Background

Previous studies have examined the relationship between body mass index (BMI) and sexual dysfunction in women, as well as examined the correlation between physical activity and sexual satisfaction. Further, research has demonstrated that individuals who report higher physical activity tend to have lower BMI (Omondi, Othuon & Mbagaya, 2012), and physical activity has been shown to lead to a higher self-reported frequency of sexual behavior and frequency of desired sexual activity (Frauman, 1982). Research, however, has not shown that BMI is associated with sexual difficulties (Smith, et al., 2012), yet it does enhance sexual difficulties in those who report previous sexual dysfunction (Yaylali, Tekekoglu & Akin, 2010; Esposito, et al., 2007; Weaver & Byers, 2006). Obese women were less likely to report having a sexual partner in the last 12 months (Bajos, Wellings, Laborde & Moreau, 2005). Little research has been conducted with regards to BMI and specific sexual behaviors sought, yet some research suggests women with higher BMIs have increased odds of using unreliable or no contraception methods (Eisenberg, Neumark-Sztainer & Lust, 2005).

High levels of body satisfaction have been associated with more frequent sexual experiences, fewer sexual problems, feeling more sexually desirable and participation in a wider range of sexual activities (Anderson & LeGrand, 1991; Faith & Schare, 1993; Holmes, Chamberlin & Young, 1994; Shulman & Horne, 2003). Body image has been found related to general sexual functioning in that lower levels of body image perception have been linked to less healthy sexual functioning. In terms of sexual behaviors, little research has examined how body image relates to the sexual behaviors among women between the ages of 19-24.

A population that needs more in-depth research on sexual satisfaction and sexual behaviors is young women, since research shows that “80% to 90% are sexually experienced and many practice behaviors that place them at risk for sexually transmitted infections and unintentional pregnancies (Eisenberg, Neumark-Sztainer & Lust, 2005).” Research has also shown that young women may not achieve the standard physical activity guidelines (Silliman, Rodas-Fortier & Neyman, 2004). The Centers for Disease and Control and Prevention (CDC) recommend that the level of physical activity in adults should be 150 minutes of moderate-intensity aerobic activity a week. An individual’s sexual satisfaction is self-reported and can be linked with physical pleasure, emotional satisfaction, time it takes to reach an orgasm and other factors that lead to a satisfying sexual experience (Smith, et al., 2012). This study seeks to answer the following research questions:

**Research Question 1:** Is BMI or body image a more accurate predictor of sexual behavior in women aged 19-24 years?

**Research Question 2:** Does body image perception affect levels of sexual function in women aged 19-24 years?

**Research Question 3:** Does body image perception affect sexual behaviors in women aged 19-24 years?

Answering these questions will contribute to the understanding of the sexuality of young women by identifying the linkage between their physical and sexual health and behaviors. Further, the study will identify which sexual behaviors women practice to better focus prevention programs to address sexually transmitted diseases (STDs). Determining the physical health of young women in relation to their sexual behaviors will be useful in refining appropriate messages to promote non-STD related sexual health. The relationship between BMI and sexual behaviors has been underexplored previously and may prove to be a vital asset in addressing issues of women’s sexual health, both related to sexual satisfaction and the prevention of STD transmission.
Description
The purpose of this project is to examine the relationship between sexual behaviors, sexual satisfaction, body image perception, and BMI of women between the ages of 19-24. Little research focuses on the Midwest in terms of the physical and sexual health of women aged 19-24. Douglas County has one the highest rates of chlamydia and gonorrhea infection in the entire United States, with some of the highest rates reported among women aged 19-24 (Douglas County STD Data, 2011). More research is necessary to understand the sexual behaviors and if women place themselves at higher risks for infection based on BMI, sexual functioning, and body image. This knowledge will help future STD prevention programs tailor their efforts to the greatest needs of these women based on their physical and sexual health.

Methods
The proposed project will be a cross-sectional study of women aged 19 to 24 years residing in the Midwest. A survey to collect socio-demographic information (e.g. age, sexual orientation, race, ethnicity, relationship status, and religious affiliation), levels of physical activity, body image and BMI, sexual functioning (including sexual satisfaction), and sexual behaviors will be developed to for this study. All protocols and instruments will be approved by the Institutional Review Board prior to use. Level of physical activity for each woman will be measured using The Godin Leisure-Time Exercise Questionnaire (Godin & Shepard, 1985), a commonly used scale for this type of research. Body image will be assessed by using four different scales: The Body Dissatisfaction Scale consists of nine of the items on the Eating Disorders Inventory-2 (Garner, Olmstead, & Polivy, 1983), 19-item Body Image Avoidance Questionnaire (Rosen et al., 1991), The Situational Inventory of Body-Image Dysphoria (Cash, 1994), and Body Image Self Consciousness (Wiederman, 2000). The Female Sexual Function Index (FSFI), a 19-item scale consisting of 6 domain areas will be used to assess sexual functioning (Rosen, et al, 2000). The survey will be developed and distributed to members of the target group. Specifically, instructors at colleges and universities will be asked to distribute the surveys. Classes will be chosen based on their focus on sexual and physical health topics, as well as subjects not related to health in order to provide a diverse participant population. In addition to classrooms, participants may also be recruited through on-line advertisement and social media.

Analysis
All quantitative analyses will be conducted using SPSS 19.0. Descriptive statistics will be used to determine socio-demographic characteristics of the participants. The measurement for BMI will be calculated using the CDC standard for BMI, which defines a BMI of below 18.5 as underweight, between 18.5-24.9 as healthy, 25.0-29.9 as overweight, while ≥30.0 as obese. Descriptive analyses will be conducted to determine frequency of specific behaviors. Independent samples t-tests and Analysis of Variance will be used to examine differences among participants in sexual behaviors, body image and sexual functioning based on socio-demographic characteristics and BMI. Multiple regression analysis will be used to determine if BMI or body image can be used as predictors for specific sexual behaviors and sexual functioning.

Student/Faculty
I will work closely with Drs. Jawed-Wessel and Coleman to develop and conduct this research. Both will provide mentorship in survey development and analysis. Both will oversee my work and teach me how to properly execute a quantitative study in public health.

Timeline
March will consist of IRB training, and then in April-July I will be doing instrument development and receiving IRB approval. In August and September I will be completing data collection, with data analyses to follow in September and October. Dissemination of results will be in March 2014.
Letter of Mentor Support

February 7, 2013

Fund for Undergraduate Scholarly Experiences
University of Nebraska at Omaha

Dear Members of the Committee:

Please accept this letter of support for Justin Holes, an undergraduate student in the BS program in Public Health. Justin has worked closely with Dr. Coleman in previous semesters of undergraduate classes. I work with Dr. Coleman as a colleague and have heard great things from him.

Justin has excelled in all courses throughout his college career, with an accumulative GPA of 3.98 and UNO GPA of 4.0 in his 40 units completed, since transferring from Southeast Community College. Justin took the initiative to approach Dr. Coleman and myself regarding possible opportunities to expand his knowledge in the research field, since he is highly interested in learning as much as he can as an undergraduate, in hopes of excelling his chances to attend graduate school. I was informed by Dr. Coleman that he has impressed him by being consistently prepared and engaged in classroom activities. Justin also demonstrates critical thinking skills in the classroom and in his written assignment. I feel Justin would be an excellent fit with my previous research experience. I have worked on several projects related to sexual functioning and sexual satisfaction among women as well as considerable time examining the relationship between these constructs and body image.

I have reviewed Justin’s proposal to complete research examining the relationship between BMI, body image and sexual functioning and sexual behaviors in young women. This project will also help further understanding of women’s experiences with their bodies and sexuality. Based on Dr. Coleman’s experiences with Justin in the classroom and my interactions with him to help complete his proposal, I believe that he is an ideal candidate for a FUSE award. Without hesitation, I offer my full support for Justin’s proposal.

Sincerely,

Sofia Jawed-Wessel
Body Mass Index, Body Image, Sexual Function and Sexual Behavior Among Young Women

References


Body Mass Index, Body Image, Sexual Function and Sexual Behavior Among Young Women


Body Mass Index, Body Image, Sexual Function and Sexual Behavior Among Young Women

Budget Justification

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Student Stipend ($2,000)
6 hours a week from March through October. The stipend will support my time dedication to conducting the research for the project during the school year.