

## **Sigma's 30th International Nursing Research Congress**

### **Factors Predicting High-Risk Sex Practices and Incidence of STIs Among Female Veterans**

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**Purpose:** The purpose of this study is to elucidate factors that predict high risk sex practices and describe the incidence of STIs among female military Veterans in Florida.

**Theoretical Framework:** The guiding framework for this study is Social Dominance Theory (SDT), a general theory of societal group-based inequality (Pratto, Sidanius, Stallworth & Malle, 1994). SDT was developed to understand how group-based power is structured and maintained within social and political hierarchies (Pratto, Sidanius & Levin, 2006). It attempts to synthesize psychological and sociological theories to explain group-based inequality and oppression based on age, gender and an arbitrary-set system (Pratto & Espinoza, 2001; Pratto, Sidanius & Levin, 2006; Rosenthal & Levy, 2010). SDT theorizes that in the age-system, adults have enormous power over children. In the gender system, which ascribes more power to men, “men have disproportionate social, political, and military power compared to women” (p. 273). It must also be noted that women tend to marry or have relationships with older men who wield much power over them. The same can be said of people who engage in homosexual relationships – age and male tendencies are usual characteristics common to the individual who wields more power in the relationship. SDT also highlights that in the arbitrary system, groups are constructed on “arbitrary” cultural bases. The main variable related to SDT is Social Dominance Orientation (SDO) (Pratto, Sidanius, Stallworth & Malle, 1994) which is being measured in this study in relation to its influence on sexual behavior.

SDT is structured around the four bases of gendered power (Pratto & Walker, 2001) - force; resource control (usually controlled by men); social obligations (which generally assure women’s subordination to men); and consensual ideologies (which dictate that men are in control). Therefore, a high social dominance orientation score indicates agreement with the ideology that men should be more socially dominant and have more power in gender-based relationships. These factors (force, resource control, social obligations, and consensual ideologies), can be helpful in explaining female vulnerability to STI infection.

Knowing that STI rates in the military far surpass those of the civilian population, and HIV data in the military reflect those of the general US population, and that more than 80% of HIV-infected women were infected through high risk heterosexual contact (CDC, 2013; Florida Department of Health Fact Sheet, 2013; KFF, 2014), it is logical to hypothesize that power imbalance in female Veterans’ heterosexual relationships may be contributing factors to high risk sex.

#### **Specific Aims:**

1. Examine how female Veterans’ individual and demographic characteristics; cognitive and behavioral factors; socioeconomic factors; and, social dominance orientation are associated with each other.
2. Explore the degree to which female Veterans’ individual and demographic characteristics; and, socioeconomic factors predict safer sex behaviors, STD knowledge and social dominance orientation.

#### **Methods**

*Research Design:* This proposed research utilizes a descriptive, correlational, cross-sectional, non-experimental design to describe high risk sexual behaviors and factors that predict high risk sex practices in female military Veterans.

*Setting:* The study occurs in the “real world” or in the “field” in the State of Florida, USA. Florida has one of the largest Veterans’ populations in the United States, many of whom are women. This population of Veteran women tends to be racially and ethnically diverse. Additionally, Florida is home to several VA hospitals. The majority of Veterans reside in the southern and central Veterans Integrated Service Networks (VISNs) of the United States. There are also several clinics and hospitals in all Florida counties, especially Miami-Dade, Broward and Palm Beach.

*Population:* The target population for this study is at least 116 female US military Veterans of any age, who are residents of the State of Florida. Participants may be men who identify as women, including Trans persons. Participants must be healthy enough to participate in study data collection protocols and be able to read, write and understand English. Potential participants will be excluded if they have any physical, cognitive or psychological impediments that prevent reliable and valid participation in the study protocol.

*Sample Size:* A priori power analysis utilizing G\*Power was used to determine sample size based on an anticipated effect size of .30 or higher to achieve statistically significant differences at the significance level (alpha) of .05 and a minimum power of .80.

*Data Collection:* The Florida International University (FIU) IRB has approved the study and data are being collected electronically or on paper, based on participant’s choice, from the community. Additional approval from the VA IRB is pending. All necessary measures have been implemented to safeguard privacy, confidentiality and anonymity. Qualtrics is the electronic data platform and The PI worked with Qualtrics (electronic data platform) engineers to design tools so that privacy, confidentiality and anonymity are assured.

Women who decide not to participate are thanked and no further contact is made. Those who meet criteria and wish to participate are escorted to a private area where they are given the study questionnaires for completion. The PI intervenes only if the participant has a question or needs clarification. Completed surveys are coded for anonymity, and placed in a sealed envelope by the participant. Before sealing the envelope, participants are asked if they have any further questions. If not, the envelope is collected and the participant is given a gift card in the amount of \$10.00 for having participated. Those who desire to complete the surveys electronically, a web link to the surveys is sent to their email. The irretrievable, random generated code is then noted by the participant and sent to the PI, indicating survey completion so that the gift certificate can be sent to the participant. The code is deleted, if missed. The VA does not allow gifts to study participants. They waived the informed consent for an Information Letter instead because no patient data is being collected.

#### *Instruments and Psychometrics:*

4. PI Developed Screening Form
5. PI Developed Demographic Questionnaire
6. The Safer Sex Behavior Questionnaire ([SSBQ], Dilorio, Parsons, Lehr, Adame & Carlone, 1992); Cronbach’s Alpha of .52 to .85; stability females (r = .63 to .82); males (r = .35 to .84); validity: -.34 and .39 for males; -.21 and .27 for females
7. Social Dominance Orientation Scale ([SDO] Pratto, Sidanius, Stallworth & Malle, 1994); internal reliability: .83, ranging from .31 to .63; stability: .81 to .72
8. STD Knowledge Questionnaire (Jaworski & Carey, 2007); The STD-KQ - internal consistency (Alpha = .86) and test–retest reliability (r = .88) over a brief period

9. The Abuse Assessment Tool – Short Form (McWhinney-Dehane, 2006); The AATNP Short Form had a Cronbach's alpha of .93. Item-to-total statistics ranged from .56 to .76; Alpha-if-item deleted was .93 or less.

**Major Concepts:** Demographics (age, SES, education, race, length of residence in the USA, nationality, HIV status, culture, religious engagement); safer sex practices; SDO; STD knowledge; and abuse in relationships.

**Data Analysis:** Data are currently being collected with almost half of the participant quota met. The latest version of SPSS will be used for descriptive and multivariate statistical analyses. The criterion level for significance will be .05. Specific statistical analyses will be computed to test the hypotheses outlined above. To determine the best predictor of safer sex behaviors among female Veterans, stepwise hierarchical multiple logistic regression analyses will be conducted among these variables. The variables with the highest R-squared will be deemed most predictive of the behavior. The overall strength of the relationships will be determined by the R-squared value and whether or not the individual variables make a significant contribution to the predicted relationship. Assumptions of sample size, multicollinearity and singularity, normality, linearity, homoscedasticity and independence of residuals must be met in order to carry out relevant statistical functions. SDO scores of female Veterans with and without a history of abuse will be compared using Student's independent t-tests. Further analyses will be conducted to compare the scores of groups of women in relation to measures such as the SSBQ to determine if there are any differences in their mean behavior scores. The test statistic will be the *t-statistic* with a p-value <.05 with a moderate or higher effect size (.06 to .14 or higher based on Cohen's d). Power analysis revealed that a sample size of at least 116 could yield significant results.

**Results:** Preliminary results (6 paper surveys) indicate that female Veterans between 33-55 years of age engage in both safer and high risk sexual behaviors (i.e. condom use always to unprotected anal sex and alcohol consumption prior to sex). Some also inferred that marriage confers safety. In terms of SDO, a small number appear to believe that certain groups are more equal than others and that certain groups should be kept in their place. It is not known if this belief influences sexual behavior as further analyses are needed.

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**Title:**

Factors Predicting High-Risk Sex Practices and Incidence of STIs Among Female Veterans

**Keywords:**

Female Veterans, High risk sex and Social Dominance Orientation

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#### **Abstract Summary:**

STIs are more prevalent among female military personnel than among civilian women. Studies have demonstrated that military personnel engage in high risk sex. However, do we know what factors

influence their sexual behaviors, or whether they continue as they transition to civilian life? This study seeks to answer these questions.

#### **Content Outline:**

The poster abstract for this original study is structured with the following headings.

**1. Purpose:** This section outlines the purpose of the study.

**2. Theoretical Framework:** In this section, the guiding framework for the study and how it relates to the study is discussed.

**3. Specific Aims:** Described in this section are two major aims/objectives to be explored in this study. Though not discussed in the abstract due to word limitation, there several hypotheses related to these two aims.

#### **4. Methods:**

This section describes the methodological procedures utilized in the study to achieve aims/objectives, such as:

*a) Research Design:* This proposed research utilizes a descriptive, correlational, cross-sectional, non-experimental design to describe high risk sexual behaviors and factors that predict high risk sex practices in female military Veterans.

*b) Setting:* The study is taking place in the State of Florida, USA. Some data are being collected in the community and some will be collected at the Veterans Administration Medical Center (VAMC) in Miami, Florida. The rationale for the setting is discussed in this section, also.

*c) Population:* The target population for this study is at least 116 female US military Veterans of adult age. Eligibility and exclusion criteria are also discussed in this section.

*d) Sample Size:* A priori power analysis utilizing G\*Power was used to determine sample size based on an anticipated effect size of .30 or higher to achieve statistically significant differences at the significance level (alpha) of .05 and a minimum power of .80.

*e) Data Collection:* The Florida International University (FIU) IRB has approved the study and data are being collected electronically or on paper. IRB approval is pending from the VAMC. Qualtrics is the electronic data platform that supports and houses the electronic data through the FIU IT Department. This section details the data collection procedure and how confidentiality, privacy and anonymity are being assured.

*f) Instruments and Psychometrics:* There are six (6) instruments for data collection in this study. Two are PI-developed. Reliability and validity scores are not needed for these instruments - Participant Screening Form and Demographic Questionnaire. Reliability and validity scores for the other four (4) measures are discussed in detail in this section of the abstract.

**5. Major Concepts:** This section discusses the major concepts being measured in the study- demographics (age, SES, education, race, length of residence in the USA, nationality, HIV status, culture, religious engagement); safer sex practices; SDO; STD knowledge; and abuse in relationships and the extent to which they influence and/or predict female Veterans' sexual practices.

**6. Data Analysis:** The latest version of SPSS will be used to analyze the data. This section outlines the statistical methods that will be employed to analyze and understand study results. Data collection is in

progress and the results referred to in this section of the abstract are related to the six (6) participants who submitted paper surveys. Over 30 participants have submitted electronic surveys; however, the latter results will be available by the time of the conference in July 2019.

**7. Results:** These results are preliminary and represent findings from the only six (6) participants (so far) who submitted paper surveys. By the time of the conference, it is hoped that all data will have been collected and analyzed for a more consequential discussion.

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**Author Summary:** Ms. Fray is in the data collection phase of her PhD research focused on exploring the factors that predict high risk sex practices and incidence of STIs among female Veterans in Florida. She works fulltime at Jackson Health System as clinical coordinator, Clinical/Nursing Orientation and Affiliating Nursing Schools. Her last formal speech was keynote speaker at the STTI Induction/Award Ceremony in Nov. 2018 at the Benjamin Leon College of Nursing at Miami Dade, College.