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Let's Talk Sex: A Pilot Study of Sexual History Elicitation by Providers of STD Services in Leon County, Florida

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ABSTRACT

An estimated one million sexually transmitted diseases (STDs) are reported annually in the United States. Florida has some of the highest HIV and STD rates in the country. STDs are a particular problem for minorities, women, and adolescents. Sexual history elicitation is a tool available to clinicians to assess patients' sexual risk behaviors and to counsel, test, and treat STDs. Previous barriers to sexual history elicitation include subject matter, patient–physician communications, provider training, and physician perceptions. This pilot study was designed to test a survey questionnaire that measures primary care provider (PCP) sexual elicitation practices. PCPs included obstetricians and gynecologists, family practitioners, internal medicine physicians, pediatricians, nurse practitioners, and physician assistants in Leon County Florida. Between January 2010 and March 2010 a convenience sample of 50 PCPs in Florida were administered a pencil-and-paper survey. The survey instrument was constructed and tested to measure PCP sexual elicitation practices. The survey instrument was found to be an internally consistent and reliable assessment tool for sexual history elicitation. These preliminary pilot study findings warrant a larger study.

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BACKGROUND

In 2014, over one million cases of chlamydia were reported to the Centers for Disease Control and Prevention (CDC, 2015a). The frequently asymptomatic nature and the potential for severe complications of untreated sexually transmitted diseases (STDs) calls for targeted efforts to identify, treat, and prevent disease among those at greatest risk. Sexual history elicitation, counseling, and education are excellent tools available to clinicians for such efforts, and serve to reduce provider bias and assumptions regarding client risk behaviors or lack thereof (Bull et al., 1999).

Earlier studies have shown inconsistencies regarding STD evaluation by primary care clinicians and physicians (Bull, Reitmeijer, Fortenberry, Stoner, Malotte, Vandevanter, et al., 1999). Barriers to the elicitation of sexual history included the subject matter, patient–physician communications, provider training, and physician perceptions. Sexuality is an important part of health, quality of life, and general wellbeing. Studies indicate that less than half of adult women patients' sexual concerns are known by their physicians, and physicians are unaware of how

common sexual concerns are in their practices (Nusbaum & Hamilton, 2002).

According to Towle, Godolphin, Stallduinen, and Overgard (2005) most adolescents reported that even if they did want to discuss sensitive issues such as birth control, STDs, substance or mental health problems with their physicians, they probably would not. The major barrier to talking about these issues was embarrassment. Chorba, Scholes, BlueSpruce, Operskalaski, and Irwin (2004) found that most patients in managed care organizations (MCO) settings report they are quite comfortable discussing issues concerning HIV and STD prevention with providers; however, some providers rarely discuss measures with adolescents and some do not consistently take sexual histories for risk assessment even in the higher risk population.

Sex is a sensitive issue for patients and physicians. Physicians' comfort level discussing sexual health issues has a direct influence on their ability to elicit sexual histories. According Bull et al. (1999) client discomfort (46%) and provider discomfort (13%) were cited as barriers to the elicitation of sexual history. Chorba et al. (2004), in a survey of medical residents and MCO providers, indicated low-rates of

routine sexual history taking and STD counseling, reflecting discomfort of providers or patients. Tao, Irwin, and Kassler (2000) found that of 3,390 adults 18-64 years of age, only 28% of survey respondents who had a recent routine medical checkup reported being asked about STDs during that visit. This is consistent with other studies showing that a minority of patients reported being asked about STDs during routine visits (Bull et al., 1999; Lafferty et al., 2002; Tao et al., 2000).

Several studies suggest that although many healthcare providers believed it was their responsibility to inform patients about risk factors, many felt they did not have the adequate skills or training to obtain accurate sexual histories, diagnose, and treat STDs or counsel patients about reducing high-risk sexual behaviors (Tao et al., 2000). The issues related to sex are very important to overall health. Interventions are needed at the provider and patient level to encourage open discussions about sex, and increase both provider and patient comfort level with the topic.

Perceptions

Physicians' perception of patients' sexual health risk directly impacts their interaction concerning sexual history elicitation. Tao et al. (2000) revealed that the characteristics associated with the likelihood of being asked about STDs (poverty level, insurance, and marital status) also define populations at highest risk for certain STDs, especially gonorrhea and syphilis. This suggests that healthcare providers broadly guided by their perception of morbidity patterns or by their own stereotypes of the STD patients, may target discussion of STDs to patients believed to be at greater risk. However, many STDs, including chlamydia, genital herpes, and genital warts, are broadly distributed throughout the population and may have more serious and costly long-term consequences. Thus, targeting discussions of STDs to young, single, and poor populations may miss a significant numbers of patients who are infected and who could benefit from treatment, information, and counseling. Chorba et al. (2004) found that medical residents and MCO providers indicated low-rates of routine sexual history taking and STD counseling reflected physician underestimation of patient risk. Provider perceptions are influenced by their own bias, therefore, if physicians consistently followed recommended guidelines it would alleviate these barriers.

Physician-Patient Communication and Physician Training

The interaction between physicians and patients has been shown to have a direct influence on the

patients' comfort level and care. Fuertes, Mislowack, Bennett, Paul, Gilbert et al. (2007) noted that while doctors' competence in techniques and skills of medicine are without question central to quality care, a fundamental assumption is that there are fundamental relational factors in the physician-patient relationship that are very important to overall patient care. The Gonorrhea Community Action Project (GCAP) study in 1999 found that a quarter of providers (26%) suggested that good communication skills are the key to the elicitation of an effective sexual history. Sixteen percent indicated training and experience help and 11% stated provider comfort is critical (Bull et al., 1999). Chorba et al. (2004) observed that providers with human sexuality training conduct better sexual risk assessments. Miles, Penny, Power, and Mercey (2002) observed that specialist nurses had better interpersonal skills, resulting in increased patient satisfaction as compared with physicians in a sexual health clinic.

Physicians and nurse practitioners have different training protocols. Boekeloo, Snyder, Bobbin, Burnstein, Conley et al. (2007) found that more nurse practitioners (NP) (88%) versus physicians (69%) thought they were well trained to address sexual risk with young adolescent patients. More NPs (72%) than physicians (43%) were confident in their ability to identify adolescents who need chlamydia screening. Surveys of medical residents and MCO providers indicated low-rates of routine sexual history taking and STD counseling reflected inadequate professional training (Chorba et al., 2004). Cook, Wiesenfeld, Ashton, Krohn, Zamborsky et al. (2001) in a survey of 1,054 primary care physicians about their attitudes regarding STDs found that STD-related behaviors were more positive among physicians who were female, worked in clinic settings and received adequate training in STDs.

Nusbaum and Hamilton (2002) stated that barriers to sexual health care can be removed by providing progressive medical education that teaches sexual health care as integral (rather than peripheral) to health care in general and convincing primary care physicians to proactively and routinely address sexual health. More training and targeted interventions for physicians would likely improve their STD prevention practices. Providers are the first line of defense. Routine medical check-ups provide a regular opportunity for health care providers to assess patients' risky sexual behaviors, to counsel them to reduce such behaviors, to screen, and diagnosis STD and to treat infected patients (Tao et al., 2000).

The purpose of this research was to examine the sexual history elicitation practices among primary care providers (PCPs) in Leon County, Florida is the third most populated state in the United States with

an estimated population of 19.9 million residents (U.S. Census Bureau, 2014). Florida has a tremendous HIV/AIDS disparity. In 2013, an estimated 5,364 adults and adolescents were diagnosed with HIV in Florida. Florida ranked 1st among the 50 states in the number of HIV diagnoses in 2013. In 2014, Florida reported 111,240 cases of STDs, including 84,194 cases of chlamydia, 20,944 cases of gonorrhea, and 6,102 cases of syphilis (CDC, 2015a).

Sample

The population of interest for this study was active, practicing PCPs in (obstetrics and gynecology, internal medicine, family practice or pediatrics) residing in the state of Florida obtained from the Florida Department of Health Division of Medical Quality Assurance. A convenience sample of PCPs was used for this pilot study. The majority of PCPs for the sample were recruited from the Leon county Florida. The sample was recruited using PCPs in the researcher's zip code, local continuing education events, and local universities.

Instrument

An anonymous pencil-and-paper, self-administered survey was used in this study. The instrument, consisting of 23 questions to measure primary care provider sexual elicitation practices, as well as skills and comfort level with taking sexual history and seven demographic questions. Demographic questions included PCP gender, race, and age, specialty, length in practice, practice location, and medical training location. Survey questions were based on constructs from the Theory of Planned Behavior (Ajzen, 1985) and a review of the literature as well as questions adapted from the Gonorrhea Community Action Project, funded by the Centers for Disease Control and Prevention and the National Institute of Mental Health (VanDevanter, Messeri, Middlestadt, Bleakley, Merzel, Hogben et al., 2005). The survey consisted of four multi-item scales to measure PCP sexual history elicitation attitudes and behaviors using a 5-point Likert scale from 1=strongly agree, 2=agree, 3= I'm not sure, 4=disagree, to 5=strongly disagree, and PCP likelihood of taking a sexual history (regarding specific behaviors) 1= extremely not likely, 2=not likely, 3=likely, 4=extremely likely, and 5=I already do.

Data Collection

Data collection took place between January 2010 and March 2010. The convenience sample was surveyed by mailed questionnaire, continuing education events and medical practices. The survey

package contained a cover letter, consent form, questionnaire, and a stamped pre-addressed envelope. All surveys were number-coded to allow for additional mail outs and follow up with non-responders. To ensure confidentiality, no names were used to identify respondents. A total of 50 PCP participated in the pilot study. Table 1 displays the pilot study participant characteristics.

Survey Results

Table 1 shows that the majority of PCPs surveyed were female 70% (30% male), black (51%) and white (43%), over the age of 45 (54%), in the field of family medicine (44%), Advanced Registered Nurse Practitioners (48%), trained in the United States (U.S.) (90%) and had been practicing for over 10 years (63%). Table 2 shows that the majority of respondents agreed that they had the skills (64%), training (63%), and time (50%) to take a sexual history. Table 3 displays that the majority of respondents agreed that client factors such as emotional response (63%), reluctance to talk (63%) and change sexual behaviors (77%) made it difficult to take a sexual history. However, most respondents disagreed with the idea that clients are resistant to discuss STDs (73%). Most respondents felt they had received the proper training (90%) and were comfortable (87%) discussing sexual behaviors. Most respondents felt sexual history elicitation is an important STD diagnosis and treatment tool (93%), and prevention tool (95%) (Table 4). Also, the majority of respondents felt willing to elicit a sexual history (91%) and felt it was part of their professional duty (90%). Most respondents felt asking patients about their sexual behaviors was not overstepping a professional boundary. Table 5 shows that most respondents reported likelihood of asking patients about their number of sex partners (73%), sexual orientation (66%), history of STDs (88%), condom use (92%), and injection drug use (83%). However, participants were not as likely to currently ask patients about their engagement in oral (63%) and anal sex (59%). This finding is important because STDs can also be acquired via oral and anal sex. Anal sex is considered a high risk sexual behavior because the lining of the rectum is thin and may allow viruses and bacteria to enter the body during anal sex. There have been misconceptions about the risk of oral sex and STD. However, HIV, herpes, syphilis, gonorrhea, genital warts and hepatitis A can all be transmitted through oral sex (CDC, 2015b).

Thirty-six percent of PCPs reported receiving additional STD training beyond their degree. This is an important finding. A disconnect exists between the PCP education curriculum and sexual health education. Education is clearly essential to improving

Table 1
Pilot Study: Select Characteristics

Variable	No. (n=50)	%
<i>Provider gender</i>		
Male	15	30%
Female	34	70%
<i>Provider race</i>		
Black/African American	25	51%
White	21	43%
Asian	2	4%
Hispanic	1	2%
<i>Age</i>		
Under 25	1	2%
26-35 years of age	7	14%
36-45 years of age	14	29%
Over 45 years of age	26	54%
<i>Specialty</i>		
Family medicine	21	44%
Internal medicine	8	17%
Obstetrics and Gynecology	8	17%
Pediatrics	10	21%
Other	1	2%
<i>Field of practice</i>		
Family Practice MD	9	18%
Internal Medicine MD	2	4%
Obstetrician/Gynecologist MD	5	10%
Pediatrician, MD	8	16%
Physician Assistant (PA)	2	4%
Advanced Registered Nurse Practitioner	24	48%
<i>Medical training</i>		
In the US	43	90%
Outside the US	4	8%
Both	1	2%
<i>Length practicing</i>		
1-5 years	8	17%
5-10 years	10	21%
Over 10 years	30	63%

Table 2
Pilot Study: Percentage Distribution of Responses Regarding Perceived Behavioral Control

What is your level of agreement with the following statements?	Strongly agree	Agree	I'm not sure	Disagree	Strongly disagree
I have the skills to take a sexual history	64%	32%	-	-	4%
I have the training to take a sexual history	63%	27%	-	8%	2%
I have enough time to take a sexual history	50%	40%	-	8%	2%
It is difficult for me to take a sexual history from my patients because of office staffing constraints	2%	6%	4%	40%	48%

Cronbach alpha .29 (4-items)
 (When difficult is reverse-coded, the Cronbach alpha is .77)

Table 3
Pilot Study: Percentage Distribution of Responses Regarding Perceived Behavioral Control

What is your level of agreement with the following statements about the difficulties of taking a sexual history?	Strongly agree	Agree	I'm not sure	Disagree	Strongly disagree
Clients get emotional when discussing STDs	15%	48%	-	29%	8%
Client reluctance to talk about STDs	15%	48%	2%	32%	6%
Client reluctance to change sexual behaviors	13%	64%	4%	15%	4%
Clients are resistant to discuss STDs	9%	17%	2%	62%	11%
I did not receive the proper training to discuss STDs	2%	10%	-	25%	63%
I am uncomfortable discussing my patients sexual behaviors	8%	4%	-	35%	52%

Cronbach alpha .54 (6-items)

Table 4
Pilot Study: Percentage Distribution of Responses Regarding Attitude, and Behavioral Intention toward Sexual History Elicitation

What is your level of agreement with the following statements?	Strongly agree	Agree	I'm not sure	Disagree	Strongly disagree
Sexual history elicitation is an important STD diagnosis and treatment tool.	70%	23%	2%	4%	-
Sexual history elicitation is an important STD prevention tool.	62%	32%	2%	4%	-
I am confident in my ability to take a sexual history.	60%	35%	4%	-	-
I feel willing to elicit sexual histories from my patients.	56%	35%	2%	6%	-
I feel it is my part of my professional duty to take a sexual history from my patients.	65%	25%	2%	6%	2%
Asking patients about their sexual behaviors is over-stepping a professional boundary.	-	2%	6%	23%	69%

Cronbach alpha .49 (6-items)

When overstepping is reverse-coded, the Cronbach alpha is .803.

Table 5
Pilot Study: Percentage Distribution of Responses Regarding Likelihood of Taking a Sexual History

How likely are you to ask patients about their...	Extremely not likely	Not likely	Likely	Extremely likely	I already do
Number of sex partners	4%	23%	27%	8%	38%
Sexual orientation	10%	23%	27%	10%	29%
History of STDs	4%	8%	29%	19%	40%
Condom use	4%	4%	25%	21%	46%
Engagement in oral sex	10%	27%	27%	13%	23%
Engagement in anal sex	13%	29%	27%	13%	19%
Injection drug use	4%	13%	34%	15%	34%

Cronbach alpha .94 (7-items)

Table 6
Perceived Behavioral Control (PCPs)

	Factor 1
Factor 1 – Perceived behavioral control to conduct sexual history	
I have the skills to take a sexual history	.719
I have the training to take a sexual history	.859
I have enough time to take a sexual history	.810
It is difficult for me to take a sexual history from my patients because of office staffing constraints	-.668
Cumulative percentage	58.960

Table 7
Perceived Behavioral Control (Patients)

	Factor 1	Factor 2
Factor 1 – Perceived behavioral control to conduct sexual history		
Clients get emotional when discussing STDs	.827	
Client reluctance to talk about STDs	.852	
Clients are resistant to discuss STDs	.719	
Clients are resistant to discuss STDs	.795	
Factor 2 – Perceived behavioral control to conduct sexual history		
I did not receive the proper training to discuss STDs		.730
I am uncomfortable discussing my patients sexual behaviors		.814
Percent of variance for Factor 1		43.591
Cumulative percentage		64.465

Table 8
Attitude and Behavioral Intention toward Sexual History Elicitation

	Factor 1	Factor 2
Factor 1 – Important diagnosis, treatment, and prevention tool		
Sexual history elicitation is an important STD diagnosis and treatment tool	--	.884
Sexual history elicitation is an important STD prevention tool	--	.843
Factor 2 – Behavioral intention to conduct sexual history		
I am confident in my ability to take a sexual history	.836	--
I feel willing to elicit sexual histories from my patients	.815	--
I feel it is my part of my professional duty to take a sexual history from my patients	.692	--
Asking patients about their sexual behaviors is over stepping a professional boundary	-.845	--
Percentage of variance for Factor 1		43.934
Cumulative percentage		72.125

Table 9
Likelihood to Take a Sexual History

	Factor 1
Factor 1 – How likely are you to ask patients about their...	
Number of Sex Partners	.876
Sexual Orientation	.833
History of STDs	.897
Condom Use	.880
Engagement in Oral Sex	.877
Engagement in Anal Sex	.839
Injection Drug Use	.820
Cumulative percentage	74.096

the skills, knowledge and ability of PCP to offer patients holistic care that includes a focus on sexual health (Sung, 2013).

Instrument Results

A factor analysis was conducted for this pilot study to determine if attribute items clustered as expected.

For the analysis, the principal components method was used with a varimax rotation. The factor analysis for *perceived behavioral control of physicians* showed that all four items were measuring this component accounting for 59% of the variance (Table 6). The factor analysis showed that the six *perceived behavioral control of patients* items were

measuring two components accounting for 64% of the variance (Table 7). Items measuring perceived behavioral control of clients loaded on factor one. The items within factor two were measuring perceived behavioral control toward ability to discuss STDs with clients. For the six-item scale measuring *attitude and behavioral intention* toward sexual history elicitation, the factor analysis revealed two components accounting for 72% of the variance (Table 8). Items loading on factor one related to attitudes about sexual history elicitation being an important diagnosis, treatment, and prevention tool. The other items asked the PCPs to rate statements such as, “I am confident in my ability to take a sexual history,” “I feel willing to elicit sexual histories from my patients” and “I feel it is part of my professional duty to take a sexual history from my patients.” The factor analysis for components of the scaled dependent variable “Likelihood to take a sexual history” showed that all six items were one factor, accounting for 74% of the variance (Table 9). The Cronbach alphas from the study constructs were: perceived behavioral control (PCPs) .29, perceived behavioral control (patients).54, attitude and behavioral intention toward sexual history elicitation .49 and likelihood to take a sexual history .90 respectively. The survey instrument was found to be internally consistent and reliable.

Conclusion

Segments of this survey questionnaire were previously used in published research by Bull et al. (1999) and VanDevanter et al. (2005). A larger study was conducted in 2010 to further study Florida PCPs sexual elicitation practices using the instrument. This pilot study found that Leon County PCPs reported that they were not as likely to ask patients about their engagement in oral and anal sex, (63% and 59% respectively) compared with condom use (92%) and STD history (88%). Unfortunately, if providers are not asking about oral and anal sex behaviors they are potentially missing undiagnosed STDs. Furthermore, 36% of PCPs reported receiving additional STD training beyond their degree. There is a need to address the gap in sexual health education and sexual history elicitation practices.

Previous research studies have suggested the following to decrease barriers and inconsistencies in sexual health elicitation: use of computer based patient education tools that can facilitate sexual risk assessment and enhance provider-patient communication in busy managed care organizations based clinical practices (Chorba et al., 2004). Interventions at the patient, provider, and community levels include: developing innovative methods to obtain sexual histories such as computer assisted self-

administered patient questionnaires; improving professional skills in eliciting sexual histories and in behavioral risk reduction counseling (Tao et al., 2000); instituting group visits with physicians and nurses, using health educators or dieticians for education and counseling (Yarnall et al., 2003); and creating formal training programs or continuing education programs with modules devoted exclusively to the topic of sexual history elicitation for clinicians (Bull et al., 1999).

All Americans have an interest in STD prevention because all communities are impacted by STDs and all individuals directly or indirectly pay for the costs of these diseases. STDs constitute a public health problem that lacks easy solutions because they are rooted in human behavior and fundamental societal problems (CDC 2010).

Limitations

The main purpose of the study was to test an instrument to measure PCPs sexual elicitation practices. Generalizability of the study results are limited based on the small convenience sample. Additionally, the study relied on self-reported data from PCPs which may pose various biases: social desirability, data (behaviors) may be exaggerated, and lack of respondents. The research study was primarily conducted in Leon County Florida; therefore, the results may not be representative of all Florida PCPs. Whereas this study examined a convenience sample of PCPs in Leon County Florida, one of its limitations was the possibility that PCPs responding to the survey had stronger interest in sexual health than the non-responders. The survey instrument was found to be an internally consistent and reliable assessment tool to measure sexual history elicitation.

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