with a society and culture internalized as inferior and/or when they experience discrimination or rejection by the dominant culture (acculturative stress). Therefore, the present study focused on the influence of colonial mentality on depression symptoms reported by mainland Puerto Ricans instead of aggregating island and mainland Puerto Ricans' experiences of colonial mentality, which may blur important differences between the two groups. After a review of the literature, we present and discuss of our findings.

The Colonization of Puerto Rico

The colonization of Puerto Rico began in 1493 with the arrival of Spanish colonizers. As a Spanish colony, Puerto Rico experienced the exploitation of native people, African slaves, and its natural resources (Chavez-Dueñas, Adames, & Organista, 2014). Toward the end of Spanish rule, to prevent independence movements in the island, Spain allowed Puerto Rico to establish trading relationships with other nations, including the United States (Cintrón Aguilú, 2014). However, in 1897 Puerto Rico was ordered to end all trade with the United States at a time when the United States was the island's main sugar purchaser (Vélez, 2017). This move helped pave the way for the U.S. invasion of Puerto Rico in 1898 at the end of the Spanish American War (Cintrón Aguilú, 2014).

Soon after the arrival of the United States, Puerto Rico's diverse agricultural economy was forced to focus on sugar production to meet the demands imposed by the United States (Vélez, 2017). Other early U.S. colonization efforts included an imposition of the English language as the island's main language (Pausada, 1999) and unnecessary medical interventions to regenerate a Puerto Rican society believed by the United States to be degenerated by laziness, sickness, and poverty (Trujillo-Pagan, 2014). Those who resisted these interventions faced violence, jail time, or denial of services (Trujillo-Pagan, 2014). In 1917, the U.S. Congress passed the Jones Act, which imposed burdensome tariffs and U.S. citizenship to anyone born in the island on or after 1898 (Sparrow & Lamm, 2017). However, U.S. citizenship did not guarantee equal treatment or protections. For example, Puerto Ricans were not able to elect their own governor until 1952. While this vote allowed Puerto Ricans to establish a constitution, the Puerto Rican constitution could not in any way supersede the U.S. constitution (Torruella, 2017), thereby granting the colonizer with final authority. This condition remains true today.

A recent manifestation of Puerto Rico's colonization was the U.S. Congressional approval of the Puerto Rico Oversight, Management, and Economic Stability Act (PROMESA), which established a financial control board to oversee the island's finances (Nuño, 2016). This board has enacted austerity measures associated with the further deterioration of the island's infrastructure (Cabán, 2017). The devastation caused by Hurricane María on September 20, 2017 further highlighted the dire results of colonial policies on the island (Cabán, 2018). Notably, most the 2,975 deaths associated with the storm are linked to a prolonged island-wide power outage and the inadequate response from the U.S. federal government (see Santos-Burgoa et al., 2018 for a review).

Over 100 years of U.S. colonial policies in the island have also created the conditions for cyclical Puerto Rican migration to the U.S. mainland (Baker, 2002; Duany, 2003). However, while U.S. citizenship gives Puerto Ricans the benefit of unrestricted migration to the mainland, U.S. citizenship has not resulted in equal opportunities for advancement (Baker, 2002). For example, compared to the general U.S. population, mainland Puerto Ricans are more likely to live below the poverty line (27 vs. 16%) and less likely to have a bachelor's degree (18 vs. 30%; U.S. Census, 2017). These disparities have led scholars to examine the consequences of colonization on mainland Puerto Ricans primarily through an economic (Feliciano & Green, 2017) and migration lens (Silver & Vélez, 2017); however, the psychological impact of Puerto Rico's colonization is yet to be empirically examined as a risk factor for mental health disparities among mainland Puerto Ricans. The prolonged colonization of Puerto Rico makes it imperative to investigate the role of colonial mentality on depression symptoms in this population.

Colonial Mentality and Puerto Rican Depression Symptoms

Mainland Puerto Ricans persistently identify depression symptoms as their most pressing mental health concern (Alegría et al., 2007; Wassertheil-Smoller et al., 2014). Even after controlling for sociodemographic factors, depression continues to disproportionately affect mainland Puerto Ricans in comparison to those who live on the island (Torres Gotay, 2017) and U.S. Latina/os of Mexican (Wassertheil-Smoller et al., 2014), Cuban (Alegría et al., 2007), and Central and South American descent (Jetelina, Reingle Gonzalez, Vaeth, Mills, & Caetano, 2016). To understand these alarming statistics, scholars have called for an examination of the potential psychological consequences of colonization on mainland Puerto Ricans depression disparities (Okazaki, David, & Abelmann, 2008; Sánchez et al., 2014). Colonial mentality is an important factor to consider when investigating depression disparities among Puerto Ricans.

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

Colonial mentality is a form of internalized oppression resulting from colonization, in which the colonizer is believed to be superior to the colonized. The internalization of the colonizer as superior can manifest as feelings of gratitude to the colonizer, a preference for the colonizer's culture and society, and a desire to emulate the colonizer (David, 2008). At the same time, denigration of the self and one's culture and society reflect the internalization of the colonized as inferior (David, 2008; Nadal, 2011). Like other forms of internalized oppression such as internalized racism, colonial mentality also describes the adoption by members of an oppressed group of the prejudices or racist ideologies directed at them by the dominant society (Choi, Israel, & Maeda, 2017; Speight, 2007). Colonial mentality extends this body of work by also depicting the indebtedness the colonized feels toward the colonizer (e.g., Spain, the United States), the desire to disconnect from other members of their group (e.g., Puerto Ricans), and the aspiration to have the physical, cultural, and societal traits of the colonizer (e.g., White Americans; David, 2008).

Colonial mentality is believed to affect all who have experienced colonization (Okazaki et al., 2008). Although colonial mentality has not been examined among U.S. Latina/os, higher endorsement of colonial mentality has been directly associated with more depression symptoms among Ghanaians (Utsey et al., 2015) and Filipino Americans (David, 2008; David & Okazaki, 2006), two groups with a history of colonization. Among mainland Puerto Ricans, colonial mentality may be reflected in a tendency to disapprove of both island and mainland Puerto Rican culture and society and showing a preference for White American culture and society. For example, Rivera Ramos (1998) found that while island and mainland Puerto Ricans described themselves and White Americans positively (e.g., hardworking, intelligent), they described other Puerto Ricans as devious and unintelligent. A similar pattern emerged when contrasting Puerto Rican and White American cultural symbols (e.g., arts, music), with White American symbols being generally described as more desirable than Puerto Rican cultural symbols (Rivera Ramos, 1998). In addition, Varas-Díaz and Serrano-García (2003) found that although island Puerto Rican youth generally described U.S. society as clean and orderly, Puerto Ricans were described as unruly and unclean. Taken together, these data provide support for the notion that Puerto Ricans harbor negative beliefs about their culture and society.

Among first-generation (those born on the island) mainland Puerto Ricans, their internalization of colonial mentality may take place early in life through interactions with caregivers and other adults and direct exposure to colonial policies in the island. For instance, Rivera Ramos (1998) suggests that the superiority of White American society over Puerto Rican society may be communicated to Puerto Rican children by parents and teachers. Intergenerational communication of colonial mentality also seems to take place among mainland Puerto Ricans born in the United States (Rivera Ramos, 1998). Colonial mentality could be further reinforced in mainland Puerto Ricans through interactions with new waves of Puerto Rican migration to the mainland. That is, even in the absence of direct exposure to colonization, persistent Puerto Rican "ethnic replenishment" (Vélez, 2017, p. 138) may provide an avenue for messages of Puerto Rican inferiority and White American superiority to be communicated between island-born and mainland-born Puerto Ricans. Once internalized, whether via intergenerational interactions, ethnic replenishment, or previous direct exposure to Puerto Rico's colonization, we believe colonial mentality directly influences depression symptoms among mainland Puerto Ricans by denigrating Puerto Rican culture and society.

Acculturative Stress and Depression Symptoms Among Mainland Puerto Ricans

Berry's (2006) transactional theory can also help explain depression disparities among Puerto Ricans. According to this theory, when members of cultural minorities interact with members of the dominant culture (e.g., White American culture), psychological maladjustment may emerge in part as a function of how much acculturative stress the individual experiences when interacting with the dominant culture. Acculturative stress may occur when members of a cultural minority have negative interactions with members of the dominant culture and other members of the heritage culture (Duarte et al., 2008). For instance, being pressured by other Puerto Ricans to maintain Spanish language competency or being discriminated against by White Americans. In a study that included Puerto Rican adults in the northeast United States, Conway et al. (2007) found that higher levels of acculturative stress were associated with higher incidences of depressive disorders. More recently, in a sample of Puerto Rican adults in Florida, Capielo et al. (2015) found that acculturative stress differentiated between individuals in three depression groups (low, medium, high), with those in the medium and high depression groups experiencing more acculturative stress than those in the low depression group.

The transactional model also states that the cultural reality of the individual (e.g., sociopolitical context) influences the individual's experience of acculturation and acculturative stress (Berry, 2006). To illustrate, while some scholars have found a positive association between acculturation and depression symptoms among mainland Puerto Ricans (Cortés, 2003; Ramos, 2005), others have not been able to replicate this relationship (Lewis-Fernández et al., 2016; Sánchez et al., 2014). Various scholars have suggested that U.S. colonization of the island may explain why acculturative stress, and not acculturation, is a predictor of depression symptoms among Puerto Ricans. As protectorates of the United States, acculturation may be necessary for both island and mainland Puerto Ricans to function within their sociopolitical reality (Vélez, 2017). For example, in a recent study by Capielo Rosario, Lance, Delgado-Romero, and Domenech Rodríguez (2018), which compared endorsement of Puerto Rican and White American cultural behaviors, values, and ethnic identity across Florida and island Puerto Ricans, the authors found that island Puerto Ricans had a similar attachment to Puerto Rican and White American cultural behaviors as Florida Puerto Ricans. This may explain why a majority of mainland Puerto Ricans see themselves as "a typical American" (López & Patten, 2015). Thus, when these perceptions are challenged by experiences of acculturative stress, mainland Puerto Ricans may be at a risk for experiencing depression symptoms. Therefore, instead of focusing on acculturation as a cultural correlate of depression, the present study examines the direct association between colonial mentality and depressive symptomatology among mainland Puerto Ricans, while simultaneously exploring its indirect influence on depression symptoms via acculturative stress.

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

Acculturative Stress as a Mediator of Colonial Mentality

de Figueiredo's (2014) theory of demoralization offers a framework for understanding why colonial mentality may also indirectly influence depression symptoms via acculturative stress. According to de Figueiredo, "demoralization is the co-occurrence of psychological distress and feelings of subjective incompetence" that individuals feel due to acculturative stress (p. 176). This theory argues that to feel competent in the host culture (e.g., follow the host culture's norms) and avoid rejection by members of the host culture (e.g., discrimination), some individuals disconnect from the heritage culture and align with the host culture before and/or after migration (de Figueiredo, 2014). However, while these efforts may facilitate integration into the dominant culture, they may also put cultural minorities at an increased risk for psychological distress when they experience rejection from members of the host culture and pressure from members of the heritage culture to preserve the heritage culture (acculturative stress; de Figueiredo, 2014).

Due to colonization, Puerto Ricans in general may have internalized Puerto Rican culture and society as inferior and White Americans as superior (colonial mentality); thus, Puerto Ricans may desire to disconnect from what they believed is inferior and emulate what they believe is superior. Previous work on Puerto Ricans' perceptions of Puerto Rican and White American culture and society suggests that island and mainland Puerto Ricans have, to some extent, disengaged from Puerto Rican society as to not be associated with supposed inferiority. The different ways in which Puerto Ricans describe themselves and White Americans in comparison to how they describe other Puerto Ricans (Rivera Ramos, 1998; Varas-Días & Serrano-García, 2003), along with their efforts to improve phenotypical traits internalized as inferior (e.g., hair straightening; Villanueva, 2002), serve as examples of attempts to escape perceived cultural and societal inferiority. However, when Puerto Ricans engage in efforts to incorporate into the dominant culture and society, they often experience stress and discrimination when interacting with members of the dominant and heritage culture (Aranda & Rivera, 2016; Capielo Rosario, Adames, Chavez-Dueñas, & Rentería, in press; Capielo Rosario & Dillon, in press). Hence, while initial disconnection from Puerto Rican culture and society and emulation of White Americans (colonial mentality) may initially facilitate mainland Puerto Ricans' cultural and socioeconomic integration in the United States (Vélez, 2017), negative interactions with members of the dominant and heritage cultural groups (acculturative stress) could result in psychological distress (de Figueiredo, 2014).

Although acculturative stress has not been previously examined as a mediator between colonial mentality and depression symptoms, the association between colonial mentality and acculturative stress has received empirical support. For instance, David and Nadal (2013) showed that two aspects of colonial mentality (i.e., Cultural Shame and Ethnic Inferiority) were associated with more experiences of acculturative stress postmigration. Specific to Puerto Ricans, evidence suggests that mainland Puerto Ricans internalize Spanish and U.S. colonization as normal and valid at an early age (Rivera Ramos, 1998). In turn, this internalization may be associated with fear of how others would treat them for being Puerto Rican. To illustrate, Varas-Díaz and Serrano-García (2003) found that island Puerto Rican youth who had internalized negative perceptions about Puerto Rican culture and society, indicated that the thought of what the U.S. dominant group would think of them for being Puerto Rican led them to experience fear about being negatively judged. Negative perceptions and fear of others' perceptions were also associated with feelings of sadness and shame (Varas-Díaz & Serrano-García, 2003). Among mainland Puerto Rican adults, Villanueva (2002) found that colorism—believing in the superiority of whiteness and an aspect of colonial mentality (Physical Traits; David & Okazaki, 2006)—was a prominent message communicated to them as children by their parents and other Puerto Ricans. Negative messages about African phenotypical traits were internalized as being disadvantageous at an early age and a source of stress later in life when interacting with both the heritage and dominant cultures (Villanueva, 2002). Therefore, we also argue that colonial mentality indirectly influences depression symptoms by increasing stress associated with rejection by the colonizer and pressured to remain connected with Puerto Rican culture and society (acculturative stress).

Study Objectives and Hypotheses

Although the influence of colonial mentality on depression symptoms has been empirically studied among groups with a history of colonization (David & Okazaki, 2006; Utsey et al., 2015), the role of colonial mentality on depression symptomatology among Puerto Ricans, a group that is still colonized, has yet to receive empirical support. To this end, the primary objective of the present study was to examine the direct and indirect effects of colonial mentality on depression symptoms reported by mainland Puerto Ricans using structural equation modeling (SEM). We believe that our proposed partial mediation model (see Figure 1) is the best representation of the history and current literature. According to this model: (a) colonial mentality will be positively and directly associated with depression symptoms; (b) colonial mentality will be positively associated with acculturative stress; (c) acculturative stress will be associated with more depression symptoms; (d) colonial mentality will be indirectly associated with depression symptoms via acculturative stress.

For any given hypothesized model, an alternative set of statistical models could also help explain the data (MacCallum, Wegener, Uchino, & Fabrigar, 1993; MacKinnon, 2008). Thus, a necessary step in identifying a viable mediation model is the examination of alternative models that may also adequately represent the association between the independent, dependent, and mediating variables (Danner, Hagemann, & Fiedler, 2015). Accordingly, our second objective was to systematically estimate and compare our hypothesized model against alternative models. Specifically, we followed the suggestions made by Danner et al. (2015) and compared our proposed partial mediation model against eight alternative models by constraining paths and/or changing the order of variables in the model (see Figure 2).

Method

Participants

Participants for this study consisted of 352 self-identified mainland Puerto Ricans with an average age of 32.86 ($SD = 7.29$). A majority

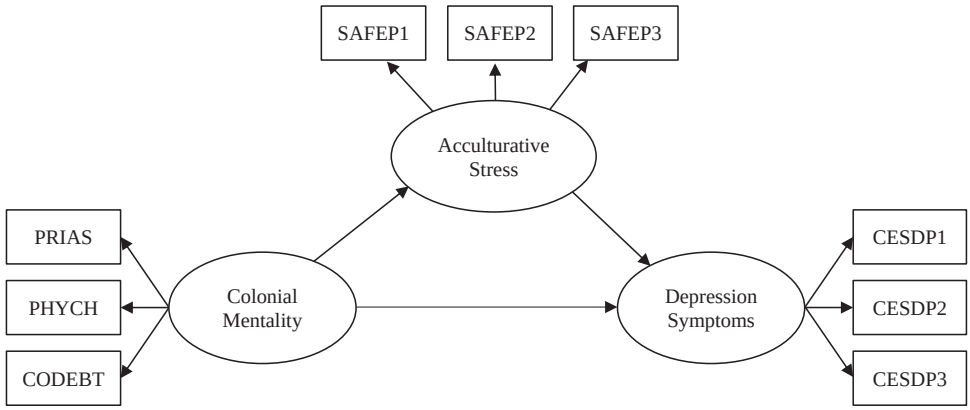

Figure 1. Proposed colonial mentality model of Puerto Rican depression. PRIAS = Puerto Rican Inferiority and American Superiority; PHYCHA = Physical Characteristics; CODEBT = Colonial Debt; SAFEP1 = Acculturative Stress Parcel 1; SAFEP2 = Acculturative Stress Parcel 2; SAFEP3 = Acculturative Stress Parcel 3; CESDP1 = Depression Symptoms Parcel 1; CESDP2 = Depression Symptoms Parcel 2; CESDP3 = Depression Symptoms Parcel 3.

(64.8%) identified as women and 35.2% identified as men. Of the participants, 39.10% reported living in the southern region of the United States, 20.4% in the West, 18.7% in the Northeast, and 18.1% in the Midwest. Average years in the United States was 18.19 (*SD* = 12.51). Most of the sample identified as mainland-born (76.75%) and married (81%). The majority of the sample had completed some college or a bachelor's degree (65.9%) and 1.1% reported having a high school diploma or less. Median household income was $50,000. To estimate adequate sample size, we used MedPower (Kenny, 2017), a sample size calculator for mediational analysis. Given a required power level of .80 and expected moderate effects, a sample of 352 was found to be adequate.

Procedures

Data for this study were collected after receiving Institutional Review Board approval from the lead author's academic institution. The sample was recruited from the Internet via the use of public posts on social media outlets such as Facebook. Eligible participants had to be between the ages of 18 and 65 and identify as a Puerto Rican currently residing in the mainland United States. Each participant received a $10 gift card as an incentive for their time. Study materials were available in English.

Instruments

Demographics. Prior to completing the survey, participants completed a demographic questionnaire about their age, sex, nativity, years in the United States, civil status, annual median income, and educational attainment.

Colonial mentality. The Colonial Mentality Scale (CMS; David & Okazaki, 2006) is a 36-item scale designed to assess colonial mentality across five subscales: Internalized Cultural/Ethnic Inferiority (e.g., "There are situations where I feel inferior because of my ethnic background."), Cultural Shame (e.g., "There are situations where I feel ashamed of my ethnic background."), Physical Characteristics (e.g., "I would like to have a skin tone that is lighter than the skin tone I have."), Within-Group Discrimination (e.g., "I make fun of, tease, or bad mouth Filipinos who speak English with strong accents."), and Colonial Debt (e.g., "Filipinos should be thankful to Spain and the United States for transforming the Filipino ways of life into a White/European American way of life."). Items containing the term "Filipino/s" or "Philippines" were modified to reflect the term "Puerto Rican/s" and "Puerto Rico." Participants rated agreement for each statement on a 6-point scale from 1 (*Strongly disagree*) to 6 (*Strongly agree*). Higher scores on the subscales indicate higher levels of colonial mentality.

To ensure that the CMS was adequate for Puerto Ricans, we ran an exploratory factor analysis (EFA) on a separate sample of adult mainland Puerto Ricans ($N = 237$)[1], which indicated the presence of three factors, as opposed to the five previously mentioned factors. Results yielded an adequate fit for the three-factor oblique solution $\chi^2 = 645.40$ ($df = 525$, $p < .001$), CFI = .93, TLI = .91, RMSEA = .07, 90% CI [.06, .08], and SRMR = .03. Similar to findings by Utsey et al. (2015) the factor structure revealed multiple nonsignificant factor loadings and cross-loadings. Thus, we followed the following criteria for item selection: (a) items with significant loadings were retained and (b) items that cross-loaded (i.e., loaded .40 on more than one factor) were dropped. Based on these criteria, 13 items were deleted. A review of the items retained and their corresponding factors (see Table 1) revealed that unlike the original scale but similar to Utsey et al. (2015), the Cultural Shame, the Internalized Cultural/Ethnic Inferiority, and the Within-Group Discrimination subscales loaded onto a single factor (11 items). Items in this factor assessed the degree to which Puerto Ricans internalized Puerto Rican culture and society as inferior to White American culture and expressed a desire to disconnect and deride other Puerto Ricans. Thus, we labeled this

[1] This sample was part of a separate data collection effort and study with self-identified Puerto Rican adults. This sample had an average age of 34.02 (*SD* = 7.83). A majority identified as women (57.3%) and 42.3% identified as men. Most of the sample identified as first-generation (34.8%) and married (72%). The majority of the sample had completed some college or a bachelor's degree (60.6%). Median household income was $48,000.

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

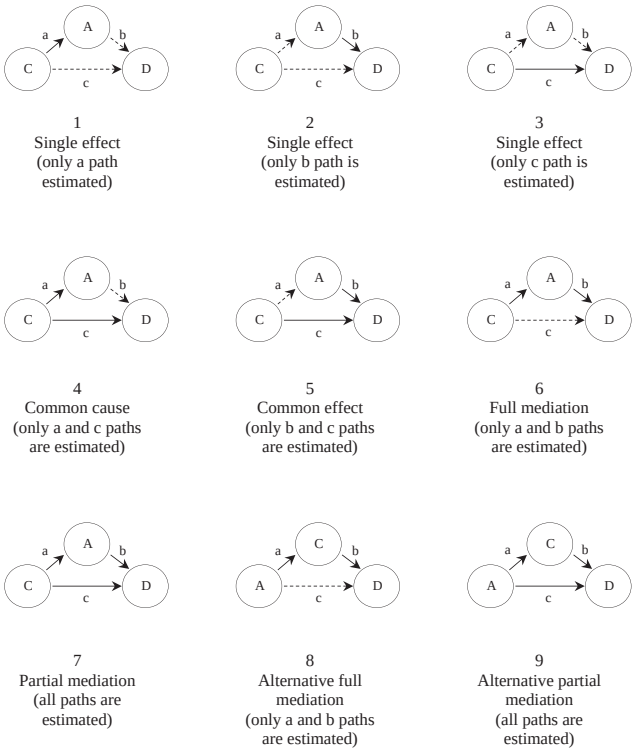

Figure 2. Illustration of competing nested and non-nested models estimated. C = colonial mentality latent factor, A = acculturative stress latent factor, D = depression latent factor. Solid arrows indicate which paths were estimated in the model. Dashed arrows indicate which paths were constrained to zero.

subscale the Puerto Rican Inferiority and American Superiority factor. Like the original scale, the remaining factors were Physical Characteristics (8 items) and Colonial Debt (4 items). We then conducted a confirmatory factor analysis (CFA) of the three-factor CMS on our current sample, which also yielded an adequate fit to the data $\chi^2 = 770.98$ ($df = 227$, $p < .001$), CFI = .91, TLI = .90, RMSEA = .09, 90% CI [.08, .10], and SRMR = .03. The reliability for the current sample was, $\alpha = .92$ for Puerto Rican Inferiority and American Superiority, $\alpha = .90$ for Physical Characteristics, and $\alpha = .72$ for Colonial Debt.

Acculturative stress. Acculturative stress was measured with the Social, Attitudinal, Familial and Environmental Acculturative Stress (SAFE; Mena, Padilla, & Maldonado, 1987). The SAFE scale consists of 24 items that measure acculturative stress (e.g., "I don't feel at home"). Each item is rated on a 5-point scale ranging from 1 (*not stressful*) to 5 (*extremely stressful*). The scale yields a single total score derived by summing the items and obtaining a mean. Scores range from 24 to 120, with higher scores indicating stronger levels of acculturative stress. Reported Cronbach's alpha coefficients for the SAFE with aggregate Latina/o samples have been reported at .89 (Negy, Schwartz, & Reig-Ferrer, 2009). The Cronbach's alpha for the current study was $\alpha = .91$.

Depression. The Center for Epidemiologic Studies-Depression Scale (CES-D; Radloff, 1977) was used to assess self-reported depression. The CES-D is a 20-item self-report scale that looks at affective, somatic, and interpersonal depression symptoms. A single total score on the CES-D is obtained by adding all responses. Scores range on the CES-D range from 0 to 60, with higher scores reflecting more symptoms. Though originally developed for clinical populations, the CES-D has shown its capacity to differentiate clinical and nonclinical populations (Shean & Baldwin, 2008). The CES-D appears to have sound psychometric properties with aggregate Latina/o populations with internal consistency reported at $\alpha = .89$ (Chung et al., 2003). The Cronbach's alpha for the current study was $\alpha = .84$.

Analyses

We used M*plus*, Version 7.1 (Muthén & Muthén, 2012) to test the proposed SEM model using full information maximum likelihood. To estimate our SEM model and minimize measurement error, latent factors were created for colonial mentality, acculturative stress, and depression symptoms by forming three manifest indicators to measure each of the latent variables. To create the colonial mentality latent factor we used a total aggregation approach (Bagozzi & Edwards, 1998) for each of the three subscales of colonial mentality. Consistent with established methodology, we used a partial aggregation methodology to create three manifest indicators of acculturative stress and depression symptoms (Bagozzi & Edwards, 1998; Bandalos & Finney, 2001; Claudat, White, & Warren, 2016). Specifically, we created domain representative item parcels of the SAFE and CES-D items (see Little, Cunningham, Shahar, & Widaman, 2002 for a review).

Although mediation models are typically examined with hierarchical regression, this method is susceptible to measurement errors, which in turn underestimate indirect effects and overestimate direct effects (Cheung & Lau, 2008). To address this limitation, SEM has increasingly become the preferred method for evaluating mediational models (Danner et al., 2015). Another advantage of SEM over hierarchical models is the ability to assess the level of discrepancy between the hypothesized model covariance and the sample covariance (Danner et al., 2015). Additionally, SEM allows researchers to determine whether nested and non-nested models[2] that rival the hypothesized model are a better fit to the data (Lance & Vandenberg, 2009). Accordingly, our main study analyses took place in three steps: (a) determining model fit for each model, (b) determining best model fit by comparing across nested and non-nested models, and (c) evaluating the direct and indirect effects on the selected model.

To evaluate model fit, aside from the overall model chi-square (χ^2), we reported the following goodness-of-fit indices (GFIs): root mean squared error of approximation (RMSEA), standardized root-mean-square residual (SRMR), Tucker-Lewis Index (TLI), and Comparative Fit Index (CFI). To evaluate model GFIs, the following standards were applied in interpreting acceptable model fit: RMSEA $\leq .08$ (Cudeck & Browne, 1983); TLI and CFI $\geq$

[2] Nested models are those that can be estimated as a special case of another model by constraining at least one of the paths in the model to zero (Danner et al., 2015; Lance & Vandenberg, 2009). In our study, six of the nine models estimated were nested models (see Figure 2). Specifically, the single effect models (1, 2, and 3), the common cause model (4), the common effect model (5), and the full mediation model (6) are all special cases of the partial mediation model (7). On the other hand, the partial mediation model (7) and the alternative partial mediation model (9) were compared as non-nested models. The full mediation model (6) and the alternative full mediation model (8) were also compared as non-nested models.

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

Table 1
Items and Factor Structure of the Colonial Mentality Scale for Mainland Puerto Ricans

Subscale and items	Factor loadings
Factor 1: Puerto Rican Inferiority and American Superiority	
2. There are situations where I feel inferior because of my Puerto Rican background.	.71
4. In general, I do not associate with newly-arrived Puerto Ricans.	.84
8. The American ways of living or the American culture is generally more admirable, desirable, or better than the Puerto Rican culture.	.81
9. There are situations where I feel ashamed of my Puerto Rican background.	.82
12. In general, I am ashamed of newly-arrived Puerto Ricans because of the way they dress and act.	.78
24. In general, I feel that being a Puerto Rican American is not as good as being White/European American.	.86
27. I feel that there are very few things about the Puerto Rican culture that I can be proud of.	.84
30. In general, I am ashamed of newly-arrived Puerto Ricans because of their inability to speak fluent, accent-free English.	.81
31. In general, I am embarrassed of the Puerto Rican culture and traditions.	.88
32. In general, I make fun of, tease, or badmouth Puerto Ricans who are not very Americanized in their behaviors.	.87
36. In general, I feel that being a person of my ethnic/cultural background is not as good as being White.	.86
Factor 2: Physical Characteristics	
3. I find persons with lighter skin-tones to be more attractive than persons with dark skin-tones.	.67
5. I do not want my children to be dark-skinned.	.93
10. I generally think that a person that is part white and part Puerto Rican is more attractive than a full-blooded Puerto Rican.	.91
13. I find persons who have bridged noses (like Whites) as more attractive than persons with wider noses.	.85
15. I would like to have a skin-tone that is lighter than the skin-tone I have.	.79
17. I would like to have children with light skin-tones.	.86
20. I would like to have a nose that is more bridged (like Whites) than the nose I have.	.85
25. I do not want my children to have wide noses.	.90
Factor 3: Colonial Debt	
18. Spain and the United States are highly responsible for civilizing Puerto Ricans and improving their ways of life.	.73
21. Puerto Ricans should be thankful to Spain and the United States for transforming the Puerto Rican ways of life into a White/European American ways of life.	.83
23. In general, Puerto Ricans in the United States should be thankful and feel fortunate for being in the United States.	.55
28. The colonization of the Puerto Rico by Spain and the United States produced very little damage to the Puerto Rican culture.	.78

Note. All loadings significant at the $p < .001$.

.90 (Lance, Butts, & Michels, 2006) to excellent model fit: RMSEA ≤.06, SRMR ≤.08 (Hu & Bentler, 1999; Schermelleh-Engel, Moosbrugger, & Müller, 2003); TLI and CFI ≥ .95 (Hu & Bentler, 1999). After accessing overall fit, we compared nested models via χ^2 difference test to determine whether two nested models were significantly different from each other. When the χ^2 difference test results in a significant value, estimating additional parameters is deemed appropriate (Schermelleh-Engel et al., 2003). On the other hand, when χ^2 changes are not significant, model parsimony is preferred (Schermelleh-Engel et al., 2003). In the case of non-nested model comparisons, we used the Bayesian information criterion (BIC), where changes in BIC greater than 10 indicate a strong evidence against the model with the larger BIC value (Danner et al., 2015; Raftery, 1995). On the last step, we evaluated the significance of the mediational effects using biased corrected (BC) bootstrapping procedures with 5,000 samples. BC bootstrapping is a robust procedure in determining the significance and confidence intervals of the mediated effect (Valente, Gonzalez, Miočević, & MacKinnon, 2016).

Results

Preliminary Results

Before conducting our main analyses, we ran multicollinearity diagnostics, which indicated that the VIF range for all predictors was 2.48–6.52, thus the multicollinearity assumption was not violated (VIF scores <10; Kutner, Nachtsheim, & Neter, 2004; O'Brien, 2007). Table 2 contains the means, standard deviations, and correlations between the factor indicators. All three colonial mentality subscales were positively associated with acculturative stress and depression symptoms, thus providing initial evidence for the role colonial mentality may play in Puerto Ricans' experience of depression symptoms. As hypothesized, more acculturative stress was associated with more depression symptoms.

Model Results

Table 3 shows the GFIs and model comparison results for the nine estimated SEM models. As it is often the case in situations with large samples sizes and large correlations between study variables (Bentler & Bonett, 1980; Kenny, 2017; Lance, Beck, Fan, & Carter, 2016; Nye & Drasgow, 2011), the χ^2 statistic was statistically significant for all models tested. Thus, we focused on the alternative GFIs to assess model fit. Based on the GFIs standards previously discussed, only the full mediation model (Model 6) and our hypothesized partial mediation model (Model 7) yielded a good model fit. We rejected all other models after they failed to reach acceptable model fit (see Table 3). To further guide our model selection, we then compared the full mediation model (Model 6), against our hypothesized partial mediation model (Model 7) by conducting a χ^2 difference test. As illustrated on Table 3, the χ^2 difference between these two models was not significant, thus providing initial evidence for the preference of the full mediation model over our proposed partial mediation model. Additionally, the relationship between colonial mentality and de-

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

Table 2
Means, Standard Deviations, and Correlations Between Latent Factors Indicators

Indicator	Mean (*SD*)	1	2	3	4	5	6	7	8	9
1. PRIAS	4.28 (1.25)	—								
2. PHYCHA	4.23 (1.31)	.76*	—							
3. CODEBT	4.45 (1.16)	.59*	.63*	—						
4. SAFEP1	3.11 (.60)	.76*	.75*	.60*	—					
5. SAFEP2	3.10 (.56)	.70*	.67*	.53*	.81*	—				
6. SAFEP3	3.11 (.59)	.67*	.66*	.48*	.80*	.81*	—			
7. CESDP1	1.58 (.50)	.64*	.63*	.47*	.68*	.69*	.73*	—		
8. CESDP2	1.56 (.50)	.63*	.58*	.41*	.67*	.70*	.73*	.82*	—	
9. CESDP3	1.50 (.52)	.67*	.67*	.48*	.70*	.71*	.75*	.82*	.84*	—

Note. PRIAS = Puerto Rican Inferiority and American Superiority; PHYCHA = Physical Characteristics; CODEBT = Colonial Debt; SAFEP1 = Acculturative Stress Parcel 1; SAFEP2 = Acculturative Stress Parcel 2; SAFEP3 = Acculturative Stress Parcel 3; CESDP1 = Depression Symptoms Parcel 1; CESDP2 = Depression Symptoms Parcel 2; CESDP3 = Depression Symptoms Parcel 3.
* $p < .01$.

pression symptoms on the partial mediation model was not significant (β = .04, p = .76), providing further evidence for the adequacy of the full mediation model over the partial mediation model. Therefore, we selected the full mediation model as the best model for our data. This model explained 76% of the variance on depression symptoms.

Total, Direct, and Indirect Effects

As shown on Table 4, the total effect of colonial mentality on depression symptoms and its indirect effect via acculturative stress were significant. Table 4 also shows how the total and indirect effects remained significant after BC bootstrapping. Additionally, colonial mentality was associated with more acculturative stress (see Figure 3). Higher acculturative stress was in turn associated with more depression symptomatology (see Figure 3).

Taken together, results from this study provide partial support for our four hypotheses. Contrary to our prediction, colonial mentality was not directly associated with depression symptomatology (Hypothesis 1). However, according to the findings, colonial mentality was associated with more acculturative stress (Hypothesis 2) and acculturative stress was associated with more depressive symptoms (Hypothesis 3). Also as predicted, colonial mentality indirectly influenced symptoms of depression via acculturative stress (Hypothesis 4).

Discussion

The present study is an important contribution to the literature on Puerto Rican depression symptomatology. The results suggest that colonial mentality influences depression symptoms among mainland Puerto Ricans via acculturative stress. However, colonial

Table 3
Mediation Model Goodness-of-Fit and Comparisons

Model (estimated paths)	*df*	Δ*df*	χ^2	$\Delta\chi^2$	RMSEA	SRMR	CFI	ΔCFI	TLI	BIC	ΔBIC
1. Single effect (a)	26	—	462.77*	—	.22	.38	.88	—	.83	3942.28	—
2. Single effect (b)	26	—	406.01*	—	.20	.37	.89	—	.85	3885.51	—
1 vs. 2[a]	—	—	—	—	—	—	—	—	—	—	56.77**
3. Single effect (c)	26	—	560.55*	—	.24	.40	.85	—	.79	4040.05	—
2 vs. 3[a]	—	—	—	—	—	—	—	—	—	—	154.54**
4. Common cause (a, c)	25	—	217.43*	—	.15	.09	.95	—	.92	3702.82	—
2 vs. 4[b]	—	1	—	343.12*	—	—	—	.06	—	—	—
5. Common effect (b, c)	25	—	396.66*	—	.20	.34	.89	—	.85	3882.05	—
4 vs. 5[a]	—	—	—	—	—	—	—	—	—	—	179.23**
6. Full mediation (a, b)	25	—	84.04*	—	.07	.03	.98	—	.98	3569.43	—
4 vs. 6[a]	—	—	—	—	—	—	—	—	—	—	133.39**
7. Partial mediation (a, b, c)	24	—	83.71*	—	.08	.03	.98	—	.98	3574.98	—
6 vs. 7[b]	—	1	—	.33	—	—	—	.00	—	—	—
8. Alternative full mediation[c] (a, b)	25	—	217.43*	—	.15	.09	.94		.92	3702.82	—
6 vs. 8[a]	—	—	—	—	—	—	—	—	—	—	133.39**
9. Alternate partial mediation[c] (a, b, c)	24	—	102.23*	—	.10	.03	.98		.97	3574.98	—
6 vs. 9[b]	—	1	—	18.19*	—	—	—	.00	—	—	—

Note. *df* = model degrees of freedom, CFI = comparative fit index, RMSEA = root mean squared error of approximation. Δ indicates change between comparison models.
[a] Non-nested models comparison. [b] Nested models comparisons. [c] Colonial mentality was estimated as the mediator between acculturative stress and depression symptoms.
* $p < .01$. ** Significant change in BIC.

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

Table 4
Standardized Effect Coefficients and Unstandardized 95% BC Bootstrap Confidence Intervals

Effect	β	BC Bootstrapping 95% CI	
		Lower bound	Upper bound
Total effect	.73**	.21*	.30*
Total indirect	.69**	.18*	.33*

Note. BC = biased corrected; CI = Confidence intervals.
* $p < .05$. ** $p < .001$.

mentality did not directly link to symptoms of depression. Instead, the full mediation model was the best fit to our data. Consistent with full mediation assumptions (Frazier, Tix, & Barron, 2004; Hayes & Scharkow, 2013), colonial mentality did not have a direct effect on depression symptoms and instead its effect was carried indirectly through acculturative stress.

Theoretical and Research Implications

The results provide support for Berry's (2006) transactional model. That is, Puerto Rico's colonial status influences mainland Puerto Ricans' appraisal of acculturative stress. While multiple studies have identified depression disparities among mainland Puerto Ricans, few have focused on understanding why. Colonial mentality may be a part of this puzzle. As such, colonial mentality should be integrated in our understanding of Puerto Rican disparities in depression symptoms.

The documented disengagement from Puerto Rican society and culture among mainland Puerto Ricans (Rivera Ramos, 1998) may provide a context for understanding why acculturative stress fully mediated the association between colonial mentality and depression symptoms in the current sample. In her work with island and New York Puerto Ricans, Rivera Ramos (1998) saw that while Puerto Rican adults viewed themselves positively (e.g., intelligent, hardworking) they perceived Puerto Rican society (youth and adults) negatively (e.g., quarrelsome, lazy). Even when they perceived Puerto Rican society in a negative way (e.g., lazy; a dimension of colonial mentality), they still reported a positive self-concept (e.g., intelligent; Rivera Ramos, 1998). Thus, colonial mentality may not directly influence depression symptoms by denigrating their Puerto Rican self-concept, but instead by increasing stress when they perceive maintaining a connection with Puerto Rican society is a burden (an aspect of acculturative stress).

The contemporary political reality of Puerto Rico may also explain why colonial mentality was not directly associated with depression symptoms. The continued colonial treatment by the United States toward Puerto Rico serves as a constant reminder of the false inferiority of Puerto Rico and Puerto Ricans and reinforces internalized colonial oppression. For instance, after blaming Puerto Rican irresponsibility and corruption for the island's latest financial crisis, PROMESA was praised and described both in Puerto Rico and in the United States as a way to help Puerto Ricans learn financial discipline. A recent federal court ruling upheld PROMESA and shifted the power to elect the fiscal board's members from the U.S. Congress to the U.S. President (Reuters, 2019), once again giving sole authority over the island's affairs to the U.S. federal government. Despite the deleterious consequences colonial policies like PROMESA have on the island's living conditions (Bernal, 2018; Cohn, Patten, & Lopez, 2014; Feliciano & Green, 2017), the island's struggles are often blamed on Puerto Rican social deficiencies (González, 2007; Varas-Diaz & Serrano-García, 2003). The island's annexation into the United States and further U.S. intervention in the island are frequently proposed as solutions to these problems (González, 2007). Colonial mentality among Puerto Ricans is compatible with this sociopolitical reality. Thus, colonial mentality may not become troublesome unless interactions with members of the heritage and dominant cultural groups (acculturative stress) challenge behaviors and attitudes informed by colonial mentality. For example, disengaging from Puerto Rican society while trying to measure up to White Americans (i.e., Puerto Rican inferiority and American superiority) only

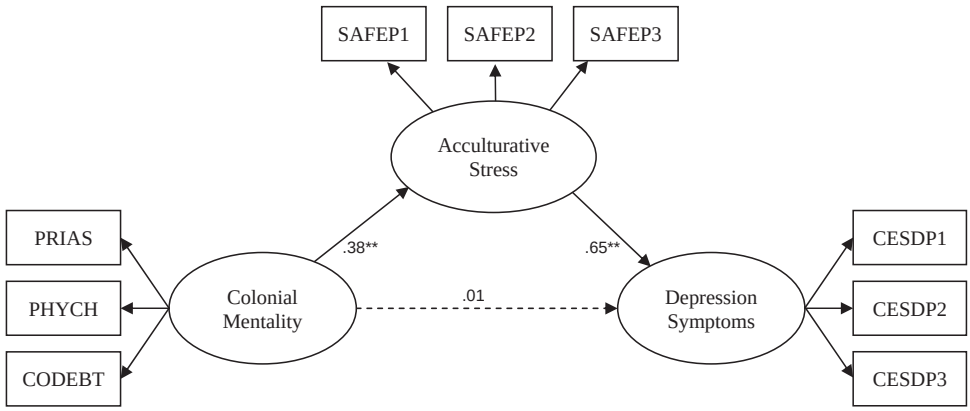

Figure 3. Colonial mentality model of Puerto Rican depression. ** $p < .01$, Solid arrows indicate significant indirect effect. Dashed arrows indicate insignificant direct effect. PRIAS = Puerto Rican Inferiority and American Superiority; PHYCHA = Physical Characteristics; CODEBT = Colonial Debt; SAFEP1 = Acculturative Stress Parcel 1; SAFEP2 = Acculturative Stress Parcel 2; SAFEP3 = Acculturative Stress Parcel 3; CESDP1 = Depression Symptoms Parcel 1; CESDP2 = Depression Symptoms Parcel 2; CESDP3 = Depression Symptoms Parcel 3.

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

becomes problematic when they experience pressure to remain connected to a culture and society internalized as inferior or when they feel rejected by the society they wish to be part of and resemble. Results from a recent study on the reactions of Florida Puerto Ricans to the devastation caused by Hurricane María exemplify how Puerto Rico's colonialization in itself may not be enough to cause psychological distress unless the internalization of the superior and benevolent colonizer is challenged (Capielo Rosario, Abreu, Gonzalez, & Cardenas, in press). According to their results, Florida Puerto Ricans hoped that the island's colonial status with the United States would be beneficial in the recovery efforts; when these expectation were violated, they felt angered and stressed (Capielo Rosario, Abreu, et al., in press). Consistent with this work, our findings indicate that colonial mentality among mainland Puerto Ricans may only have an effect on depression symptoms within the context of negative interactions with the colonizer (an aspect of acculturative stress).

The indirect effect of colonial mentality on depression symptoms is particularly interesting given that the majority of our sample (76.7%) was comprised of mainland-born Puerto Ricans. As stated in our introduction, intergenerational transmission of culture may be a potential way in which colonial mentality could be transmitted to mainland-born Puerto Ricans. Cultural information transmitted may include: attitudes, language, values, and political beliefs (Schönpflug, 2008). Among mainland Puerto Ricans, this intergenerational transmission may also include ideas that inform attachment to Puerto Rican culture and society. For instance, Rogler (1984) found that while most U.S. mainland-born Puerto Rican parents and children reported a subjective attachment to Puerto Rican culture, they saw themselves as dissimilar to Puerto Rican society. Circular migration (Umaña-Taylor & Yazedjian, 2006) and interactions with new waves of Puerto Ricans in the mainland (Vélez, 2017) may provide other avenues for intergenerational transmission of culture. Literature on colonial mentality among mainland Puerto Ricans could benefit from exploring how this form of internalized oppression is internalized and transmitted across generations.

Clinical Implications

Results highlight the need for psychologists to become familiar with the concept of colonial mentality. Case conceptualizations of Puerto Rican clients should integrate how the presence of colonial mentality may influence acculturative stress, thus indirectly influencing their clinical presentation. Although Puerto Rico's colonial status is intensely debated on the island and on the mainland, its consequences are mostly seen from a political or economic perspective. Thus, mainland Puerto Ricans who are unfamiliar with the concept of colonial mentality may benefit from interventions to help them explore colonial mentality and its association with psychological distress. By increasing awareness of colonial mentality and its influence on mental health, a client can begin the therapeutic work of challenging beliefs of inferiority and indebtedness. However, conversations about Puerto Rico's political status are associated with feelings of shame (Varas-Díaz & Serrano-García, 2003). Thus, exploration of colonial mentality must be done in a way that minimizes negative feelings. This could be done by simultaneously collaborating with the client to emphasize Puerto Rican resilience, pride, and cultural strengths.

Results also suggest that clinical work with mainland Puerto Ricans should go beyond interventions designed to enhance "individual resistance to colonialism" (Varas-Díaz & Serrano-García, 2003, p. 122). As agents of social change (Goodman et al., 2004), counseling psychologists can use their clinical and research expertise to advocate for social, economic, and political justice for Puerto Rico. Decolonization begins with an understanding of colonial oppression (Memmi, 1996). Thus, training on psychological work must integrate education about colonization and its mental health repercussions on mainland Puerto Ricans. Counseling psychologists should also use this knowledge to advocate for community and public health policies that address the psychological effects of Puerto Rico's colonization. Liberation from colonial mentality for Puerto Ricans may also necessitate political liberation. Although Puerto Ricans have voted several times for their right to political self-determination—the last two times in favor of statehood—the U.S. Congress has met these calls with inaction (see López Cabán, 2017 for review). Counseling psychologists can advance psychological and political decolonization by disseminating research that focuses on the psychological consequences of Puerto Rico's colonization and highlighting how its colonization is a matter of public health. These efforts must be accompanied by research that evaluates the effectiveness of interventions that "contribute to the development of consciousness of colonization, self-empowerment, and transformation" (Comas-Díaz, Lykes, & Alarcón, 1998, p. 787) among Puerto Ricans.

Limitations and Future Directions

While the present study provides a strong foundation of analyzing the impact of colonial mentality on mainland Puerto Ricans' depressive symptoms, some limitations should be considered when interpreting study results. Although it was beyond the scope of this study, future investigations should confirm the directionality between study variables by employing longitudinal designs. Focusing on how time influences the direction and rate of colonial mentality could support the investigation of how colonial mentality serves as a risk factor for acculturative stress and depression symptoms over time.

In terms of specificity, the majority of the sample was composed of mainland-born Puerto Rican adults. Given Puerto Rico's contemporary colonial reality, it would not be appropriate to generalize study findings to island Puerto Ricans or other Latina/o groups.

Therefore, an important extension of this work is to gather empirical support for the role of colonial mentality on island Puerto Ricans and Latina/o groups with a history of colonization. Additionally, because internalized negative perceptions of Puerto Rican society and culture have also been observed among mainland Puerto Rican children, a needed extension is to examine how colonial mentality affects the mental health of mainland Puerto Rican youth.

Lastly, because the colonial mentality scale used in this study was designed to measure the effects of past colonization, it would be beneficial to explore other possible dimensions of colonial mentality informed by Puerto Rico's current status. For instance, in the book *Los Tres Trajes del Gobernador* [The Governor's Three Suites], psychiatrist Guillermo González (2007) advocates for the psychological decolonization of Puerto Ricans while ironically identifying Puerto Ricans' unwillingness to learn English

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

and lack of work ethic as impediments to decolonization. Thus, a future study should explore other dimensions of colonial mentality, such as colonial intellectualism.

Conclusion

The current study is the first to document the effects of colonial mentality on depression symptoms among mainland Puerto Ricans. As conveyed in our title, *A caballo regalao no se le mira el colmillo*[3] [Don't look at the tusk of a horse gifted to you], Puerto Ricans have been taught to graciously accept their relationship with the United States. However, the potential benefits Puerto Ricans receive through their political association with the United States may also have a psychological cost. As thousands of Puerto Ricans continue to migrate to the mainland to escape a persistent financial crisis, it may be important for Puerto Ricans and psychologists working with this population to take a closer look at the horse's tusk.

[3] This Puerto Rican saying expresses how even defective gifts should be accepted, willingly and without objection.

References

Alegría, M., Mulvaney-Day, N., Woo, M., Torres, M., Gao, S., & Oddo, V. (2007). Correlates of past-year mental health service use among Latinos: Results from the National Latino and Asian American Study. *American Journal of Public Health, 97,* 76–83. http://dx.doi.org/10.2105/AJPH.2006.087197

Aranda, E., & Rivera, F. (2016). Puerto Rican families in Central Florida: Prejudice, discrimination, and their implications for successful integration. *Women, Gender, and Families of Color, 4,* 57–85. http://dx.doi.org/10.5406/womgenfamcol.4.1.0057

Bagozzi, R. P., & Edwards, J. R. (1998). A general approach for representing constructs in organizational research. *Organizational Research Methods, 1,* 45–87. http://dx.doi.org/10.1177/109442819800100104

Baker, S. S. (2002). *Understanding mainland Puerto Rican poverty*. Philadelphia, PA: Temple University Press.

Bandalos, D. L., & Finney, S. J. (2001). Item parceling issues in structural equation modeling. In G. A. Marcoulides & R. E. Schumacker (Eds.), *New developments and techniques in structural equation modeling* (pp. 269–296). Mahwah, NJ: Erlbaum.

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88,* 588–606. http://dx.doi.org/10.1037/0033-2909.88.3.588

Bernal, R. (2018, April 16). Puerto Rico to close 283 schools. *The Hill*. Retrieved from http://thehill.com/latino/381963-puerto-rico-to-close-283-schools

Berry, J. W. (2006). Contexts of acculturation. In D. L. Sam & J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (pp. 27–42). New York, NY: Cambridge University Press. http://dx.doi.org/10.1017/CBO9780511489891.006

Cabán, P. (2017). Puerto Rico and PROMESA: Reaffirming colonialism. *New Politics Journal, 14,* 120–125. Retrieved from http://newpol.org/content/puerto-rico-and-promesa-reaffirmingcolonialism

Cabán, P. (2018). PROMESA, Puerto Rico and the American Empire. *Latino Studies, 16,* 161–184. http://dx.doi.org/10.1057/s41276-018-0125-z

Capielo, C., Delgado-Romero, E. A., & Stewart, A. E. (2015). A focus on an emerging Latina/o population: The role of psychological acculturation, acculturative stress, and coping on depression symptoms among central Florida Puerto Ricans. *Journal of Latina/o Psychology, 3,* 209–223. http://dx.doi.org/10.1037/lat0000039

Capielo Rosario, C., Abreu, R., Gonzalez, K., & Cardenas, E. (in press). "That day no one spoke": Florida Puerto Ricans' reaction to Hurricane María. *The Counseling Psychologist*.

Capielo Rosario, C., Adames, H., Chavez-Dueñas, N., & Rentería, R. (in press). Acculturation profiles of Central Florida Puerto Ricans: Examining the influence of perceived ethnic-racial discrimination and neighborhood ethnic-racial composition. *Journal of Cross-Cultural Psychology*.

Capielo Rosario, C., & Dillon, F. (in press). Ni de aquí, ni de allá: Puerto Rican acculturation-acculturative stress profiles and depression. *Cultural Diversity & Ethnic Minority Psychology*.

Capielo Rosario, C., Lance, C. E., Delgado-Romero, E., & Domenech Rodríguez, M. M. (2018). Acculturated and acultura'os: Testing bidimensional acculturation across Central Florida and island Puerto Ricans. *Cultural Diversity & Ethnic Minority Psychology*. Advance online publication. http://dx.doi.org/10.1037/cdp0000221

Chavez-Dueñas, N. Y., Adames, H. Y., & Organista, K. C. (2014). Skin-color prejudice and within-group racial discrimination: Historical and current impact on Latino/a populations. *Hispanic Journal of Behavioral Sciences, 36,* 3–26. http://dx.doi.org/10.1177/0739986313511306

Cheung, G., & Lau, R. (2008). Testing mediation and suppression effects of latent variables. Bootstrapping with structural equation models. *Organizational Research Methods, 11,* 296–325. http://dx.doi.org/10.1177/1094428107300343

Choi, A. Y., Israel, T., & Maeda, H. (2017). Development and evaluation of the Internalized Racism in Asian Americans Scale (IRAAS). *Journal of Counseling Psychology, 64,* 52–64. http://dx.doi.org/10.1037/cou0000183

Chung, H., Teresi, J., Guarnaccia, P., Meyers, B. S., Holmes, D., Bobrowitz, T., . . . Ferran, E., Jr. (2003). Depressive symptoms and psychiatric distress in low income Asian and Latino primary care patients: Prevalence and recognition. *Community Mental Health Journal, 39,* 33–46. http://dx.doi.org/10.1023/A:1021221806912

Cintrón Aguilú, A. (2014). Foreign capital and the economy of Puerto Rico. *Enciclopedia de Puerto Rico* [online]. Retrieved from https://enciclopediapr.org/en/encyclopedia/foreign-capital-and-the-economy-of-puerto-rico/

Claudat, K., White, E. K., & Warren, C. S. (2016). Acculturative stress, self-esteem, and eating pathology in Latina and Asian American female college students. *Journal of Clinical Psychology, 72,* 88–100. http://dx.doi.org/10.1002/jclp.22234

Cohn, D., Patten, E., & Lopez, M. H. (2014). *Puerto Rican population declines on island, grows on U.S. mainland*. Washington, DC: Pew Research Center. Retrieved from http://www.pewhispanic.org/2014/08/11/puerto-rican-population-declines-on-island-grows-on-u-s-mainland/

Comas-Díaz, L., Lykes, M. B., & Alarcón, R. D. (1998). Ethnic conflict and the psychology of liberation in Guatemala, Peru, and Puerto Rico. *American Psychologist, 53,* 778–792. http://dx.doi.org/10.1037/0003-066X.53.7.778

Conway, K. P., Swendsen, J. D., Dierker, L., Canino, G., & Merikangas, K. R. (2007). Psychiatric comorbidity and acculturation stress among Puerto Rican substance abusers. *American Journal of Preventive Medicine, 32* (Suppl.), S219–S225. http://dx.doi.org/10.1016/j.amepre.2007.02.033

Cortés, D. (2003). Idioms of distress, acculturation, and depression: The Puerto Rican experience. In K. Chun, P. Organista, & G. Marin (Eds.), *Acculturation: Advances in theory, measurement, and applied research* (pp. 207–222). Washington, DC: American Psychological Association. http://dx.doi.org/10.1037/10472-013

Cudeck, R., & Browne, M. W. (1983). Cross-validation of covariance structures. *Multivariate Behavioral Research, 18,* 147–167. http://dx.doi.org/10.1207/s15327906mbr1802_2

Danner, D., Hagemann, D., & Fiedler, K. (2015). Mediation analysis with structural equation models: Combining theory, design, and statistics.

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

European Journal of Social Psychology, 45, 460–481. http://dx.doi.org/10.1002/ejsp.2106

David, E. J. R. (2008). A colonial mentality model of depression for Filipino Americans. *Cultural Diversity & Ethnic Minority Psychology, 14,* 118–127. http://dx.doi.org/10.1037/1099-9809.14.2.118

David, E. J. R., & Nadal, K. L. (2013). The colonial context of Filipino American immigrants' psychological experiences. *Cultural Diversity & Ethnic Minority Psychology, 19,* 298–309. http://dx.doi.org/10.1037/a0032903

David, E. J. R., & Okazaki, S. (2006). The Colonial Mentality Scale (CMS) for Filipino Americans: Scale construction and psychological implications. *Journal of Counseling Psychology, 53,* 241–252. http://dx.doi.org/10.1037/0022-0167.53.2.241

de Figueiredo, J. M. (2014). Explaining the 'immigration advantage' and the 'biculturalism paradox': An application of the theory of demoralization. *International Journal of Social Psychiatry, 60,* 175–177. http://dx.doi.org/10.1177/0020764013477018

Duany, J. (2003). *The Puerto Rican nation on the move: Identities on the island and in the United States*. Chapel Hill: University of North Carolina Press.

Duarte, C. S., Bird, H. R., Shrout, P. E., Wu, P., Lewis-Fernandéz, R., Shen, S., & Canino, G. (2008). Culture and psychiatric symptoms in Puerto Rican children: Longitudinal results from one ethnic group in two contexts. *Journal of Child Psychology and Psychiatry, 49,* 563–572. http://dx.doi.org/10.1111/j.1469-7610.2007.01863.x

Fanon, F. (1965). *Studies in a dying colonialism*. New York, NY: Monthly Review Press.

Feliciano, Z. M., & Green, A. (2017). *U.S. multinationals in Puerto Rico and the repeal of Section 936 tax exemption for U.S. corporations* (Working paper 23681). Cambridge, MA: National Bureau of Economic Research. Retrieved from http://www.nber.org/papers/w23681

Frazier, P., Tix, A., & Barron, K. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology, 51,* 115–134. http://dx.doi.org/10.1037/0022-0167.51.1.115

González, G. (2007). *Los tres treajes del governador: Una perspectiva del Puertorriqueño*. Bloomington, IN: Xlibri Corporation.

Goodman, L. A., Liang, B., Helms, J. E., Latta, R. E., Sparks, E., & Weintraub, S. R. (2004). Training counseling psychologists as social justice agents: Feminist and multicultural principles in action. *The Counseling Psychologist, 32,* 793–836. http://dx.doi.org/10.1177/0011000004268802

Hayes, A. F., & Scharkow, M. (2013). The relative trustworthiness of inferential tests of the indirect effect in statistical mediation analysis: Does method really matter? *Psychological Science, 24,* 1918–1927. http://dx.doi.org/10.1177/0956797613480187

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6,* 1–55. http://dx.doi.org/10.1080/10705519909540118

Jetelina, K. K., Reingle Gonzalez, J. M., Vaeth, P. A., Mills, B. A., & Caetano, R. (2016). An investigation of the relationship between alcohol use and major depressive disorder across Hispanic national groups. *Alcoholism: Clinical and Experimental Research, 40,* 536–542. http://dx.doi.org/10.1111/acer.12979

Kenny, D. A. (2017). MedPower: An interactive tool for the estimation of power in tests of mediation [Computer software]. Retrieved from https://davidakenny.shinyapps.io/MedPower/

Kutner, M. H., Nachtsheim, C., & Neter, J. (2004). *Applied linear regression models* (4th ed.). Boston, MA: McGraw-Hill/Irwin.

Lance, C. E., Beck, S. S., Fan, Y., & Carter, N. T. (2016). A taxonomy of path-related goodness-of-fit indices and recommended criterion values. *Psychological Methods, 21,* 388–404. http://dx.doi.org/10.1037/met0000068

Lance, C. E., Butts, M. M., & Michels, L. C. (2006). The sources of four commonly reported cutoff criteria: What did they really say? *Organizational Research Methods, 9,* 202–220. http://dx.doi.org/10.1177/1094428105284919

Lance, C. E., & Vandenberg, R. J. (2009). *Statistical and methodological myths and urban legends: Doctrine, verity and fable in the organizational and social sciences*. New York, NY: Routledge.

Lewis-Fernández, R. L., Morcillo, C., Wang, S., Duarte, C. S., Aggarwal, N. K., Sánchez-Lacay, J. A., & Blanco, C. (2016). Acculturation dimensions and 12-month mood and anxiety disorders across U.S. Latino subgroups in the National Epidemiologic Survey of Alcohol and Related Conditions. *Psychological Medicine, 46,* 1987–2001. http://dx.doi.org/10.1017/S0033291716000763

Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling, 9,* 151–173. http://dx.doi.org/10.1207/S15328007SEM0902_1

López, G., & Patten, E. (2015). *Hispanics of Puerto Rican origin in the United States, 2013*. Washington, DC: Pew Research Center. Retrieved from http://www.pewhispanic.org/2015/09/15/hispanics-of-puerto-rican-origin-in-the-united-states-2013/

López Cabán, C. (2017, June 11). Historic journey of the plebiscite. *El Nuevo Día*. Retrieved from https://www.elnuevodia.com/english/english/nota/historicjourneyoftheplebiscite-2330058/

MacCallum, R. C., Wegener, D. T., Uchino, B. N., & Fabrigar, L. R. (1993). The problem of equivalent models in applications of covariance structure analysis. *Psychological Bulletin, 114,* 185–199. http://dx.doi.org/10.1037/0033-2909.114.1.185

MacKinnon, D. P. (2008). *Multivariate applications series. Introduction to statistical mediation analysis*. New York, NY: Taylor & Francis Group.

Memmi, A. (1996). *Retrato del colonizado*. Buenos Aires, Argentina: Ediciones La Flor.

Mena, F. J., Padilla, A. M., & Maldonado, M. (1987). Acculturative stress and specific coping strategies among immigrant and later generation college students. *Hispanic Journal of Behavioral Sciences, 9,* 207–225. http://dx.doi.org/10.1177/07399863870092006

Muthén, L. K., & Muthén, B. O. (2012). *Mplus statistical modeling software: Release 7.0*. Los Angeles, CA: Author.

Nadal, K. L. (2011). *Filipino American psychology: A handbook of theory, research, and clinical practice*. Hoboken, NJ: Wiley. http://dx.doi.org/10.1002/9781118094747

Negy, C., Schwartz, S., & Reig-Ferrer, A. (2009). Violated expectations and acculturative stress among U.S. Hispanic immigrants. *Cultural Diversity & Ethnic Minority Psychology, 15,* 255–264. http://dx.doi.org/10.1037/a0015109

Nuño, S. A. (2016, June 29). Congress passes PROMESA Act for Puerto Rico debt crisis. *NBC News. Retrieved from* https://www.nbcnews.com/news/latino/congress-passes-promesa-act-puerto-rico-debt-crisis-n601291

Nye, C. D., & Drasgow, F. (2011). Assessing goodness of fit: Simple rules of thumb simply do not work. *Organizational Research Methods, 14,* 548–570. http://dx.doi.org/10.1177/1094428110368562

O'Brien, R. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality & Quantity: International Journal of Methodology, 41,* 673–690. http://dx.doi.org/10.1007/s11135-006-9018-6

Okazaki, S., David, E. J. R., & Abelmann, N. (2008). Colonialism and psychology of culture. *Social and Personality Psychology Compass, 2,* 90–106. http://dx.doi.org/10.1111/j.1751-9004.2007.00046.x

Pausada, A. (1999). The singularly strange story of the English language in Puerto Rico. *Milenio, 3,* 33–60. Retrieved from http://milenio.uprb.edu/Milenio1999/11Pousada99.pdf

Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1,* 385–401. http://dx.doi.org/10.1177/014662167700100306

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

Raftery, A. E. (1995). Bayesian model selection in social research. *Sociological Methodology, 25,* 111–163. http://dx.doi.org/10.2307/271063

Ramos, B. M. (2005). Acculturation and depression among Puerto Ricans in the mainland. *Social Work Research, 29,* 95–105. http://dx.doi.org/10.1093/swr/29.2.95

Reuters. (2019, February 15). U.S. court faults Puerto Rico board appointments, keeps bankruptcy alive. *CNBC*. Retrieved from https://www.cnbc.com/2019/02/15/reuters-america-u-s-court-faults-puerto-rico-board-appointments-keeps-bankruptcy-alive.html

Rivera Ramos, A. N. (1998). *Personalidad Puertorriqueña, ¿Mito o realidad?* Rio Piedras, Puerto Rico: Editorial Edil.

Rogler, L. H. (1984). *Puerto Rican families in New York City: Intergenerational processes*. New York, NY: Waterfront Press.

Sánchez, M., Cardemil, E., Adams, S. T., Calista, J. L., Connell, J., Depalo, A., . . . Rivera, I. (2014). Brave new world: Mental health experiences of Puerto Ricans, immigrant Latinos, and Brazilians in Massachusetts. *Cultural Diversity & Ethnic Minority Psychology, 20,* 16–26. http://dx.doi.org/10.1037/a0034093

Santos-Burgoa, C., Sandberg, J., Suárez, E., Goldman-Hawes, A., Zeger, S., Garcia-Meza, A., . . . Goldman, L. (2018). Differential and persistent risk of excess mortality from Hurricane Maria in Puerto Rico: A time-series analysis. *The Lancet Planetary Health, 2,* e478–e488. http://dx.doi.org/10.1016/S2542-5196(18)30209-2

Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research, 8,* 23–74.

Schönpflug, U. (Ed.). (2008). *Cultural transmission: Psychological, developmental, social, and methodological aspects*. New York, NY: Cambridge University Press. http://dx.doi.org/10.1017/CBO9780511804670

Shean, G., & Baldwin, G. (2008). Sensitivity and specificity of depression questionnaires in a college-age sample. *The Journal of Genetic Psychology, 169,* 281–292. http://dx.doi.org/10.3200/GNTP.169.3.281-292

Silver, P., & Vélez, W. (2017). "Let me go check out Florida": Rethinking Puerto Rican Diaspora. *Centro Journal, 29,* 98–125.

Sparrow, B., & Lamm, J. (2017). Puerto Ricans and U.S. citizenship in 1917: Imperatives of security. *Centro Journal, 29,* 284–315.

Speight, S. (2007). Internalized racism: One more piece of the puzzle. *The Counseling Psychologist, 35,* 126–134. http://dx.doi.org/10.1177/0011000006295119

Torres Gotay, B. (2017, January 16). Critical state of mental health in Puerto Rico. *El Nuevo Día*. Retrieved from https://www.elnuevodia.com/english/english/nota/criticalstateofmentalhealthinpuertorico-2281421/

Torruella, J. R. (2017). Why Puerto Rico does not need further experimentation with its future: A reply to the notion of territorial federalism. *Harvard Law Review Forum, 131,* 65–104.

Trujillo-Pagan, N. E. (2014). *Modern colonization by medical intervention: U.S. medicine in Puerto Rico*. Boston, MA: Brill.

Umaña-Taylor, A. J., & Yazedjian, A. (2006). Generational differences and similarities among Puerto Rican and Mexican mothers' experiences with familial ethnic socialization. *Journal of Social and Personal Relationships, 23,* 445–464. http://dx.doi.org/10.1177/0265407506064214

U.S. Census Bureau. (2017). *American Community Survey 1-year estimate*. Retrieved from https://www.census.gov/programs-surveys/acs

Utsey, S., Abrams, J., Opare-Henaku, A., Bolden, M., & Williams, O., III. (2015). Assessing the psychological consequences of internalized colonialism on the psychological well-being of young adults in Ghana. *Journal of Black Psychology, 41,* 195–220. http://dx.doi.org/10.1177/0095798414537935

Valente, M. J., Gonzalez, O., Miočević, M., & MacKinnon, D. P. (2016). A note on testing mediated effects in structural equation models: Reconciling past and current research on the performance of the test of joint significance. *Educational and Psychological Measurement, 76,* 889–911. http://dx.doi.org/10.1177/0013164415618992

Varas-Díaz, N., & Serrano-García, I. (2003). The challenge of a positive self-image in a colonial context: A psychology of liberation for the Puerto Rican experience. *American Journal of Community Psychology, 31,* 103–115. http://dx.doi.org/10.1023/A:1023078721414

Vélez, W. (2017). A new framework for understanding Puerto Ricans' migration patterns and incorporation. *Centro Journal, 29,* 126–153.

Villanueva, S. (2002). *Beyond the Barbie Doll image: Beauty ideals and practices among African American and Puerto Rican women* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3042187)

Wassertheil-Smoller, S., Arredondo, E. M., Cai, J., Castaneda, S. F., Choca, J. P., Gallo, L. C., . . . Zee, P. C. (2014). Depression, anxiety, antidepressant use, and cardiovascular disease among Hispanic men and women of different national backgrounds: Results from the Hispanic Community Health Study/Study of Latinos. *Annals of Epidemiology, 24,* 822–830. http://dx.doi.org/10.1016/j.annepidem.2014.09.003

Received June 26, 2018
Revision received March 1, 2019
Accepted March 5, 2019 ■

This document is copyrighted by the American Psychological Association or one of its allied publishers.
This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.