CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

The Intersection of Colorism and Psychotropic Medication

A graduate project submitted in partial fulfillment of the requirements

For the degree of Master of Social Work

By

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Dedication

      This project is dedicated my family: Maria, Javier, Flor, Nubia, Michael, Emilia, German Sr., Eufemia, Jenny, and German Jr. Thank you for your love and support. I am especially thankful for the guidance and support of Dr. Judith DeBonis and Dr. Jodi Brown. I could not have completed this project without you.

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Abstract

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Purpose: The purpose of the study was to examine the relationship between skin color and use of prescription medication. Method: Data from The National Longitudinal Study of Adolescent to Adult Health (n = 4,876) were analyzed to explore the relationship of interviewer-assessed skin color and reported prescription use. Results: Logistic regression indicated that the odds of a person reporting use of prescription medication is two times higher for someone assessed as having white skin color than for a person assessed as having black skin color. The findings also indicated the dark brown, medium brown, and light brown skin color groups are similar to the black skin color group, as they were not statistically significant in predicting the likelihood of taking prescription medication and adults assessed as having white skin color are more likely than any other group to report use of prescription medication. Discussion: The present study adds to the literature on colorism and explores the complex issues related to skin color. Further research is needed to explain the mechanisms behind the relationships found between skin color and use of prescription medication.

Keywords: Colorism, skin color, skin tone, medication, quantitative, logistic regression, National Longitudinal Study of Adolescent to Adult Health (Add Health)

Introduction

Our society in the United States has made progress regarding issues of race since the civil rights movement began in the 1950s, but people of color still face discrimination related to White supremacy. Strmic-Pawl (2015) defines White supremacy as "the systematic and systemic ways that the racial order benefits those deemed White and operates to oppress people of color." The structure of White supremacy is upheld by all those that do not resist the system (Strmic-Pawl, 2015), and in this sense extends responsibility and blame beyond Whites. People of color can also be complicit in maintaining White supremacy, and this notion broadens our conceptualization of racism in this country as more than something that is done to people of color by White people. Racism is not an easy topic to discuss due to the emotional responses it brings about, and is rarely talked about outside of college classrooms; it can be understood as something that has gone underground as explicitly racist attitudes and beliefs can result in negative consequences for those that express them in public. For some, racist attitudes exist in the realm of unconscious biases that are revealed through implicit association (Karpinski & Hilton, 2001). Others may be blind to the structural nature of White supremacy even while explicitly stating a preference for romantic partners of lighter skin tones (Hamilton, Goldsmith, & Darity, 2009). Hannon, DeFina, and Bruch (2013) draw on Alice Walker's work to define colorism as "'prejudicial or preferential treatment of same-race people based solely on their color'" (p. 282). Racism and colorism are situated within the conceptualization of White supremacy, and are often an unremarked part of life in the United States. An understanding of colorism allows for a more nuanced conversation about racism, one that acknowledges skin tone as an aspect of identity that

intersects with other aspects of a person's identity and lived experience. The present study examines the relationship between skin color and use of prescription medication.

Background Literature

Medication. Adolescents receiving treatment within community mental health settings are frequently prescribed psychotropic medication to manage symptoms associated with diagnoses of anxiety disorders and depressive disorders (Cousins & Goodyer, 2015). Medication like diazepam (Valium) and alprazolam (Xanax) are used to treat anxiety disorders, and according to the National Institutes of Health (2015a,b) common side effects include drowsiness, dizziness, tiredness, changes in appetite, and nausea. Medication for the treatment of depressive disorders like fluoxetine (Prozac) and sertraline (Zoloft) list similar side effects to those of anti-anxiety medication, with the added warning from the Food and Drug Administration regarding increased risks of suicidal thinking and behavior in adolescents taking antidepressants. (National Institutes of Health, 2015c,d). While medication support has produced improved outcomes for some adolescents (Whitaker, 2008), other adolescents and their families are unwilling to begin taking medication, are unhappy with the medication that is currently prescribed, or may not be able to afford the cost of medication (Rothe, Pumariega, & Rogers, 2008; Smith, Linnemeyer, Scalise, & Hamilton, 2013). Problems can arise with a mental health treatment when caregivers perceive medication as a necessary part of treatment, or medication is recommended so strongly by the treatment team that the caregivers perceive medication as a prerequisite to receive other mental health services.

Colorism. Hannon (2014) builds upon previous definitions of colorism to include a rationale for discrimination against racial minority group members because their skin

tone differs from the dominant White ideal. Hannon (2015) expands upon this notion further to distinguish between intraracial colorism, that is, a preference for lighter skin within one racial group, and interracial colorism, which benefits lighter skin tones between racial groups based on the a perceived similarity to the dominant White racial group. The global mechanisms associated with colorism combine aspects of both intra- and interracial colorism, but intraracial colorism can be conceptualized as a Latino with lighter skin benefiting from greater cultural and societal privilege in relation to a Latino with darker skin, whereas interracial colorism can be represented by Latino groups benefiting from greater cultural and societal privilege in relation to Black groups.

The negative effects of colorism have been documented in the literature across several domains. Using data from the 2012 American National Election Study, Hannon (2015) found a relationship between White interviewers' perceptions of skin tone and intelligence: Black and Latino respondents with the lightest skin were seen by Whites as several times more intelligent than the those with the darkest skin. Hannon, DeFina, and Bruch (2013) found a relationship between the skin tone of Black high school students and school suspension rates: darker skin tones significantly increased the likelihood of suspension for Black adolescents. Viglione, Hannon, and DeFina, (2011) found a relationship between skin tone and prison time for Black females: those that were perceived to have lighter skin tone received more lenient prison sentences and served less time behind bars. Hamilton, Goldsmith, and Darity, (2009) found that Black men who chose to marry within their race placed significant importance on the skin tone of their partners, and expressed a preference for marrying Black women with lighter skin. Loury (2009) found discrepancies in educational attainment associated with skin tone: dark and

very dark Blacks achieved less schooling than their medium and lighter skin counterparts. Rosenblum, Darity, Harris, and Hamilton, (2015) found that immigrants in the United States with darker skin were paid lower wages compared to those with noticeably lighter skin. Hochschild and Weaver (2007) found that Blacks with darker skin in the United States have lower socioeconomic status, more punitive relationships with the criminal justice system, and are less likely to hold elected office compared to their lighter skin counterparts. The research literature on colorism demonstrates a clear pattern consistent with White supremacy wherein benefits are afforded to individuals who are the more phenotypically similar to the dominant White ideal, and comparatively worse outcomes are associated with individuals who have darker skin.

When conducting empirical research or reviewing the existing literature on colorism, the aforementioned authors have noted relationships between colorism and wages, educational attainment, discipline, violence, the criminal justice system, marriage prospects, and perceived intelligence. This growing research on colorism reveals a lack of research that investigates the relationship between psychotropic medication and skin color.

Research Question

No study in the literature explores the relationship between skin color and use of prescription medication. This researcher examined the relationship between skin color and prescription medication in order to contribute to the literature regarding these topics. Examination of the topics in the present study can serve as a point of reference for future studies that investigate the intersection of colorism and psychotropic medication by contributing to theoretical conceptualizations and influencing research hypotheses.

Site of the Study

No physical site is utilized in this study. The present study draws on longitudinal data collected by Kathleen Mullan Harris, J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris working out of the University of North Carolina at Chapel Hill (Add Health, n.d).

Method

Design of Study and Sampling Technique

   Design. This study is an exploratory quantitative examination of skin tone and medication use using a large public secondary data set that was collected for Add Health, a survey that gathered data from respondents to study how social environments and behaviors in adolescence are linked to health and achievement outcomes in young adulthood (Add Health, n.d).

   Sample. Respondents (n = 4,876) were assessed by the Add Health interviewer based on skin color: black (7.0%), dark brown (7.1%), medium brown (10.7%), light brown (10.5%), and white (64.5%) (See *Figure 1*) (Add Health, n.d).
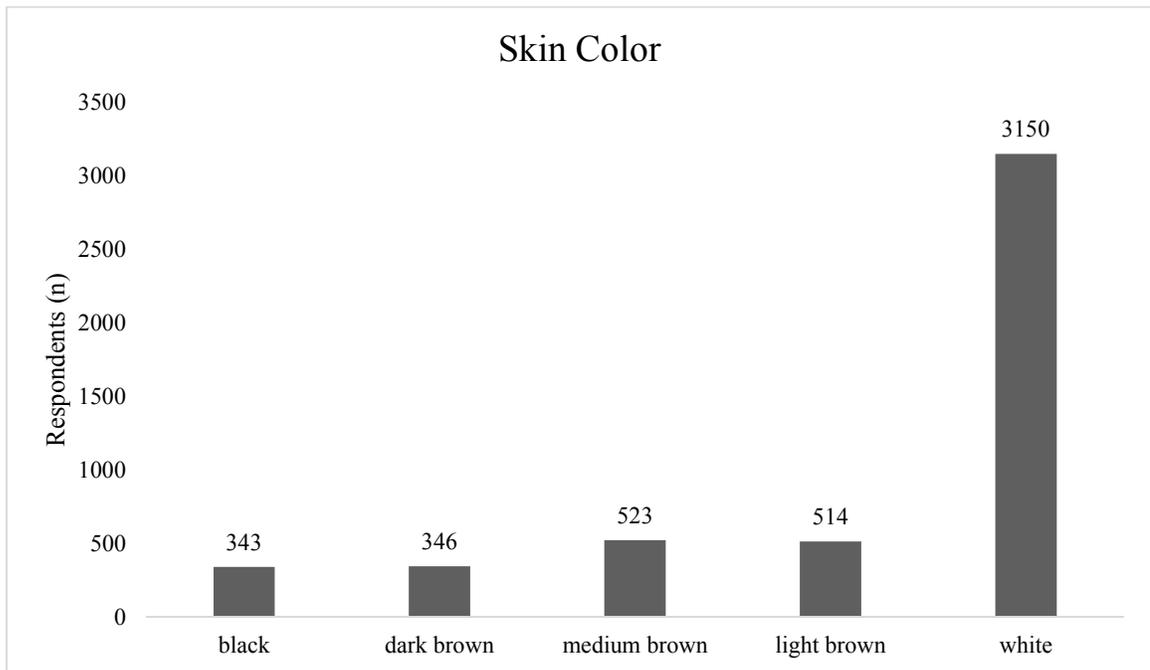

Figure 1. Skin color as assessed by Add Health interviewer.

Data. To examine the relationship between skin color and prescription medication use, the current study utilized data from the National Longitudinal Study of Adolescent Health (Add Health). The Add Health data collection procedures were the following:

Wave I encompasses all data collection between 1994 and 1995. The primary sampling frame for Add Health is a database collected by Quality Education Data, Inc. Systematic sampling methods and implicit stratification ensure that the 80 high schools selected are representative of US schools with respect to region of country, urbanicity, size, type, and ethnicity. Eligible high schools included an 11th grade and enrolled more than 30 students. More than 70 percent of the originally sampled high schools participated… Wave III data collection, conducted in 2001 and 2002, includes in-home interviews with original respondents. The in-home Wave III sample consists of Wave I respondents who could be located and re-interviewed during the field-work period, August 2001 to April 2002, when they were between 18 and 26 years old*. Interviews with 15,170 Wave I respondents were completed at Wave III… *24 respondents were 27-28 years old at the time of interview. (Add Health, n.d.)

Add Health collected longitudinal survey data on respondents' "social, economic, psychological and physical well-being with contextual data on the family, neighborhood, community, school, friendships, peer groups, and romantic relationships" (Add Health, n.d.).

Instrumentation

The present study utilizes Wave III Add Health data available from Inter-university Consortium for Political and Social Research (ICPSR) as a public use dataset

(Harris & Udry, 2015). In order to explore the respondents' use of prescription

medication, data analysis focuses on "Section 11: Illnesses, Medications, and Physical

Disabilities" question 25: "In the past 12 months, have you taken any prescription

medication—that is, a medicine that must be prescribed by a doctor or nurse?" (Appendix

B) (Harris & Udry, 2015). To explore the respondents' skin color, data analysis also

focused on the interviewer's assessment of the respondents' skin color as recorded in

"Section 35: Interviewer's Report" question 17: What is the respondent's skin color?"

(Appendix A) (Harris & Udry, 2015).

    The data was analyzed using the software package Statistical Package for the

Social Sciences version 22.0 (IBM SPSS) to perform binary logistic regression.

Results

The relationship between skin color and prescription medication was investigated using binary logistic regression to assess the impact of skin color on the likelihood that respondents would report the use of medication. Logistic regression generates odds ratios (OR) that represent the likelihood of predictor variables (PV) being related to the independent variable (IV) when two categorical predictor variables, such as skin color, are being compared (Pallant, 2010). In this study, logistic regression generates odds ratios that represent the likelihood that black skin color compared against white skin color (PV) is related to taking medication (IV). The estimated odds ratio for white skin compared to black skin (OR = 2.090) is statistically significant ($p < .001$). The odds of a person indicating they take medication is 2.09 times higher for someone assessed as having white skin color than for a person assessed as having black skin color (See *Table 1)* (Pallant, 2010). Results of the analysis indicated the dark brown, medium brown, and light brown skin color groups are similar to the black skin color group, as they were not statistically significant in predicting the likelihood of taking prescription medication.

Table 1
Logistic Regression Predicting Likelihood of Taking Prescription Medication
(Black Reference Group)

Variable	B	S.E.	Wald	df	p	Odds Ratio	95% C.I. for Odds Ratio	
							Lower	Upper
Black			117.403	4	.000			
Dark brown	.017	.152	.013	1	.910	1.017	.755	1.371
Medium brown	.036	.139	.068	1	.795	1.037	.790	1.362
Light brown	.226	.140	2.604	1	.107	1.253	.953	1.649
White	.737	.115	41.425	1	.000	2.090	1.670	2.617

Notes. n = 4869

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The only major factor influencing whether skin color predicts use of prescription medication is white skin color (See *Table 1)*.

Logistic regression was also conducted using white skin color as the reference group in order to compare the white skin color group against the other groups being studied (See *Table 2*). Results of the analysis indicated that adults assessed as having white skin color are more likely than any other group to report use of prescription medication.

Table 2
Logistic Regression Predicting Likelihood of Taking Prescription Medication (White Reference Group)

Variable	B	S.E.	Wald	df	p	Odds Ratio	95% C.I. for Odds Ratio	
							Lower	Upper
White			117.403	4	.000			
Black	-.737	.115	41.425	1	.000	2.090	1.670	2.617
Dark brown	-.720	.114	39.814	1	.000	2.053	1.642	2.571
Medium brown	-.701	.096	53.851	1	.000	2.016	1.672	2.433
Light brown	-.511	.097	27.856	1	.000	1.666	1.379	2.016

Notes. n = 4869

The Cox and Snell R Square value (R^2 = .024) accounts for 2.4 percent of the variance of medication use as explained by the model, suggesting there are other factors that are influencing medication use.

Discussion

The purpose of this study is to examine the relationship between skin color and use of prescription medication. Previous research has explored the relationships between skin color and other variables such as prison sentences (Viglione, Hannon, & DeFina, 2011) or school suspension for African Americans (Hannon, DeFina, & Bruch, 2013), but has not specifically focused on the intersection of medication use and skin color. The findings from this study suggest that adults whose skin color has been assessed as white by a trained interviewer are more than twice as likely to report using prescription medication than adults whose skin color has been assessed as black. This finding is consistent with the previous literature where researchers have found that racial and ethnic minorities such as African Americans and Latinos experience less access to medical care and prescription medication than Whites (Shi, Lebrun, & Tsai, 2010). Further research is needed to explain the mechanisms behind the relationships found between skin color and use of prescription medication.

This study adds to the literature on colorism by contributing data that specifically examines differences in skin color as a way to add nuance to the conversation that is primarily discussed in regard to racial and ethnic differences between diverse populations. The present study did not find statistically significant relationships among adults whose skin color was assessed as black and adults whose skin color was assessed as dark brown, medium brown, light brown, or light brown; that is, logistical regression revealed that the probability of taking prescription medication or not taking prescription medication was the same when comparing adults assessed as having black skin color to adults assessed as having dark brown skin color. This finding is inconsistent with the

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colorism literature which has found statistically significant relationships when variance in skin tone is compared to other domains (Hannon, 2015), and the literature typically points to more negative outcomes for individuals with darker skin when compared to individuals with lighter skin (Hamilton, Goldsmith, & Darity, 2009; Hochschild & Weaver, 2007; Loury, 2009; Rosenblum, Darity, Harris, & Hamilton, 2015; Viglione, Hannon, & DeFina, 2011). The lack of alignment with previous research on colorism research can be understood as a distinction between negative outcomes such as school suspension and more neutral measures such as use of medication, in which this study has identified skin color to account for a very small amount of variance that influences medication use (2.4%), suggesting other factors are influencing medication use beyond skin color. One such factor is likely the stigma associated with taking medication reported by Black and Latino patients (Ayalon, Arean, & Alvidrez, 2005).

Limitations and Research Implications

The present study includes a limitation related to the quantitative survey design; this approach does not allow for a wide array of responses to the questions of interest, as well as a lack of opportunity for follow-up or clarification. Another limitation to consider is the manner in which data were collected on respondent skin color, which consisted of prompting the interviewer to rate the respondent's skin color on a five-point scale. Future research could draw on Massey and Martin's (2003) "NIS Skin Color Scale" to assess skin tones on an 11-point scale in order to employ a reliable measure of skin color. Another limitation to consider is the broad conceptualization utilized to measure use of medication. Future research might consider a more detailed exploration of the specific classes of medication, such as antidepressants, to explore relationships with

skin tone. This would highlight whether more persons of color are being recommended to a certain type of treatment. Finally, a limitation to consider is the relatively small number of people of color included in the data analysis for each skin color group as compared to the larger number of people in the white skin color group; this limitation affects statistical power and a more even distribution of respondents could address this issue.

Conclusion

The current study includes strengths worth noting. One of the greatest strengths of this study lies in the data that were utilized. The data come from The National Longitudinal Study of Adolescent to Adult Health (Add Health) granting the researcher access to 4,876 data points (participants), and the ability to generalize the findings to the broader population. Secondly, Add Health is public-use data set, which means the data are available for anyone who wishes to replicate the researcher's work, a foundational principle in scientific research, continue in the researcher's footsteps, and draw distinct conclusions from those presented in the current study. Finally, the present study is strong in its analysis of skin color as a variable for study; taking into account skin color allows for exploration of mechanisms related to identity and discrimination beyond categories of race and ethnicity. This has implications for social work as a profession to seek to understand the nuance and complexities present within groups of people that may appear to be homogenous, but are undoubtedly multidimensional.

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Appendix A

Adolescent Health Survey 1

17. What is the respondent's skin color?			**H3IR17**	num 1
343	1	black		
346	2	dark brown		
523	3	medium brown		
514	4	light brown		
3150	5	white		
6	●	missing		

Appendix B

Adolescent Health Survey 2

25.	In the past 12 months, have you taken any prescription medication—that is, a medicine that must be prescribed by a doctor or nurse?		**H3ID 25**	num 1
1828	0	no *[skip to Q.27]*		
3047	1	yes		
1	6	refused		
6	8	don't know		