THE INFLUENCE OF SEXUALLY-ORIENTED MUSIC ON MINORITY ADOLESCENT'S SEXUAL INITIATION

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Abstract:

Answers as to whether sexually-oriented music lyrics influence adolescent sexual initiation are unclear.

The purpose of this study was to develop a reliable and valid instrument based on the Theory of Reasoned Action to enable researchers to predict the influence of sexually-oriented music lyrics on early sexual initiation among African-American adolescents (AAas).

Participants (n =185) resided in rural and urban areas in the southeastern U.S.

The final instrument had a Cronbach's alpha of .846. While further development work is needed, the survey is in a promising state. Additional psychometric work will prove the predictive ability and worth of the instrument.

INTRODUCTION

Factors such as gender, race and ethnicity, environment, age, and attitudes contribute to sexual behaviors of adolescents (Manlove, Terry-Humen, Papillo, Franzetta, Williams, & Ryan, 2002). Males are more likely to initiate sex early and have multiple partners; minorities are more likely to engage in behavior that lead to early pregnancy and STIs; and older adolescents are more sexually experienced than younger adolescents (Abma, Driscoll, & Moore, 1998; Miller, Norton, Curtis, Hill, Schvaneveldt, & Young, 1997; Raine, et al., 1999; Santelli, Lowry, Brener, & Robin, 2000; Shrier, 2004). Furthermore, studies show adolescents from disadvantaged communities with high poverty rates are more likely to have sex, become pregnant, and give birth in relation to adolescents from advantaged communities who are less likely to engage in risky behaviors (Brewster, Billy, & Grady, 1993; Hogan, & Kitagawa, 1985; Manlove, Terry-Humen, Papillo, Franzetta, Williams, & Ryan, 2002; Sucoff & Upchurch, 1998). One largely unexplored factor that may cut cross all areas and influence sexual initiation and sexual behavior among adolescents is through music media, specifically sexually-oriented music lyrics.

A relationship among music media exposure and influence on adolescents' sexual perceptions, attitudes, and intentions has been demonstrated (Brown, L'Engle, Pardun, Guang, Kenneavy, & Jackson, 2006; L'Engle, Brown, and Kenneavy, 2006; Martino, Collins, Elliott, Strachman, Kanouse, & Berry, 2006); however, answers as to whether sexually-oriented music lyrics influence adolescent sexual initiation are unclear. According to *Social Learning Theory (SLT),* adolescents' attitudes, beliefs, and behaviors are influenced by modeling and other vicarious experiences (Bandura, 1962).

While research on the influence of sexual media is lacking, *SLT* is the one of the premises for the argument of a causal relationship as it relates to exposure to sexually-oriented lyrics (Allen, Herrett-Skjellum, Jorgenson, Ryan, Kramer, & Timmerman, 2007; Escobar-Chaves, Tortolero, Markham, Low,

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Eitel, & Thickstun, 2005; Martino, Collins, Elliott, Strachman, Kanouse, & Berry, 2006). Allen and colleagues (2007) commented that in relation to SLT adolescents might be listening to crude song lyrics and mimicking or acting out scenarios that they hear. What is not known is whether exposure to sexually-oriented music lyrics influences early sexual behavior and if so, can it be predicted? Various social science theories exist that have contributed to understanding adolescent behavior. One such theory, the *Theory of Reasoned Action (TRA)*, has been used to determine the predictive weight of attitudes and subjective norms of adolescents on the intentions to perform behaviors such as drinking, dietary supplement use, and sun protection behaviors. Research using the *TRA* has shown that behavior can be accurately predicted from intentions when there are no issues of control (Ajzen, 1988; Sheppard, Hartwick, & Warshaw, 1988). Application of the TRA to predict early initiation of sexual activity from exposure to sexually-oriented music lyrics by African-American adolescents (AAas) has not been done.

REVIEW OF THE LITERATURE

MUSIC AND ADOLESCENTS

Music plays an important role in the socialization process of adolescents (Roberts & Christenson, 2001). Adolescents spend significant amounts of time listening to music with more than half (65%) of 8-18 year old adolescents reporting carrying portable music devices when away from home (Rideout, Roberts, & Foehr, 2005). In relation to gender and race, females listen more than males (Greenberg, Ku, & Li, 1989; Roberts & Henriksen, 1990), and African-American adolescents listen more than White adolescents (Brown, Childers, Bauman, & Koch, 1990). Moreover, Hall (1998) noted that African-American adolescents 10-12 years of age not only recognize lyrical content, but are able to describe lyrical messages.

Adolescents are saturated with mass media, spending an average of 6 hours and 30 minutes a day utilizing media; media use increases to 8 hours and 30 minutes when considering the multiple mediums adolescents use simultaneously (Rideout, Roberts, & Foehr, 2005). Media is defined as television, radio, newspapers and magazines, records, computers, video, and films (Feldman, & Elliott, 1990). Given the wide array of media devices and technological advances such as Ipods, MP3 players, as well as Internet availability, music persists as the dominant media chosen by adolescents (Rideout, Roberts, & Foehr, 2005). Adolescents spend an average of 1 hour and 45 minutes daily listening to music (Rideout, Roberts, & Foehr, 2005). Adolescents spend roughly 1 hour using the computer, 50 minutes playing video games, and 45 minutes reading on a daily basis (Rideout, Roberts, & Foehr, 2005).

The fact that sexual references readily occur in music lyrics is alarming (Wartella, Heintz, Aidman, & Mazzarella, 1990). Researchers suggest that song lyrics have become more sexually explicit as society has become more accepting of overt sexuality (Hirsch, 1971; Prinsky & Rosenbaum, 1987; Rice, 1980). Content analysis of selected media showed that music contained 40% more sexual content than any other medium, with 15% of music's sexual content focusing solely on intercourse, compared to a 3% and 4% focus in television and movies, respectively (Pardun, L'Engle, & Brown, 2005).

Furthermore, Primack and colleagues (2008) conducted a content analysis of music lyrics to determine the prevalence of sexual content. Popular songs were identified and analyzed for degrading and non-degrading sexual music lyrics. Thirty-seven percent (37%) of lyrics contained sexual content. Degrading lyrics were more common (65%) than non-degrading (35%) music lyrics. Rap (64%) and R&B/Hip-Hop (22%) were the genres that contained the highest amounts of degrading lyrics, while Country (45%) and R&B/Hip-Hop (28%) contained the highest percentages of non-degrading sexual lyrics. Researchers in this area conclude that investigation into the influence of sexual music lyrics on adolescents' sexual behavior, including initiation be done using social science theory.

Adolescence is a time of increasing independence and exploring new boundaries; music exposure is bound to increase as adolescents seek new ways to express themselves. Older adolescents listen to more music than younger adolescents. Listening patterns differ significantly, with 8-10 year olds listening for 59 minutes, 11-14 year olds listening for 1 hour and 42 minutes, and 15-18 year olds listening to music an average of 2 hours and 24 minutes daily (Rideout, Roberts, & Foehr, 2005). This increase in exposure is likely to exert some influence on adolescents' sexual attitudes, beliefs, and behaviors. Walsh-Childers and Brown (1993) noted that regardless of gender, adolescents with higher levels of exposure to music are more likely to consider lyrical messages more realistic than those with low levels of exposure.

To date, one longitudinal study has attempted to examine the relationship of degrading vs. non-degrading music lyrics on the attitudes and behaviors of adolescents. Martino and colleagues (2006) conducted national telephone surveys of 1,242 adolescents 12-17 years of age. The sample was 43% female and consisted of 68%, 14%, 12%, and 6% White, African-American, Hispanic, and other adolescents respectively. The researchers concluded that exposure to degrading music lyrics is related to advancement in sexual activities, i.e., intercourse and noncoital behaviors. However, exposure to lyrics was not related

to advances in sexual behavior when music lyrics were not degrading. Additionally, adolescents who listened to increased amounts of music were more likely to advance in noncoital sexual behavior and initiate sex even after controlling for sexual content in the music. Researchers recommended future studies examine how male and female adolescents make sense of sexually explicit lyrics and how it relates to sexual behavior. Up until this time, no such instrument existed.

PURPOSE OF STUDY

The purpose of this study was to develop a reliable and valid instrument based on the *Theory of Reasoned Action* to predict the influence of sexually-oriented music lyrics on sexual initiation of African-American adolescents. The majority of research in this emerging area suggests adolescents with greater exposure to sexually-oriented music lyrics are more sexually active, have greater intentions to have sex, and are more likely to initiate sexual activity (L'Engle, Brown, Kenneavy, 2006; Martino, Collins, Elliott, Strachman, Kanouse, & Berry, 2006). However, of the available research examining the influence of sexual media exposure on the attitudes and behaviors of adolescents, African-American adolescents have rarely been included in research efforts (Escobar-Chaves et al., 2005). Furthermore, the development of a theory-based instrument to predict the influence of sexually-oriented music lyrics on the attitudes, beliefs, and intentions of African-American adolescents is the first of its kind.

METHODOLOGY

The survey was developed based on an adapted version of Mueller's (1986) procedures for the development of an attitude and belief instrument. More specifically, procedures employed replicated those of Perko (1996) who utilized a 9 step model in survey development. The study was conducted in the Southeastern United States from spring 2009 to spring 2010.

The steps used to develop the *Survey to Predict the Influence of Sexually-Oriented Music Lyrics on African-American Adolescents (SPISOML-AAA)* are listed below.

1. Identify the attitudinal object.
2. Collect a pool of opinion items.
3. Submit pool of items to expert panel for review.
4. Pilot test draft of SPISOM-AAA.
5. Administer item pool to a group of respondents.
6. Score each item for each respondent.
7. Sum respondents' item scores.
8. Correlate item scores with total scale scores for all respondents.
9. Apply statistical criteria for elimination of test items.

Due to length requirements, specific strategies will not be discussed. Please contact the lead author for specific procedures conducted at each step. Parental consent and student assent were received before students were allowed to participate in the study. Approval for the study's protocol was secured from The University of Alabama's Institutional Review Board (IRB).

RESULTS

STEP 1: IDENTIFY THE ATTITUDINAL OBJECT

Three strategies were used to determine the influence sexually-oriented music lyrics have on the attitudes and beliefs of AAas. The strategies used were a review of the literature, focus group interviews with AAas, and input from an expert panel. Focus group interviews (n=12) were conducted with 36 AAas in 6th-8th grades. Twenty (n=20) students resided in a rural county and 16 students resided in an urban county. Nineteen (n=19) students were female and 17 were male. Focus groups were conducted during school hours in private rooms designated by the school counselors. Interviews took place during designated exploratory periods for 6th, 7th, and 8th grades. No school officials were present during the focus group interviews. Focus groups were separated according to gender with corresponding moderators of the same gender and ethnic background. Each session last approximately 30 minutes. Focus group participants received a meal equal to $6 as an incentive for participation. The expert panel was asked to provide existing instruments and/or items, and information for construction of attitudinal items by authors of the items. No existing instruments were submitted by the expert panel.

STEP 2: DEVELOP POOL OF TEST ITEMS

Utilizing information gathered in step 1, 95 items were constructed for use in the initial pool of items. These items were divided into 4 areas; demographics (1-14), behavioral beliefs (15-40), subjective norms (41-85), and behavioral intention (86-95).

STEP 3: POOL OF ITEMS REVIEWED BY PANEL OF EXPERTS

A total of 5 experts reviewed the initial pool of items. The expert panel review resulted in the deletion of 22 items. Items were omitted based on clarity of questions, relevance, and lack of conformity to the tenets of a *TRA* questionnaire. The panel recommended that some questions be reworded. After initial feedback was received, the pool of items was refined until a consensus was reached that the items used were representative of a *TRA* survey. This

Table1: Demographics of Survey to Predict the Influence of Sexually-Oriented Music Lyrics on African-American Adolescents Pilot Study Sample

Students (n = 181)		
Where do you live?	Number	Percent (%)
Rura	77	42.8
Urban	103	57.2
How old are you?		
11 years old	40	22.1
12 years old	62	34.3
13 years old	54	29.8
14 years old	25	13.8
What is you sex?		
Male	75	41.9
Female	104	58.1
In what grade are you?		
6th grade	68	38.0
7th grade	65	36.3
8th grade	46	25.7
What is your race?		
Black	174	98.3
Mixed	3	1.7
Are you Hispanic or Latino?		
Yes	3	1.7
No	172	98.3
Which of the following do you live with?		
Mother Only	94	53.4
Father Only	2	1.1
Mother and Father	59	33.5
Other(Grandparent/s, Aunt/Uncle, legal Guardian, Foster Parent)	21	11.9
Which of the following relatives do you live with?		
Older brother and/or sister	72	41.4
Older step/half brother and/or sister	8	4.6
Older cousin	5	2.9
None of the above	89	51.1
How many people do you live with?		
1-2 people	37	20.8
3-4 people	82	46.1
5-6 people	45	25.3
7 or more people	13	7.3
Do you take part in the following lunch plans at school?		
Free lunch	152	85.4
Reduced lunch	12	6.7
Full pay	14	7.9
About how much music do you listen to or watch during the week (Monday-Friday)?		
2 or less hours	61	34.9
3-5 hours	46	25.4
6-8 hours	20	11.4
9 or more hours	48	27.4
About how much music do you listen to or watch during the weekend (Saturday-Sunday)?		
8 or less hours	121	69.9
9-11 hours	22	12.7
12-14 hours	9	5.2
15 or more hours	21	12.1
Have you ever had sexual intercourse?		
Yes	28	15.9
No	148	84.1

Note. Total number and percentages may not equal to 181 due to missing responses.

consensus was reached with this researcher and the experts in the area of health behavior theory. Twenty-seven (n = 27) additional items were deleted.

STEP 4: PILOT TEST DRAFT OF THE SURVEY

The pilot draft of the Survey consisted of the refined pool of items (n = 46) developed in step 3. A total of 12 AAas in grades 6-8 answered survey items of the pilot test draft of the survey. As a result of the information gathered from administration of the pilot test draft, the survey was refined. In general, definitions of terms were clarified, time intervals were changed, and students suggested additional questions be added.

STEP 5: ADMINISTER THE ITEM POOL TO A GROUP OF RESPONDENTS

The refined draft of the survey from step 4 resulted in the final item pool (n = 48). After a presentation to a school board, several meetings with superintendents, principals, and assistant principals; researchers were approved to administer the survey in predominantly minority serving middle schools (grades 6-8). The entire student populations at each school were invited to participate. Please contact the lead author for detailed recruitment strategies. The final draft of the survey was administered to a total of 185 AAas. Four surveys were omitted from data analysis due to biased responses. The total sample for analysis was 181 AAas. Table 1 provides the demographic profile of the pilot study population. Once the study's protocol was approved by school administrators, all students in grades 6-8 were asked to participate in the study.

STEP 6: SCORE EACH ITEM FOR EACH RESPONDENT

Each item was scaled as having a positive or negative weight. Five answer choices were provided: "strongly agree," "agree," "neither disagree nor agree," "disagree," and "strongly disagree." Items received a score of 1-5, with 3 representing "neither agree nor disagree." "Strongly agree" and "agree" received a score of 5 and 4, respectively, for each positively scored item. For negatively scored items "strongly disagree" or "disagree" received a 1 and 2, respectively.

STEP 7: SUM RESPONDENTS' ITEM SCORES

Table 2 shows the mean score, standard deviation, and the minimum and maximum scores for respondents in each construct. The behavioral beliefs construct measured the positive or negative value students placed on listening to sexually-oriented music lyrics for advice about sexual activities. The subjective norms construct measured the social pressure students perceived for participating in sexual activities. The behavioral intention construct measured students' intention to participate in sexual activities or to have sexual intercourse. Positive responses toward the attitudinal object received a high score, and negative responses toward the attitudinal object received a low score.

STEP 8: CORRELATE ITEMS WITH TOTAL SCALE SCORES FOR ALL RESPONDENTS

Item scores were correlated with total scores one at a time. Item scores with total correlation and the alpha if each item is deleted can be attained by contacting the lead author.

Results of the initial factor analysis identified items that loaded on 4 components. According to Ajzen and Fishbein (1980), correlations of .30-.50 are acceptable; however, correlations of .50 or higher indicate a strong relationship among variables. Therefore, items not loading at .40 or higher were deleted from the scale. One (n = 1) behavioral belief item was deleted as a result of the initial factor analysis. Item scores were correlated with total scores for each of the identified subscales. No items were deleted from subscale 1 as the minimum correlation among items in the scale was .40. No items were deleted from subscale 2 as the minimum correlation among items in the scale was .78. One (n = 1) item was deleted from subscale 3 due to a weak correlation among the other items. Remaining items in subscale 3 had a minimum correlation among items of .46. Two (n = 2) items were deleted from subscale 4 due to a weak correlation among the other items. Remaining items in subscale 4 had a minimum correlation among items of .54. Contact the lead author for item scores with total correlation and the alpha if each item is deleted for the subscales.

Item discrimination analyzed the data for frequencies of responses on each item. Mainly items were observed for clustering of responses. Items where responses were clustered on either end of the scale with little range in responses were deleted. No items were deleted using this method.

Table2. Mean, Standard Deviation (SD), and Range of scores of the Survey to Predict the Influence of Sexually-Oriented Music Lyrics on African-American Adolescents, by construct.

Construct	N	Mean	SD	Range
Behavioral Beliefs (4 items)	176	2.8594	.85300	1.00-4.75
Social Norms (21 items)	150	3.1213	.70832	1.00-4.86
Intentions (2 Items)	177	1.9040	1.08021	1.00-5.00

Table3. Final Factor Analysis-Survey to Predict the Influence of Sexually-Oriented Music Lyrics on African-American Adolescents (n = 27 items), Factor Loadings

	Component			
Item	1	2	3	4
I would listen to sexually-oriented music lyrics for advice about girl/boyfriend relationships.			.513	
I would listen to sexually-oriented music lyrics to relax my mind.			.613	
My close friends think it is okay to listen to sexually-oriented music lyrics for advice about sexual activities.			.642	
My close friends think it is okay to try sexual activities that are talked about in songs.			.577	
My older brother or sister would approve of me trying sexual activities talked about in songs.			.853	
My cousin would approve of me trying sexual activities talked about in songs.			.825	
My uncle or aunt would approve of me trying sexual activities talked about in songs.			.697	
I plan to try sexual activities in the next 2-4 weeks.			.594	
I plan to have sexual intercourse in the next 2-4 weeks.			.604	
It is important to get advice about sexual activities.				.686
It is important to get advice about girl/boy friend relationships.				.723
My mom does not approve of me trying sexual activities talked about in songs.		.907		
My dad does not approve of me trying sexual activities talked about in songs.		.868		
My guardian does not approve of me trying sexual activities talked about in songs.		.912		
My favorite teacher does not approve of me trying sexual activities talked about in songs.		.898		
My coach does not approve of me trying sexual activities talked about in songs.		.853		
My school counselor does not approve of me trying sexual activities talked about in songs.		.833		
Generally speaking, I want to do what my mom wants me to do.	.766			
Generally speaking, I want to do what my dad wants me to do.	.807			
Generally speaking, I want to do what my guardian wants me to do.	.825			
Generally speaking, I want to do what my favorite teacher wants me to do.	.819			
Generally speaking, I want to do what my coach wants me to do.	.813			
Generally speaking, I want to do what my school counselor wants me to do.	.829			
Generally speaking, I want to do what my close friends wants me to do.	.493			
Generally speaking, I want to do what my older brother or sister wants me to do.	.757			
Generally speaking, I want to do what my cousin wants me to do.	.707			
Generally speaking, I want to do what my uncle or aunt wants me to do.	.867			

Cronbach's α SPISOML-AAA= .846, Cronbach's α subscale 1= .930, Cronbach's α subscale 2= .946, Cronbach's α subscale 3= .831, Cronbach's α subscale 4= .722

STEP 9: APPLY STATISTICAL CRITERIA FOR ELIMINATION OF TEST ITEMS

Data analysis consisted of factor analysis, descriptive statistics, item response discrimination, and Cronbach's alpha to determine internal consistency. Factor analysis was used to examine the pilot data for patterns, and to eliminate insignificant variables. The initial factor analysis resulted in the deletion of 1 item. Reliability tests were performed on the identified subscales from the initial factor analysis. As indicated above, 1 item was deleted from subscale 3, and 2 items were deleted from subscale 4. Therefore, a total of 4 items were deleted from the scale. As a follow up measure, factor analysis and reliability tests were performed a second time. Factor analysis was set to extract 4 components. Table 3 depicts the results of the factor loadings of items included in the final scale and the corresponding alpha. All items loaded at .49 or higher on a minimum of 1 of the identified subscales.

The survey consists of 27 total items and explains 63.3% of the variance. Cronbach's α after all items were deleted was .846. Items in subscale 1 and 2 explained 40.7% of the variance. Subscale 1 had an α of .930, and subscale 2 had a corresponding α of .946. Subscale 3 accounted for 15.3%, and subscale 4 accounted for 7.3% of the variance. Reliability statistics were performed on subscales 3 and 4 after items were deleted. Cronbach's α for subscale 3 was .831, and the α for subscale 4 was .722. Sub-analysis showed the survey is a reliable measure among adolescents in the study. Reliability statistics reported an alpha of ≥.70 for participants by grade, gender, and study site.

DISCUSSION

The survey is currently the only such instrument developed specifically to predict the influence of sexually-oriented music lyrics on the sexual attitudes, beliefs, and intentions of African-American adolescents. This is timely, given that research has identified factors such as gender, race and ethnicity, environment, age, and attitudes as contributors to sexual behaviors of adolescents (Manlove, Terry-Humen, Papillo, Franzetta, Williams, & Ryan, 2002). One specific factor that led to the development of the survey is the largely unexplored and rapidly growing area of media and its influence on the sexual attitudes and behavior of AAas, specifically through exposure to sexually-oriented music lyrics. The survey was developed to address several of the limitations in this area and is a response to calls to action from the literature. The following will highlight the survey development in light of gaps in the literature, and how it offers contributions to the literature.

1. The survey was developed based on a theoretical framework (TRA) and following specific protocol set forth by TRA developers Fishbein and Ajzen in a survey utilizing his theory.

2. The survey was developed for those in early adolescence. Survey development completed in stages 1, 4, and 5 of this study ensured that the survey was sensitive to and representative of the attitudes and beliefs of AAas who were demographically in the 6th, 7th, and 8th grades. Stanton and colleagues (1995) completed similar processes in efforts to develop and validate a culturally appropriate instrument to measure the impact of an AIDs intervention for early AAas.

3. Third, the survey was developed for an at-risk adolescent population. The survey was developed specifically for at risk AAas from a rural and urban background. Special attention was given in the developmental processes to ensure the instrument was culturally appropriate.

4. The survey was developed specifically to assess the positive or negative value AAas place on the significance of sexually-oriented music lyrics, and whether attitudes related to sexually-oriented music lyrics influence their sexual intentions and subsequent behavior.

5. Finally, the survey was developed to examine the influence of sexually-oriented music lyrics. Previous research has focused on the influence of television programming; the SPISOML-AAA is the first to provide a valid and reliable instrument designed to assess the influence of sexually-oriented music lyrics delivered via a media source.

VALIDITY AND RELIABILITY

Analyses conducted to test the reliability and validity replicated methods of previous researchers who had used a similar survey development process (Perko, 1996; Stanton, Black, Feigelman, Ricardo, Galbraith, Li, Kaljee, Keane, and Nesbitt, 1995). Validity of the instrument was assessed through measures of face and construct validity. Identified subscales were developed through discriminate and convergent validity. The survey went through a rigorous review process and was reviewed by a panel of experts in the fields of adolescent sexual health, communication, and health education theory. Questions not deemed a valid measure by the expert panel were deleted. The survey was also tested for construct validity. Construct validity was assessed by examining the item correlations within the instrument. Items correlated highly with one another on the identified scales indicating each item was a validate measure.

Consistent with discriminant validity, the weak items in the subscales did not correlate highly with the other items. Meaning, the lower loading items were not measuring what they were developed to measure as well as the other items. Therefore, the

weak items were deleted. After weak items were eliminated from the subscales, the item correlations increased. This was an indication of higher internal consistency among the remaining items. This effect was consistent with convergent validity, in which measures correlate well with items that they are supposed to. Items in the new subscales had higher correlations. It is important that the validity of the survey is established as it would not be beneficial if the instrument was not measuring what it was developed to measure (Windsor, Baranowski, Clark, and Cutter, 1994). Thus, it is concluded that the survey is a valid measure. Equally important was testing the reliability.

Reliability of the instrument was assessed through Item response discrimination, factor analysis, and Cronbach's alpha. Item response discrimination was assessed by examining the frequencies of responses for each item. This procedure compared adolescents scoring high on an item to those scoring low on an item. No items were eliminated through this procedure as an appropriate range of responses was observed for each item.

Factor analysis was used to examine data for patterns, and to eliminate insignificant items from the instrument. Factor analysis indentified items that loaded on 4 subscales. Visual review of the Scree plot distinctly identified 4 scales; however, data became distorted after the 4th component. Although methods were used to prevent cross loadings, some cross loadings were observed. The distortion after the fourth component and cross loadings could be attributed to the small sample size in the study. Items that did not load on 1 of 4 identified subscales were deleted. One (n = 1) attitude item from the behavioral belief construct, "I would listen to sexually-oriented music lyrics to know what sexual activities people do" loaded at .397 and was deleted from the scale. The remaining items loaded at .430 - .861, indicating moderate to strong relationships among items. Reliability statistics were conducted after the item was deleted to determine the reliability of the remaining items. The Cronbach's alpha was .846 indicating a highly reliable scale. Subsequent analyses were performed on the identified subscales.

Analyses were completed on the subscales to determine the internal consistency of the identified scales. Cronbach's alpha is also a method of testing the reliability of the subscales. For this method a subscale that did not report a Cronbach's alpha of .70 was not considered a reliable scale. Item correlations of .40 or greater indicates a moderate to strong relationship among the items in the subscale, and can be considered valid measures of the scale. Subscale 1 consisted of items from the social norm construct of the TRA, specifically, all items (n=10) that measured the variable of motivation to comply. One (n=1) item loaded at .405 in subscale 1 indicating a moderate relationship among the other items. All other items loaded at .600 - .833 indicating a strong relationship among the items. This indicates subscale 1 is a valid subscale. Furthermore, the Cronbach's alpha for subscale 1 was .930. This indicated that subscale 1 is a highly reliable subscale. Thus, it is concluded that subscale 1 is a valid and reliable measure of social norms.

Likewise, subscale 2 consisted of items from the social norm construct, more specifically, 6 items developed to measure significant others loaded on component 2. Items in subscale 2 loaded at .783 - .896, indicating a strong relationship among the items. Subscale 2 is considered a valid measure. The Cronbach's alpha for subscale 2 was .946. Subscale 2 is also considered a highly reliable subscale. It is concluded that subscale 2 is a valid and reliable measure of social norms.

Subscale 3 consisted of items developed to measure intentions, behavioral beliefs, and social norms. Both of the intention items loaded on component 3 along with the remaining items (n = 5) from social norms, and 3 behavioral belief items. An item developed to measure attitudes, "I would listen to sexually-oriented music lyrics for advice about sexual activities," loaded at .383 and was deleted from the scale. The remaining items loaded between .466 and .627, indicating moderate to strong relationship among the items. The remaining items in subscale 3 are valid measures. It is important to note that due to the cross loading, it is unclear as to what construct these items are measuring. The Cronbach's alpha for subscale 3 was . 831. This indicates subscale 3 is a highly reliable measure. Subscale 3 is considered a valid and reliable subscale, but it is unclear as to which construct the items are measuring.

Subscale 4 consisted of items developed to assess behavioral beliefs. Four (n=4) items developed to measure the outcome evaluation loaded on component 4. Two (n = 2) items, "It is important to know what sexual activities other people do," and "It is important to relax my mind" loaded at .380 and .300, respectively and were deleted from the scale. The remaining items loaded at .546 and .598 indicating a strong relationship among the items. The remaining items in subscale 4 are considered valid items. The Cronbach's alpha for subscale 4 was .722. Thus, subscale 4 is considered a reliable subscale. Subscale 4 is considered a valid and reliable measure of behavioral beliefs.

Factor analysis was rerun using only those items not deleted in the aforementioned analyses. The second factor analysis consisted of 27 items (31 items were in initial factor). This analysis was completed to determine if the reliability would increase with the deletion of the 4 items. All items in the scale

loaded at .493-.912, indicating a moderate to strong relationship among the items. The survey is a valid measure. The Cronbach's alpha remained the same at .846. The survey is a valid and highly reliable measure.

Initial factor analysis showed the survey (n = 30) explained 58% of the variance. Subsequent factor analysis showed the survey (n = 27) accounted for 63.3% of the variance. Collectively, subscales 1 (22.7%) and 2 (18%) consisted of social norm items and explained 40.7% of the variance. Subscale 3 consisted of items from all 3 constructs and accounted for 15.3%. Further, subscale 4 consisted of behavioral beliefs and accounted for 7.3% of the variance. It is concluded, based on the methods employed, the survey is both a valid and reliable scale for measuring the influence of sexually-oriented music lyrics on the attitudes, beliefs, and intentions of AAas.

LIMITATIONS OF STUDY

This study had several limitations. The sample size (n = 181) was smaller than had hoped. It was anticipated that a minimum of 300 students of the total available student populations would participate in the study. Other researchers have noted challenges in recruiting meaningful sample sizes when active parental consent was required in school-based studies. However, the response rate for this study (17%) was smaller compared to similar type studies that reported response rates of 50% and 62% (LaGreca & Harrison, 2005; Markham, Peskin, Addy, Baumler, & Tortolero, 2009). The small sample may have prevented all items from distinctively loading on 1 of the identified subscales. Subscale 3 had items from all constructs; this may have been avoided with a larger study sample. Another factor that may have contributed to the low response rate was lack of an incentive for participation in the pilot study.

Another limitation of this study may have been social desirability. According to Gehlbach (1993) participants respond in a way they think is correct as opposed to how they really feel. Although measures were taken to prevent this in the focus group interviews, some participants may have provided inaccurate responses, thus leading to biased data concerning attitudes, beliefs, and influences as related to music lyrics and sexual intention. Further, social desirability could have impacted the way students responded to questions when completing the SPISOML-AAA. This could have resulted in over or under reporting of responses in the survey.

The fact that this was a school-based study, the sensitive nature of the topic presented a limitation. In considering the population studied and sensitive nature of the topic, researchers were cautious when developing the focus group questions. As discussed earlier, the questions that did not load in the scale were behavioral belief questions. This could be attributed to the conservative tone in which the researchers had to adhere to when assessing AAas attitudes and beliefs about the influences on sex. The researchers were limited as to how questions concerning sex were asked. According to Ajzen and Fishbein (1980) if the attitudes of the target are not thoroughly discussed weak measures may result. However, the SPISOML-AAA did prove to be a valid and reliable instrument.

Although the survey was developed according to the purpose of the study, the results of the study are not generalizable to the total adolescent population. Thus, the SPISOML-AAA may not be a valid and reliable measure for majority and other minority adolescent populations from differing backgrounds.

Finally, researchers were unable to physically administer the SPISOML-AAA in 2 of the 5 study sites. Thus, the surveys were administered by the school counselors. Therefore, the data collection methods were not monitored equally at all study sites.

IMPLICATIONS

Adolescents spend an average of 5 hours and 30 minutes a day utilizing media. Media use increases to 8 hours and 30 minutes when you consider the multiple mediums adolescents use simultaneously (Rideout, Roberts, & Foehr, 2005). While this study addresses the influence of sexually-oriented music lyrics on early sexual initiation among African-American adolescents, much is left to be done. The influx of new technological devices allows adolescents immediate media access. The influence and use of new technologies must be investigated and understood. Specifically, it was recommended that the influence of mass media should receive increased attention from future researchers seeking to reduce risky sexual behavior among adolescents (L'Engle, Brown, and Kenneavy, 2006).

RECOMMENDATIONS FOR FURTHER RESEARCH

The significance, implications, and recommendations related to the use of this newly-created survey are interrelated and will be examined using research recommendations which have been the basis for national recommendations and polices. The following organizations (AAP, 1996 & 2009; National Adolescent Health Information Center, 1997 & 2000) and leading researchers (Brown, L'Engle, Pardun, Guang, Kenneavy, & Jackson, 2006; Escobar-Chaves, 2005; Kirby, 2001 & 2007) have suggested, among other recommendations, that future research

1. Investigate the effects of music lyrics on adolescents' sexual attitudes and behaviors.

2. Include early and at risk adolescents.
3. Refine data collection methods.
4. Conduct longitudinal studies to determine the influence of sexual media.
5. Include theory in intervention methods.

Now that the survey (SPISOML-AAA) has been developed and has shown to be reliable, a longitudinal database can be established. Recommendations for establishing a database are listed below.

Data should be gathered, using the SPISOML-AAA, from AAas in both urban and rural geographic regions. Escobar-Chaves and colleagues (2005) called for the inclusion of at-risk populations in future research seeking to explain the influence media has on the sexual attitudes and behaviors of adolescents.

Studies should be conducted using the SPISOML-AAA controlling for a variety of independent variables such as gender, socioeconomic status, music preference, significant others, geographic region, age, and ethnicity. The benefits of these studies may assist in identifying those variables that influence AAas sexual attitudes, beliefs, and behavioral intentions. Currently, the lack of longitudinal studies examining the influence of sexual media on subsequent behavior has resulted in limited knowledge concerning the influence media has on adolescents' sexual behaviors (Brown, 2002; Brown & Witherspoon, 2002; Escobar-Chaves, 2005; Fine, Mortimer, & Roberts, 1990; Gruber & Grube, 2000; Harris & Scott, 2002; Strasburger & Donnerstein, 1999).

The next recommendation includes the design and implementation of intervention methods that influence the two major constructs of the *TRA*: subjective norms and attitudes toward the behavior. Escobar-Chaves and colleagues (2005) recommended future research examine mediating variables such as peers and family dynamics on the sexual attitudes of adolescents. Studies should be conducted to assess the influence of significant others on subjective norms, and studies should focus on specific attitudinal differences among AAas. Brown and colleagues (2006) concluded that more research is needed to understand the relationship between exposure to sexual media content and adolescents' sexual attitudes and behaviors (Brown, L'Engle, Pardun, Guang, Kenneavy, & Jackson, 2006). For the controlled intervention trials, the SPISOML-AAA serves as the instrument to measure behavioral intentions, attitudes towards the behavior, and subjective norms. The results of the controlled intervention will be to add to a database. Millstein and colleagues (2000) recommended future research should increase diversity of study populations, and conduct theory based longitudinal studies.

Defined population studies include the implementation of successful interventions with identified populations of AAas. Researchers recommend future research should include younger adolescents, and adolescents from low SES (Escobar-Chaves, Tortolero, Markham, Low, Eitel, & Thickstun, 2005; Millstein, Ozer, Ozer, Brindis, Knopf, & Irwin, 2000). Educational intervention activities should be conducted based on the results of SPISOML-AAA administrations. These should be conducted to determine those activities most effective for educators in developing a national agenda to support the various organizations calling for education regarding potential risks of sexually-oriented music lyrics on AAas. Brindis and colleagues (1997) recommended future research should provide intervention that focus on the needs of adolescents.

The implementation of controlled intervention trials that focus on the constructs of the TRA would elicit further validation of the SPISOML-AAA. Escobar-Chaves and colleagues (2005) recommended future research should refine methods used to measure exposure to sexual content in the media. Some recommendations for further study would include, but not be limited to assessing the impact of an educational intervention on the influence of sexually-oriented music lyrics on the behavioral intent of AAas. And, assessing the impact of a media campaign related to sexually-oriented music lyrics on attitudes and behavioral intent of AAas.

Lastly, additional applications of the SPISOML-AAA should concentrate on adding weights to the items in each construct as put forth by the TRA to determine the strength of relationships as they lead to behavioral intentions and, ultimately, behavior. Millstein and colleagues (2000) recommended future research should use valid measurement tools.

This valid and reliable instrument (the SPISOML-AAA) is likely to benefit those groups of individuals who are responsible for the well-being of AAas; most specifically, but not limited to the parents/guardians, educators, physicians, music artists, and the community as a whole. Researchers have suggested that interventions addressing risky sexual behaviors among adolescents must include cultural and economic measures, be theoretically grounded, and comprehensive in nature (Escobar-Chaves & Anderson, 2008; Kirby, 2007). Furthermore, future research should be conducted to determine the impact of music lyrics on early adolescents (Committee on Communications, 1996; Council on Communications and Media, 2009).

Trends have changed as adolescents now prefer MP3 players instead of radio and CDs for music consumption (Nielsen, 2009). With the growing array of mobile digital devices, adolescents will have unlimited means for accessing media in an instant. Current research lags behind media innovations in terms of examining the influence of new mediums. It is unlikely that innovations will halt as consumers demand immediate media access from anywhere (Bhatia, 2009). As early adolescents are likely to receive sexual messages from media sources, tailored interventions are crucial for addressing potential influences of the media on AAas' sexual risk behaviors. The media deserves substantial focus when addressing adolescent risky sexual behaviors (CDC, 2004).

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