

CONSUMING RAP: AN EXAMINATION OF SUBSTANCE USE LYRICS, LIVED
EXPERIENCES, AND ATTITUDES TOWARD SUBSTANCE USE

**Consuming Rap: An Examination of Exposure to Substance Use Lyrics,
Lived Experiences, and Attitudes Toward Substance Use**

By

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DEDICATION

This thesis is dedicated to my wonderful, loving son, Legend (who has been my motivation from day one) and my unborn child. I also dedicate this thesis to my beloved husband, Frank (Tre) who has been my light during this difficult journey of completing my master's degree. Finally, none of this could have been possible without God who has provided me with the strength and endurance to overcome all of my trials and tribulations.

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CHAPTER 1

INTRODUCTION

Over the last couple of decades, scholars in the social sciences have paid increasing attention towards the potentially negative impacts of listening to certain genres of music on attitudes and behavior (Johnson, Jackson, and Gatto 1995; Henry 2010; Sanders 2012; Chen, Miller, Grube and Waiters 2006; Mulder, Ter Bogt, and Raaijmakers et al 2009; American Academy of Pediatrics 1996). There has been widespread concern among parents, child and adolescent psychologists, sociomusicologists, and other behavioral scientists that listening to music with explicit lyrics is associated with greater propensities of exhibiting risk behaviors such as substance abuse, violence, and promiscuity in adolescence and young adulthood (Chen, Miller, Grube, and Waiters 2006; Diamond, Bermudez, and Schensul 2006; American Academy of Pediatrics 2009). For example, it has been suggested that lyrics containing substance use references in rap music promote substance use attitudes and behaviors among adolescents and young adults (Herd 2008; American Academy of Pediatrics 1996; Brookshire, Davis, Stephens, Bryant 2003; Chen, Miller, Grube, and Waiters 2006). Though researchers have speculated about the relationship between exposure to songs containing substance use references and substance use-related attitudes and behaviors, the precise mechanisms through which

exposure to explicit lyrics might be associated with substance use-related attitudes are not well understood.

In this paper, I draw on previous research by introducing a new potential mechanism to explain the relationship between exposure to rap songs with substance use references and substance use-related attitudes. I consider the possibility that the association between exposure to rap songs with substance use references and substance use-related attitudes is moderated by lived experiences with substance use. In this study, lived experiences refer to an individual's past exposure to substance use (i.e. peer pressure to try marijuana, prescription drugs, or alcohol; and/or witnessing a friend or family member use substances). Attitudes refer to perceptions, evaluations, and beliefs about people, behaviors, ideas, objects, or situations (Eiser 1986). Our personal experiences and background often shape our attitudes and inform how we make meaning in our lives.

The links between exposure to rap songs and attitudes (Stephens and Few 2007; Tyson 2005; Johnson, Jackson, and Gatto 1995; Wester, Crown, Quatman, and Heesacker 1997), and lived experiences and attitudes have been evidenced in the literature (Dalgety, Coll, and Jones 2003; Konrad and Gutek 1986; Waugh, Lethem, Sherring and Henderson 2017). However, to date, no studies have sought to identify factors that may moderate the relationship between exposure to music containing substance use references and substance use-related attitudes, which may lead researchers to overestimate the effect of music on attitudes. Therefore, I combine elements of these two distinct bodies of literature to examine the associations between exposure to rap songs with substance use

references, lived experiences with substance use, and substance use-related attitudes. I chose to focus on rap music rather than other genres because research has commonly cited rap as a genre of music that contains the most frequent references to substance use (Chen, Miller, Grube, and Waiters 2006; Herd 2008; Diamond, Bermudez, and Schensul 2006). I consider whether the impact of exposure to rap songs with substance use references is directly associated with substance use-related attitudes or whether the effect of rap songs on substance use-related attitudes is reduced (or moderated) when lived experiences with substance use are accounted for.

Thus, this analysis is motivated by two research questions. First, what is the effect of exposure to rap songs with substance use references on substance use-related attitudes? On the one hand, exposure to songs with explicit substance use references may have a direct association with substance use-related attitudes through the internalization of messages that promote substance use as a source of fame, popularity, and increased attention from the opposite sex (Herd 2008). Media is a powerful tool of socialization and it may be the case that individuals' attitudes toward substance use are associated with the type of music they consume. Therefore, I hypothesize that individuals who have more exposure to rap songs with explicit substance use references will have more supportive views about substance use and marijuana legalization than individuals with little to no exposure to rap songs with substance use references. Second, do lived experiences with substance use moderate the relationship between exposure to songs with substance use references and substance use-related attitudes? On the other hand, lived experiences with substance use may have a greater effect on substance use-related attitudes than exposure

to rap songs with substance use references. Perhaps individuals only passively listen to music containing explicit substance use references, and, instead, develop their own beliefs about substance use through their own personal observations and experiences. Therefore, I hypothesize that lived experiences with substance use will reduce the effect of exposure to songs with substance use references on substance use-related attitudes.

To assess the associations between exposure to songs with substance use references, lived experiences with substance use, and substance use-related attitudes, I created a web-based survey as the principle instrument to gather information from 70 college students about their listening behaviors, musical tastes, lived experiences with and attitudes toward sexism, substance use, and/or violence. Using data from the web-based surveys, I estimate multiple bivariate logistic regressions to investigate the degree to which exposure to rap songs with substance use references, lived experiences with substance use, and substance use-related attitudes are associated.

CHAPTER 2

LITERATURE REVIEW

Theoretical Framework

The idea that lived experiences could link exposure to rap songs with substance use references and substance use-related attitudes is inspired by earlier work on generalized aggression model (GAM), previously known as the generalized affective aggression model (GAAM) (Anderson 1997; Anderson and Bushman 2001; Anderson, Carnagey, and Eubanks 2003). The GAM is a social cognitive framework that explains the pathways through which exposure to violent media (i.e. games, television, movies, and music) can influence violent and aggressive thoughts, feelings, and behaviors (Anderson 1997; Anderson and Bushman 2001; Anderson, Carnagey, and Eubanks 2003). The GAM considers how psychological (personality characteristics), situational, and social factors interact to influence affective responses (feelings, thoughts, and arousal), which in turn influence how an individual appraises or assesses external stimuli, which ultimately influence aggressive or nonaggressive behaviors (Anderson 1997; Anderson and Bushman 2001; Anderson, Carnagey, and Eubanks 2003). Figure 1 illustrates the pathways through which these variables are connected. According to the GAM, the input variables are either psychological (personality) characteristics, such as having an aggressive personality, or situational variables such as being exposed to violent

media or experiencing an act of aggression (Anderson 1997; Anderson and Bushman 2001). Input variables can influence aggressive or nonaggressive behavior through present internal state conditions which consists of our affect (feelings), cognition (thoughts), and arousal.

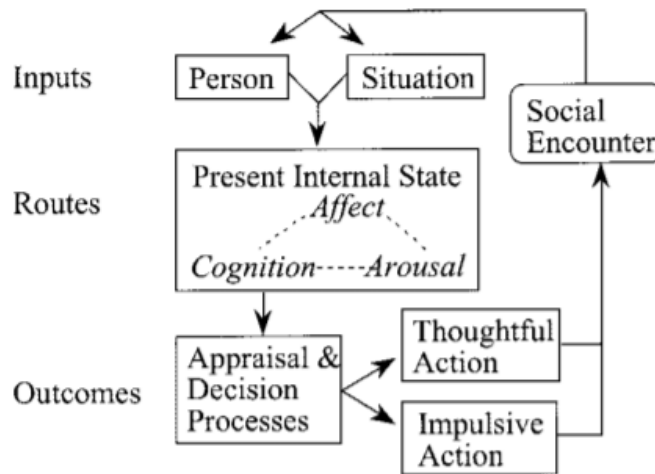


Figure 1. Single-episode General Aggression Model. Adapted from Anderson and Bushman 2001.

The GAM is a useful framework for understanding the pathways through which exposure to media can influence attitudes and behaviors. My current study uses a simplified, modified version of the GAM to understand the effect of exposure to rap songs with substance use references on substance use-related attitudes. In my adaptation of the GAM, situational input variables (i.e. exposure to rap songs with substance use references) are directly associated with an individuals' present cognitive state (represented by their substance use-related attitudes). However, when lived experiences with substance use (moderator variable) - which in this study, are contingent on past social interactions with other people - are accounted for, the effect of exposure to rap

songs with substance use references on substance use-related attitudes is reduced. Figure 2 illustrates my adaptation of the GAM.

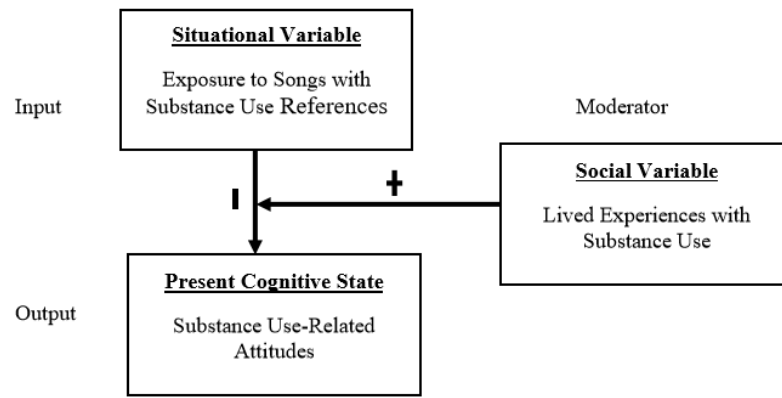


Figure 2. Conceptual Model Linking Exposure to Songs with Substance Use References to Substance Use-Related Attitudes.

Background

Substance use in adolescence and young adulthood is a major concern for parents, child psychologists, and other behavioral scientists because of the risks it poses to health and well-being (American Academy of Pediatrics 1996; Chassin, Hussong, and Barrera et al 2004; Parsai, Voisine, Marsiglia, Kulis and Nieri 2008). Substance use is defined as the consumption of prescription drugs (i.e. Xanax, Adderall, and Percocet), alcohol, marijuana, or other illicit drugs like cocaine and MDMA (3-4 methylenedioxymethamphetamine) to achieve intoxication (Chassin, Hussong and Barrera et al 2004). Substance use is typically initiated in adolescence (around 13 years

of age) and continues to increase throughout young adulthood (Fagan, Wright, and Pinchevsky 2015; Parsai, Voisine, Marsiglia et al 2008; Barkin, Smith, and Durant 2002). Substance use in adolescence and young adulthood is associated with negative mental and physical health outcomes, specifically declines in brain development (Kulak and Griswold 2019; Chassin, Hussong, and Barrera et al 2004), psychosocial development (Parsai, Voisine, and Marsiglia et al 2008), mood disorders (Miller-Johnson, Lochman, Coie, Terry, and Hyman 1998), and addiction (Moss, Chen, and Yi 2014).

Research on substance use has implicated positive substance use-related attitudes use as a potential risk factor for substance use behaviors and outcomes (Fagan, Wright, and Pinchevsky 2015; Diamond, Bermudez, and Schensul 2006; Parsai, Voisine, Marsiglia et al 2008; Barkin, Smith, and Durant 2002). In the following pages, I explore how substance use-related attitudes may be associated with exposure to explicit substance use references in rap songs and lived experiences with substance use. These factors are important to observe because they can provide insight into how individuals interpret and internalize socialization messages in media and personal experiences, which ultimately shape their attitudes and behaviors.

Rap Music and Substance Use-Related Attitudes

Since its conception in the 1980s, the theme of illicit substance use has been highly visible in rap music (Herd 2008; Diamond, Bermudez, and Schensul 2006). Rap music, which develops from the African American and Afro-Caribbean culture Hip Hop, is a vehicle of expression through which artists can tell their personal autobiographies

and experiences of growing up in the inner city and being exposed to poverty, substance use, violence, racism, and sexism (Clay 2003; Jeffries 2011; Baker, Dingle, and Gleadhill 2012; Diamond, Bermudez, and Schensul 2006). Rap music describes stories and situations that disadvantaged individuals and populations can relate to (Diamond, Bermudez, and Schensul 2006; Baker, Dingle, and Gleadhill 2012). In early years (1980s – late 1990s), artists rapped about how the War on Drugs affected low income communities of color. Rappers warned listeners about the dangers of using illicit substances like crack, cocaine, and marijuana (Herd 2008). For example, the following excerpt comes from “*White Lines (Don’t Don’t Do It)*” by Grandmaster Melle Mel:

Ticket to ride, white line highway. Tell all your friends they can go my way. Pay your toll, sell your soul. Pound of pound costs more than gold. The longer you stay, the more you pay. My white lines go a long way. Either up your nose or through your vein with nothing to gain but killin’ your brain.

In this excerpt, Grandmaster Melle Mel warns listeners that using cocaine comes at a price. As he describes, the price is selling your soul and killing your brain. Other popular rap songs like “*Night of the Living Baseheads* (1988)” by Public Enemy, “*Don’t Do Drugs* (2003)” by Danger Mouse and Jemini, and “*My Brother’s a Basehead*” by De La Soul also detail the consequences of substance use and drug dealing on individuals and society as a whole.

However, the frequency and context in which substance use has been talked about in rap has shifted dramatically over time (Herd 2008; Chen, Miller, Grube, and Waiters 2003). Between 1979 and 1984, only about 11 percent of the most popular rap songs contained explicit substance use references (Herd 2008). Between 1994 and 1997, 69

percent of the most popular rap songs mentioned substance use (Herd 2008). Herd (2008) observed through a content analysis of the most popular rap songs between 1994 and 1997 that attitudes toward substance used became increasingly positive, whereas songs in the earlier years (1979 – 1984) expressed more negative attitudes towards substance use.

In more recent years, there has been a growing concern about the glorification and pro-drug related themes in rap music (Herd 2008; Diamond, Bermudez, and Schensul, Chen, Miller, Grube, and Waiters 2006). The major concern about rap music is that lyrics that celebrate and glamorize substance use will increase the probability that listeners will engage in substance use behaviors (Chen, Miller, Grube, and Waiters 2003; Diamond, Bermudez, and Schensul 2006; Herd 2008). Popular rap songs like “*Suge*” by DaBaby (2019), “*Walk It Talk It*”, “*Plug Walk*” (2018), “*Flex (Ooh, Ooh, Ooh)* (2015) by Rich Homie Quan, and “*Trap Queen*” by Fetty Wop (2014) tend to portray substance use (i.e. alcohol, prescription drugs, marijuana, and cocaine) and drug dealing as signs of status, fame, wealth, and sex appeal. For example, the following excerpt comes from “*Trap Queen*” by Fetty Wop:

And I get high with my baby (my baby). I just left the mall, I’m getting’ fly with my baby.

And I can ride with my baby (my baby). I be in the kitchen cookin’ pies with my baby.

In this excerpt, Fetty Wop is referring to getting high and cooking up crack cocaine with his “trap queen” – a woman who is street smart and is helping him sell his drugs. In the rest of the song, he gloats about how much money he and his trap queen make selling drugs. These types of messages in popular rap songs have raised questions about the impact of listening to rap on the attitudes and behaviors of adolescents and young adults.

In addition to the changes of prevalence of substance use references in rap songs, public attitudes toward substance use and marijuana legalization have also shifted over the last few decades. Overall, views toward marijuana legalization have become increasingly positive (Geiger 2016). According to Pew Research Center data, in 2016 57 percent of U.S. adults agreed that marijuana should be legal; whereas in 1990 only about 21 percent of people supported marijuana legalization (Geiger 2016). On the other hand, attitudes toward prescription drug use have become more negative (Oliphant 2017). In 2013, 63 percent of U.S. adults agreed that prescription drug use have become a serious public health concern compared to 76 percent of Americans in 2017 (Oliphant 2017). Attitudes toward alcohol use have stayed relatively the same from 2013 to 2017 - with 52 percent of U.S. adults agreeing that alcohol use is a public health issue in 2013 and 54 percent in 2017 (Oliphant 2017).

Following these changes in substance use references in rap songs and shifts in attitudes toward substance use and marijuana legalization, an investigation into the effect of exposure to rap songs with substance use references on substance use-related attitudes is warranted. My analysis will assess how many rap songs containing substance use references participants have been exposed to (know or have listened to) and attitudes toward substance use (i.e. marijuana legalization and prescription drug, marijuana, and alcohol use). I hypothesize that individuals who have more exposure to songs with substance use references will have more supportive views about substance use and marijuana legalization than individuals with little to no exposure to songs containing substance use references.

Lived Experiences and Substance Use-Related Attitudes

Empirical research suggests that lived experiences such as past exposure to drug use and peer pressure affect attitudes toward substance use among adolescents and young adults (Fagan, Wright, and Pinchevsky 2015; Agostinelli and Grube 2005). About half of Americans know someone who has been or is addicted to drugs (Gramlich 2017). Several studies have found that youth that come from disadvantaged neighborhoods and communities are more likely to be exposed to substance use through alcohol- and drug-using adults than youth living in areas with more socioeconomic resources (Fagan, Wright, and Pinchevsky 2015; Durant, Altman, Wolfson, Barkin, Kreiter, and Krowchuk 2000; Galea, Rudenstine, and Vlahov 2005). Substance use in high-poverty neighborhoods is likely the result of psychological distress, perceived norms, and easy accessibility to alcohol and marijuana (McKinney, Chartier, Caetano, and Harris 2012; Tucker, Pollard, Haye, Kennedy, and Green 2013; Furr-Holden, Lee and Milam et al. 2011).

Other factors that contribute to substance use among adolescents and young adults are peer influences and experimentation (Chassin, Hussong, and Barrera et al 2004). Several studies show that substance use during adolescence and young adulthood is influenced by individuals' desires for social approval of peers (Parsai, Voisine, Marsiglia, Kulis, and Neiri 2009; Chassin, Hussong, and Barrera et al 2004). As young people navigate their identities and interpersonal relationships, substance use becomes a

mechanism for “fitting in” with social norms and social roles (Chassin, Hussong, and Barrera et al 2004). Thus, repeated exposure to substance use (i.e. peer pressure, peer substance use, or witnessing a family member abuse substances) may lead young people to perceive substance use as a “normal” activity, and therefore may contribute to more positive evaluations of substance use (Sanders 2012; Fagan, Wright, and Pinchevsky 2015; Agostinelli and Grube 2005; Galea, Rudenstine, and Vlahov 2005). Drawing on previous literature, I hypothesize that lived experiences with substance use will have more of an impact on an individuals’ attitudes toward substance use than listening to rap songs containing substance use references.

CHAPTER 3

DATA AND METHODS

Sample

To assess exposure to rap songs with substance use references, lived experiences with substance use, and substance use-related attitudes, I created a web-based quantitative survey using Qualtrics, which I call the Music Consumption and Social Attitudes Survey (MCSAS), as the primary instrument for data collection. MCSAS solicited demographic data such as race, gender, and college status, as well as listening behaviors, musical tastes, exposure to rap songs with substance use references, and lived experiences with and attitudes toward sexism, violence, and/or substance use. Data was collected in October 2019. The survey targeted enrolled college students aged 17 to 22 who listened to music regularly. Surveys were distributed via Facebook and student listservs by faculty at Vanderbilt University and Oakton Community College. 98 participants started the survey, but only 91 completed the survey. I used Stata version 15.1 to handle all data management and analysis. Before data analysis, I exported my data from Qualtrics to an Excel sheet and I removed all participants with missing values on any question. Further, after importing my data from Excel to STATA version 15.1, I removed all observations that did not meet eligibility requirements for inclusion in the study. Ultimately, I ended up with a sample of 70 college students.

Table 1 displays the sample characteristics. Of these respondents, 74 percent were women. 64 percent of my respondents were Black, and 36 percent were non-Black. The racial balance of respondents differs greatly from the national college student population (Pew Research Center 2019). To account for the oversampling of Black respondents, I weighted my analyses to simulate the national racial/ethnic characteristics of college students – Black (14 percent) and non-Black (86 percent) (Pew Research Center 2019).

Table 1. Descriptive Statistics of Sample (N = 70)

	Freq.	Mean/Prop.	Min.	Max.
Age of Respondent		19.69	17.00	22.00
<i>Race of Respondent</i>				
Black	45	.64		
Non-Black	25	.36		
<i>Gender Identity of Respondent</i>				
Man	18	.26		
Woman	52	.74		

Measures

Dependent Variable

Attitudes toward substance use were measured by a 13-item ordinal scale questionnaire that came from a larger 40-item scale I developed which assessed attitudes toward sexism, violence, and substance use. Respondents were asked to indicate the degree to which they agreed or disagreed with statements about substance use and the legalization of marijuana. For example, respondents were asked to respond to the

following statements: “Marijuana consumption is harmful”, “Taking prescription drugs (like Xanax, Adderall, or Percocet) without a prescription are fine as long as they are taken in moderation”, and “Marijuana should be legal in your state”. Answers range from 1 to 4 with “1” indicating “strongly disagree”, “2” indicating “disagree”, “3” indicating “agree”, and “4” indicating “strongly agree”. Four statements were reverse coded so that “strongly disagreeing” with all of the statements reflected negative evaluations toward substance use and legalization of marijuana. Conversely, “strongly agreeing” with all of the statements reflected positive evaluations toward substance use and marijuana legalization. Initially, I created an interval scale combining each of the substance use variables into single variable, *drugs_sa*, which represented substance use attitudes. However, to avoid ambiguity in my findings, I recoded the substance use attitudes variable as a binary variable, *drugsB*, with scores ranging from 1 to 39 recoded as “0” to reflect negative evaluations toward substance use and legalization of marijuana; and scores ranging from 40 to 49 recoded as “1” to reflect positive evaluations. This made the distribution of respondents in each category approximately more equal - with 58.57 percent (n=41) of the distribution falling in the negative evaluations of substance use category, and 41.43 percent (n=29) of the distribution falling in the positive evaluations of substance use category.

Independent Variable

To measure respondents' exposure to rap songs with substance use references, I compiled a list of Billboard's 70 most popular songs from 2015 to 2019. The list contained 17 pop songs, 11 rock songs, and 41 rap songs. Of the 41 rap songs, 14 of them have explicit substance use references. Respondents were asked to select all of the songs they knew or had listened to. I combined all of the items related to rap songs with substance use references into a scale ranging from 0 to 14 ($\bar{x} = 8.64$) and treated them as a single factor: *drugsrap* ($\alpha = 0.91$), a count of the number of rap songs with substance use lyrics respondents reported knowing.

Moderator Variable

Lived experiences with substance use were measured as the mean responses to seven items from the MCSA survey. Respondents were asked: (a) "Have you ever lost a friend/family member to drugs?", (b) "Have you ever seen a friend or family member lose support due to drug use?", (c) Have you ever seen a friend/family member gain friends to drug use?", (d) Have you ever seen a friend/family member change to drug use?", (e) "Have you ever been peer pressured to try marijuana?", (f) "Have you ever been peer pressured to try prescription drugs?", and (g) "Have you ever been peer pressured to try alcohol?". Responses were binarized so that "1" equals "yes" and "0" equals "no". These items were combined in a scale ranging from 1 to 7 ($\bar{x} = 3.84$) and treated as a single factor: *livedexp* ($\alpha = 0.65$), a count of the number of lived experiences with substance use.

Demographic Controls And Covariates

I control for three factors that may covary with lived experiences, attitudes toward substance abuse, and musical tastes: race, age, and gender identity. Due to the small sample size and the oversampling of Black respondents, I treat race as a binary variable. I binarized racial categories as “1” indicating whether a respondent identifies as Black, and “0” for participants who do not identify as Black. Gender identity is coded as “1” for participants who identify as men, and “0” for participants who identify as women.

CHAPTER 4

ANALYTIC STRATEGY

Logistic regression analyses were used to test my hypotheses. Logistic regression uses a logit link function to model the probability that a certain event or outcome is possible. The logit link function takes the linear values of covariates (which can range anywhere between $-\infty$ to $+\infty$) and converts those values to a probability value between 0 and 1 (MacKenzie, Nichols, Royle, Pollock, Bailey, and Hines 2017). Logistic regression assumes that the dependent (outcome) variable is binary, and that the independent variables are either continuous, categorical, or ordinal. Logistic regression also assumes there is independence – that observations are independent from one another and that no one respondent is asked the same question twice; there is no multicollinearity - that independent variables are not highly correlated with one another; and the recommended minimum sample size is 100 (“Basic Concepts of Logistic Regression”, n.d.). My data meets the first four assumptions of logistic regression, but my sample size is smaller than recommended.

To test my first hypothesis concerning the relationship between exposure to rap songs with substance use references and substance use-related attitudes, I estimated a bivariate logistic analysis to predict respondents’ probability of having positive attitudes toward substance use and marijuana legalization. I stored the output of this model as my

base model (Model 1). To test my second hypothesis concerning the moderating potential of lived experiences with substances use on exposure to rap songs with substance use references and substance use-related attitudes, I included a continuous by continuous interaction term to my original regression. I interacted the lived experiences variable with the rap songs with substance use variable and stored the estimates as Model 2. Next, I plotted the marginal effect of exposure to rap songs with substance use references over lived experiences with substance use and estimated the average marginal effects at various points in my data.

CHAPTER 5

RESULTS

Table 2 presents the average marginal effects (AMEs) and predicted probabilities estimated from the logistic regression analyses. Model 1 shows that exposure to rap songs with substance use references is positively associated with positive attitudes toward substance use. Holding all other variables constant, a one-unit increase in the number of rap songs respondents reported knowing is associated with a 4 percent increase in the predicted probability of having positive attitudes toward substance use ($p < 0.001$). This finding suggests that the more rap songs containing substance use references an individual is exposed to, the more likely they are to have positive attitudes toward substance use and marijuana legalization.

To supplement the findings from Model 1 of Table 2, I also include a margins plot of the average marginal effects change of the predicted probabilities of having positive attitudes toward substance use based on exposure to rap songs with substance use references (see Figure 3). As seen in Figure 3, as the reported number of rap songs with substance use references known increases, the predicted probability of having positive attitudes toward substance use also increases. When respondents reported knowing none (zero) of the rap songs that contained substance use references, the predicted probability

of having positive attitudes toward substance use was approximately 11.7 percent. When respondents reported knowing seven rap songs that contained substance use references, the predicted probability of having positive attitudes toward substance use was approximately 33.6 percent. When respondents reported knowing fourteen rap songs that

Table 2. Average Marginal Effects from Logistic Regressions Predicting Substance Use Attitudes by Rap Songs with Substance Use and Lived Experiences with Substance Use (N=70)

	Model 1	Model 2
<u>Positive Attitudes Toward Substance Use</u>		
<i>Independent Variable</i>		
Exposure to Rap Songs with Substance Use References	0.040***	0.038**
<i>Moderating Variable</i>		
Lived Experiences with Substance Use		0.029
<i>Controls</i>		
Age	0.121***	0.128**
<u>Gender Identity</u>		
Man vs Woman	-0.165	-0.193
<u>Race</u>		
Black vs non-Black	0.070	0.085
Constant	0.000**	0.000**

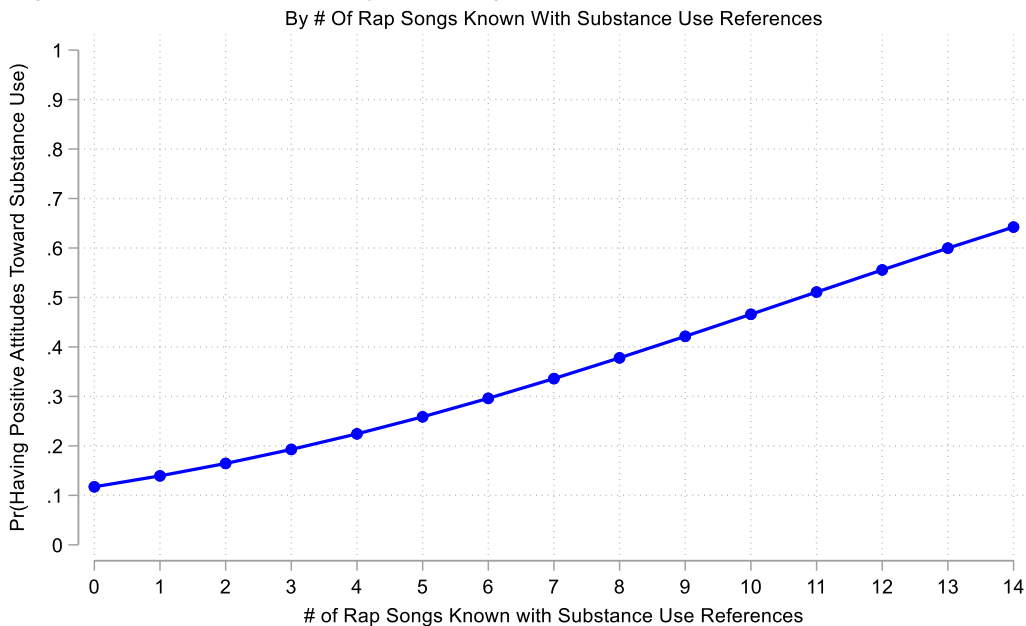
Note: Coefficients estimates are presented as average marginal effects calculated while holding other predictors at their weighted value.

*p<.05, **p<0.01, p<0.001

contained substance use references, the predicted probability of having positive attitudes toward substance use was approximately 64.2 percent. These findings suggest that individuals who have more exposure to rap songs with substance use references are more likely to hold favorable attitudes toward substance use and marijuana legalization.

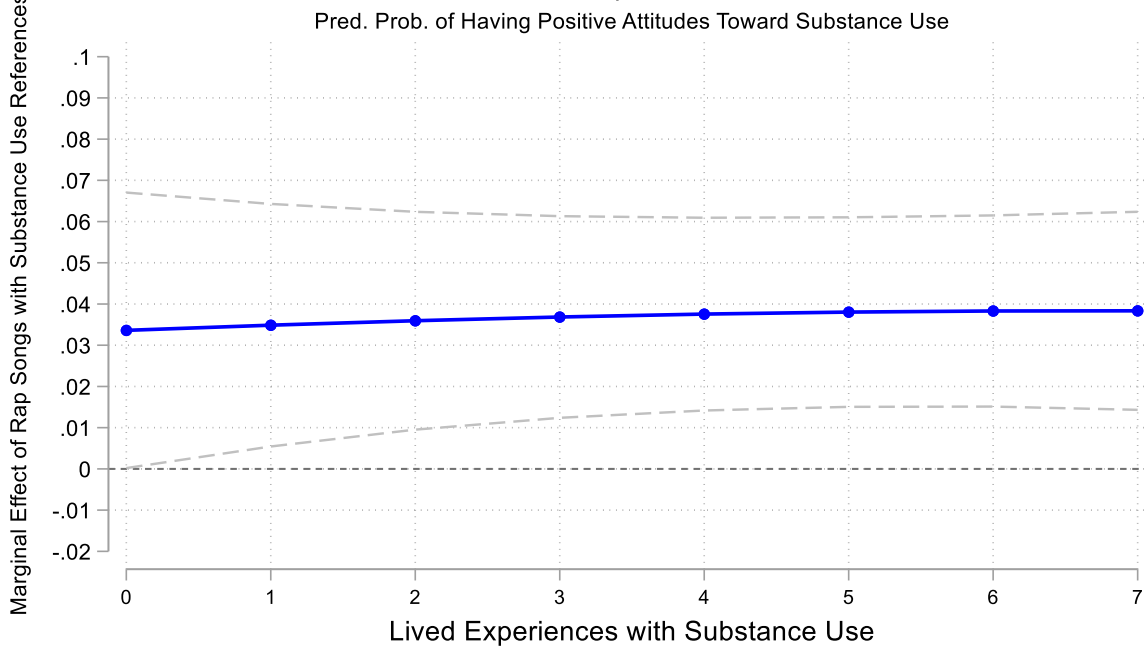
Therefore, I find support for hypothesis 1 that exposure to rap songs with substance use references and substance use-related attitudes are associated. The findings from Model 1 also show that age is positively associated with positive attitudes toward substance use, but race and gender are not. As seen in Model 1, every additional year of age is associated with a 12.1 percent higher predicted probability of having positive attitudes toward substance use ($p < 0.001$). These findings suggest that as people get older, their views on substance use may become more relaxed.

Figure 3. Predicted Probability of Having Positive Attitudes Toward Substance Use



To test for moderation, I estimated a logistic regression predicting positive attitudes toward substance use which included a continuous by continuous interaction between the number of raps songs containing substance references and the number of lived experiences with substance use references. The estimates from this regression can be found in Model 2 of Table 2. To supplement the findings from Model 2 of Table 2, I also include a marginal effect plot of exposure to rap songs across lived experiences (see Figure 4). As seen in Model 2 and Figure 4, the effect of rap songs containing substance use references remains significant when lived experiences are accounted for. Holding all other variables constant, a one-unit increase in the number of rap songs respondents reported knowing is associated with a 3.8 percent increase in the predicted probability of having positive attitudes toward substance use ($p < 0.01$). A one-unit increase in the number of lived experiences with substance use is associated with a 2.9 percent increase in the predicted probability of having positive attitudes toward substance use. However, this finding was not statistically significant. Therefore, I do not find support that lived experiences with substance use moderate the relationship between exposure to rap songs with substance use references and substance use-related attitudes.

Figure 4. Average Marginal Effect of Rap Songs with Substance Use References, Across Lived Experiences



NOTE: Negative effects indicate negative attitudes toward substance use

CHAPTER 6

DISCUSSION AND CONCLUSION

Scholars have paid limited attention to the relationships between exposure to rap songs with substance use references, lived experiences with and attitudes toward substance use. In this paper, I address this empirical gap, providing an analysis of these complex relationships. This paper's theoretical argument is that lived experiences with substance use moderate the relationship between exposure to rap songs containing substance use references and substance use-related attitudes. Although I do not make any causal claims, I find evidence of a positive association between exposure to rap songs containing substance use references and substance use-related attitudes. My findings reveal that individuals who have more exposure to rap songs with explicit substance use references are more likely to have positive attitudes toward substance use than individuals who have little to no exposure to rap songs containing substance use references. This finding is consistent with existing research examining the relationships between exposure to explicit rap lyrics and attitudes (Johnson, Jackson, and Gatto 1995; Herd 2008). One explanation for this finding could be that people who already have positive attitudes toward substance use may be more likely to listen to rap songs with explicit substance use references. Conversely, people who have negative attitudes toward substance use may be less likely to listen to music with explicit substance use references.

Future research may consider the directionality of the relationship between attitudes and exposure to specific media.

In this study, I introduced lived experiences with substance use as a potential moderator between exposure to rap songs with substance use references and substance use-related attitudes. Although lived experiences may influence attitudes, as suggested by previous work (Fagan, Wright, and Pinchevsky 2015; Sanders 2012), my results suggest that they may have a weak direct and moderating effect on substance use-related attitudes. Future research might consider the extent to which different lived experiences with substance use shape attitudes toward substance use. For example, past research has observed that poverty as a lived experience is associated with attitudes toward substance use (Fagan, Wright, and Pinchevsky 2015; Agostinelli and Grube 2005). It would be interesting to assess the extent to which different lived experiences (i.e. poverty, witnessing substance use, and peer pressure) affect substance use-related attitudes. It would also be interesting to assess whether these variables could mediate or better explain the relationship between exposure to rap songs containing explicit substance use references and substance use-related attitudes.

Limitations

Although this study has many strengths, this study is limited to a cross-sectional design, which prevents me from making causal inferences about the relationships between exposure to rap songs with substance use references, lived experiences with and

attitudes toward substance use. Longitudinal data would provide more in-depth information about these relationships. With longitudinal data, researchers would be able to better assess the direction of relationships and answer important questions such as “do lived experiences with substance use come before or after exposure to media with explicit substance use references?”, “do attitudes toward substance use come before or after lived experiences with substance use?”, and “do attitudes toward substance use come before or after exposure to media with explicit substance use references?”. These questions are worth consideration in future research.

Furthermore, future research could address the limited generalizability of the current study. This study is limited to a small sample size due to the limited time and resources allotted for data collection and analysis. Ideally, I would want a large, nationally representative dataset to make more generalizable statements about these relationships. However, to my knowledge, no current dataset assesses the key variables of interest for this study. Therefore, I had to create my own survey instrument to address my specific research questions, and my sample was limited to a convenience sample. Despite these shortcomings, my analyses provide a more detailed conceptualization of the impact of exposure to rap songs with substance use references on attitudes than past research has provided. Future research could also benefit from a more nationally, represented sample to assess the likelihood of which media and lived experiences predict substance use attitudes, which in turn may influence the likelihood that individuals will engage in substance use behaviors.

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