

Published in final edited form as:

Arch Psychiatr Nurs. 2012 December; 26(6): 464–476. doi:10.1016/j.apnu.2012.06.003.

Attitudes and beliefs regarding depression, HIV/AIDS and HIV risk-related sexual behaviors among clinically depressed African American adolescent females

Bridgette M. Brawner, PhD, APRN [Distinguished Postdoctoral Fellow]

Center for Health Equity Research University of Pennsylvania School of Nursing 418 Curie Blvd., Floor 2L, Room 236 Philadelphia, PA

Abstract

Individuals' attitudes and beliefs toward behaviors are key indicators of behavioral performance. The purpose of this study was to elucidate attitudes and beliefs about depression, HIV/AIDS and HIV risk-related sexual behaviors among clinically depressed African American adolescent females and to develop an understanding of their context for HIV risk. For this descriptive qualitative inquiry, semi-structured interviews and surveys were employed (N=24). The narratives reveal that behavioral sequelae of depression (i.e. loneliness) can produce risk for HIV. These findings may guide psychiatric nurse educators, scientists, and practitioners to modify HIV risk among clinically depressed African American adolescent females.

Keywords

adolescents; HIV; depression; attitudes and beliefs; African Americans

African American adolescent females aged 13 to 19 are among the fastest growing populations of new HIV infections (Centers for Disease Control and Prevention, 2010). Those with mental illnesses are at increased risk due to the behavioral manifestations of their illnesses (Brawner, Gomes, Jemmott, Deatrick, & Coleman, 2012; Brown et al., 2010). As trends in the U.S. epidemic shift toward young women of color, it is imperative that we develop an understanding of factors that contribute toward HIV risk within certain subgroups, and develop targeted interventions to mediate their risk; particularly among clinically depressed African American adolescent females.

Among African American adolescent females, depressive symptoms have positively correlated with HIV risk-related sexual behaviors including inconsistent condom use (Mazzaferro et al., 2006; Seth et al., 2011), increased number of lifetime sexual partners (Rubin, Gold, & Primack, 2009; Shrier et al., 2009; Turner, Latkin, Sonenstein, & Tandon, 2011), sexual activity while high on alcohol or drugs (Seth, Raiji, DiClemente, Wingood, & Rose, 2009), and early sexual debut (Pearson, Kholodkov, Henson, & Impett, 2012). Additionally, African American adolescent females who report internalizing and externalizing behaviors are two times and nearly five times as likely (respectively) to have

^{© 2012} Elsevier Inc. All rights reserved.

^{19104-4217 215-898-0715 (}office) 215-573-9193 (fax) brawnerb@nursing.upenn.edu.

engaged in sexual activity (Donenberg, Emerson, & Mackesy-Amiti, 2011). Thus, an increasing body of literature demonstrates that depression, and subclinical depression/depressive symptoms, can lead to HIV risk-related sexual behaviors, as well as the importance of intervening with this population. Little is known, however, about underlying constructs resulting in HIV risk-related sexual behaviors among *clinically depressed* African American adolescent females who seek mental health services. Moreover, knowledge is limited on the links between depression and specific behavioral risks within this group.

In 2009 approximately 2 million 12 to 17 year old adolescents had experienced at least one major depressive episode (Substance Abuse and Mental Health Services Administration, 2009). Research varies as to whether or not racial/ethnic minorities have higher depressive symptom endorsement than White populations. For African American adolescents, Wight and colleagues (2005) discovered that being female, older, and residing in a low-income household without both biological parents explains approximately 50% of the effect of ethnic identification on depression. Adolescent depression also has significant implications for future health and wellbeing. In a 15 year longitudinal population-based study, Jonsson and colleagues discovered that adults who dealt with adolescent depression were more likely to report abortion, miscarriage, intimate partner violence and sexually transmitted diseases (STDs; 2011). Our understanding of how adolescents experience and cope with depression is limited, and even less is known among African American adolescent females.

The need for more in-depth examination of the context of sexual risk for HIV within depressed populations is apparent. The purpose of this study was to elucidate attitudes and beliefs regarding depression, HIV/AIDS and HIV risk-related sexual behaviors among clinically depressed African American adolescent females. The ultimate aim is to develop a better understanding of how depression affects the sexual-decision making process within the target population, in addition to the complex interplay of psychological, social, cultural and environmental factors on safer sexual practices.

Methods

Study Design and Sample

This descriptive qualitative inquiry was approved by the Institutional Review Board at the University of Pennsylvania and guided by the Theory of Planned Behavior (TPB; Azjen, 1991). According to the TPB, attitudes toward a given behavior are shaped by an individual's behavioral beliefs and evaluations of behavioral outcomes; subjective norms are shaped by normative beliefs and motivation to comply; and perceived behavioral control is influenced by control beliefs and perceived power. In a presumed causal chain, these beliefs guide an individual's behavioral intentions—which are the ultimate determinants of behavior (Fishbein & Ajzen, 1975). Researchers have successfully used the TPB in HIV/STI research (Brawner, Davis, Fannin, & Alexander, 2012; J. B. Jemmott et al., 2007; McEachan, Conner, Taylor, & Lawton, 2011; Villarruel, Jemmott, Jemmott, & Ronis, 2004).

Data are reported from a convenience sample of clinically depressed adolescent females recruited from outpatient mental health treatment programs in two large urban Mid-Atlantic cities (N= 24). Flyers, waiting room encounters and provider and peer referrals were all methods of recruitment. Participants were included if they: were 13 to 19 years old; self-identified as heterosexual African American females; were diagnosed with Major Depressive Disorder, Dysthymic Disorder, Cyclothymic Disorder, or Depression Not Otherwise Specified; and had proficiency in the English language with an ability to provide a descriptive narrative of experiences. Diagnosis of co-morbid psychosis or other psychological/developmental concern that might limit her ability to respond to the questions,

the presence of current suicidal ideation, and court-ordered attendance at the mental health program were exclusionary criteria.

Procedures

Data were collected from April 2008 through February 2009. In-depth face-to-face interviews and cross-sectional surveys were used to elicit participants' salient attitudes and beliefs about depression, HIV/AIDS, and HIV risk-related sexual behaviors. Parental permission and informed consent/assent were obtained for eligible participants. After consent procedures, participants completed a depression screening tool (the Patient Health Questionnaire-9 [PHQ-9]) and the study questionnaire, and then participated in one semi-structured interview. Procedures took an average of one hour to an hour and a half. At the end of the interview, participants were compensated with \$20. The interviews were audiotaped, externally transcribed verbatim, and put in line-numbered form to be read and analyzed in detail.

Measures

Semi-structured interview guide—Open-ended questions with probes were developed from the researcher's clinical experience, and were guided by the TPB (I. Ajzen, 1985). The guide was reviewed with content experts in the areas of mental health, adolescent sexuality, and qualitative methodology. The questions targeted participants' beliefs, knowledge, and personal experience related to depression, HIV/AIDS and HIV risk-related sexual behaviors. See table 1 for a sample of the interview questions. Due to the sensitive nature of the discussion, the guide concluded with a debriefing section focused on participants' strengths and future plans.

Background information questionnaire—Data were collected on demographics, sexual behaviors (John B. Jemmott, 3rd, Jemmott, Braverman, & Fong, 2005; J. B. Jemmott, 3rd, Jemmott, Fong, & McCaffree, 1999), condom use beliefs and intentions (J. B. Jemmott, Jemmott, & Fong, 1998), substance use (Metzger, Nalvaline, & Woody, 2001), protective factors, and AIDS knowledge (Koniak-Griffin & Brecht, 1995). Condom use beliefs and intentions were measured from composite indices of 5-point Likert scales. AIDS knowledge was calculated by the percent of questions answered correctly on the 18-item true/false index. The Cronbach's α reliability estimates calculated for the condom use hedonistic, impulse control, negotiation, normative, technical skills and intentions scales were .83, .81, .85, .69, .75 and .86 respectively. The Cronbach's α reliability estimate calculated for the AIDS knowledge scale was .61.

Patient Health Questionnaire-9—The well validated, 9-item PHQ-9 was used to assess depression (Kroenke, Spitzer, & Williams, 2001). The instrument is used to score depressive symptoms, not to make a clinical diagnosis of depression. The nine Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (American Psychiatric Association, 2000) depression criteria are scored from 0 (*not at all*) to 3 (*nearly every day*). Depression severity is then scored from none (*score of 0-4*) to severe depression (*score of 20-27*) (Kroenke, et al., 2001). The Cronbach's α calculated for this sample was .89.

Data Analysis

Atlas/ti version 5.5 (Atlas.ti, 2008) was used for qualitative data management and analyses. The inductive method of thematic content analysis was employed to generate categories of responses (Bradley, Curry, & Devers, 2007). This methodological process allowed for discovery of emergent concepts, with a focus on generating categories of participants' experiences (Bradley et al.). Data collection and analyses overlapped. The units of analysis

included the interviews, interviewer memos and immediate post-interview reaction summaries. The interviewer's reaction summaries highlighted key elements from the participant interviews such as new or novel information that emerged, as well as the interviewer's reaction to the participant and the interview process. An audit trail, including transcripts, notes, and quantitative data, was presented to a group of qualitative researchers (Creswell & Miller, 2000). Further, 21% (n = 5) of the 24 interviews were independently randomly reviewed for validity with the original recording and transcript.

Data from the background information questionnaire and PHQ-9 were managed and analyzed using SPSS version 17.0 (SPSS, 2008). Twenty-one percent (n = 5) of the 24 surveys were independently randomly reviewed for validity with the original hard copies of the instruments. Descriptive statistics and frequency counts were used to describe the study sample and variables.

Results

The sample is depicted in table 2. On average, participants were 16 ± 1.5 years old ($M \pm SD$) and currently in high school; 29% were in 8th grade. The majority (79%) also had a history of having engaged in sexual activity. Their parents/guardians were not currently married (88%), and had never been married (58%). The majority (82%) did not live with their mother and father in the same household. Participants lived with an average of 2 ± 1 adults and 3 ± 2 children per household. Fifty-nine percent of their mothers and 32% of their fathers had finished high school. Many of their mothers (54%) worked in predominantly low income generating positions (i.e. cashiers). Their fathers who worked (42%) had higher paying positions (i.e. mechanic). Two participants lived with their grandparents, and their grandparents were unemployed. Twenty-six percent of participants were currently working in either retail or daycare services.

The following reviews themes with selected quotes generated during the interviews; see table 3. Participant quotes have remained unedited. The narratives are complimented by the quantitative findings.

Depression

The average PHQ-9 score was 11 ± 6 which indicates moderate depression. Table 4 highlights specific depressive symptom endorsement within the sample. In response to the question, Over the last 2 weeks, how often have you been bothered by any of the following problems?, majority endorsed the following statements "several days" or more: "little interest or pleasure in doing things" (79%), "feeling down, depressed, or hopeless" (83%), and "feeling tired or having little energy" (87%). The item that addressed psychomotor retardation and/or agitation was the least commonly endorsed symptom (25%). "Feeling bad about yourself—or that you are a failure or have let yourself or your family down" was the symptom that many participants reported experiencing nearly every day (38%). The majority indicated that the problems they were experiencing affected their ability to perform their normal daily activities; participants reported that the symptoms either made it somewhat difficult (58%), very difficult (21%) or extremely difficult (4%). Only one participant endorsed suicidal ideation; appropriate action was immediately taken with her mental health professional to ensure her safety.

A common theme across the interviews was that participants did not identify with their diagnosis of depression. Though their depression diagnosis was confirmed by their mental health provider, many of the participants denied feeling or being "depressed." They more readily identified with being stressed out or having an "attitude" and "anger issues."

"I don't think I have depression. I have been sad a couple of times but I don't think I'm depressed. Just think I'm going through some things. I don't think it's that deep to say I'm depressed, but...I mean I don't think I'm depressed."

As this young woman continued to talk her internal struggle with the label of being depressed was evident. It appeared as though she was attempting to convince herself that she was not even experiencing depressive symptoms. Very few participants actually described their experience of depression as feeling "depressed." Rather, common words to define depression included "stressed", "distracted", "lonely", "sad", "mad" and "angry." One participant painted a vivid picture of self-imposed isolation, in spite of outside attempts to provide help.

"It means that you have low self-esteem. Constantly sad, you have a whole lot of anger and don't wanna talk. You're constantly away from like, you're, you're in this I say like, say if we're in this room. It's just you and this dark room, nobody else. Your family is having a good time, they're outside the walls. But also you have family that's, that's near the walls, that's open, trying to open up but instead of you lettin' them in you're keeping them out. That's what depression is."

Another common theme that emerged from the data was a sense of having to mask symptoms and emotions for fear of judgment or lack of help.

"I don't know cause you could be a undercover depressed. Like you can be depressed but nobody really know 'cause you quiet about it and you don't really like let people, like, you probably into yourself don't let nobody know, keep things bottled up but you still do things normally but for real for real you really depressed and you don't tell nobody...they don't wanna like bother anybody wit they problems or they probably think that nobody ain't gonna help 'em or they probably just don't like what the other person might say."

During the face-to-face interviews one participant indicated that she used other terms to describe depression because some people do not understand what depression is.

"My sad times... Cause like when you're depressed it seem like you're sad so instead of saying depression 'cause most people don't know what that means, I just be like I'm going through one of my sad times."

Some also indicated that they did not believe that mental and psychological concerns such as depression were real until it happened to them.

"I didn't, I ain't realize like how bad it can git 'cause I never experienced stuff like that. Like I been sick like the usual headaches, stomachaches and all that but I ain't had no real medical problems like diabetes or asthma. I didn't know how it felt until I got [depression] and now I see how they felt."

"sometimes depression change you, like sometimes it just change your ways like maybe one day you might feel a whole different way and the next day you might [2 second pause] feel the same way you did the other day."

In describing what was good or bad about being depressed, or what was hard or easy to do when depressed, some of the more negative connotations associated with the disorder were seen as positive factors. For example, participants indicated that being lonely or not being able to concentrate could be a good thing if those were the states you "chose to be in." Further, some believed that it would be easy to be by themselves.

Several had family members who were also suffering from the condition, and who attempted to be there to support them. The majority discussed the experiences their mothers had with depression, and how the two would "help each other out."

"my momma she always had depression... She say it's like kind of sad [that I'm depressed] and she try to help me, we try to help each other out."

"Well my mom, she, my brother he got locked up well like 5 years, yeah about 5 years ago back in 2003 yeah 5 years ago and like that's her first born and he got life so that's like really hard on her... so it's like kinda hard that he's in there and far away from her and she can't take care of him so she been depressed on that but she, like two years ago she just got herself like upperdity [got herself together] like she started gettin' better and not as much as depressed as she used to be; but it's sometimes she do, I can see that she do have her moments but sometimes she really don't try to tell me so I won't worry and get depressed."

Others recounted stories of being teased for seeking mental health treatment.

"They think you crazy. (laughter) I can answer that straight out cause they really do. They be like "oh you crazy then. You goin' to group therapy. You in therapy, what you goin' there for? Oh, you crazy that's why." Like, they be gettin' on my nerves wit that stuff, I ain't crazy."

"she'll holler at me and I just git mad, and then I just git sad, and then she git mad if I cry. Cause she say I'm a big ole baby... I'll get sad. And they be like "what you getting mad for?"...I be like y'all sittin' here teasin' me because I take medicine."

Some also described more negative family experiences of mental health, including being ostracized. For example, one participant has an aunt who is schizophrenic and stated that the family doesn't really "pay her no mind."

"she walk around and like talk to herself, they said stay away from her cause she act thow'ed [throwed off/crazy] and could hurt somebody"

HIV/AIDS

Participants were aware of the devastating toll HIV and AIDS are having on the African American community—particularly among African American women. They shared that HIV was a virus that doesn't have a cure, but can be prevented. Several participants indicated that they were never taught about HIV in school and hadn't been exposed to HIV prevention programs.

The mean score for AIDS knowledge was also fairly low. On average, participants only answered 10 of the 18 questions correctly ($57\% \pm 24.4\%$). In the interview narratives, some participants did not know what the acronyms HIV and AIDS represented, and others believed the virus was only transmitted through sexual contact. On the survey, majority of participants knew that having sex with more than one partner can increase the risk of getting HIV (88%), that you can get HIV from having oral sex (88%) and that women can get HIV from having anal sex (79%). They also readily recognized frequency of sexual intercourse, non-condom use and substance use as behaviors associated with HIV risk. In response to a question regarding who was at risk for HIV, one participant shared:

"Whoever is having sex...And not protecting themselves and you know sleeping with 10 people a night and you know just doing nasty stuff."

Myths related to HIV however were also prevalent within the sample. Forty-six percent believed that an HIV test would tell if someone was positive 1 week after exposure; more than one-third (38%) believed that people with HIV quickly show serious signs of infection, and that a woman cannot get HIV during her period (38%).

When asked what came to mind when they thought of HIV and AIDS, the stigmatization of HIV/AIDS was overwhelmingly apparent. Participants said things like, "it's scary, some

people die from AIDS and stuff like that", "I think about dying" and "It's nasty". When asked about their own personal risk for HIV however *all* denied that they were at risk, despite the fact that some had admitted to having unprotected sex on several occasions—either during their interview or on the anonymous questionnaire. In justifying why they did not perceive themselves to be at risk for HIV, some participants talked about taking appropriate precautions to avoid HIV infection such as abstaining from sexual activity, using condoms and inquiring about their partners HIV status.

When asked what do people their age think when they hear the words HIV and AIDS one participant said, "run as fast as you can and don't turn back. You don't know what HIV looks like no matter who he is. He might look clean that don't mean he is clean." When asked how they would design a program to teach girls in situations similar to their own about HIV and AIDS, several of the interview participants talked about using interactive, nontraditional strategies such as music, art and incorporating excursions.

Depression, Sexual Relationships and HIV Risk-Related Sexual Behaviors

Similar to their peers who are not dealing with depression, study participants highlighted meeting through friends, flirting/playing around and talking on the phone as means of starting relationships with their boyfriends or sexual partners. Near equal numbers of interview participants believed either the male partner or the female partner was responsible for the transition of intimacy in the relationship. When a girl initiated this change of "level", however she was viewed by some as "bold." One young woman said, "... they probably might wait 'til a girl ready or maybe a girl she can be bold and be like, like what's up." There were varying definitions of what constituted "real sex", which ranged from kissing to vaginal-penile penetration. Most of the participants acknowledged that vaginal, oral, and anal intercourse were types of sexual behaviors. Some, however, believed that the only way a girl "loses her virginity" is when she has vaginal sex.

The five participants who had never engaged in vaginal, oral or anal intercourse shared their reasons for abstaining: "My parent does not want me to," "I'm saving myself for marriage/to see if my boyfriend is really the right one," "I haven't met anyone that I would like to have sex with," and "I'm afraid of becoming pregnant or getting an STD." The majority (80%) had friends and boyfriends who approved of their decision not to have sex. They believed that through abstaining, boys respected them more (60%), they didn't have to worry about pregnancy or STDs (80%), and their parents/guardians would trust them more (80%). Two participants also noted, "[I'm] not worryin' and dealin' with all the emotional bags" and "you respect yourself more." They believed that girls who were sexually active did so to keep their boyfriends (80%), make people like them (60%), and feel like a woman (60%), or out of curiosity (60%). Some shared that young girls who are sexually active, "don't respect they body" and "think it's what they supposed to do."

As seen in table 5, among those who were sexually active (79%, n=19), vaginal (100%) and oral sex (58%) were most prevalent, followed by anal sex (32%). On average, participants were 14 ± 1.1 , 13 ± 2.1 and 14 ± 1.5 years old when they first had vaginal, oral and anal sex respectively. They also reported an equal average number of lifetime vaginal and oral sexual partners (n=4), and 1 ± 2.6 lifetime anal partner. Sixty-three percent reported condom use at last sex. In the past three months most reported condoms were used sometimes (44%) or every time (44%); 13% reported that they never used condoms in the past 3 months.

Condoms were viewed as a means to prevent pregnancy and STDs, however, participants also talked about weighing decisions to stop using condoms against desires to prevent unintended sexual outcomes.

"Maybe if, like, they both go to the doctors and get a check-up or get a physical and make sure they don't have nothin', maybe it could be a good thang not to use [a condom]...But it, it's not gonna, that don't mean you not gonna be pregnant, but you not gon' have nuttin' like no disease, but it might be a possibility for you to get pregnant."

Evident barriers to condom use were the possibility that one would "pop", sexual partner refusal to use condoms and interference with trust and intimacy. As one participant shared, "See, wit your steady partner to me condoms really don't matter. Cause it's all about trust and your steady partner." Other participants did acknowledge that in situations where you have multiple sexual partners, condoms should be used with casual partners: "But wit dat friend on the side, yeah I think you should use a condom." Forty-seven percent had tested positive for an STD in their lifetime, and Chlamydia (75%) and Gonorrhea (38%) were the most common diagnoses.

Participants also had differing opinions as to whether or not the type of partner they were with (i.e. older, younger, steady, casual, etc.) should affect the decisions young women make about sexual relationships. As one very empowered participant said:

"Oh no...it [the type of partner] wouldn't have effect on me because I know regardless I'm gonna still use a condom regardless because I'm not trying to get pregnant and I'm not trying to git nothing out a this that's bad out of it but I'd rather get a good thing out of it but nuttin' bad like, no STDs or anything that's gonna scar me for life."

Others believed that the type of partner did have an influence because girls would be more likely to give in to their partners' desires.

"well he's a old head, he know what he doin' and I need to listen to him 'cause I'm a young buck and I ain't trying to ruin nothin' wit dis old head, so if he don't wanna use a condom then we ain't usin' no condom cause dat's my old head...and he puttin', and I'm his youngin', that's what we say "youngin", [laughter] he puttin' me under the wing."

They also had different reasons why they believed they initiated sexual activity and why other girls similar to them would start having sex. Some referred to sex as an expression of "love":

"sex is love... if, like you've been with him for a while and maybe you wasn't ready to have sex and they waited then that's love and they still wit you. Then you'll say that's making love instead of having sex."

Others cited loneliness, wanting "somebody to be there to comfort" them, and curiosity because they "wanna experience it." The young women described feeling isolated and just wanting to have another person to connect with, and how that often turned into sex. A lack of intimate peer and family relationships also was a motivating force to enter intimate sexual relationships, because they "wouldn't have any friends and...just wanna be, just want somebody to be there." One participant talked about the effect she believed her father's absence had on her sexual relationships:

"I do sometimes feel a little sad about my dad, 'cause my dad he been gone [incarcerated] for like twelve years out of my life, twelve or thirteen one of them. And sometimes it is sad cause like all I have is my mom; sometimes you wanna man love too."

Sex then became a means to relieve stress, create an intimate connection with another human being and meet an emotional need. Several participants talked about sex as a means

to get attention when they might not be able to get it any other way. Nearly one-fourth indicated that they were depressed before the last time they had sex. When probed on questions about depression and the sexual decision-making process, participants echoed that even if they didn't want to be sexually active, if they were "too depressed" they "might jus go ahead and have sex", or "jus do anything" because they were depressed." Regardless of the term used to describe depression, majority of the participants equated depressive symptoms with low self-esteem. As one shared, "when you're all sad and depressed and stuff, like your self-esteem goes way low, and it, and when you see somebody it actually like...[they pay] attention." Substance use prior to sexual activity was also reported, with 10% indicating that they were either high on drugs or alcohol or had a couple of drinks before their last sexual encounter.

Discussion

Given the overlap in depression and risk for HIV/STDs, it is important to understand attitudes and beliefs toward depression, HIV/AIDS and HIV risk-related sexual behaviors in clinically depressed populations. Findings from this study enhance existing literature by highlighting the voices of clinically depressed African American adolescent females on these issues. Themes that emerged from the participants' narratives indicate that sex may be a means of coping with depression; despite denial of depressed status or risk for HIV. Though negative connotations were associated with being depressed and being HIV-positive, the sample was clinically depressed, and the large majority reported engaging in behaviors that could put them at risk for HIV/STDs.

Both mental illness and HIV/AIDS continue to be highly stigmatized within certain communities—to the extent that people who need help may not feel comfortable seeking services. For example, these findings indicate that the level of denial associated with feeling depressed or experiencing depressive symptoms may lead some clinically depressed African American adolescent females to unnecessarily suffer alone in silence. The participants had family members who were familiar with and even experienced mental illnesses. Nonetheless, the adolescents were afraid that they would be judged or unsupported in receiving mental health treatment; and sometimes they were. Further, the stigmatization and myths associated with HIV/AIDS led some to take unnecessary precautions to prevent HIV infection (i.e., staying away from someone who is sneezing) while misappropriating their actual risk for the virus (i.e., having unprotected sex because they trust their partner). The majority of the sample lived in single parent households and had limited actual (or perceived) familial resources. Although this investigation did not specifically probe participants about social support, their narratives painted a picture of surviving in the world on their own; either because no one was available to them, or because they pushed people away. It appears that the bottled up emotions manifested in stress, anger, self-isolation from family and peers, and sexual activity.

Several themes emerged from the participant narratives, and three in particular elucidate the context for sexual risk for HIV in the target population: adverse health behaviors as negative depression coping strategies, denial of HIV risk, and depression makes girls want to have sex more frequently. Similar to other research findings, behaviors that can negatively affect an adolescent's health may be used to cope with depressive symptoms (Berg, Choi, & Kaur, 2009; Horwitz, Hill, & King, 2011). If clinically depressed African American adolescent females deny their risk for HIV— which may have implications for condom use and their number of sexual partners—and engage in sexual activity more frequently to cope with their depression, their risk for contracting HIV or other STDs will be increased.

Intimate relationships among clinically depressed African American adolescent females may begin similarly to those of their non-depressed counterparts. What happens once the relationship becomes more intimate and transitions to sexual activity, however, can create risk for HIV (Brawner, Gomes, et al., 2012). Many of the participants' accounts reflect a desire for attention/affection, emotional lability and quests to connect with another individual. Sex then becomes a means to meet a need, and sexual safety is often compromised in this exchange. Researchers have retrospectively demonstrated that the need for intimacy does not predict sexual history among emotionally and behaviorally disordered adolescent females (Donenberg, Emerson, Brown, Houck, & Mackesy-Amiti, 2012); however additional research is needed to explore potential prospective effects.

It may also prove beneficial to shift our lens focusing on "risk" to one which capitalizes on individual strength. This will facilitate resiliency among clinically depressed African American adolescent females. The HIV risk-related sexual behaviors noted in the sample must also be balanced with the strengths and moments of empowerment to avoid further stigmatization and marginalization of this population. For example, some of the participants talked about being strong advocates for abstinence or condom use, despite pressure from their sexual partners. Sexual safety should therefore be promoted from an assets-based approach, and HIV prevention strategies should be delivered in a manner that validates the adolescents' emotions and concerns. It is important to note, however, that increasing knowledge alone will not change behavior (Ajzen, Joyce, Sheikh, & Cote, 2011). Gender specific, skills-based interventions that teach coping/self-management and accommodate psychological functioning have proven to be effective for African American women (Lennon, Huedo-Medina, Gerwien, & Johnson, 2012) and should be considered for adolescents. Further, these study participants suggested that HIV prevention programs should incorporate nontraditional strategies such as music, art and group excursions to teach adolescents about HIV/AIDS.

These findings also offer important implications for clinical practice, research and mental health policy. With respect to depression, African American adolescent females may mask depressive symptoms or more willingly identify with other terms to describe what they are experiencing. When screening patients, clinicians should be sensitive to this occurrence and probe for feelings of loneliness, isolation, stress, "attitudes" and/or anger. Further, practitioners and researchers developing diagnostic assessments and screening tools should attend to language to ensure the cultural relevance of their measures.

Recommendations have been made to integrate mental and reproductive health services (Collins et al., 2010). Some adolescents with mental health concerns may be less likely to participate in school and community activities, therefore mental and primary health care providers are viable points of access for service delivery (Burnett-Zeigler et al., in press). Given the impact of depression, and other internalizing and externalizing disorders, on the sexual decision-making process, it is crucial that mental health providers serve as a point of access for their sexually active clients (Brown, et al., 2010). Similarly, primary care providers should also screen their patients for depressive symptoms in addition to sexual risk behaviors (Smith, Buzi, & Weinman, 2010).

Clinicians are valuable resources for clients to receive information about their mental illness and its effects, as well as risk reduction treatment plans to learn safer sex strategies that are conducive to the context of their daily lives. Further research is needed to determine the feasibility of the integration of physical and mental healthcare, as well as how the interaction should be structured to create a multifaceted approach to HIV prevention for clinically depressed African American adolescent females. This will require investigations at the individual, community and system levels, as multiple factors and practices would be

involved. Once effective models are developed, policies will need to be written to ensure the standardization of sexual health assessment and intervention in the mental healthcare system; in addition to standardized mental health assessment and intervention in the primary care system.

Limitations of this work must be acknowledged. The small convenience sample (N= 24) limits generalizability to all clinically depressed African American adolescent females. Also, the cross-sectional design limits the ability to imply causality. Despite these limitations, the results demonstrate the need for additional research to better understand the physiology of how depression affects the sexual decision-making process, as well as to develop and test HIV risk reduction interventions for this population.

The following recommendations are made to move forward: 1) significant attention should be paid to depression prevention, assessment, and treatment to avert negative health outcomes, 2) HIV risk-related sexual behaviors are in the spectrum of psychopathologic behaviors, therefore it is imperative to integrate physical and mental healthcare, 3) HIV/STD prevention programs should be tailored to meet the unique psychological and emotional needs of adolescent females with mental illnesses, and 4) further research is needed (i.e. randomized controlled trials of targeted interventions) to determine if treatment of depression can impact high risk behaviors.

Acknowledgments

Funding for this research was provided by the Substance Abuse and Mental Health Services Administration at the American Nurses Association Minority Fellowship Program [5 SM058566-02], the Hampton-Penn Center for Health Disparities Research [NINR P20NR008361], and the Fontaine Society Fellowship at the University of Pennsylvania.

References

- Ajzen, I. From intentions to actions: A theory of planned behavior. In: Kuhl, J.; Beckmann, J., editors. Action-control: From cognition to behavior. Springer; Heidelberg: 1985. p. 11-39.
- Ajzen I, Joyce N, Sheikh S, Cote NG. Knowledge and the prediction of behavior: The role of information accuracy in the Theory of Planned Behavior. Basic and Applied Social Psychology. 2011; 33(2):101–117. doi: 10.1080/01973533.2011.568834.
- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR). Fourth ed. American Psychiatric Association; Washington, DC: 2000.
- Atlas.ti. Atlas.ti. version 5.5. Atlas.ti; Germany: 2008.
- Azjen I. The Theory of Planned Behavior. Organizational Behavior and Human Decision Processes. 1991; 50(2):179–211.
- Berg C, Choi WS, Kaur H. The roles of parenting, church attendance, and depression in adolescent smoking. Journal of Community Health. 2009; 34(1):56–63. doi: 10.1007/s10900-008-9118-4. [PubMed: 18830691]
- Bradley EH, Curry LA, Devers KJ. Qualitative data analysis for health services research: Developing taxonomy, themes, and theory. Health Services Research. 2007; 42(4):1758–1772. doi: 10.1111/j. 1475-6773.2006.00684.x. [PubMed: 17286625]
- Brawner BM, Davis ZM, Fannin EF, Alexander KA. Clinical depression and condom use attitudes and beliefs among African American adolescent females. Journal of the Association of Nurses in AIDS Care. 2012; 23(3):184–194. doi: 10.1016/j.jana.2011.03.005. [PubMed: 21737313]
- Brawner BM, Gomes MM, Jemmott LS, Deatrick JA, Coleman CL. Clinical depression and HIV risk-related sexual behaviors among African-American adolescent females: Unmasking the numbers. AIDS Care, iFirst. 2012:1–8. doi: 10.1080/09540121.2011.630344.

Brown LK, Hadley W, Stewart A, Lescano C, Whiteley L, Donenberg G, DiClemente R. Psychiatric disorders and sexual risk among adolescents in mental health treatment. Journal of Consulting and Clinical Psychology. 2010; 78(4):590–597. doi: 10.1037/a0019632. [PubMed: 20658815]

- Burnett-Zeigler I, Walton MA, Ilgen M, Barry KL, Chermack ST, Zucker RA, Zimmerman MA, Booth BM, Blow FC. Prevalence and correlates of mental health problems and treatment among adolescents seen in primary care. Journal of Adolescent Health. (in press). doi: 10.1016/j.jadohealth.2011.10.005.
- Centers for Disease Control and Prevention. HIV Surveillance Report, 2008. 2010; 20 Retrieved from http://www.cdc.gov/hiv/topics/surveillance/resources/reports/.
- Collins M, Kelch-Oliver K, Johnson K, Welkom J, Kottke M, Smith C. Clinically significant depressive symptoms in African American adolescent females in an urban reproductive health clinic. Journal of Clinical Psychology in Medical Settings. 2010; 17(3):175–182. doi: 10.1007/s10880-010-9200-9. [PubMed: 20567888]
- Creswell JW, Miller DL. Determining validity in qualitative inquiry. Theory Into Practice. 2000; 39(3):124–130. doi: 10.1207/s15430421tip3903_2.
- Donenberg GR, Emerson E, Brown LK, Houck C, Mackesy-Amiti ME. Sexual experience among emotionally and behaviorally disordered students in therapeutic day schools: An ecological examination of adolescent risk. Journal of Pediatric Psychology. 2012 Advance online publication. doi: 10.1093/jpepsy/jss056.
- Donenberg GR, Emerson E, Mackesy-Amiti ME. Sexual risk among African American girls: Psychopathology and mother–daughter relationships. Journal of Consulting and Clinical Psychology. 2011; 79(2):153–158. doi: 10.1037/a0022837. [PubMed: 21319895]
- Fishbein, M.; Ajzen, I. Belief, Attitude, Intention and Behavior. Addison-Wesley Publishing Company; Boston, Mass: 1975.
- Horwitz AG, Hill RM, King CA. Specific coping behaviors in relation to adolescent depression and suicidal ideation. Journal of Adolescence. 2011; 34(5):1077–1085. doi: 10.1016/j.adolescence. 2010.10.004. [PubMed: 21074841]
- Jemmott JB 3rd, Jemmott LS, Braverman PK, Fong GT. HIV/STD risk reduction interventions for African American and Latino adolescent girls at an adolescent medicine clinic: a randomized controlled trial. Archives of Pediatrics & Adolescent Medicine. 2005; 159(5):440–449. [PubMed: 15867118]
- Jemmott JB 3rd, Jemmott LS, Fong GT, McCaffree K. Reducing HIV risk-associated sexual behavior among African American adolescents: testing the generality of intervention effects. American Journal of Community Psychology. 1999; 27(2):161–187. [PubMed: 10425698]
- Jemmott JB, Heeren GA, Ngwane Z, Hewitt N, Jemmott LS, Shell R, O'Leary A. Theory of planned behaviour predictors of intention to use condoms among Xhosa adolescents in South Africa. AIDS Care. 2007; 19(5):677–684. doi: 10.1080/09540120601084308. [PubMed: 17505930]
- Jemmott JB, Jemmott LS, Fong GT. Abstinence and safer sex HIV risk-reduction interventions for African American adolescents: a randomized controlled trial.[see comment]. Journal of the American Medical Association. 1998; 279(19):1529–1536. doi: 10.1001/jama.279.19.1529. [PubMed: 9605896]
- Jonsson U, Bohman H, Hjern A, von Knorring L, Paaren A, Olsson G, von Knorring AL. Intimate relationships and childbearing after adolescent depression: a population-based 15 year follow-up study. Social Psychiatry and Psychiatric Epidemiology. 2011; 46(8):711–721. doi: 10.1007/ s00127-010-0238-7. [PubMed: 20512560]
- Koniak-Griffin D, Brecht ML. Linkages between sexual risk taking, substance use, and AIDS knowledge among pregnant adolescents and young mothers. Nursing Research. 1995; 44(6):340–346. doi: 10.1097/00006199-199511000-00004. [PubMed: 7501487]
- Kroenke K, Spitzer RL, Williams JBW. The PHQ-9: Validity of a brief depression severity measure. Journal of General Internal Medicine. 2001; 16(9):606–613. doi: 10.1046/j. 1525-1497.2001.016009606.x. [PubMed: 11556941]
- Lennon CA, Huedo-Medina TB, Gerwien DP, Johnson BT. A role for depression in sexual risk reduction for women? A meta-analysis of HIV prevention trials with depression outcomes. Social Science & Medicine. 2012 doi: 10.1016/j.socscimed.2012.01.016.

Mazzaferro KE, Murray PJ, Ness RB, Bass DC, Tyus N, Cook RL. Depression, stress, and social support as predictors of high-risk sexual behaviors and STIs in young women. Journal of Adolescent Health. 2006; 39(4):601–603. doi: 10.1016/j.jadohealth.2006.02.004. [PubMed: 16982400]

- McEachan RRC, Conner M, Taylor NJ, Lawton RJ. Prospective prediction of health-related behaviours with the Theory of Planned Behaviour: a meta-analysis. Health Psychology Review. 2011; 5(2):97–144. doi: 10.1080/17437199.2010.521684.
- Metzger, DS.; Nalvaline, HA.; Woody, GE. Assessment of substance abuse: HIV Risk Assessment Battery. In: Carson-Dewitt, editor. Encyclopedia of Drugs, Alcohol and Addictive Behavior. Macmillan Reference USA; Farmington Hills, MI: 2001.
- Pearson MR, Kholodkov T, Henson JM, Impett EA. Pathways to early coital debut for adolescent girls: A recursive partitioning analysis. Journal of Sex Research. 2012; 49(1):13–26. doi: 10.1080/00224499.2011.565428. [PubMed: 21512947]
- Rubin AG, Gold MA, Primack BA. Associations Between Depressive Symptoms and Sexual Risk Behavior in a Diverse Sample of Female Adolescents. Journal of Pediatric and Adolescent Gynecology. 2009; 22(5):306–312. doi: DOI 10.1016/j.jpag.2008.12.011. [PubMed: 19592279]
- Seth P, Patel SN, Sales JM, DiClemente RJ, Wingood GM, Rose ES. The impact of depressive symptomatology on risky sexual behavior and sexual communication among African American female adolescents. Psychology, Health & Medicine. 2011; 16(3):346–356. doi: 10.1080/13548506.2011.554562.
- Seth P, Raiji PT, DiClemente RJ, Wingood GM, Rose E. Psychological distress as a correlate of a biologically confirmed STD, risky sexual practices, self-efficacy and communication with male sex partners in African-American female adolescents. Psychology, Health & Medicine. 2009; 14(3):291–300. doi: 10.1080/13548500902730119.
- Shrier LA, Schillinger JA, Aneja P, Rice PA, Batteiger BE, Braslins PG, Orr DP, Fortenberry JD. Depressive symptoms and sexual risk behavior in young, chlamydia-infected, heterosexual dyads. Journal of Adolescent Health. 2009; 45(1):63–69. doi: 10.1016/j.jadohealth.2008.11.016. [PubMed: 19541251]
- Smith PB, Buzi RS, Weinman ML. Mental health screening in family-planning clinics: a sexual risk-reduction opportunity. Journal of Sex & Marital Therapy. 2010; 36(3):181–192. doi: 10.1080/00926231003719475. [PubMed: 20432121]
- SPSS. SPSS for Windows 17.0. SPSS Inc; Chicago: 2008.
- Substance Abuse and Mental Health Services Administration. [Retrieved November 1, 2009] The NSDUH Report: Major Depressive Episode and Treatment among Adolescents. 2009. from http://www.oas.samhsa.gov/2k9/youthDepression/MDEandTXTforADOL.pdf
- Turner AK, Latkin C, Sonenstein F, Tandon SD. Psychiatric disorder symptoms, substance use, and sexual risk behavior among African-American out of school youth. Drug and alcohol dependence. 2011; 115(1-2):67–73. doi: 10.1016/j.drugalcdep.2010.10.012. [PubMed: 21145182]
- Villarruel AM, Jemmott JBI, Jemmott LS, Ronis DL. Predictors of sexual intercourse and condom use intentions among Spanish-dominant Latino youth: a test of the planned behavior theory. Nursing Research. 2004; 53(3):172–181. doi: 10.1097/00006199-200405000-00004. [PubMed: 15167505]
- Wight RG, Aneshensel CS, Botticello AL, Sepúlveda JE. A multilevel analysis of ethnic variation in depressive symptoms among adolescents in the United States. Social Science & Medicine. 2005; 60(9):2073–2084. doi: DOI: 10.1016/j.socscimed.2004.08.065. [PubMed: 15743655]

Table 1

Sample items from the interview guide

Depression
Do you have family members or friends that are dealing with mental/psychological/emotional issues? What types of issues are they dealing with?
How do girls your age deal with these types of issues? What kinds of things do they do to cope/make themselves feel better?
Before you were diagnosed, did you believe that mental illnesses/psychological issues such as depression were real?
What does it mean to be depressed?
What term would you use to describe being or feeling depressed?
Earlier you referred to being depressed as being (depressed). How does being (depressed) affect your life?
What is good/bad about being (depressed)?
What are some things that are hard/easy to do when you're feeling (depressed)?
Can you tell me about someone close to you who approved or disapproved of you being (depressed) and seeking mental health treatment?
HIV/AIDS
What do the words HIV and AIDS mean to people your age?
Who is at risk for getting HIV? What types of things are they doing that put them at risk?
Do you think that you are at risk for getting HIV? If yes or no, explain why.
Have you ever met somebody that has HIV? If so, tell me about that experience.
What experiences have you, your family, or friends had with HIV/AIDS prevention and/or treatment programs? What do you think about those programs?
Depression, Sexual Relationships and HIV Risk-Related Sexual Behaviors
Who decides whether or not a relationship should be more than a friendship? Who decides if and when a relationship should become more intimate?
How does someone know that they are ready for a sexual relationship? Do you think that people need to be a certain age to start dating? To start having sex?
What is sex? Does everybody define sex the same way?
Are there things that couples do that you don't consider real sex?
Does being depressed or feeling(depressed) affect the decisions that girls your age make about sex?
Do the decisions that girls make about sex and relationships vary from day to day depending on how depressed or(depressed) they're feeling?
When people your age (girls and boys) need information about sex, who do they talk to?
What is good/bad about using condoms in sexual relationships?
What is easy/hard about using condoms in sexual relationships?
Who approves/disapproves of you using condoms?

Table 2

Sample demographic characteristics (N = 24)

Variable	M (SD)	%(n)
Age	16 (2)	
# of adults in household	2(1)	
# of children in household	3 (2)	
Last grade completed		
8 th		29(7)
9 th		13(3)
$10^{\rm th}$		25(6)
11 th		21(5)
12 th		13(3)
Parent/guardian currently married		
Yes		12(3)
No		88(21)
Parent/guardian ever married		
Yes		42(10)
No		58(14)
Mother Work		
Yes		65(13)
No		35(7)
Father work		
Yes		56(10)
No		44(8)
Mother finished high school		
Yes		59(13)
No		27(6)
Don't Know		14(3)
Father finished high school		
Yes		32(7)
No		14(3)
Don't Know		54(12)
Mother and father in same household		
Yes		18(4)
No		82(18)
Participant work		
Yes		26(6)
No		74(17)
Ever engaged in sexual activity		
Yes		79(19)
No		21(5)

Table 3

Participant themes regarding depression, HIV/AIDS and HIV risk-related sexual behaviors

Depression

Maybe them, but not me; denial of depression diagnosis

Any word but depression, more acceptable terms for depression

Stigmatization of mental illness

Mental health treatment perceptions

Creative activity as a positive coping strategy

Adverse health behaviors as negative coping strategies

HIV/AIDS

Large impact in the African American community

Incurable, but preventable disease

Stigmatization of HIV/AIDS

Maybe them, but not me; denial of HIV risk

HIV prevention and treatment perceptions

HIV risk-related sexual behaviors

What is "real" sex?

Benefits and barriers to condom use

Influence of partner type on risk

Love, attention and early sexual debut

The relationship between depression and sexual decision-making

Depression makes girls want to have sex more frequently

Depression has no affect on sexual decision-making

 $\label{eq:Table 4}$ Depression characteristics based on the Patient Health Questionnaire-9 (N = 24)

M(SD)	11 (6)
Score Range	0-25
	(%)n
Little interest or pleasure in doing things	
Not at all	21(5)
Several days	17(4)
More than half the days	37(9)
Nearly every day	25(6)
Feeling down, depressed, or hopeless	
Not at all	17(4)
Several days	37(9)
More than half the days	13(3)
Nearly every day	33(8)
Trouble falling or staying asleep, or sleeping too much	
Not at all	25(6)
Several days	29(7)
More than half the days	25(6)
Nearly every day	21(5)
Feeling tired or having little energy	
Not at all	13(3)
Several days	25(6)
More than half the days	45(11)
Nearly every day	17(4)
Poor appetite or overeating	
Not at all	29(7)
Several days	29(7)
More than half the days	21(5)
Nearly every day	21(5)
Feeling bad about yourself—or that you are a failure or have let yourself or your family down	•
Not at all	33(8)
Several days	25(6)
More than half the days	4(1)
Nearly every day	38(9)
Trouble concentrating on things, such as reading the newspaper or watchin television	g
Not at all	42(10)
Several days	21(5)
More than half the days	21(5)
Nearly every day	17(4)
Moving or speaking so slowly that other people could have noticed. Or the	

M(SD)	11 (6)
Score Range	0-25
	(%)n
more than usual	
Not at all	75(18)
Several days	8(2)
More than half the days	13(3)
Nearly every day	4(1)
Thoughts that you would be better off dead, or of hurting yourself in some way	
Not at all	96(23)
Several days	0
More than half the days	0
Nearly every day	4(1)
Depression Severity	
Not at all difficult	17(4)
Somewhat difficult	58(14)
Very difficult	21(5)
Extremely difficult	4(1)

Brawner Page 19

 $\label{eq:Table 5} \textbf{Table 5}$ Sexual histories among sexually active participants (n = 19)

	M(SD)	%(n)
Variable	141(515)	70(11)
Age at first vaginal sex	14(1.1)	
Age at first vaginal sex Age at first anal sex	14(1.1)	
Age at first and sex Age at first oral sex	13(2.1)	
	` ′	
Number of vaginal sex partners	4(3.6)	
Number of anal sex partners	1(2.6)	
Number of oral sex partners	4(5.4)	
Ever had vaginal intercourse		100(19)
Ever had anal intercourse		32(6)
Ever had oral intercourse		58(11)
A boy's penis in my mouth		11(2)
A boy's mouth on my vagina		16(3)
A boy's penis in my mouth and a boy's mouth on my vagina		32(6)
Condom used during last sexual encounter		63(12)
How often used condoms in the past 3 months		-
Never		13(2)
Sometimes		44(7)
Every time		44(7)
Ever tested positive for an STD		47(7)
Chlamydia		75(6)
Gonorrhea		38(3)
Bacterial Vaginosis		13(1)
Herpes		25(2)
Genital Warts		25(2)
Syphilis		8(2)
Depressed before the last sexual encounter		21(4)
Had a couple of drinks before the last sexual encounter		11(2)
High on drugs or alcohol during last sexual encounter		11(2)