AIDS Behav (2008) 12:578–584
DOI 10.1007/s10461-007-9280-1

ORIGINAL PAPER

HIV/AIDS Behavioral Surveillance among Angolan Military Men

Eric G. Bing · Daniel J. Ortiz · Ricardo E. Ovalle-Bahamón · Karen G. Cheng · Fannie H. Huang · Francisco Ernesto · Naihua Duan

Received: 11 January 2007 / Accepted: 28 June 2007 / Published online: 20 July 2007

Abstract To assess HIV-related risk behavior among military men in a post-conflict sub-Saharan African country with low HIV prevalence this study evaluated sexual risk taking and related behaviors among a stratified random sample of 1,710 military personnel in four regions of Angola. Over 90% were sexually active and 60% had two or more sexual partners within the past year. Condom use varied depending on partner type, from a low of 10% to a high of 54%. Factors independently predicting the number of sexual partners included younger age, younger age of sexual debut, being away from home, being in the eastern part of the country, higher military rank, higher education, alcohol before sex, and problem alcohol use. Independent predictors of sexually transmitted infection symptoms included age of sexual debut, lower education, higher rank, and having had sex with a casual partner or a commercial sex worker in the previous 12 months. These findings indicate high rates of HIV risk-taking behaviors among military personnel and the need for aggressive prevention campaigns to reduce HIV risk among military personnel and the populations they serve.

E. G. Bing (✉) · D. J. Ortiz · Ricardo E. Ovalle-Bahamón · K. G. Cheng
Department of Psychiatry, Charles R. Drew University of Medicine and Science, 1731 120th St. Bldg N, Los Angeles, CA 90059, USA
e-mail: eric.g.bing@gmail.com

F. H. Huang · N. Duan
Department of Biostatistics, University of California, Los Angeles, Los Angeles, CA, USA

F. Ernesto
Angolan Armed Forces, Luanda, Angola

Keywords HIV · Prevention · Military · Africa · Behavior

Introduction

Military personnel are among those at greatest risk for contracting and transmitting HIV, as they tend to be young sexually active men who drink alcohol and have opportunities to have many sexual partners. These men are often away from their families for significant periods of time and may serve in regions where the prevalence of HIV is high. In countries that are post-conflict, military men may experience war related traumas as well as face challenges of unstable governmental, educational and medical infrastructures. Given that behavior is often shaped by the social climate (Sherif 1936), we must consider the overall social context under which HIV-related risk behaviors among military personnel take place.

In post-conflict countries with lower HIV prevalence, monitoring HIV-related behavioral characteristics of military personnel may serve as an early warning system to forecast where and among whom the epidemic may spread if prevention efforts do not change risk behaviors. Angola provides this opportunity as its HIV prevalence rate among adults is estimated to be 3.7%, significantly lower than the rates found in the neighboring nations of Botswana (24.1%), Namibia (19.6%), and Zambia (17%) (UNAIDS 2006). The limited effects of Africa's HIV/AIDS epidemic on Angola is due largely to 27 years of civil war that greatly limited travel within Angola and to and from neighboring countries (Ortiz et al. 2004). However, the end of the war in 2002 has been accompanied by a return and reintegration of Angolan refugees and the demobilization of military men. This population

movement may inadvertently be accompanied by an increase in HIV transmission.

This study is the first large-scale data collection of HIV-related risk behavior among military men in Angola because the civil war made it extremely difficult to engage in research activities. The data were collected from November 2003 to February 2004, less than 2 years after the civil war ended and the peace treaty was signed.

Methods

Respondents and Procedures

The study was conducted from November 2003 to February 2004 and included members of the Angolan Armed Forces (Forcas Armadas Angolanas; FAA) from four military regions: the capital, eastern, southern, and center regions of the country. The study received Institutional Review Board (IRB) approval from the Charles R. Drew University of Medicine and Science and the Angolan Armed Forces. We employed stratified random sampling with military personnel. Specifically, all military bases within each region were identified. Bases were selected with equal probability within region to participate. Within bases, military commanders informed military personnel about the study and that they may be recruited to participate in the study. Civilian interviewers went to military units on the base and recruited individuals. The specific number of bases and servicemen within each region is classified military information. The final sampling probabilities ranged from: .003 to .066. Participants were weighted by their sampling probability.

Measures

The survey assessed demographic characteristics, HIV-related behavior and knowledge, and alcohol consumption.

Demographic characteristics included age, marital status, number of school years completed, military branch, rank, years in military, time away from base in the past year, and location. Location was identified by interview location.

HIV-related behavior included age at first sexual encounter, number of sexual partners in the last year, sex with a casual partner or commercial sex worker in the last year, condom availability, condom use with casual partners and with commercial sex workers, STI symptoms, and previous HIV testing. Number of sexual partners in the past 12 months was assessed with four mutually exclusive categories: regular live-in partners, regular non-live-in partners, casual sexual partners, and commercial sex workers. Condom availability was defined as the amount of time it would take to get a condom from the closest place to home or work. Condom use is reported use of condom during last sexual encounter with each partner type. Two self-report questions regarding the presence of sores/blisters/ulcers or discharge from the genitals in the past 12 months measured STI symptoms. Previous HIV testing was measured by having ever taken an HIV test.

HIV knowledge was assessed by the number of correctly answered questions out of nine related to transmission of HIV/AIDS and methods of HIV prevention. These questions were based on *The Family Health International Behavioral Surveillance Survey (FHI-BSS)* (Family Health International 2000) which included questions about HIV transmission from mother to child, mosquitoes, casual contact, syringes, and breast milk, and HIV prevention through condom use, abstinence, mutual fidelity with an uninfected partner, and HIV testing.

Alcohol consumption variables included problematic alcohol consumption and alcohol prior to sex. The Alcohol Use Disorders Identification Test (AUDIT), which was developed by the World Health Organization (WHO) and has been validated in six countries (Saunders et al. 1993a, b), was used to identify persons whose alcohol consumption has become harmful to their health. This scale consists of 10 questions relating to frequency of drinking alcohol and negative outcomes related to drinking alcohol. The reliability for this scale measured by Cronbach's alpha was calculated at $\alpha = .81$.

Based on findings from pre-test focus groups and pilot testing of the instrument, question wording from the FHI-BSS and AUDIT were modified in this study for ease of comprehension in Angola. All items were translated from English to Portuguese and back-translated to English to ensure accuracy.

Statistical Analysis

Data management and all analyses were conducted in SAS. Five imputations of the missing data were created (Rubin 1987; Sinharay et al. 2001). Participant data were weighted by the participant's sampling probability. Primary outcome variables were the number of sex partners in the past 12 months, condom use with a casual partner or sex worker, and STI symptoms. A Poisson random effects regression model was used to model the number of sex partners (Weiss 2005). Multivariable logistic regression (Hosmer and Lemeshow 2000) was used to model condom use with a casual partner, condom use with a prostitute, and STI symptoms. Predictor variables for multiple regression analyses were selected a priori if they were important or if they were significant at the 0.10 level in a bivariate analysis. Education and rank were selected a priori in all multivariate analyses. Condom availability was selected

a priori for condom use analyses. All other demographic variables, HIV-related behaviors and knowledge variables, and alcohol use variables previously described were also included in the multivariate analyses if they were significant at the 0.10 level.

Results

Sociodemographic and Professional Characteristics

Study participants were 1,710 males who, at the time of the study, were serving in the Angolan Armed Forces. Table 1 reports the sociodemographic and professional characteristics of the sample. All participants were serving in one of four regions: eastern region ($n = 727$, 43%); capital ($n = 518$, 30%); southern region ($n = 331$, 19%), and central region ($n = 134$, 8%).

The mean age of the sample was 31.5 years. Twenty-nine percent of the sample reported being married, while 48% were "unmarried, but living with a sexual partner." Fifty-nine percent of the participants had a sixth grade education or less and 41% completed through the 7th grade or beyond. The majority of the sample (94%) was army personnel, and most participants were of lower military rank (78%). Thirty-two percent of the sample had been in the armed services for five or fewer years while 42% said they had served between 6 and 13 years.

Table 1 Sociodemographic and professional characteristics

Variable	*N*	Weighted % of those who responded
Male	1,710	100
Age (yr)		
18–25	384	21.8
26–35	918	57.6
36+	376	20.6
Marital status		
Married	609	28.7
Unmarried, living w/sexual partner	737	48.0
Unmarried, not living w/sexual partner	315	23.1
Education		
None to primary level (0–4th grade)	716	30.0
Second level (5–6th grade)	456	28.5
Third through superior level (7th and beyond)	526	41.5
Branch of armed forces		
Army	1,547	93.5
Air, special forces, navy	111	6.5
Rank		
Lower ranking military	1,327	77.9
Higher ranking military	371	22.1
Years in service		
<6 years	669	32.4
6–13 years	806	41.8
>13 years	431	25.8
Over the past 12 months, away from home >1 month		
Yes	806	44.6
No	876	55.4
Region		
Eastern	727	42.5
Capital	518	30.3
Southern	331	19.4
Central	134	7.8

HIV-related Risk Behaviors

The mean age of reported sexual debut was 16, with 29% of the sample reported having their first sexual experience at or before the age of 14 years. Table 2 reports the frequencies of the HIV- and alcohol-related variables. Most participants (91%) had sexual relations in the past 12 months and a majority (60%) had two or more partners in the past year. Symptoms of sexually transmitted infections (STI) in the past year were reported by 17% of the sample. Condom use in last sexual encounter ranged from 10% with regular live-in partners to 54% with commercial sex workers. Most (76%) reported being able to obtain a condom in less than one hour. In regards to HIV testing, only 27% had ever been tested, and of those tested, only 50% had been tested within the last year.

HIV Knowledge

Sixty-one percent of the sample had low to moderate knowledge of HIV/AIDS.

Predictors of Condom Use with a Casual Partner or a Sex Worker

Condom use with casual partners was significantly predicted by the degree to which condoms were accessible. Specifically, those who were more than an hour away from obtaining a condom were 3.5 times less likely to consistently use a condom with a casual partner than those able to obtain a condom within an hour (95% CI: 1.36–8.88). In contrast, the only significant independent predictor of military men not using a condom with a sex worker was being older age at first sexual encounter (OR = 1.17, 95% CI: 1.01–1.36).

Table 2 HIV-related risk behaviors

Variable	N	Weighted % of those who responded
Age of sexual debut		
≤14 yrs.	354	29.1
15–20 yrs.	807	58.0
≥21 yrs.	168	12.8
Number of sexual partners in the past 12 months		
0	147	8.9
1	493	31.6
2	342	20.9
3 or more	662	38.6
Types of sexual partners in past 12 months		
Regular live-in partner	1287	72.5
Regular non-live-in partner	980	59.2
Casual partner	311	18.6
Commercial sex worker	194	9.0
Condom use during last sex encounter with		
Regular live-in partner	96	9.7
Regular non-live-in partner	255	36.5
Casual partner	115	46.8
Commercial sex worker	54	54.2
Amount of time to acquire a condom		
<1 hour	963	75.6
>1 hour	403	24.4
Ever been test for HIV		
Yes	317	26.9
No	1,289	73.1
Most recent HIV test taken		
0–1 yr	171	49.9
1–2 yr	95	33.6
2–4 yr	21	9.1
>4 yr	21	6.2
Don't know	3	1.2
Had STI symptoms in last 12 months		
Yes	333	17.1
No	1,377	82.9
Alcohol before sex in last 4 weeks		
Never to rarely	1,005	68.5
Sometimes to always	517	31.5
Alcohol use (AUDIT score)		
No alcohol use	472	36.7
<8 (Use, not problem drinking)	340	20.7
≥8 (Problem drinking)	632	42.4
Knowledge of HIV/AIDS (out of nine items)		
Low (≤5 correct answers)	785	36.7
Moderate (6–7 correct answers)	325	24.0
High (8–9 correct answers)	600	39.3

Predictors of Number of Sexual Partners

Table 3 reports the adjusted rate ratios for the predictors of the number of sexual partners reported. Significant independent predictors of the number of sexual partners were being younger age, being younger age at first sexual encounter, being away from home for more than a month during the past 12 months, being based in the eastern part of the country compared to the capital, having higher education, being a higher ranking soldier as compared to a lower ranking one, drinking alcohol prior to sex, and having a drinking problem.

Table 3 Demographic and behavioral predictors of the number of sexual partners Angolan military men had in the past 12 months

Variable	Adjusted rate ratio	Confidence interval
Age[a]	.96*	(0.94, 0.98)
Age of sexual debut[b]	.97**	(0.95, 0.99)
Being away from home >1 month[c]		
(No)	1.00	–
Yes	1.21**	(1.05, 1.38)
Location of duty		
(Capital)	1.00	
East	1.44**	(1.23, 1.69)
Center	.96	(0.74, 1.23)
South	1.08	(0.91, 1.30)
Education		
(Primary level)	1.00	–
Second level	1.10	(0.95, 1.29)
Beyond 2nd level	1.28**	(1.07, 1.52)
Rank		
(Lower ranking military)	1.00	–
Higher ranking military	1.21*	(1.01, 1.46)
Alcohol use before sex[d]		
(No)	1.00	–
Yes	1.16*	(1.01, 1.34)
AUDIT score[e]		
(Not problem drinking)	1.00	–
Problem drinking	1.17*	(1.01, 1.37)

[a] Continuous age in five-year increments

[b] One-year increments

[c] During previous 12 months

[d] During previous month

[e] Score ≥ 8: problem drinking

* $p < .05$; ** $p < .01$

Predictors of STI Symptoms

Table 4 presents the adjusted prevalence odds ratios for the significant independent predictors of self-reported STI symptoms during the previous 12 months. People with earlier sexual debut were more likely to report having STI symptoms in the previous 12 months. In addition, those with more than a primary school education were less likely to have an STI than those with a primary school education or less. Participants who had casual sex partners or who had sex with a commercial sex worker (CSW) during the previous 12 months, were significantly more likely to report STI symptoms than those without such sexual partners.

Table 4 Demographic and behavioral predictors of STI symptoms among Angolan military men

Variable	Prevalence odds ratio	Confidence interval
Age[a]	1.01	(0.98, 1.04)
Age of sexual debut	0.93*	(0.88, 0.99)
Being away from home >1 month[b]		
(No)	1.00	–
Yes	1.35	(.92, 1.96)
Lived in location >1 year		
(No)	1.00	
Yes	0.87	(0.55, 1.37)
Location of duty		
(Capital)	1.00	–
East	1.05	(0.70, 1.58)
Center	.90	(0.46, 1.75)
South	.94	(0.59, 1.49)
Education		
(Primary level)	1.00	–
Second level	0.59*	(0.37, .95)
Beyond 2nd level	0.35**	(0.20, 0.59)
Rank		
(Lower ranking military)	1.00	–
Higher ranking military	1.44	(0.85, 2.45)
Alcohol use before sex[c]		
(No)	1.00	–
Yes	1.27	(0.81, 1.99)
AUDIT score[d]		
(Not problem drinking)	1.00	–
Problem drinking	1.06	(0.68, 1.64)
Number of partners	1.02	(0.98, 1.07)
Sex with casual or CSW partner		
(No)	1.00	–
Yes	2.42**	(1.57, 3.76)
Knowledge of HIV/AIDS	1.01	(0.89, 1.15)
Ever been test for HIV		
(No)	1.00	
Yes	1.11	(0.70, 1.78)

[a] Continuous age in five-year increments

[b] During previous 12 months

[c] During previous month

[d] Score ≥ 8: problem drinking

* $p < .05$; ** $p < .01$

Discussion

The results highlight the importance of HIV prevention efforts for militaries in post-conflict countries to prevent a rapid increase in HIV infection, particularly in low prevalence settings. A number of factors related to military service emerged as important, and thus need to be addressed in future HIV risk prevention programs.

Rank and Education as Important Factors

Rank was an important factor in predicting the number of sexual partners reported by respondents. Higher ranking officers had significantly more partners compared to those of lower rank. This is contrary to findings among US army personnel where lower rank is associated with higher risk (Jenkins et al. 2000); however, it is possible in lower resource settings that rank may be a proxy for power, status, and economic resources. Higher ranking officers may have access to more resources and more control over their schedule, leading to the ability to attract more sexual partners.

A similar rationale can explain why respondents with more education had greater numbers of sexual partners. Education is likely associated with income/socioeconomic status, giving more educated men more opportunities for sex. Still, this finding is unexpected given that greater education has been associated with reduced high-risk behaviors in other militaries (Bianchi and Popper 2000; CDC 1991; Szwarcwald et al. 2005). Interestingly, those with more education had fewer STI symptoms than less educated participants. Post-hoc analyses showed that a greater proportion of more educated participants used condoms with casual or commercial sex workers. It may be that those with more education were less likely to experience STI symptoms because they used condoms more frequently with higher risk partners than less educated participants.

Alcohol Use is Strongly Related to High-Risk Behaviors

Use of alcohol among participants was common. This finding was not surprising, as some service men report

using alcohol to provide courage or cope with the stressors of war (Ortiz et al. 2004). Based on participants' responses to the AUDIT, 42% of the sample met the criteria for alcohol misuse (AUDIT score ≥ 8) and 32% reported "sometimes to always" using alcohol before having sex over the previous month.

Both alcohol misuse and alcohol before sex predicted having higher numbers of sexual partners. It is widely reported that alcohol consumption may contribute to the spread of HIV/AIDS by diminishing sexual inhibitions and interfering with one's ability to adequately assess risk (Celentano et al. 1993; Foreman 2002; Kuntolbutra et al. 1996; MacQueen et al. 1996); therefore, it is important to consider this in HIV prevention for this population.

Knowledge of HIV Related Information

Most men surveyed had some knowledge about HIV/AIDS. Although participants were fairly knowledgeable about how HIV is transmitted, the majority of the sample reported engaging in high-risk behaviors. Similar findings of soldiers having a high degree of knowledge and engaging in risk-taking behaviors were reported by Jenkins et al. (2000) in a study of 400 US male soldiers attending an STD clinic. The majority of the men surveyed were aware that condom use could protect them against HIV and most said they could obtain a condom in less than 1 hour from their work or home. Yet, knowing that condom use can prevent HIV and the ease of condom acquisition did not translate into regular condom use. Only 10% of the sample used a condom in their last sexual encounter with a regular live-in partner. This is particularly alarming, given the large percentage of participants who reported unprotected sex with other partners (e.g., regular non-live-in partners, casual partners, and commercial sex workers).

The gap between HIV knowledge and risk behaviors within the military may lead to increasing rates of HIV infection. In the present sample, this gap may be accounted for by the inherently dangerous nature of serving in the military. Specifically, compared to civilian or other populations, uniformed personnel may feel that avoiding dangers that carry *immediate consequences* (e.g., loss of a limb, death) are more important than trying to avoid a virus that they cannot see and that may kill them many years in the future. Indeed, even among military men themselves, times of active combat may influence them to engage in higher risk sexual activity (Foreman 2002). Additionally, militaries often foster a culture that encourages risk-taking, and expressions of aggression (Fleshman 2001; UNAIDS 1998; Whitehead and Carpenter 1999). Minimization of the risk of contracting/transmitting HIV, combined with a social culture that fosters beliefs of invincibility, may undermine the relationship between knowledge of potential risk and acceptance of personal responsibility. However, seen in the context of sub-Saharan Africa, HIV/AIDS poses a much greater risk to servicemen than the inherent dangers of their occupation (Yeager 2000).

The current study had several limitations. First, responses by participants regarding their past sexual behaviors are vulnerable to biases in participation and recall. Some individuals might have underreported the degree to which they engaged in high-risk behaviors, fearing that such information might lead to negative social and professional outcomes. Others may have over-reported specifics about their sexual activity due to cultural practices that condone multiple sexual partners for men (UNAIDS 2000). Second, the cross-sectional design of this study limits our ability to conclude cause and effect relationships. Finally, the study was based on a male sample of the Angolan military personnel as represented by four military regions. As such, the findings may not be generalizable to servicemen in other regions, to women in the military or to civilian populations.

The present study highlights the importance of making HIV prevention information relevant in the military context—for example, focusing on how rank and alcohol use are related to HIV risk. Increased efforts to prevent HIV among military personnel are necessary if personnel are to protect themselves and the countries they serve from the HIV/AIDS pandemic.

Acknowledgements This research was funded in part by: US Department of Defense (GC-3482-132-01-009), the National Institute of Mental Health (R01-MH64883-01), the NIMH-funded Center for HIV Identification, Prevention and Treatment Services (P-30-MH58107) and the Universitywide AIDS Research Program-funded Los Angeles Collaborative HIV/AIDS Public Health Research Center (CH05-Drew-616).

References

Bianchi, G., & Popper, M. (2000). Interaction of substance use and risks to sexual health in the Slovak army: General, sociocultural and individual behavior patterns. *AIDS Care, 12*(6), 757–765.

CDC. (1991). Mortality attributable to HIV infection/AIDS–United States, 1981–1990. *MMWR - Morbidity and Mortality Weekly Report, 40*(3), 41–44.

Celentano, D. D., Nelson, K. E., Suprasert, S., Wright, N., Matanasarawoot, A., Eiumtrakul, S., Romyen, S., Tulvatana, S., Kuntolbutra, S., Sirisopana, N., Akarasewi, P., & Theetranont C. (1993). Behavioral and sociodemographic risks for frequent visits to commercial sex workers among northern Thai men. *AIDS, 7*(12), 1647–1652.

Family Health International. (2000). *Behavioral surveillance surveys: Guidelines for repeated behavioral surveys in populations at risk of HIV*. Arlington, Virgina: Family Health International.

Fleshman, M. (2001). AIDS prevention in the ranks: UN targets peacekeepers, combatants in war against the disease. *Africa Recovery, 15*(1–2), 16.

Foreman, M. (2002). *Combat AIDS: HIV and the world's armed forces*. London, UK: Healthlink Worldwide.

Hosmer, D. W., & Lemeshow, S. (2000). *Applied logistic regression*, (2nd ed.). New York: John Wiley & Sons Inc.

Jenkins, R. A., Jenkins, P. R., Nannis, E. D., McKee, K. T., Jr., & Temoshok, L. R. (2000). Correlates of human immunodeficiency virus infection risk behavior in male attendees of a clinic for sexually transmitted disease. *Clinical Infectious Diseases, 30*(4), 723–729.

Kuntolbutra, S., Celentano, D. D., Suprasert, S., Eiumtrakol, S., Wright, N. H., & Nelson, K. E. (1996). Factors related to inconsistent condom use with commercial sex workers in northern Thailand. *AIDS, 10*(5), 556–558.

MacQueen, K. M., Nopkesorn, T., Sweat, M. D., Sawaengdee, Y., Mastro, T. D., & Weniger, B. G. (1996). Alcohol consumption, brothel attendance, and condom use: Normative expectations among Thai military conscripts. *Medical Anthropology Quarterly, 10*(3), 402–423.

Ortiz, D. J., Bing, E. G., Boyer, C. B., Russak, S. M., De-Deus, S. J., & Ernesto, F. (2004). Evidence-based recommendations for prevention of HIV and STIs in the Angolan armed forces: Challenges and opportunities at the end of 30 years of war. *Military Medicine, 170*(4), 327–332.

Rubin, D. B. (1987). *Multiple imputation for nonresponse in surveys*. New York: John Wiley and Sons.

Saunders, J. B., Aasland, O. G., Admundsen, A., & Grant, M. (1993a). Alcohol consumption and related problems among primary health care patients: WHO collaborative project on early detection of persons with harmful alcohol consumption I. *Addiction, 88*, 349–362.

Saunders, J. B., Aasland, O. G., Babor, T. F., de la Fuente, J. R., & Grant, M. (1993b). Development of the alcohol use disorders identification test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption–II. *Addiction, 88*(6), 791–804.

Sherif, M. (1936). *The psychology of social norms*. New York: Harper.

Sinharay, S., Stern, H. S., & Russell, D. (2001). The use of multiple imputation for the analysis of missing data. *Psychol Methods, 6*(4), 317–329.

Szwarcwald, C. L., de Carvalho, M. F., Barbosa, A., Jr., Barreira, D., Speranza, F. A., & de Castilho, E. A. (2005). Temporal trends of HIV-related risk behavior among Brazilian military conscripts, 1997–2002. *Clinics, 60*(5), 367–374.

UNAIDS. (1998). *AIDS and the military: UNAIDS point of view*. Geneva: Joint United Nations Program on HIV/AIDS.

UNAIDS. (2000). *AIDS epidemic update*. Geneva: Joint United Nations Program on HIV/AIDS.

UNAIDS. (2006). *2006 report on the global AIDS epidemic*. Geneva: Joint United Nations Program on HIV/AIDS.

Weiss, R. E. (2005). *Modeling longitudinal data*. New York: Springer-Verlag.

Whitehead, P. C., & Carpenter, D. (1999). Explaining unsafe sexual behaviour: Cultural definitions and health in the military. *Culture, Health & Sexuality, 1*(4), 303–315.

Yeager, R. (2000). *AIDS brief: Military populations*. Hanover, NH, USA: Civil-Military Alliance to Combat HIV and AIDS.