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Chatterjee, A.



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Article

Beyond unequal access: Acculturation, race, and resistance to pharmaceuticalization in the United States[☆]Crystal Adams^{a,*,1}, Anwesa Chatterjee^{b,1}, Brittany M. Harder^{c,1}, Liza Hayes Mathias^{d,1}^a Department of Sociology, University of Miami, 5202 University Drive, Merrick Bldg, Room 120, Coral Gables, FL 33146, USA^b Department of Sociology, Canterbury Christ Church University, UK^c Department of Sociology, University of Tampa, USA^d Universidad Nacional sede Caribe, Colombia

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ABSTRACT

Trends toward pharmaceuticalization in Western countries have led to increased research and theorizing about the roles macro-level institutions, structures, and collective actors play in contributing to patients' reliance on prescription drugs. Relatively less work has focused on the degree to which patients resist pharmaceuticalization pressures, and even less research has explored the factors contributing to patients' resistance to pharmaceuticalization. Drawing on focus groups with patients who had been recently prescribed a prescription drug, this paper investigates how marginalization in the mainstream US society, as measured by acculturation and race, contributes to differences in patients' subjective experiences and responses to prescription drugs. We find that racial minorities report a greater skepticism of prescription drugs compared to whites and express that they turn to prescription drugs as a last resort. While highly acculturated participants rarely discuss alternatives to prescription drugs, less acculturated racial minorities indicate a preference for complementary and alternative remedies. We draw on the literatures on the pharmaceuticalization of society and the social nature of medicine to examine the role marginalization plays in patients' views of prescription drugs. Public health research conceives of racial minorities' lower rates of prescription drug usage compared to whites as primarily a problem of lack of access. Our results suggest another piece to the puzzle: minorities resist pharmaceuticalization pressures to express their cultural and racial identities.

1. Introduction

In recent years, there has been an upsurge in the use of prescription drugs among Westerners. This rise in prescription medication use has been particularly acute in the United States. “The World Medicines Situation” report (Creese, Gasman, & Mariko, 2004) showed that in 1999, the major consumption of medicines by value (about 90%) took place in high-income countries. Interestingly, the report also noted that the market share for the US increased from 18.4% in 1976 to 52% in 2000. A US study examining trends in the prevalence of prescription drug use in nationally representative data from the National Health and Nutrition Examination Survey (NHANES) found that general prescription drug use had risen from 51% in 1999–2000 to 59% in 2011–2012 (Kantor, Rehm, Haas, Chan, & Giovannucci, 2015).

Though the prevalence of prescription drugs in the US is quite high,

there are substantial differences in use by race. Briesacher, Limcangco, and Gaskin (2003) found that Black and Hispanic Medicare beneficiaries received less chronic illness medications compared to white beneficiaries. Another study (Gaskin, Briesacher, Limcangco, & Brigantti, 2006) found that Black and Hispanic Medicare beneficiaries have lower total and out-of-pocket expenditures in comparison to their white counterparts. Other studies indicate that African American and Latino adults are less likely to fill their prescriptions because of the associated expenses (Reed, 2005; Reed & Hargraves, 2003). While the primary explanation for these disparities has focused on lack of access to health care, some scholars have alluded to minority patients' reluctance and apprehensions towards prescription medicines as reasons for racial differences in prescription drug usage (Gaskin et al., 2006).

Various social researchers have referred to the general trend towards increased prescription drug usage. Williams, Martin, and Gabe

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* Corresponding author.

E-mail address: c.adams1@miami.edu (C. Adams).

¹ This paper represents equal authorship.

(2011) describe this trend as "pharmaceuticalization," which involves "the translation or transformation of human conditions, capabilities and capacities into opportunities for pharmaceutical intervention" (p.711). What is often overlooked in explanations for increased prescription drug usage is the way in which some individuals resist pharmaceuticalization processes. In this paper, we endeavor to fill this gap in the literature by examining the role marginalization in the mainstream US society, as measured by acculturation and race, contributes to differences in patients' subjective experiences and responses to prescription drugs. In general, racial minority groups in the US are relegated to the margins of society compared to whites, and though they are exposed to the same pharmaceuticalization processes and pressures, they may have a propensity to reject these forces in favor of other alternatives. Here, through an analysis of six focus groups of patients who had been recently prescribed a prescription drug, we investigate racial variability in how patients subjectively respond to pharmaceuticalization pressures.

2. Theoretical framework

Our exploration of marginalization and prescription drug usage draws from two main theoretical literatures: the pharmaceuticalization of society and the social nature of medicine. Together, these two research areas enable us to view health behavior as a by-product of societal changes over time while taking into consideration collective and individual understandings of health and medicine.

2.1. The pharmaceuticalization of society

Changes in recent decades in the amount of attention directed towards pharmaceutical drugs and the pharmaceutical industry (Bell & Figert 2012), as evidenced by the growth in prescription drug sales beginning in the 1980s (Abraham, 2010; Angell, 2004), have led to the development of the concept of pharmaceuticalization. This concept draws from the well-known concept of medicalization, a process in which a non-medical condition comes to be recognized, treated, and understood as a legitimate health issue (Barker, 2008, 2010; Conrad, 1992, 2005, 2007). Busfield (2017) argued that medicalization has explanatory value in contemporary society because it transforms everyday understandings of human behavior, experiences, and problems, and can have major social consequences, including closing off alternative solutions (Busfield, 2017).

While medicalization and biomedicalization have helped us to understand the social and technological ways in which biomedicine has expanded into uncharted territory, they only go so far in explaining the hold that drugs, specifically, have had in shaping treatment models. Although interrelated, pharmaceuticalization is a separate phenomenon from medicalization and biomedicalization since, according to Abraham (2010): 1) treatment regimens do not always include drugs and users do not necessarily have to purchase a medicine with a prescription; 2) pharmaceuticalization can occur without an expansion of medicalization; and 3) pharmaceuticalization can operate without or in opposition to biomedicalization.

As the concept of pharmaceuticalization itself was introduced less than ten years ago (Abraham, 2009), the pharmaceuticalization literature remains relatively nascent and is primarily concerned with macro-level analyses of institutions, structures, and collective actors. Much of this literature has focused on the pharmaceutical industry's regulatory practices (e.g., Abraham, 2010) the unequal distribution of drugs in developing countries (e.g., Petryna, Lakoff, & Kleinman, 2006), governments' contributions to the pharmaceuticalization of society (e.g., Elbe, Roemer-Mahler, & Long, 2015), the industry's investments in research and development (e.g., Fisher, Cottingham, & Kalbaugh, 2015), global drug market innovations (e.g., Sariola, Ravindran, Kumar, & Jeffery, 2015), and the role of law and legal processes in pharmaceutical flows (e.g., Cloatre & Pickersgill, 2014). Less

pharmaceuticalization research has emphasized micro-level aspects of pharmaceuticalization by exploring patient expectations, meanings, and experiences with pharmaceutical drugs (Brown, de Graaf, Hillen, Smets, & van Laarhoven, 2015) and by assessing the norms and understandings of how pharmaceutical drugs become an embedded aspect of everyday life (Thomas, 2016).

With a few minor exceptions (see Pollock & Jones, 2015), the existing literature on pharmaceuticalization has not yet addressed racial variations in patients' relationships to prescription drugs. Therefore, we draw from a second body of literature regarding the social nature of medicine, since this research focuses on micro-level processes and treats patients as active agents in their own health.

2.2. The social nature of medicine

While the pharmaceuticalization literature focuses on macro-level processes of pharmaceutical drug production and consumption, a body of work draws attention to pharmaceutical drugs as cultural commodities with social functions and meaning (Nichter & Vuckovic, 1994; Van der Geest, 2006; Whyte, Van der Geest, & Hardon, 2002). For example, Nichter and Vuckovic (1994) note that health ideologies are reproduced through the act of taking medicine, an act that embodies subtle ideas about the self, illness causality, and meanings of sickness (Nichter & Vuckovic, 1994). Modern or traditional values are expressed in consumption behaviors of prescription drugs, which often reflect one's orientation to modernity and certain lifestyles. Therefore, the use of drug alternatives such as herbal remedies may suggest a resistance towards modern western societies and biomedical models of health and the body (Nichter & Vuckovic, 1994). Further, consumption of western medications that offer "quick fixes" to symptoms may alienate some individuals from their own bodies and cultural models of health (Nichter & Vuckovic, 1994).

One of the most prominent themes explored in this literature is the link between medicines and social change. Switching to or using a specific type of medical system might indicate a kind of opposition to power and authority, especially if the established medical system in a society is aligned with the values and beliefs of the dominant group (Nichter & Vuckovic, 1994). Van der Geest (2006) pointed to the fluctuating symbolism associated with medicines in diverse societies or between different groups in societies, where medicines can be used as instruments of domination or freedom, used for harm or for benefit, and used as material objects of possession or as mediums of assertion. Likewise, support for traditional medicines through civic discussions has often been used as a mechanism of struggle against colonial dominance in that it has proven to be crucial in promoting cultural identity in periods of social change (Nichter & Vuckovic, 1994). Although there is increasing prescription drugs usage around the globe, several low-income countries have expressed opposition to a Western approach to medicine and have used medicine to express cultural and political identities (Whyte et al., 2002).

Some scholars have suggested that acceptance of or resistance toward pharmaceutical medicines is associated with differing identities. For instance, Fox and Ward (2006) suggested that health identities develop as particular expressions of physical, cultural, technological, and emotional contexts and found that health identities varied from "expert patient" to "resisting consumer." Therefore, health identities must be recognized in conjunction with the bodily self and its associated physical, psychological, and social contexts. In addition, Collin (2016) highlighted the centrality of pharmaceuticals in the lives of individuals in Western societies and theorized its role in the development of collective identities. For some individuals, taking medicines enables the control of one's body and health; however, for others, this control over body and health is achieved by not taking any medicines (Collin 2016).

Few scholars have explored how individuals' racialized or marginalized identities influence their consumption of medicines. Several

studies have empirically examined differences in prescription drug use by race (Chen et al., 2005; Han & Liu, 2005; Kuno & Rothbard, 2002; Piette, Heisler, Harand, & Juip, 2010; Schore, Brown, & Lavin, 2003). In general, the results from these studies have indicated that whites use prescription drugs more frequently compared to racial minorities. In addition, some studies have shown that minority groups in comparison to whites are more likely to hold negative beliefs regarding prescription drugs (Iosifescu, Halm, McGinn, Siu, & Federman, 2008; Lu et al., 2008) and are also more likely to be concerned about the side effects and over-reliance on medications (Copeland, Zeber, Valenstein, & Blow, 2003; Huang et al., 2009). However, even though a few of these studies have alluded to the importance of considering cultural factors in explaining these differences (Cooper et al., 2003; Han & Liu, 2005; Iosifescu et al., 2008), the major emphasis in most studies has been limited to access-related factors. To explore racial marginalization as it relates to pharmaceuticalization, we examine how patients express themselves through their subjective experiences with pharmaceutical drug usage.

3. Methods

3.1. Study design

This paper stems from an exploratory study investigating racial differences in patients' experiences with direct-to-consumer advertising (DTCA). We organized the participants into three types of focus groups based on racial majority-minority status and language preference: 1) non-Hispanic, English-speaking whites; 2) minority English-speakers; 3) minority Spanish-speakers. We conducted two focus groups of each type for a total of six focus groups. To assess marginality, we used two variables: race and acculturation. We operationalized acculturation using language, as language is a commonly accepted measure of acculturation in research (Lara, Gamboa, Kahramanian, Morales, & Hayes Bautista, 2005; Marín, 1992).

3.2. Operationalization of race

We allowed for participants to self-identify their race and ethnicity. We align with researchers (Rockquemore & Brunnsma, 2002) who have argued that racial identity is malleable and that it has structurally and culturally defined parameters. In our study, we highlight the centrality of race as a system of classification in US society. We acknowledge that race is a social construction and that racial categories are in a state of constant flux as racial ideologies in society undergo restructuring owing to political conflicts and social changes (Omi & Winant, 2003). We recognize that it is important to emphasize the ideology and the social circumstances in which racial divisions are created (Doane and Bonilla-Silva, 2013). Researchers have noted a gap between self-identification of race and public categorizations of race (Brunnsma, 2006; Rockquemore & Brunnsma, 2002), where, for some, there is a mismatch between public categories and private identities (Brunnsma, 2006). Following Bonilla-Silva (2001), we focus on the persistence of whiteness as a category of domination through which divisions are created and maintained. Hence, in this study we identify broad differences between whites and minorities rather than between whites and specific racial subgroups.

3.3. Study context

We conducted our research in Miami Dade County, a location that was exemplar to conduct research on racial differences in prescription drug usage. Hispanic or Latinos account for an estimated 64% of the Miami-Dade population, followed by whites at 16%, and then Black or African Americans at 17% (US Census Bureau, 2015).

3.4. Recruitment and participants

The recruitment sites included two locations at a large, metropolitan university. One location was the university's main campus and the other was the university's teaching hospital located approximately nine miles from the main campus. Most of the participants were recruited from the teaching hospital, a prime location to gather participants for a health-related study. This study utilized multiple recruitment methods including posting flyers at established recruitment sites, physically passing out flyers to potential participants at these sites, and including announcements in the campus online newspaper. We posted English and Spanish versions of the flyers. Members of the research team screened all interested respondents over the phone in the respondents' preferred language to determine their eligibility. During screening, a team member informed potential participants of the project's objectives and the focus group process. A member of the research team contacted eligible, interested individuals again over the phone to complete a sociodemographic survey to gather information on their race, age, gender, income, and education, to discuss the details of the informed consent form, and to schedule each participant's focus group meeting.

Because the study was concerned with how DTCA influences patients' treatment perceptions and behaviors, we utilized a purposive sample of individuals who had recently (within the past year) seen a drug advertisement and had been prescribed a drug in the past year. All participants were English and/or Spanish speakers and at least 18 years of age. The sample size of 24 study participants, with an average of four participants in each focus group, was intentionally small to gain an in-depth understanding of a relatively unexplored topic. Of the 24 participants, 15 were women and nine were men, with the youngest aged 20 and the oldest 68 years of age. Sixteen participants had at least some college education and two had a high school education or less (six refused to respond to the question). Nine participants had an annual income of less than \$20,000, four participants between \$20,000–\$49,999, two participants between \$50,000–\$99,999, and one participant had an income over \$100,000 (eight participants refused to answer the question). There were no apparent differences in income or education by focus group. Thirteen participants were Hispanic, six were non-Hispanic White, and five were African American.

3.5. Data collection

We collected our data between June 2014 and August 2015. Each focus group was moderated by one author and included one to two researchers who served as notetakers. The focus group moderator used an interview guide that contained open-ended questions to elicit group participation and discussion on key topic areas, including various facets of DTCA and patient-doctor interactions. The questions were designed to facilitate a focused discussion and to optimize consistency across focus groups on the topic areas. During the interview, each notetaker engaged in memoing (Creswell and Creswell, 2017; Hycner, 1985), which contained the notetakers' theoretical and/or methodological reflections on and impressions of the discussion. Immediately after the discussion, the moderator and notetaker(s) met to discuss these notes and their general impressions of the focus group. The focus groups were audio recorded and lasted between 45 to 120 min.

3.6. Data analysis

We aimed for an abductive approach to understand the views of the participants in our sample (Timmermans & Tavory, 2012). Abduction is a non-linear analytical approach in which researchers move back and forth between theory and empirical data to establish a deeper understanding of a phenomenon of interest. Abduction is often marked by the discovery of unexpected findings in the data that are pursued by analyzing variations across a study with an existing theory in mind. While our larger DTCA project was not initiated with a sole focus on

prescription drug experiences, we found clear racial differences in the discussions regarding participants' perceptions of and experiences with prescription drugs. Thus, we turned an unanticipated observation into an exploration of marginality and prescription drug usage. This paper reports on the prescription drug-related findings of the focus groups.

After the data collection, transcription, and translation of focus group interviews, we reviewed the transcripts and memos to identify recurring themes in the discussions to create a coding scheme. Once the coding scheme was finalized, we followed a procedure outlined by Campbell, Quincy, Osserman, and Pedersen (2013) wherein units of meaning rather than units of analysis are used as the basis for analysis. This procedure involves one member of the research team who is an expert in the project's focal area of study demarcating appropriate blocks of text in a document for a code or codes. This demarcation was based on the code definitions created by the research team. We used units of meaning because standardized units of analysis (such as a paragraph or sentence) run the risk of decontextualizing the intended meaning of a respondent (Garrison, Cleveland-Innes, Koole, & Kappelman, 2006), which we wanted to preserve.

The coding scheme was developed prior to the demarcation of the units of meaning because the exact size of the units did not determine the identification of themes. In our project, one author was an expert in DTCA and consumer health behavior and, thus, identified the meaningful units of analysis. Then, two other team members, who were blind to the other author's assigned codes, independently assigned their own codes to each unit of meaning. To establish reliability, we followed Syed and Nelson (2015), who contended that establishing reliability must be approached as an evolving process rather than as a product. Therefore, all parties consistently finalized the reliability of the codes and the definitions of the codes. While initially there was a minor amount of variability in the three authors' codes, most of this was due to the discriminant capability problem inherent in much qualitative research, which refers to the difficulty for coders to keep track of multiple codes at one time (Fahy, 2001; Kurasaki, 2000). These three team members resolved all discrepancies in the codes through discussion to reach a consensus.

4. Findings

4.1. "In the United States, everything is medicine": Minorities' resistance to prescription drugs

Our results show that minority participants engaged in a process of resistance towards the pharmaceuticalization of their bodies. Minorities' greater skepticism of the value of prescription drugs compared to whites revealed itself in two ways. First, a major concern of minorities about prescription drugs centered on side effects. Many minorities indicated they were afraid to take medications because of the possibility that they may experience side effects, many of which they perceived to be severe in nature:

The side effects can be deadlier than the problem you have already (Andre, English-speaking minority).

Absolutely. Mmhm (Cecilia, English-speaking minority).

You have to think twice about it (Andre, English-speaking minority).

This fear was at times actualized and at other times speculative. Many minority participants reported that they halted drug use because of the unbearable side effects, as indicated by the following quote:

I stop[ped] taking the medication because it made my vision blurry. I could not read. When I saw the doctor and I asked him to change the medication, to give me another, what he did was lower the milligrams to see if that would help. But I was already afraid of taking the medication, and I didn't take it. (Mateo, Spanish-speaking minority).

Minorities who had no experience with negative side effects were nonetheless concerned about the potential to incur side effects and indicated uncertainty as to how to weigh the benefits against the risks of drug use. The same participant, Mateo, complained that he was confused "that sometimes the side effects are worse than the ones you are trying to alleviate." While whites were also concerned with negative side effects, they were less fearful of them compared to minorities. Susan, a white participant, did not express fear around side effects but instead viewed them as the costs associated with drug use:

You have to evaluate how serious is your condition. How much do you need a product of that power or whatever? And if you decide to take it and you get the side effects, then you always have the option to stop (Susan, English-speaking, non-Hispanic white).

Whites, but not minorities, mentioned that effective communication with doctors about side effects enabled them to come to a treatment decision. Jeff, a white participant, discussed how his close relationship with his doctor was instrumental in getting prescribed a drug that minimized side effects:

Well, really, before trying the drug, we tried different drugs to see how it affects me. Some of them actually caused more allergies to me. Then he would actually ask me. Usually, it was him that was asking me. I'd call him, and he would ask me, 'so what are the side effects of this drug that we've tried?' I guess he was just asking me, 'are you getting any other side effects? Should we try anything else?' (Jeff, English-speaking, non-Hispanic white).

Unlike Mateo, Jeff had a doctor who was motivated to elicit feedback about a drug's side effects. In general, minorities reported that their doctors did not initiate conversations about side effects and that they felt that they needed to educate themselves. However, the minority participants believed that doctors should better manage patient uncertainty about a drug's side effects, as doctors are experts and should initiate conversations with patients about whether the benefits of a drug outweigh the risks, as mentioned by Belen:

Well, one can be influenced by the side effects, telling oneself, 'Well, with so much [negative] things, better I not take the medication.' Yet, it is the obligation of the pharmacists—that also includes doctors—of the side effects. Even if it is only one of the side effects that is affecting you. (Belen, Spanish-speaking minority).

Minorities were also critical of prescription drugs for cultural reasons. Their resistance to pharmaceuticalization involved a critical questioning of mainstream American health lifestyles and the hold that American culture's reliance on drugs has over their experiences and bodies. One Spanish-speaker, Mateo, claimed, "Here nobody walks. All of that makes you sick, and they make you take medicine." Minorities referenced the health lifestyles associated with their cultures in their criticisms of Americans' problematic relationship with pharmaceuticals. Consider this exchange among two Spanish-speaking respondents:

In the United States, everything is medicine. They send you a medicine for your head that affects your liver, and this affects your sight. My friend had a stroke and is now taking eight medicines. (Mateo, Spanish-speaking minority)

In our countries, there are natural herbs, and we eat healthy. (Alejandro, Spanish-speaking minority).

At times, whites were also critical of Americans' overreliance on drugs. However, they were not as concerned as minorities with the problems associated with overprescribing, and they did not delve into in-depth discussions of the other possible options that could be used to thwart the need for prescription drugs. Minorities' experiences with and awareness of non-pharmaceutical options stemming from their culture serve as the basis for their criticisms of prescription drugs.

4.2. Prescription drugs versus (cultural) alternatives

Minorities', but not whites', discussions about prescription drugs indicated that their culture influences their health decisions regarding pharmaceuticals. When deciding to take a prescription drug, minorities do not simply weigh the potential risks with the potential payoffs. Instead, they evaluate prescription drugs vis-à-vis other remedies that have a long history in their culture. While their evaluations are based in part on practical assessments of the value a drug has for health, minorities also indicate that they are tied to certain health remedies because these remedies reflect their culture. For example, Belinda, a Spanish-speaking participant, reported that she believed that prescription drug alternatives are superior to pharmaceuticals as a preventative and treatment option: "I always believe that there are better options. I think it (the body) must heal from the inside out; a good diet is needed, including papaya, and cherries are good anti-inflammatory sources." Another Spanish-speaker, Santiago, discussed how he is "skeptical and reluctant to take medication" and only takes prescription drugs after investigating the side effects. The following exchange among participants in a Spanish-speaking focus group also exhibits this bias against prescription drug use:

Well, I'll tell you something. I don't like chemical medicines. I take them because of my high blood pressure. I like natural things, because the truth is that garlic is more appealing to me. The truth is that garlic is the best remedy for high blood pressure. (Jose, Spanish-speaking minority)

... [I consumed] eggplant, also. (Valentina, Spanish-speaking minority).

Beyond achieving wellness, health choices serve as a way for minorities to engage with traditional cultural practices that differ from those of the mainstream dominant culture. In the current study, minorities evaluated prescription drugs by comparing them to non-biomedical health practices common in their cultures. Our findings are in line with research that emphasizes the role of cultural factors in shaping approaches to health, such as studies finding that patients choose their health care providers and treatments based on their compatibility with their own culture's values and norms (Cooper & Powe, 2004; Helman, 2007; LaVeist & Nuru-Jeter, 2002; LaVeist, Nuru-Jeter, & Jones, 2003; Saha, Komaromy, Koepsell, & Bindman, 1999; Street, O'Malley, Cooper, & Haidet, 2008). Specifically, our findings reveal that cultural influences affect an individual's perception and evaluation of pharmaceutical treatments. The following quote from an English-speaking minority shows that, for her, familiarity with her culture's health remedies gives her a broader perspective on the possible ways to achieve wellness that do not necessarily involve prescription drugs:

Coming from a Spanish culture—believe it or not, because my parents are Cuban—they do the teas and things that worked for them for many, many years. (Sofia, English-speaking minority).

Among white participants, prescription drug alternatives were referenced in a vague, unspecified way. For example, one white participant, Joan, noted, "...obviously there are other ways that you can deal with whatever it is that you might have that isn't so much on the drug side." Minorities, on the other hand, discussed specific alternative therapeutic treatments for dealing with health problems. These alternatives included numerous lifestyle changes, such as eating more fruits and vegetables, exercising, using herbs, and adopting a more spiritual outlook on life. The following two participants believed that therapy is relatively absent in the US and that it can be a useful tool for healing as well as for health maintenance.

Here [in the US], what is lacking is therapy. I believe therapy is important for healing. (Jose, Spanish-speaking minority)

Therapy helps you along with the medicines. (Alejandro, Spanish-speaking minority).

While CAM definitions vary, we adhere to the definition provided by the National Center for Complementary and Integrative Health, which regards CAM as "practices and products of non-mainstream origin." Overall, our findings indicate that receptivity to CAM is based on levels of acculturation and race. Spanish-speaking minorities referenced CAM slightly more than English-speaking minorities, while whites did not mention CAM at all. The Spanish-speaking participants had more in-depth conversations pertaining to CAM compared to the English-speaking minorities. These participants reported frequent use of CAM for both preventative and treatment purposes.

More acculturated minorities discussed using CAM to combat a variety of health concerns, including the common cold, aches and pain, elevated blood pressure and inflammation. In one focus group, the participants had a lengthy discussion about the best remedies for high blood pressure:

In my case, I would take garlic, onion.... (Chuiqui, Spanish-speaking minority)

Eggplant also. (Valentina, Spanish-speaking minority)

The truth is that for high blood pressure, garlic is the better remedy. (Belen, Spanish-speaking minority).

Although minorities preferred to not rely heavily on prescription drugs, they recognized the limits of CAM and that drugs were necessary for some conditions. One English-speaking minority reported an experience where a natural remedy did not work for him:

I was trying to do it the natural way and take garlic pills because I thought it would be better than the drug and now I'm back on the medication because my blood pressure was so high. And it scared me (Franco, English-speaking minority).

An acceptance of prescription drugs translated into minorities blending aspects of their culture with a biomedical treatment approach to devise health approaches concordant with their own identities, cultures, and lifestyles. Because minorities' spectrum of health-related choices is broader and includes non-biomedical solutions, they have a greater number of opportunities to practice choice. Among minorities, culturally specific remedies were more likely to be connected to empowerment and one's personal responsibility concerning health. One Spanish-speaking minority respondent indicated the following:

It is your health, your body, your everything. Why do you have to come and leave everything to the doctor? You have to be an informed patient...inform yourself about the medication you are taking as well as other alternatives. (Santiago, Spanish-speaking minority).

4.3. Doctors, choice, and the importance of the "informed patient"

Overall, minorities—particularly Spanish-speakers—who praised prescription drug alternatives also had negative evaluations of health professionals who were not open to these alternatives. Instead, these participants expressed that health professionals, including their own doctors, did not fully comprehend the scope and the importance of the use of non-pharmacological health solutions. In general, minorities' critiques of doctors were based on their cultural expectations for the types of remedies that doctors should promote to patients. In the following quote, a participant expresses frustration over doctors' lack of awareness of prescription drug substitutes.

Doctors do not have any idea of alternative medicines. They make you believe there is no cure for chronic diseases. There are many people who have managed to survive by alternative means. (Camila, Spanish-speaking minority).

Minorities were more likely than whites to express that most doctors do not allow for alternative remedies in their treatment regimens. Spanish-speaking participants also indicated that the problem of doctors' unawareness of prescription drug alternatives could be corrected through education, and that patients play an instrumental role in getting doctors to understand the value of alternative remedies. Camila, a Spanish-speaking minority, noted, "I also think it is important for us to educate the doctor about alternative medications. We must educate the doctor."

Other doctors, however, are aware of prescription drug alternatives, and many Spanish-speaking minorities revealed that they seek out doctors who align with their own views of prescription drug alternatives. Some participants mentioned that they prefer minority doctors because, from their perspective, they are more receptive to prescription drug alternatives. The following quote from a Spanish-speaker suggests that he gravitates towards doctors who are open to his preference of prescription drug alternatives:

The doctor already knows my tendency [to use] alternative medicines. I try by all means [to] go that route and I tell the doctor. The doctor already knows I do not like to take this (traditional medicine). (Santiago, Spanish-speaking minority).

Unlike Spanish-speaking minorities, English-speaking minorities who initiated discussions about prescription drug alternatives tended not to evaluate doctors negatively based on their views of prescription drug alternatives. In one exchange in an English-speaking minority focus group, a participant explained that sometimes minorities err in attempting to self-treat:

Like, my doctor can't be a secretary so why am I trying to be a doctor. Like sometimes we have... we say, 'Oh, child, take a root tea or take this or that...honey, and you be feeling better.' Instead of listening to what the doctor says so you know my stomach's been hurting for three weeks but Ima keep on takin' this Pepto Bismo, but really I got a big old ulcer. (Sofia, English-speaking minority).

Because the focus groups were designed to explore patients' views of and experiences with DTCA, all focus groups naturally involved discussions of the consumeristic culture in the US and the role consumerism played in their personal health choices. All participants, regardless of race, valued consumer choice and input in treatment decisions. Many participants reported searching for more information about potential treatments in order to have an informed conversation with their doctor:

I do a lot of research. I do my due diligence. Whatever might be going on, or whatever I'm experiencing. I want to know, you know? So that I can have an intelligent, informative conversation with the doctor (Susan, English-speaking, non-Hispanic white).

In general, while all participants were critical of pharmaceutical companies' motives behind advertising to patients, participants nonetheless supported DTCA, the primary reason being that participants valued patients' rights to know important information about pharmaceuticals. Most participants indicated that a good consumer is an informed consumer, and good health is contingent on the active involvement of the patient. Further, some participants argued that patient involvement aids doctors in treating patients, as suggested by an English-speaking minority:

You have to be informed, and you have to be aware of how you feel. Sometimes you have to tell the doctor how it [treatment] is making you feel because they don't know. You have to be aware of your body. (David, English-speaking minority).

That minorities shared sentiments that were similar to those of whites about the importance of being informed is significant given that existing research (Levinson, Kao, Kuby, & Thisted, 2005;

Ratanawongsa, Zikmund-Fisher, Couper, Van Hoewyk, & Powe, 2010) has indicated that minorities are less involved in their treatment decisions. Many minorities indicated they are not satisfied with how doctors communicate with them. This could in fact discourage a patient's involvement in health decisions, as the following Spanish-speaking minority mentioned:

I believe that because doctors are educated, many times we do not inform ourselves [about the medication]. Other times, we allow others to speak for us. (Alejandro, Spanish-speaking minority).

While whites also had criticisms of doctors, it is possible that their relatively similar cultural capital to doctors allows them to better resist doctors' orders in the face of disagreement or to have better quality conversations about the risks and benefits of drugs. Research has shown that racial concordance between patients and doctors results in better communication and higher levels of patient satisfaction (LaVeist & Carroll, 2002; LaVeist & Nuru-Jeter, 2002). Minority patients' greater use of and insistence on alternative remedies may negatively impact the patient-doctor relationship with white doctors, who may prefer pharmaceutical treatments over other options.

5. Discussion

The minorities in this study expressed resistance towards pharmaceuticalization, which is reflected in a fear of the uncertainties associated with the negative side effects of drug use. Minorities' resistance to pharmaceuticals translated into an openness to alternative solutions, including the use of CAM and the adoption of healthy lifestyle changes, by less acculturated minorities. Minorities' resistance to prescription drugs and their eagerness to explore other remedies affected their views of doctors and their behavior in the doctor-patient relationship. While all participants valued choice in health decision-making, less acculturated minorities had greater opportunities to exercise choice due to their openness to health alternatives not represented in mainstream medicine. Minorities' receptivity to prescription drug alternatives led them to regard doctors who prioritize prescription drugs in treatment regimens unfavorably.

The findings presented here suggest that minorities' marginal position in US society leads them to navigate the health environment differently than whites. The way patients navigate the Western traditional biomedical health model reflects processes of medical colonialism (see Edwards, 2010; Huntington, 1966; Kenwood & Lougheed, 1999; Nichter & Vuckovic, 1994; Sharma, 2006), whereby medical authorities attempt to colonialize all aspects of human life, including health, in the pursuit of profit and power. This leaves marginalized groups unable or unwilling to fully acculturate to modern Western biomedical practices of health because of their positionality (Nichter & Vuckovic, 1994). Our findings suggest that racial minorities' understandings of appropriate health behaviors and treatments do not reflect the mainstream biomedical logic in the US, which emphasizes, promotes, and encourages the consumption of pharmaceutical drugs.

5.1. Theoretical implications of research

Our findings lead to at least two broader theoretical implications. First, these findings represent a need to refine the concept of pharmaceuticalization to acknowledge the great deal of variability toward pharmaceuticalization processes in Western contexts along racial, ethnic, and socioeconomic lines. This requires researchers to move past a focus on macro-level, institutional drivers of pharmaceuticalization to examine how meso- and micro-level processes interact with societal-level pharmaceuticalization trends. The social nature of medicine literature reveals how individuals draw on their racial and ethnic cultures to construct health identities that may resist the dominant biomedical model. Our research supports conclusions from this literature—namely that a rational-based perspective on drug use offers only a limited

explanation as to why people use prescription drugs. While we do find that minorities weighed the costs and benefits of prescription drug use versus prescription drug alternatives in a rationalized way, minorities also expressed a preference for non-pharmaceutical options for identity reasons. Minority participants' disdain for traits associated with the mainstream health lifestyle in the US shows that minorities are un-supportive of the use of pharmaceuticals as "quick fixes" for health problems. In deciding to limit the use of prescription drugs, minorities may be using "medications as vehicles of ideology" (Nichter & Vuckovic, 1994) to express a medical self that resists pressures of pharmaceuticalization and other forms of medical colonialism.

Second, these findings highlight the need for researchers to explore acculturation as a potential factor that predicts minorities' health behaviors. Our finding that less acculturated minorities were more likely to use CAM supports the fact that minority groups have stronger ties to the health solutions of their racial and/or ethnic backgrounds. The less acculturated Spanish-speaking minorities drew from their own cultural frames to manage health issues. On the other hand, the more acculturated English-speaking minorities were less likely to draw on alternative health care options. Minorities who are less acculturated may experience greater tension and conflicts with the health care system, leading to their aversion to prescription drugs and greater receptivity to alternatives. Researchers seeking to understand and explain minorities' health behavior should consider acculturation in their investigations of minorities' relationship to the biomedical model.

Although current findings suggest differences in participants' navigation of the US healthcare system based on race and acculturation, future research should take into account additional indicators such as education and other measures of socioeconomic status in order to parse out more nuanced differences. Such avenues, as suggested by other analyses of racial health disparities (Grollman, 2012), could provide additional insight into racial and ethnic minorities' acculturation status on the effects of health behaviors in the US. Further research should also investigate variations among racial and ethnic subgroups in their relationship to the biomedical model, prescription drug usage, and CAM.

5.2. Public health implications of research

This research has several implications for policy and public health research. The results here may partly—but not entirely—account for unexplained variations in research on the causes of health disparities in prescription drug usage. Public health research conceives of minorities' lower rates of prescription drug usage compared to whites as a problem of lack of access. While lack of access is undoubtedly an important factor, our findings support Gaskin and colleagues' (2006) speculation that racial disparities may also be due to patients' skepticism about medicine as an effective treatment option. Our findings also support research that has shown that racial minorities hold more negative beliefs of prescription drugs (Iosifescu et al., 2008; Lu et al., 2008) compared to whites as well as studies (Copeland et al., 2003; Huang et al., 2009) that have found that minorities are more likely to be concerned about the side effects and overreliance on medications. We find that minorities' skepticism does not express itself in a staunch stance against prescription drugs but rather manifests in a desire to pursue alternatives to avoid the negatives associated with drugs.

Findings from the current study may also inform research and policies directed at improving the quality of minorities' relationship with doctors. Our findings suggest that a primary driver of miscommunication between the doctor and the Spanish-speaking minority patient is a disagreement, spoken or unspoken, regarding views towards pharmacological health solutions and alternative remedies. Since doctors are drivers of pharmaceuticalization, minorities may feel out of place when they vocalize their preferences for alternatives to doctors. These findings support and contribute to research on the relationship between culture, language, and the doctor-patient relationship. For example,

Street et al. (2008) found that the physician-patient relationship is strengthened when patients see themselves as similar to their physicians in terms of personal beliefs, values, and communication. Differences between doctors and minority-patients in their views of pharmaceutical drugs and alternative remedies have important implications on the relationship between doctors and minorities.

Lastly, public health researchers and policymakers regard low rates of drug compliance as a serious public health problem. These discussions present a view of doctors as paternal, authoritarian, and in control and depict the "good patient" as passive, obedient, and willing. Social scientists (Holm, 1993; Stimson, 1974; Trostle, 1988) have criticized a compliance perspective, claiming that it paints non-compliant patients as troublemakers and does not allow room for the expression of patients' treatment preferences. In a context dominated by a logic where medications are the only legitimate way to treat disease, patient compliance is centered around drug use. However, some physicians (e.g., Weil, 2017) are starting to shed light on the negative consequences of Americans' overreliance on medications, citing addiction and permanent physical side effects as dangerous implications of long-term drug use. If these critical physicians are correct about the dangers of pharmaceuticalization, minorities' disdain for drugs may accrue health benefits and may be contributing to the healthy immigrant effect (the epidemiological finding that despite their relatively lower socioeconomic status, immigrants' health outcomes are comparable to non-Hispanic whites). Less acculturated immigrants may be experiencing health benefits because they are not relying heavily on prescription drugs and are protected from the risks associated with pharmaceuticals. Non-compliance scholars should be mindful of the ways minorities' resistance to the biomedical model might advantage their health.

5.3. Limitations of study

One limitation of this study is that it was unable to investigate in-depth the health models of specific racial and ethnic subgroups and how they may differ from mainstream health approaches in the US. Some cultures may be more receptive to prescription drugs and other aspects of the American health lifestyle than others. Qualitative research among specific racial and ethnic subgroups can shed light on the substance of minority patients' health logics and how their culturally-specific health approaches affect their navigation of the US health system. Another limitation of this study is that we were unable to investigate variations by education and income, primarily because many of our participants did not disclose their socioeconomic status. Socioeconomic status affects the degree to which individuals feel marginalized in mainstream society and affects patients' relationship to health care structures. Research should explore how race, ethnicity, and socioeconomic status interact to affect patients' responses to pharmaceuticalization. Finally, our research location was unique, and our results may not travel to other contexts. Racial minorities are the overwhelming majority in Miami Dade County, which may affect their level of involvement in the clinical encounter since they are not as marginalized within this geographical context. Limitations notwithstanding, the current study contributes to a broader understanding of how whites and minorities differ in their views of prescription drugs as acceptable health care treatments.

Declarations of interest

There are no conflicts of interest in this study.

Ethics approval statement

Ethics approval was granted by the University of Miami's Institutional Review Board for this project. All team members involved in this project followed the ethical principles and rules set forth by the University of Miami's IRB.

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