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Impact of Self Esteem on Risky Sexual Behaviors among Nigerian Adolescents

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Abstract

Although improved knowledge is often the first approach in HIV prevention for adolescents, studies have shown that despite being well informed, adolescents still engage in risky sexual behavior (RSB). Low self-esteem has been considered to be a psychological explanation for behavioral problems, but little is known about the impact of self-esteem on RSB among adolescents in Nigeria. The purpose of this study was to determine whether adolescents with high self-esteem demonstrate lower RSB compared to those with low self-esteem.

We conducted a cross-sectional survey of 361 adolescents in nine secondary schools in Jos Plateau, Nigeria. The Rosenberg Self Esteem Scale was used to measure self-esteem and the Brief HIV Screener (BHS) was used to measure RSB. All data were analyzed using SPSS 21. Chi square and odds ratios (ORs) were calculated to determine differences in BHS questions based on

predetermined low or high self-esteem categories. Independent t-test were utilized to determine difference in mean BHS scores based on self-esteem categories.

Participants were 169 male (46.8%) and 192 female (53.2%) with a mean age of 16.9. Mean self-esteem score was 27.6 with no significant difference in self-esteem scores by gender. Adolescents with low self-esteem were 1.7 times more likely to be sexually active and had a higher mean BHS scores compared to adolescents with high self-esteem.

Programs aimed at reducing RSB and in-turn HIV/AIDS should consider interventions to raise adolescents' self-esteem.

Keywords

Self-esteem; risky sexual behavior; Nigeria; Adolescents

Introduction

Nigeria has the second largest HIV burden and the highest AIDS related deaths globally (UNAIDS, 2014). The prevalence among adolescents aged 15-19 is 3.5%, which is the highest of any West or Central African countries (UNAIDS, 2014). Limited knowledge of HIV prevention is thought to contribute to these high rates, and increasing HIV education among adolescents is often recommended as a major intervention. However, studies have shown that despite being well informed, some adolescents still engage in risky sexual behavior (RSB) (Federal Ministry of Health, 2013; Peltzer & Promtussananon, 2005; Swenson et al., 2010; Tapia-Aguirre et al., 2004). This has led to the re-thinking of factors that impact RSB including the role of self-esteem.

Self-Esteem

Generally, self-esteem is described as the evaluation one has of his/herself, how one feels about his/herself in almost any situation (Coopersmith, 1967; Rosenberg, 1965). High self-esteem is manifested by acceptance of responsibility for one's own actions, self-motivation, willingness to take reasonable risk, and taking command and control of one's personal life including health behaviors (Mruk, 2013; Reasoner, 2004). Individuals with low self-esteem focus on trying to prove themselves to others, they generally lack confidence in themselves, and often doubt their own worth and acceptability. They frequently blame others rather than take responsibility for their behavior (Mruk, 2013; Reasoner, 2004).

In general, self-esteem is higher during childhood, decreases during adolescence and then gradually increases through adulthood (Mruk, 2013; Robins & Trzesniewski, 2005). During adolescence, self-esteem can be affected by the physical and hormone changes (Mruk, 2013; Paxton, 2006). Self-esteem is also influenced by the social context and higher among adolescents with quality parental relationships and social support (Dumont & Provost, 1999; Walker & Greene, 1986). Good relationships with peers and perceived popularity were positively correlated with self-esteem among female while school performance was positively correlated with self-esteem among male adolescents.

Research regarding self-esteem and RSB in adolescences has found a positive relationship between high self-esteem and lower RSB. Sánchez, Alvarez, Sánchez, and Casal (2013) found high self-esteem to be closely associated with lower frequency of anal sex (lower anal risk) among female adolescents. Ethier and colleagues (2006) found that lower self-esteem was predictive of earlier sex initiation, history of risky sexual partners and unprotected intercourse. Boden and Horwood (2006) found an association between lower self-esteem and high risk for pregnancy in late adolescence and early adulthood. In the only study conducted in Nigeria, Sangowawa and Adebisi (2013) found that high self-esteem was a significant predictor of abstinence among out-of-school adolescent females.

Despite the high prevalence of HIV among adolescents in Nigeria, limited research has assessed the relationship between self-esteem and RSB among Nigerian adolescents (Sangowawa & Adebisi, 2013). This paper reports findings from a cross-sectional study of adolescents in Jos Plateau, Nigeria to determine the relationship between self-esteem and RSB.

Methods

Setting and Sample

Data were collected between August and October of 2008. This study was a cross sectional survey of adolescents receiving their secondary education in Jos Plateau, Nigeria. Schools were selected using a stratified random sampling method based on school type (public/private) and grade (senior secondary school grades 1 and 2). Nine schools (5 public/4private) were randomly selected from all schools in Jos Plateau. Participation in this study was voluntary and answers to the questionnaires were completed anonymously. The only demographic data obtained were age and gender. The questionnaire included the Rosenberg Self Esteem Scale to assess self-esteem and the Brief HIV Screen (BHS) tool to assess RSB. Questionnaires were administered by the investigator and the class teacher. Teachers were trained in questionnaire administration. Permission and consent for the study was obtained from the State Ministry of Education, school principals and adolescents.

Description of the Questionnaire

The Rosenberg Self Esteem Scale (RSES) can be used to measure self-esteem (Rosenberg, 1965). RSES was developed to assess global and uni-dimensional self-esteem among young people that has been shown to possess good reliability and validity with a Guttman scale coefficient of reproducibility of 0.92 (Phelps, Taylor & Gerard, 2001; Fischer and Corcoran, 1994).

The Brief HIV Screener (BHS) was developed by Gerbert, Bronstone, McPhee, Pantila and Allerton (1998) to assess HIV risk and sexual risk. It is a 16 item questionnaire with internal consistency and test retest stability (Carey and Schroder, 2002). The four additional items adapted from Peltzers and Promtussananon (2005) were included because these items were considered to reflect local and cultural knowledge about HIV and sexual behaviors of adolescents in Nigeria. This was confirmed and found to be reliable in a pre-test pilot with twenty adolescents from Jos Plateau.

Data Analysis

The sample size calculation indicated we needed a total of 155 participants (Chow, 2008). Data were analyzed using SPSS 21. Adolescents were classified as having high or low self-esteem. The mean self-esteem score was used to delineate between high and low self-esteem. Chi square and odds ratios (ORs) were calculated to determine if there were differences in answers to BHS questions based on self-esteem category. An independent t-test was used to analyze total BHS score by self-esteem category and significance was set at 5%.

Results

Descriptive Characteristics

Descriptive characteristics of the total sample as well as for male and female adolescents are provided in Table 1. Three hundred and sixty-one participants were included in the final analysis. Overall, there were 169 males (46.8%) and 192 females (53.2%). The mean age was 16.9 with a standard deviation (SD) of 1.9. The mean self-esteem score for all adolescents was 27.6 (SD=3.6) and the mean BHS for all adolescents was 1.6 (SD=2.8). Participants were categorized as having low self-esteem (n=180) or high self-esteem (n=181).

One hundred and eight of the adolescents reported being sexually active. The mean self-esteem score for sexually active adolescents was 26.8 (SD=3.6) and the mean BHS score was 5.3 (SD=2.6). The mean age at *first sexual intercourse* for male adolescents' was 16.12 (SD = 2.54) and female adolescents' was 14.94 (SD = 2.54), with no significant difference based on gender (Table 1).

Self-esteem and Individual BHS questions

Responses to individual questions on the BHS questionnaire are provided in Table 2. Chi square tests were utilized to compare answers to the BHS questions based on self-esteem category (high/low). Adolescents with low self-esteem were 1.7 times more likely to be sexually active when compared to adolescents with high self-esteem ($p=.01$, 95% CI = 1.1-2.8). Chi square tests for each of the other BHS questions were not significant (Table 3).

Self-esteem and Total BHS score (RSB)

The independent t-test was significant, and adolescents with high self-esteem had a lower mean BHS score than adolescents with low self-esteem ($t=2.2$, $p=0.03$, mean BHS score high self-esteem=1.3, mean BHS score low self-esteem=1.9).

Discussion

Findings from this study showed that adolescents with low self-esteem were more likely to be sexually active and to have higher mean RSB score. These findings are consistent with other studies of self-esteem and RSB in adolescents (Ethier et al., 2006; Goodson, Buhi, & Dunsmore, 2006; Sangowawa & Adebisi, 2013). A likely explanation for these findings is that adolescents with low self-esteem typically focus on trying to prove themselves or

impress others (Reasoner, 2004). They generally lack confidence in themselves, often have doubts about their worth and thus more susceptible to pressure to engage in risky sex. Additionally, adolescents with low self-esteem generally have less social support and are more likely to respond to stress through antisocial or unhealthy behaviors (Dumont & Provost, 1999). Social support directly influences health behaviors but also indirectly influences health behaviors by increasing self-esteem, as people with high self-esteem are more likely to engage in healthy behaviors (Muhlenkamp & Sayles, 1986). Also, in a society where sexual experience is regarded as a sign of maturity, independence and autonomy, adolescents may place a priority on engaging in sexual behaviors (Owolabi, Onayade, Ogunlola, Ogunniyi, & Kuti, 2005). These expectations and perceived pressure, along with a lack of social or parental support, can influence adolescents with a low self-esteem to engage in RSB.

Programs aimed at reducing RSB and in-turn HIV/AIDS should consider interventions to raise self-esteem among adolescents. Several evidence-based methods to improve self-esteem among adolescents have been proposed including aerobic exercise, psychosocial therapy, lifestyle changes, cognitive and group therapy (Hasanpour, Tabatabaei, Alavi, & Zolaktaf, 2014; Hershow et al., 2015; Waite, McManus, & Shafran, 2012). A recent study found that incorporating soccer into HIV prevention programs for adolescent girls not only improved their knowledge of HIV and openness to HIV testing and counselling, but also improved their self-confidence, self-efficacy and self-esteem (Hershow et al., 2015). Improved social support can also be an effective way to improve self-esteem and health behaviors (Muhlenkamp & Sayles, 1986).

This was a cross-sectional study conducted in one state in Nigeria on adolescents enrolled in secondary school and as such causality cannot be determined and generalizability maybe limited. However, it is one of a very limited number of studies demonstrating the relationship between self-esteem and RSB among adolescents in Nigeria.

Conclusion

For HIV prevention interventions to be successful they should consider making concerted efforts to increase adolescent's self-esteem in order to achieve appreciable results in the fight against HIV/AIDS in this highly vulnerable and at risk population.

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Table 1

Descriptive Characteristics of the Participants with Independent t-test for Differences Based on Gender

	Total	Male	Female	
	N(%)	N(%)	N(%)	
All Adolescents	361 (100)	169 (46.8)	192 (53.2)	
Sexually Active Adolescents	108 (100)	66 (61)	42 (39)	
	Mean (SD)	Mean (SD)	Mean (SD)	T-test p value
All Adolescents				
Age	16.9 (1.9)	17.5 (1.9)	16.6 (1.8)	<0.01
Self-esteem score	27.6 (3.6)	27.2 (3.3)	27.9 (3.9)	0.06
BHS score	1.6 (2.8)	2.0 (2.9)	1.2 (2.6)	<0.01
Sexually Active Adolescents				
Age	17.7 (2.0)	17.9 (1.9)	17.5 (2.1)	0.3
Age at 1 st intercourse	15.6 (2.6)	16.12 (2.54)	14.94 (2.54)	0.06
Self-esteem score	26.8 (3.6)	27.5 (3.3)	25.8 (3.8)	0.02
BHS score	5.3 (2.6)	5.2 (2.4)	5.4 (2.9)	0.6

Table 2

Risky Sexual Behaviors as Measured with the Brief HIV Screener

	Questions	Yes %, N	No %, N	Don't know %, N
1	Have you ever had sexual intercourse?	29.9 (108)	69.1 (253)	
2	Did you use a condom at the first sexual intercourse?	38 (41)	62 (67)	
3	The last time you had sexual intercourse; did you or your partner use a condom?	43.5 (47)	56.5 (61)	
4	Did You Ever Have Sex Someone Much Older Than You (above 30)	31.5 (34)	68.5 (74)	
5	Have you had 2 or more sexual partners in the past 10yrs?	31.5 (34)	68.5 (74)	
6	Have you had anal sex (a man puts his penis into the anus of another person) with any of your sexual partners during the past ten years?	24.1 (26)	75.9 (82)	
7	Do you always use a condom during sexual intercourse (including anal sex)	37 (40)	63 (68)	
8	Have you ever had a sexually transmitted disease such as gonorrhoea, syphilis, chlamydia, genital warts, or genital herpes?	22.2 (24)	77.8 (84)	
9	Have you ever given money, gifts or drugs to anyone to have sex with you?	21.3 (23)	78.7 (85)	
10	Have you ever had sex with someone so that they would give you money, gifts or drugs?	26.9 (29)	73.1 (79)	
11	Have you ever injected street drugs, steroids or vitamins with a needle?	13 (14)	87 (94)	
12	Have any of your sexual partners in the past ten years ever injected street drugs, steroids or vitamins with a needle?	22.2 (24)	63.9 (69)	13.9 (15)
13	Have any of your sexual partners in the past 10years been men who have sex with other men?	31.5 (34)	55.6 (60)	13 (14)
14	Have any of your sexual partners in the past ten years ever had a sexually transmitted disease, such as gonorrhoea, syphilis, chlamydia, genital warts or genital herpes?	25.9 (28)	62 (67)	12 (13)

Table 3

Odds Ratios and Chi Square for Brief HIV Screener Questions Based on Self-Esteem – Adolescents with Low Self-Esteem Compared to Adolescents with High Self-Esteem

Questions	Odds Ratios OR (95% CI)		Chi Square p value
Have you ever had sexual intercourse? *	1.77	1.28-2.81	0.01
Did you use a condom at the first sexual intercourse?	0.70	0.41-1.20	0.18
The last time you had sexual intercourse; did you or your partner use a condom?	0.64	0.39-1.05	0.06
Did You Ever Have Sex Someone Much Older Than You (above 30)	1.22	0.95-1.56	0.13
Have you had 2 or more sexual partners in the past 10yrs?	0.96	0.74-1.26	0.78
Have you had anal sex (a man puts his penis into the anus of another person) with any of your sexual partners during the past ten years?	1.02	0.82-1.26	0.87
Do you always use a condom during sexual intercourse (including anal sex)	1.01	0.61-1.7	0.97
Have you ever had a sexually transmitted disease such as gonorrhoea, syphilis, chlamydia, genital warts, or genital herpes?	1.01	0.61-1.66	0.83
Have you ever given money, gifts or drugs to anyone to have sex with you?	1.06	0.87-1.29	0.58
Have you ever had sex with someone so that they would give you money, gifts or drugs?	1.20	0.96-1.49	0.12
Have you ever injected street drugs, steroids or vitamins with a needle?	1.02	0.87-1.20	0.76

* Statistically significant at the 5% level