

**THE INTERSECTION OF INTIMATE PARTNER VIOLENCE AND HIV/AIDS
AMONG WOMEN IN INDIA: MOVING BEYOND THE INDIVIDUAL**

by

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Objective: Intimate partner violence and HIV/AIDS are two intersecting and significant public health issues impacting the health status of women living in India. Although the intersection of IPV and HIV/AIDS has been highlighted as relevant in understanding HIV transmission patterns among women, current prevention strategies have largely failed to address disease transmission. Multiple methods were conducted with the primary objectives to explore the multi-level factors connecting risk for HIV infection and incidence of IPV among women living in India, create a conceptual model outlining potential mechanisms and pathways involved, and discuss the implications for future research and practice.

Methods: A comprehensive literature search of IPV and HIV/AIDS among women living in India resulted in the synthesis of 24 research studies. The final set of literature was analyzed and organized by thematic results related to content and research design. In addition, participant observation fieldwork took place throughout June to August 2011 involving discussions with 27 key informants to learn more about the context of IPV and HIV/AIDS among women living in Andhra Pradesh, India. Discussion notes were summarized and organized based on recurring themes.

Results: More than one third of married women have experienced IPV by their husbands in India, where women now account for 40% of total HIV/AIDS infections. Findings indicate that abused wives face heightened HIV risk based both on an increased likelihood of HIV infection

among husbands and elevated HIV transmission within abusive relationships. HIV/AIDS and IPV are linked, and further confounded by many cultural beliefs, norms, and social institutions that legitimize and therefore perpetuate violence against women.

Conclusion: IPV and HIV infection among Indian women is a multifaceted issue subject to an interaction among individual, relationship and situational, and sociocultural factors. Several recommendations are made to strengthen further research, practice, and policy addressing the intersection of IPV and HIV infection among women living in India. Qualitative research design, specifically community-based participatory approaches, and sound IPV measurement are required for the design of culturally appropriate interventions specific to the realities and needs of Indian women in order to prevent and treat these mutually reinforcing epidemics.

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PREFACE

This thesis is dedicated to Chris, Katie, Natalie, and Sharon. Your unconditional support and encouragement throughout this process has been incredible - without you I never would have finished. Thank you for being my co-conspirators and for calming the at times frequent tailspins. And, for reminding me what it is that I'm doing - without which I may have forgotten a few more times. To Anna, Erin, and Jackie. Even though we may be separated by hundreds of miles you've always found ways to show me just how lucky I am to have you in my life. And to my family. Without your encouragement I would not be where I am today. I hope you've learned as much from me as I have from you.

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1.0 INTRODUCTION

This master's thesis discusses the current state of HIV/AIDS and intimate partner violence among women living in India and investigates the intersection and synergies that exist between the two. Overall, intimate partner violence has increasingly been highlighted as relevant in understanding HIV transmission patterns among women living in India (AIDS Alliance, 2004; Chandrasekaran et al., 2007; Decker et al., 2009; Desai, 2005; Ghosh et al., 2011; Go et al., 2003; Newmann et al., 2000; Panchanadeswaran et al., 2008; Silverman et al., 2008; Solomon et al., 2009), where despite recent reductions in HIV prevalence among the general population and many high-risk groups, the percentage of all infections among women relative to men has continued to rise (NACO, 2007; UNAIDS, 2010). The small set of literature examining the intersection of intimate partner violence and HIV infection suggests that married Indian women face 'double jeopardy', where IPV functions as both a risk marker and a risk factor for women's HIV infection (Decker et al., 2009; Silverman, Decker, Saggurthi, Balaiah, & Raj, 2008). These epidemics overlap and intersect, and are further shaped and maintained by complex underlying individual, situational, and sociocultural factors (AIDS Alliance, 2004; Amaro, 2000; Dalal, 2011; Go et al., 2003; Go et al., 2003; ICRW, 2002; Jeyaseelan et al., 2007; Krishnan, 2005; Lingam, 1998; Pandey et al., 2009; Silverman et al., 2008; Solomon et al., 2011). Yet despite the increased attention placed on the intersection of intimate partner violence and HIV infection, study design has been incomplete in fully understanding the intricacy of these two serious public

health issues. The implications for the prevention, treatment, and care of this relationship is complicated, but must extend beyond addressing each issue individually and reflect programming that is tailored to meet the contextual and cultural needs of Indian women.

This thesis utilizes multiple methods to gain a better understanding of the underlying socio-behavioral and economic factors involved in shaping and modifying the risk environment of intimate partner violence and HIV infection among women living in India. A comprehensive search strategy was conducted to gather relevant literature exploring the context of Indian women's lives and factors related to experiences of violence and risk of HIV infection, as well as studies specifically exploring the intersection of violence and HIV/AIDS among this selected population. The questions and research gaps that emerged throughout the literature search shaped the questions explored throughout participant observation fieldwork in Andhra Pradesh, India that took place from June to August 2011. Ultimately, this master's thesis was designed to: (1) explore the multi-level factors connecting risk for HIV infection and incidence of intimate partner violence among women living in India; (2) create a conceptual model that outlines the mechanisms and pathways involved; and (3) discuss the implications for future research and practice.

2.0 BACKGROUND

HIV/AIDS and intimate partner violence are two intersecting and significant public health issues impacting the health of women worldwide. Together this relationship is subject to an interplay of factors. Although the intersection of HIV/AIDS and IPV has been highlighted as an important issue in HIV prevention and treatment, current prevention strategies have largely failed to address disease transmission. A better understanding of the intersection of HIV/AIDS and IPV and the factors that shape and modify the risk environment for women will provide valuable information in the design of interventions targeting such important and serious issues. This section begins with an overview of the global scope of HIV/AIDS among women and the global burden of intimate partner violence, as well as a review of existing literature exploring the intersection of the two epidemics. Specific attention is given to examining these two issues in the context of India and Indian women, and their unique experiences.

2.1 OVERVIEW: THE GLOBAL SCOPE OF INTIMATE PARTNER VIOLENCE AND HIV/AIDS AMONG WOMEN

2.1.1 HIV/AIDS among Women

Thirty four million people around the world are currently infected with HIV/AIDS. Of this, over half of those living with HIV are women (UNAIDS, 2011c) leading to what is being called a “feminization of the HIV epidemic” (L. L. Heise & Elias, 1995; Quinn TC, 2005; Silverman et al., 2008). Millions of those infected are young people aged 15-24 years who now account for 41% all new infections (UNAIDS, 2011b). Sixty-eight percent of all people living with HIV reside in sub-Saharan Africa, making this region the most heavily affected by HIV - a region that only accounts for 12% of the global population (UNAIDS, 2011c). More alarming is that young women in sub-Saharan Africa are eight times more likely to be HIV positive than men of the same age, and overall account for 59% of all people living with HIV in the region (UNAIDS, 2011c).

Women worldwide disproportionately comprise the HIV/AIDS burden - a result of gender inequalities and human rights violations that place them at greater risk of and more vulnerable to HIV infection (UNAIDS, 2010). In 1985, women accounted for seven percent of total AIDS cases in the United States, and by 2004, accounted for 24% of all HIV diagnoses (CDC, 2011). African American women suffer a greater burden of HIV infection, accounting for 64% of women living with HIV/AIDS, despite that Hispanic and African American women only make up 25% of all U.S. women (CDC, 2005). Furthermore, African American women are 15 times more likely to be HIV positive than Caucasian women, and three times that of Hispanic

and Latina women (CDC, 2011). In Asia and the Pacific, women comprise 35% of all people living with HIV/AIDS (UNAIDS, 2011c). The number of females living with HIV infection has also been steadily increasing in the Caribbean - 35% in 1990 to 50% in 2008, with country variations of 26% in the Bahamas to 59% in Belize, Guyana, and Trinidad and Tobago (UNAIDS, 2011a).

The demographics of disease transmission have drastically changed since early prevention programs were developed with the majority of new infections today transmitted through unprotected heterosexual intercourse (CDC, 2011; Manfrin-Ledet & Porche, 2003). Having unprotected sex with multiple partners remains the greatest risk factor for HIV infection in many countries. As heterosexual HIV epidemics evolve, the number of sero discordant couples (where one partner is HIV positive) increases and the risk of transmission between partners also increases. This can be shown by the large proportion of people living with HIV/AIDS being in long-term relationships - with 68% in Kenya and 78% in Malawi, for example (UNAIDS, 2010). Data from Zambia suggests that 60% of people newly infected through heterosexual transmission are infected within marriage or cohabitation; similar results were found in Swaziland (50-65%), Lesotho (35-62%), and Kenya (44%) (Dunkle et al., 2008; Gelmon, 2009; Khobotlo, 2009; Mngadi, 2009). The gender disparities in HIV infection incidence and prevalence are alarming, and the failure of current prevention strategies to address the patterns of disease transmission poses a greater problem.

2.1.2 The Global Burden of Intimate Partner Violence

Violence against women is a major public health problem impacting the health and well-being of women worldwide and contributes to serious physical and mental health issues (Campbell et al., 2008; M. Ellsberg, Jansen, Heise, Watts, & Garcia-Moreno, 2008; Gielen et al., 2007). It is a universal, and often silenced, phenomenon that lacks boundaries, cutting across race, religion, age, ethnicity, and geographic location (Pickup, 2001). There are many definitions of violence against women, each varying by perspective and aim in policy development and human rights response. For the scope of this paper, the United Nations Declaration on the Elimination of Violence Against Women's definition will be used, which states that violence against women is "any act that results in, or is likely to result in, physical, sexual, or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or private lives" (United Nations, 1993). This definition highlights that violence is gender-based and encompasses violent acts that may not be directly inflicted upon individual women, but include actions that lead to omission, deprivation, and gender discrimination, which overall inflicts mental and physical harm. As a result, violence against women can be linked to the broader social, economic, and political context in which it occurs without negating those violent acts that are directly inflicted. Additionally, discussions of intimate partner violence (IPV) throughout will be defined as, "actual or threatened psychological, physical, or sexual abuse by an intimate partner (e.g. husband, boyfriend)" (CDC, 2010).

Violence, or the fear of violence, to which women are subjected to occurs in a systematic way. This violence significantly limits women's choices in all spheres of their lives and threatens their freedom to engage and participate in the social, economic, and political context of her

community. Violence inflicted upon women “not only terrorizes individual woman and destroys their lives, but damages the social fabric that is essential for trust and co-operation between human beings...by eroding the vital social relationships between individual women and men, and between groups of men and women” (Pickup, 2001). Numerous country studies indicate that a disturbing proportion of women have experienced some form of violence within their lifetime (Garcia-Moreno, Jansen, Ellsberg, Heise, & Watts, 2006; Heise L, 2002; Shrotri et al., 2003). Research from 48 population-based surveys from around the world found that 10-69% of women reported being physically attacked by an intimate male partner at some point in their lives. And for many women, physical assault is not an isolated event, but part of a continuing pattern of abusive behavior (Heise L, 2002). Data suggests that at least one in every three women around the world have been beaten, abused, or coerced into sex during her lifetime (L. E. Heise, M.; Gottemoeller M, 1999).

Physical violence in intimate relationships is also frequently accompanied by other forms of abuse, specifically that of psychological and sexual abuse (Berg et al., 2010; Chibber, Krupp, Padian, & Madhivanan, 2012; Garcia-Moreno et al., 2006; Heise L, 2002; Karamagi, Tumwine, Tylleskar, & Heggenhougen, 2006; Kayibanda, Bitera, & Alary, 2012; Osinde, Kaye, & Kakaire, 2011; Silverman et al., 2008). Between six and 47% of adult women worldwide report being sexually assaulted by an intimate partner in their lifetime (WHO, 2004). Fifty seven percent of women in Japan who had ever been abused had suffered all three types of abuse (physical, psychological, and sexual), with less than ten percent having only experienced physical abuse (Yoshihama & Sorenson, 1994). 60% of women who indicated on a survey in Nicaragua as having been abused within the previous year had been attacked more than once and 20% had experienced severe violence more than six times (M. C. Ellsberg, Pena, Herrera, Liljestrand, &

Winkvist, 1999). In London, the average number of physical assaults among currently abused women was seven (M. Ellsberg et al., 2008). Studies conducted in the United States found that 1.9 million women are physically assaulted annually, with 64% of women who reported being raped, assaulted, and/or stalked were victimized by a current or former husband, cohabitating partner, boyfriend, or date (Tjaden, 2000).

These findings suggest that female survivors of physical violence rarely only experience a single act of violence, but multiple acts of aggression over time. Physically and sexually violent acts have also been documented to correlate with other severe physical and mental health outcomes, unintended pregnancy, sexually transmitted infections, chronic malnutrition and anemia, various chronic pain syndromes, depression and anxiety, post-traumatic stress disorder, alcohol and drug abuse, and thoughts or attempts of suicide (Ackerson & Subramanian, 2008; Browne & Wechsberg, 2010; Burke, Thieman, Gielen, O'Campo, & McDonnell, 2005; Campbell et al., 2008; Chandra, Ravi, Desai, & Subbakrishna, 1998; Chandra, Satyanarayana, & Carey, 2009; M. Ellsberg et al., 2008; Gielen et al., 2007; Gonzalez-Guarda, Peragallo, Urrutia, Vasquez, & Mitrani, 2008; Kostick et al., 2010; Nayak, Patel, Bond, & Greenfield, 2010; Shahmanesh, Wayal, Copas, et al., 2009; Shidhaye & Patel, 2010; Varma, Chandra, Thomas, & Carey, 2007).

2.1.3 The Intersection of HIV/AIDS and Intimate Partner Violence

HIV/AIDS and intimate partner violence are intersecting women's health issues. A lifetime prevalence of 36.6% for physical or sexual violence was found among HIV positive Ugandan women attending a HIV/AIDS clinic, of which one in three suffered intimate partner violence in the preceding 12 months. Women taking antiretroviral therapy (ART) for HIV treatment were

more likely to report experiencing any type of violence (physical, sexual or psychological) by an intimate partner than women not taking ART (Osinde et al., 2011). Furthermore, studies conducted in Rwanda, Tanzania, and South Africa show up to a three fold increase in risk of HIV infection among those women who had experienced violence compared to women who had not (Dunkle et al., 2004; Maman et al., 2002; Van der Straten A, 1998). Results from Tanzania also revealed that young (less than 30 years of age) HIV positive women were ten times more likely to report partner violence than young HIV negative women (Maman et al., 2002). This, as well as results from other country settings examining the relationship between HIV transmission and IPV, suggests that HIV positive women experience violence with greater severity and frequency than HIV negative women (Gielen et al., 2007).

There has been increased recognition that women and girls' risk and vulnerability to HIV infection is shaped by deep-rooted and pervasive gender inequalities, specifically gender-based violence (Campbell et al., 2008; Go, Sethulakshmi, et al., 2003; Kaye, 2004; Pickup, 2001; Shannon et al., 2012; Tsai & Subramanian, 2012; UNAIDS, 2011c; WHO, 2004). The growing body of literature on IPV and HIV/AIDS underscore biological, as well as socio-cultural and economic factors (Maman et al., 2002; Manfrin-Ledet & Porche, 2003; WHO, 2004). Violence against women and HIV infection coexist in similar environmental and behavioral risk contexts, making the probability of women experiencing both extremely high. However, the causal or temporal links of the intersecting epidemics are complex and not well understood (Campbell et al., 2008). Recent studies exploring the relationship between violence and HIV/AIDS among women have indicated numerous direct and indirect contributing elements to intersection. Such factors that contribute to and are a result of HIV infection and IPV include, but are not limited to, sexual violence; violence and threat of violence limiting HIV self-protective behaviors; HIV

associated violence; similar structural, economic, and behavioral risk factors; and a history of violence (Maman et al., 2002; Manfrin-Ledet & Porche, 2003; WHO, 2004).

Research has shown that sexual violence increases a woman's risk of STIs four-fold as trauma, vaginal lacerations, and abrasions, which are a result of forced sex, facilitate HIV transmission (Campbell & Soeken, 1999; Dude, 2007; Koenig et al., 2004; Wingwood et al., 2000). Violence, or threats of violence, hinders a woman's self-efficacy to request condom use. Gender norms interfere in her ability to negotiate sexual relationships or from using voluntary HIV/AIDS testing and counseling, overall further heightening risk of HIV infection. All of these examples either heighten a woman's risk of HIV infection, or increase morbidity or mortality related to an untreated HIV diagnosis (Chandrasekaran, Krupp, George, & Madhivanan, 2007; Karamagi et al., 2006; Panchanadeswaran et al., 2008; Swan & O'Connell, 2011; Tsai & Subramanian, 2012). Moreover, women may be at increased risk of violence following disclosure of HIV status to an intimate partner (Abramsky et al., 2011; Maman, Campbell, Sweat, & Gielen, 2000). HIV infection and experience of IPV also have similar behavioral, economic, social, and structural risk factors that reinforce the occurrence of each or both (AIDS Alliance, 2004; Campbell et al., 2008). Finally, a history of physical or sexual abuse in childhood or adolescence has been found to be associated with high sexual risk taking behavior in adulthood (Vlahov et al., 1998).

These specific examples illuminate that HIV/AIDS and IPV are intrinsically linked, but yet are further confounded by many cultural beliefs, norms, and social institutions that legitimize and therefore perpetuate violence against women (Amaro, 2000; Maman et al., 2002; Oxfam International, 2004; WHO, 2004). For women worldwide, violence has become an inescapable reality of their lives, as these social and cultural customs and attitudes that view and support

violence against women as normative behavior are imbedded and institutionalized at all levels (home, family, community, society, and state) (Oxfam International, 2004). It is because of this that HIV and violence against women have become interrelated and mutually reinforcing, subject to complex underlying factors that together shape the risk environment for women worldwide (Amaro, 2000; Manfrin-Ledet & Porche, 2003; Oxfam International, 2004; Parker, 2000; Shannon et al., 2012; WHO, 2004).

2.2 HIV/AIDS, VIOLENCE, AND GENDER IN INDIA

While the HIV infection rate in India (<1%) is low compared to many other countries, the large population means that an estimated 2.5 million adults are currently living with HIV/AIDS (Go et al., 2010). Of these HIV/AIDS infections, 40% are among women (NACO, 2007; UNAIDS, 2010) - a country that accounts for 16% of the global female population (Ackerson, Kawachi, Barbeau, & Subramanian, 2008). Heterosexual transmission has been found to be the single greatest risk factor for HIV infection among women, and the main cause in the overall increase in incidence among this group (AIDS Alliance, 2004; Gangakhedkar et al., 1997; Newmann, 2000; S. Solomon et al., 2009). For many women, high risk activity can simply mean being married (WHO, 2000). Furthermore, 47.4% of women age 20-24 were married by the time they were 18 (International Institute of Population Sciences, 2007). Previous studies suggest that HIV/AIDS and IPV are intrinsically linked, and are further confounded by many cultural beliefs, norms, and social institutions that legitimize and therefore perpetuate violence against women

(Amaro, 2000; Decker et al., 2009; Oxfam International, 2004; Silverman et al., 2008; WHO, 2004).

The interlinked economic and socio-behavioral context of India translates into a woman's heightened vulnerability to violence and HIV infection. Gender inequity, cultural and social norms, and poverty and economic inequalities impact a woman's overall autonomy and self-efficacy. Together an environment is created that impacts sexual activity and risk behavior as women possess little power to negotiate the context of their sexual relationships or use HIV self-protective behavior. Societal forces have determined women's sexual role as passive, available, and to be used only for reproduction (AIDS Alliance, 2004), while 60% of men legitimized using force during sex to satisfy his wife/partner (ICRW, 2002). The low economic and social status of women, stemming from a patriarchal society and resulting gender roles, also limits her decision-making power and access to appropriate HIV prevention and other health services. According to the Indian National Family Health Survey (NFHS-3), 43% of married women have never heard of AIDS and only 35% know that consistent condom use is a means of HIV prevention (International Institute of Population Sciences, 2007). Furthermore, a low legal status and denial of rights significantly restricts a woman's access to support, legal services, and protection following incidents of violence.

These inequalities are not operating in isolation, but overlap and intersect. Risk of HIV/AIDS and violence operate along a continuum of vulnerabilities that extend beyond a woman's individual risk behaviors (Ackerson et al., 2008; AIDS Alliance, 2004; Desai, 2005; Go, Sethulakshmi, et al., 2003; Newmann, 2000). Violence and threats of violence are associated with increased risk for sexual transmission of HIV (Ghosh et al., 2011), where 40% of Indian women reported being physically abused by their husbands during their adult lives (S. Kumar,

Jeyaseelan, Suresh, & Ahuja, 2005). More than one third (37%) of a nationally representative sample of married Indian women reported experiencing intimate partner violence from their husbands and those who experienced physical and sexual violence were four times more likely to be HIV positive (Silverman et al., 2008). Among women seeking voluntary HIV testing, 42% reported experiencing some type of abuse and among those who reported abuse, 67% tested HIV positive (Chandrasekaran et al., 2007). Yet, this data fails to reflect those women who lack the support, confidence, and self-efficacy to accurately assess their own risks, take preventative measures, and seek early diagnosis and treatment for HIV.

Among research conducted in India, women's partner's characteristics of education, employment status, alcohol consumption, having multiple sex partners, and being raised in a violent home were found to be correlated with odds of ever experiencing violence in numerous studies (Ackerson et al., 2008; Babu & Kar, 2010; Chibber et al., 2012; Jeyaseelan et al., 2007; Krishnan, 2005; Martin et al., 2002; Pandey, Dutt, & Banerjee, 2009). Studies exploring the relationship between IPV and early marriage found that women who were married as a minor were more likely to have experienced recent and lifetime IPV than women who were married after the age of 18 (Raj, Saggurti, Lawrence, Balaiah, & Silverman, 2010; Speizer & Pearson, 2011). Evidence also suggests that a woman's financial contribution impacts her experience of violence (Chibber et al., 2012; Dalal, 2011; Krishnan et al., 2010) - partial contribution to household income was found to increase odds of experiencing sexual violence twofold, however, if solely responsible for all household income, the relationship was found to be protective (Chibber et al., 2012). Moreover, additional study evidence supports that a woman's education attainment may be met with increased levels and frequency of violence (Ackerson et al., 2008; Boyle, Georgiades, Cullen, & Racine, 2009; Koenig, Stephenson, Ahmed, Jejeebhoy, &

Campbell, 2006). A population-based study by Ackerson et al. further supported previous research findings that violence against women is associated with community attitudes that are either accepting of or indifferent to IPV (Ackerson et al., 2008; Koenig et al., 2006). This suggests that although a woman's education attainment may be an important factor in determining the acceptability of abuse (Martin, Tsui, Maitra, & Marinshaw, 1999), a community's overall level of education may contribute to a woman's risk of abuse by influencing IPV as being either normative or non-normative behavior (Ackerson et al., 2008).

Intimate partner violence and HIV/AIDS are serious, complex public health issues severely impacting the welfare of women living in India. Pervasive gender and social norms, which manifests as gender disadvantages, functions as a risk environment and furthers exacerbates the intersection between HIV/AIDS and IPV. Specific attention needs to be given to the synergies between the two, where both issues, as well as the lives of Indian women, are viewed holistically and contextually. Further research needs to be done to better understand the distinct physical, emotional, and spiritual effects of women's experiences so that programming can be tailored to meet their needs. Efforts to better understand the complex underlying factors through community insight and participation is a crucial first step in intervention direction and guidance.

3.0 OBJECTIVES AND SPECIFIC AIMS

The specific aims of this thesis are as follows:

1. To explore the multi-level factors connecting risk for HIV infection and incidence of intimate partner violence among women living in India;
2. To create a conceptual model that outlines the mechanisms and pathways between intimate partner violence and HIV infection;
3. To provide contextually and culturally appropriate recommendations for future work addressing HIV/AIDS and intimate partner violence reduction among married Indian women based on a comprehensive literature review and participant observation fieldwork.

4.0 METHODS

Multiple methods were used to gain a better understanding of the underlying socio-behavioral and economic factors that shape and modify the risk environment of intimate partner violence and HIV infection among Indian women. A comprehensive search strategy was conducted to gather relevant literature exploring the context of Indian women's lives and factors related to experiences of violence and risk of HIV infection, as well as studies specifically exploring the intersection of IPV and HIV/AIDS among this selected population. Questions of Indian women's own health perceptions and ideas related to incidence of intimate partner violence and their risk of HIV infection, what sort of resources and services are available to survivors of violence, are there barriers to utilizing these services and what are they, and to what extent do social and cultural factors impact a woman's health behavior emerged from the literature review. The participant observation fieldwork that the author conducted in Andhra Pradesh, India from June to August 2011 intended to fill these gaps and work towards answering the emerging questions.

The participant observation fieldwork involved discussions with key informants in order to learn more about HIV/AIDS and violence against women in Hyderabad and Andhra Pradesh, India, in addition to the collection of relevant written documents and photo documentation. The University of Pittsburgh Institutional Review Board reviewed this master's thesis project proposal and determined that it did not meet the Federal definition of research under 45 CFR 46.102.d and therefore, IRB oversight of this project was not required.

4.1 LITERATURE REVIEW

A comprehensive search strategy was utilized to gather an inclusive set of literature that explore and discuss HIV/AIDS and violence against women in India. Three online databases were used (PubMed, Scopus, and PsychINFO) to identify a variety of scholarly articles found in medical and social science disciplines. Various combinations of the following words and terms were used in the literature search: India, women, HIV/AIDS, HIV, intimate partner violence, gender-based violence, spousal abuse, spouse abuse, violence against women, domestic abuse, and health. A set of inclusion and exclusion criteria was developed and applied to the results from the literature search to allow the selection of articles that were relevant for review. All articles found through the search were selected based on the following criteria:

1. Published in peer-reviewed journals.
2. Study conducted in India.
3. Focused primarily on women's risk of violence and incidence of HIV/AIDS.
4. Focused primarily on violence perpetrated by an intimate male partner, excluding studies that focus on child abuse.
5. Published in English.
6. Published after 1998.

The comprehensive search strategy involved a literature search and three stages of review. The literature search utilized the terms: India, women, HIV/AIDS, HIV, gender based violence, spousal abuse, spouse abuse, violence against women, intimate partner violence, and domestic abuse (n=37). Following initial identification by title, the subsequent stages of review

involved an abstract search and a full article assessment utilizing the inclusion criteria for final selection. The author also reviewed citations found in the articles gathered through the second and third stage and added important new references to the final group. A set of 24 peer-reviewed articles was compiled for the final literature review exploring intimate partner violence, HIV/AIDS, and health among women living in India. The articles were reviewed, summarized, and organized by emerging thematic results.

4.2 PARTICIPANT OBSERVATION FIELDWORK

Using snowballing recruitment methods, relevant public health researchers, healthcare providers, advocates, and other relevant community members were identified and approached in order to learn more about HIV/AIDS and violence against women in Hyderabad and Andhra Pradesh, India from June to August 2011. Discussions were held about the context of women's lives in South India and the extent to which intimate partner violence and HIV/AIDS impacts their health and quality of life was explored. Types of questions asked throughout discussions include: what are the most pressing health issues faced by women today, to what extent does violence against women impact health status, what factors are involved in violence against women and risk of HIV infection, and what should be known when thinking about improving women's access to health services. Specific attention was paid to suggestions for the development of effective interventions to address IPV among women in South India. Suggestions of local written resources and documents were requested throughout these discussions in order to obtain additional information and enhance understanding of the contextual and cultural factors influencing women's health status in India. Extensive note taking and photo documentation took

place. Notes from key informant discussions and suggested written documents were reviewed, summarized, and organized based on grounded theory and recurring themes that emerged.

5.0 FINDINGS

5.1 LITERATURE REVIEW

A literature table (Appendix A) was constructed to summarize the articles selected for final review and provides an overview of the study aim, sample population, study methods, and significant results (n=24). Additionally, the table depicts the overarching theme of studies conducted among certain select populations in this particular area of health research. The studies found in Table 1 (Appendix A) relate to the intersection of HIV/AIDS and violence against women, and were further broken down in to the subgroups of studies conducted among: (1) married, monogamous women; (2) wives of substance users; and (3) female sex workers.

5.1.1 HIV/AIDS and IPV among married Indian women

Ten studies were conducted specifically exploring HIV infection and experiences of violence among married women and sought to describe the context in which these events take place (Appendix A: Table 1A). Lifetime prevalence of intimate partner violence varied by type of violence (physical, sexual, or psychological) between studies yet results show that 30% to 99% of women experienced some form of violence. 99% of women in low-income communities in a study in Chennai reported experiencing physical violence and 75% reported a lifetime prevalence of forced sex. Furthermore, 65% of participants experienced more than five episodes of physical

abuse in the previous three months (S. Solomon et al., 2009). Numerous studies indicate that women experiencing partner violence display elevated HIV infection prevalence versus women not experiencing violence (Chandrasekaran et al., 2007; Decker et al., 2009; Gupta et al., 2008; Shrotri et al., 2003; Silverman et al., 2008). Evidence from a nationally representative sample found that husbands' HIV infection was associated with increased HIV risk among their wives, a risk that was increased seven fold in abusive relationships (Decker et al., 2009). It was found in another nationally representative sample exploring the intersection among married women that one in three experienced IPV from their husbands, and those who had experienced both physical and sexual violence were four times more likely to be HIV positive (Silverman et al., 2008). In a study among Indian women seeking voluntary HIV testing, 42% reported experiencing some type of abuse and among those who reported abuse, 67% tested HIV positive (Chandrasekaran et al., 2007). Overall study evidence suggests that abused wives face heightened HIV risk based both on increased likelihood of HIV infection among husbands and elevated HIV transmission within abusive relationships.

5.1.2 HIV/AIDS and IPV among wives of substance users

Six studies focused on the intersection of intimate partner violence and HIV infection among wives of substance users (Appendix A: Table 1B). Substance use included alcohol (n=4) and injecting drugs (ID) (n=2). These studies indicate that married men's behaviors, specifically substance use, are clearly associated with their HIV risk, sexual behavior, and use of violence in intimate settings. Overall, this has direct implications on the risk of HIV infection and experience of violence for wives of substance users, who were described in all studies to lack individual risk behaviors for HIV/AIDS (Berg et al., 2010; Cottler et al., 2010; Panda et al., 2000;

Satyanarayana, Chandra, Vaddiparti, Benegal, & Cottler, 2009; Schensul, Saggurti, Burleson, & Singh, 2010; S. S. Solomon et al., 2011).

Studies exploring HIV prevalence and factors associated with transmission from ID using husbands to their wives found that the majority of female spouses only had one lifetime sexual partner, did not inject drugs, and experienced a higher HIV prevalence than wives of non-injecting husbands (Panda et al., 2000; S. S. Solomon et al., 2011). A higher prevalence, which was found to be ten fold among spouses of ID users in Chennai, as compared to the general female population in India (S. S. Solomon et al., 2011). Data also suggests that non-injecting wives may be further vulnerable to HIV infection given the context of low condom use and frequent sexual violence (Panda et al., 2000; S. S. Solomon et al., 2011). In the study conducted in Chennai, only 7% of female spouses reported always using condoms with their regular partners and 34% of women who thought that their husband was HIV positive did not know that condoms could protect against HIV transmission. Additionally, 56% of women had experienced intimate partner violence, and of those who experienced abuse, 86% reported sexual violence and 95% experienced physical abuse (S. S. Solomon et al., 2011).

The co-occurrence of alcohol abuse and domestic violence, specifically forced sex within marriage, was indicated as being widely acknowledged in India by the articles selected for review who focused on further exploring the additional consequences resulting, particularly on married women's risk of HIV and effectiveness of HIV prevention interventions. One study exploring the consequences of alcohol on women's lives found that heavy drinking husbands were more likely to engage in extra martial sex and use violence or force within marriage. Data from this study also suggests that pattern and location of husband's drinking (e.g. home, public venues) increases the probability of sexual risk and HIV for married women who experience

domestic violence. (Berg et al., 2010). The other three studies reviewed involved evaluation of community-level HIV prevention interventions for monogamous married women with a specific component targeting alcohol consumption by spouses (Cottler et al., 2010; Satyanarayana et al., 2009; Schensul et al., 2010). Varying levels of effect were found on overall levels of alcohol use. While Cottler et al. found no significant effect on alcohol consumption in their study, women were less likely to report victimization, more likely to feel empowered to make decisions about birth control, and were more knowledgeable about how to protect themselves from STDs and HIV at follow-up (Cottler et al., 2010). A HIV/STI prevention intervention in Mumbai found a significant drop in overall use of alcohol in study communities throughout intervention period, with additional positive effects of reduction in husband's sexual risk behavior and overall ability to reach out to men whose alcohol use put them at greater risk for HIV/STI transmission for themselves and their wives (Schensul et al., 2010). Finally, data from an examination of the factors influencing HIV testing among wives of heavy drinkers indicate that refusal to consent to HIV testing by women is linked to lack of family support, little risk perception, and testing during previous pregnancy (Satyanarayana et al., 2009).

5.1.3 HIV/AIDS and IPV among female sex workers

Eight articles reviewed were of studies conducted among female sex workers (FSWs) in India (Appendix A: Table 1C). Additional literature discussed in these articles suggests that previous studies have been conducted examining HIV/AIDS prevalence and experience of violence among clients and intimate partners among FSWs. These earlier studies indicate that the prevalence of HIV among Indian FSWs is high and associations between HIV risk and sexual

violence among these women has been observed. As a result, these eight studies sought to further explore the circumstances of HIV infection and incidence and type of violence faced by FSWs.

Of the articles reviewed, five specifically focused on gaining a better understanding of the prevalence of physical and/or sexual violence victimization and HIV risk based on type of sex work (George, Sabarwal, & Martin, 2011; Go et al., 2011; Panchanadeswaran et al., 2008; Shahmanesh, Wayal, Copas, et al., 2009; Swain, Saggurti, Battala, Verma, & Jain, 2011). For these studies, type of sex work was defined differently, but included contract/non-contract, mobile/non-mobile, red-light-district/non-red-light-district, street-based/non-street-based, and brothel/non-brothel sex work. Frequency, severity, and type of violence (physical or sexual) varied between studies and by type of sex work engaged in by the women. Overall, findings indicate that type of sex work has the potential to increase women's vulnerability to violence and HIV infection and prevention and treatment services aimed at FSWs should take this into account.

Three articles aimed to elucidate the context of female sex workers lives beyond their participation in the sex industry and its impact on experiences of violence, sexual risk, and reproductive and mental health status (Reed, Gupta, Biradavolu, Devireddy, & Blankenship, 2010, 2011; Shahmanesh, Wayal, Cowan, et al., 2009). Residential instability, economic insecurity, and social and gender disadvantages embedded in a broader cultural context were investigated. Not only do FSWs face greater risk of HIV infection from unprotected sex and violence by clients and intimate partners, but evidence also suggests that greater contextual factors may place women at further risk beyond their own sexual behaviors (Reed et al., 2010, 2011; Shahmanesh, Wayal, Cowan, et al., 2009).

5.2 PARTICIPANT OBSERVATION FIELDWORK

Discussions were held with key informants including women's health activists and advocates, public health researchers, healthcare providers, and leaders within women's organizations in Andhra Pradesh, India (n=27) (Appendix B: Table 2). Working in collaboration with two seed informants, relevant community members were identified and a working list of key informants was generated. Seed informants also facilitated the introduction of initial key informants. Subsequent informants were identified using snowballing recruitment methods. The context of women's lives in Andhra Pradesh and South India and the extent to which violence against women and HIV/AIDS impacts their health and quality of life was discussed and explored. Suggestions of local written resources and documents were requested throughout key informant discussions to further an understanding of the contextual factors related to the health status of women. Emerging themes that surfaced throughout these dialogues and the examination of suggested documents are reviewed below. Illustrative examples are used to support these themes.

5.2.1 Prevalence of Violence against Women in India, Or, the Violence of Normal Times

The prevalence of violence against women is high among the entire Indian population irrespective of HIV status. It is something that has become, "commonplace" and "accepted by both genders". However, gender-based violence is not limited to occurring within marriage, but "ensues throughout her entire lifecycle (pre-birth, infancy, girlhood, adolescence, young age, adulthood, old age)" with the "discrimination, oppression, and violence [not stopping] until the day she dies" and overall grounded within a cycle of systematic sex bias (Lingam, 1998). This discrimination and violence has different implications and takes various forms depending on her

age (e.g. food and nutrition, education, clothing and toys, health care quality and access, employment and financial opportunities). An understanding then of the health status of women and their perceptions of personal health must be understood in the context of this “steady, ever present violence of normal times” (Kannabiran, 2005). As it is a violence within the realm of the normal and routine that it is deeply embedded, and it is because violence against women has become a violence of normal times that it carries with it the guarantee of impunity irrespective of penal, punitive, or constitutional safeguards (Kannabiran, 2005).

Violence manifests itself in the lives of survivors. As stated by a female informant, “violence is carried throughout life. Something changes in you. At one point it becomes a part of your life and you don’t know anything else”. The extent and shape of this manifestation varies, as illuminated by the following story told by an informant:

A seventy-year-old woman seeking services from a state run AIDS program kept exclaiming to the staff that her husband didn’t love her anymore and she didn’t know what to do. Soon the [HIV/AIDS] counselors found out that her husband had stopped beating her.

5.2.2 The Context of Women’s Lives

Women living in India take on a certain identity, an identity that is “shaped by religion, caste and class, location [North or South India, urban or rural], education, employment, age - and age as compared to others in the family structure, and family role [mother, mother-in-law, daughter, daughter-in-law, wife, sister, etc.]”. And, “depending on the form that this identity takes offers her certain opportunities, as well as limitations, throughout her life. And they’re constantly

shifting shape, influenced by elements within the private and public sphere”. The cultural, religious, and societal factors that determine the context of women’s lives and corresponding opportunities, or lack thereof, were continually expressed by informants, and emphasized as something of importance to consider when conceptualizing the context of women’s lives. Described as directly and indirectly supporting a patriarchal social order and family structure, these social and cultural influences extend beyond the private sphere where they are often institutionalized and validated in social structures (V. Kumar, 2007). As a result, gender-based violence and its acceptance by women and society stems from an acceptance of a gender hierarchy and gender insensitivity, as well as unequal power relations (Burte, 2008; V. Kumar, 2007). The complexity of the social situation makes it extremely difficult to untangle the various factors influencing social stratification and identity formation for women as it becomes a “matrix formed by layers upon layers of inequalities” (Ramakrishna, 1993).

Furthering this idea as stated by another informant, “women are expected to act within the confines of certain boxes - the opportunity to stray from these boxes is only possible if the woman has support. To not stray is based on fear, a fear of losing support from her family. If she does have support she will pursue things like education and a career. But still, the support only goes so far”. It is also important to avoid generalizing these ‘boxes’ because, the “idea of autonomy, choice, and freedom have different connotations for different groups of people, and even within this group. The constructs and constraints will also vary down to the individual and how they view themselves; their role as a wife, mother, sister; their personal health; and their rights, mobility, and freedom of choice”.

This context was also conveyed as having implications on help seeking behavior. As reported by a public health professional, “‘the general housewife’ lacks the networks and support

system that high risk populations such as female sex workers have. Her access to testing and ART is limited or non-existent based on the dynamics within the house. The constant emphasis placed on reputation and image are also huge barriers for women to seek testing or care, because not only will she be judged from her community and friends, but more importantly, she'll be isolated and discriminated by her family, leaving her completely alone and without a network". Moreover, as stated in a collection of essays about Indian women's experiences of violence, "violence against women locks women of different classes, castes, and communities, into multiple intersecting axes of inequality - tying women of different classes together through similarity of their experiences as women and holding them a part in almost unbridgeable ways through the differences in their experiences as members of different social classes" (Kannabiran, 2005).

5.2.3 Current Strategies for Challenging Violence against Women and HIV/AIDS

Multiple strategies and initiatives that are currently in place to address violence against women and HIV/AIDS were identified throughout key informant discussions. These strategies can be further segmented into direct support for survivors, challenging attitudes and beliefs, and challenging the state.

Direct Support for Survivors

Spearheaded by national and state initiatives to fight the HIV/AIDS epidemic in India, an extensive system of HIV/AIDS testing, counseling, treatment, care and other services is available. Although services are in existence, several limitations have arisen following implementation. Not only do women face barriers to access and uptake of HIV-related care, but

an overall “lack of coordination of services with[out] linkages from prevention to treatment, and with little emphasis on creating this coordination” significantly impacts her initiation of treatment following diagnosis. Beyond linkages between services, stigma and discrimination translates into non-high risk women reluctant to seek and utilize available services.

Legal support and counseling services, as well as shelters and transitional housing options, are offered by multiple community-based organizations throughout Andhra Pradesh to survivors of intimate partner violence. Qualified individuals help foster a safe environment for women seeking support in the form of legal advice, counseling, and assistance in managing judicial proceedings, and for those who desire it, physical shelter and transitional housing is available through the organization. A provider of legal assistance and support at one such organization discussed the positive impact the availability of legal services, and overall help, has on victims. Yet, as most women seek assistance without the intention of separation, but rather no longer want to endure the violence and instead receive assurance that it will stop, the type of support offered has to be given accordingly. As a result, the “extent and reach of help beyond the immediate issues is limited. How can you help those women who have become completely isolated?” expressed an employee at a legal counseling and service organization.

Challenging Attitudes and Beliefs

It was a dream of many years ago; a dream to break the silence that enshrouds the violence; to rewrite women's histories, to reclaim our memories; to find new visions for our times. To tell our stories not only of pain, but also of courage and survival; to find another logic; another way to know.

Information campaigns have been used throughout Andhra Pradesh to increase awareness around violence against women. One such awareness campaign sought to illuminate the problem of violence for female community members in the area. As shown in the event's vision above, by identifying violence in its various forms, informing women that they are the victims, that there are others with similar experiences, and that they no longer have to stay silent, the campaign organizers sought to increase overall awareness and enhance community support in efforts to end gender-based violence.

Key informants also identified the formation of groups as a way to foster and build critical consciousness as a collective and overall, serve as a means to challenge attitudes and beliefs. Collectives or women's groups "create an opportunity to speak out about the issues that are of importance to [the women] and also receive education to know their rights and enable making informed decisions". Social support was identified as a critical means to challenge communal attitudes and beliefs and promotes awareness and action by individuals to address issues, such as intimate partner violence and risk of HIV infection.

Challenging the State

Key informants who discussed the law related to domestic violence indicated the existence of a civil law, the Protection of Women from Domestic Violence Act (PWDVA). The law, which came into effect in 2006, has the stated objective of "providing more effective protection of the rights of women guaranteed under the Constitution who are victims of violence of any kind occurring within the family" (PWDVA, 2005). Prior to this law, "the issue of domestic violence [had] not been explicitly dealt with as a problem prevalent in Indian society...the current understanding is a culmination of years of campaigning for the recognition

of women's rights starting with rape laws, anti-dowry laws, and elimination of the patriarchal judicial system". The PWDVA is a gender-specific legislation that focuses on more than just prevention and is the "first legislation that gives recognition to the private sphere of women in society and seeks not to detach her from it". As described by an informant, "it attempts to drag out into the open issues that were previously considered to be exclusively inhabiting the private realm". Elimination of violence against women advocates overwhelmingly support the PWDVA and are encouraged by the progress that has been made by human rights and women's groups over the last three decades for women in India. As expressed by numerous individuals, the theoretical intentions and goals of the PWDVA were well thought out and a critical step in eliminating violence against women. Yet, in practice the law has not been enacted and enforced as it was envisioned and the practices of everyday violence against women still rarely enter the public account of human rights and democracy (Kannabiran, 2006). A professor of law further conveyed these sentiments:

"While the criminalization of domestic violence has ensured the spreading of awareness by bringing it into discussions, the problem however, has continued to be largely unaddressed with a lack of monitoring and ensuring that examinations of the problem occur. The law claims support for victims, however, the enforcers of the law are less encouraging with data suggesting that most domestic violence cases are dismissed at the prosecution stage and accounts that police officers display a 'lackadaisical' attitude towards the issue of domestic violence within the home. Overall, the intentions and motivations of the act were good, but the legal side and police response has been limited or non-existent."

With the enactment of the PWDVA efforts were made to strengthen police responses to domestic violence complaints, and additional efforts have since been made as a result of poor performance and an overall inability to adequately address the needs of women. Discussion

indicated that in order to strengthen police responses to domestic violence, and community responses to violence in general, efforts should start at the village level; involve extensive collaboration between police departments and local non-governmental organizations (NGOs) since police departments tend to lack gender and cultural knowledge and sensitivity and each has limited infrastructure for activities; promote the effectiveness of Protection Officers; support additional women's police stations throughout Andhra Pradesh; and implement rape crisis centers.

6.0 CONCEPTUAL MODEL

Intimate partner violence and HIV/AIDS among women are two intrinsically linked issues significantly impacting the health and well-being of Indian women. As previously outlined, a large majority of studies exploring the intersection of these two issues suggests that there exists an interplay of factors extending beyond a woman's personal behavioral characteristics (Ackerson et al., 2008; AIDS Alliance, 2004; Babu & Kar, 2010; Berg et al., 2010; Chibber et al., 2012; Cottler et al., 2010; Decker et al., 2009; Desai, 2005; Go, Sethulakshmi et al., 2003; Jeyaseelan et al., 2007; Kostick et al., 2010; Krishnan, 2005; Martin et al., 2002; Newmann, 2000; Panda et al., 2000; Pandey et al., 2009; Satyanarayana et al., 2009; Schensul et al., 2010; Silverman et al., 2008; S. S. Solomon et al., 2011). A conceptual model was created to outline the suggested mechanisms and pathways between intimate partner violence and HIV infection among women living in India. The proposed model was adapted from Heise's Integrated Ecological Framework to Violence against Women, Go's Model of Domestic Violence, and the Model of Factors associated with Partner Abuse proposed by Oxfam International (Go, Johnson, et al., 2003; L. L. Heise, 1998; Oxfam International, 2004). The model outlined adopts a social ecological model and is conceptualized using a gender-specific lens showing how intimate partner violence and HIV infection among Indian women is a multifaceted phenomenon grounded in an interaction among individual, situational, and sociocultural factors (Go, Johnson, et al., 2003; L. L. Heise, 1998).

The social ecological constructs from the other frameworks have been modified with this model now encompassing factors associated at the individual, relationship/situational, community, social, and state levels in outlining the potential mechanisms between IPV and HIV/AIDS among Indian women. Previous studies suggest that married Indian women face ‘double jeopardy’, where IPV functions as both a risk marker and a risk factor for women’s HIV infection (Decker et al., 2009; Silverman et al., 2008). Evidence suggests that women face a compounded risk for HIV infection based on IPV being a risk marker for wives’ HIV infection through abusive husbands’ greater odds of HIV infection, and also a risk factor as it may facilitate HIV transmission within abusive relationships (Decker et al., 2009). It is because of this that IPV and HIV/AIDS have not been separated in the model, and instead are outlined as operating simultaneously.

Created using study evidence from the comprehensive literature review and insight gained throughout the participant observation fieldwork, the conceptual model is grounded in the understanding that IPV and HIV infection are subject to complex factors that operate along a continuum of levels (Figure 1). This model was developed in an attempt to provide a collective examination of the etiology of gender-based violence and HIV risk environment for Indian women that moves beyond traditional approaches of strict feminist or psychology perspectives, and instead strives to combine both approaches. Feminist theories tend to be reluctant to acknowledge factors other than patriarchy and the influence of patriarchal relations with other social interactions (e.g. caste, class, and community), and psychology focuses on characteristics and experiences related to the perpetrator and give little emphasis to the significance of gender-based inequalities and power differentials in the manifestation of violence experienced by Indian women (L. L. Heise, 1998; Kannabiran, 2005). As a result, the proposed model attempts to

include both approaches in depicting the potential pathways of experiencing IPV and HIV/AIDS. It displays that violence and HIV infection is not merely an individual matter, but is constructed within a broader context of cultural and societal expectations and attitudes towards gender roles, unequal gender-based power in relationships, and the continued structured and culturally maintained attitudes and behaviors involved. Finally, the model proposed should not be interpreted as definitive as it is based on a restricted research and fieldwork base and may neglect critical factors that have not been considered, examined, or tested.

The proposed levels and factors associated with intimate partner violence and HIV infection among married women living in India include:

- At the **individual** level: factors related to the woman include age, age at marriage, education attainment, household financial contribution, and HIV status.
- At the **relationship/situational** level: factors specific to the intimate partner, or husband in this case, include age, substance use, witnessing marital abuse as a child, extra marital sex, female sex worker involvement, and HIV status. Those factors involved at the situational level include norms around women's sexual role, duration of marriage, educational differential between spouses, marital conflict, and condom non-use.
- At the level of the **community**: poverty, unemployment, low socio-economic status, and overall community education attainment are involved.
- At the **social** level: patriarchy, gender roles that enforce the "culture of silence", gender disadvantages of economic inequality and low legal status, and acceptance of violence as a way to resolve conflict.

- At the level of the **state**: factors involved include, institutional support for patriarchal notions of masculinity, legal norms and practices that reinforce male control of wealth and decision making, inadequate legislation and policies allowing perpetrators impunity, and Hindu Laws that do not grant land, economic, or custody rights to women independent of their husband.

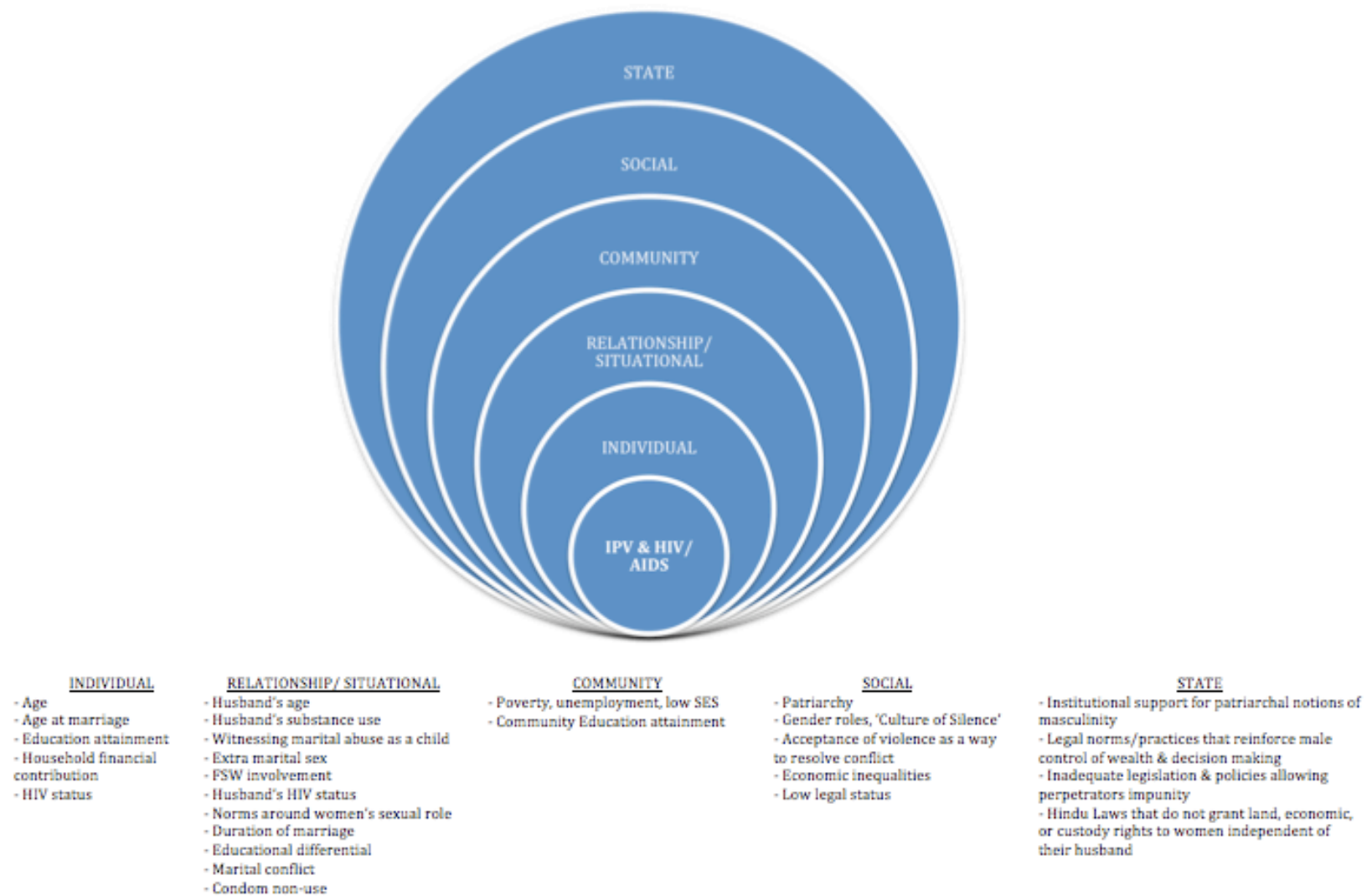


Figure 1. Factors associated with IPV and HIV infection among married Indian women

7.0 DISCUSSION

Recently the intersection of HIV/AIDS and intimate partner violence has increasingly been highlighted as an important issue in HIV prevention and treatment (Decker et al., 2009; Koenig et al., 2006; Krishnan, 2005; Kumar et al., 2005; Silverman et al., 2008; Stephenson, 2007). As a result, increased research has been conducted exploring the complex relationship between HIV/AIDS and IPV among women worldwide. This is also the case in India, where the risk environment of intimate partner violence and HIV infection, and the relationship between the two, is not well understood and is further confounded by numerous underlying factors (Chandrasekaran et al., 2007; Decker et al., 2009; Ghosh et al., 2011; Go et al., 2003; Gupta et al., 2008; Silverman et al., 2008; Solomon et al., 2009). The study investigations conducted that were reviewed in this paper have provided significant awareness and a deeper understanding of the realities of Indian women's lives and promote the development of contextually tailored programming. Intimate partner violence and HIV/AIDS are two extremely complicated issues when examined independently. However, as the results illustrate, when conceptualizing them as the intersecting and mutually reinforcing epidemics that they are, intervention development and policy recommendations are further complicated. Nonetheless, in order for effective interventions to be developed, qualitative research methods, specifically community-based participatory approaches, should be utilized in fostering relationships among women affected by IPV and HIV/AIDS and inclusion in designing interventions specific to their needs. Emphasis

should also be placed on developing integrated interventions that provide a strategic and systematic response to the issues, with the continuum of vulnerabilities that place women in India at risk for intimate partner violence and HIV/AIDS highlighted in intervention strategies.

The remainder of this section outlines recommendations for future research, practice, and policy that incorporates the information and insight gained from the literature review and participant observation fieldwork. Five areas have been suggested to enhance, improve, and respond to the intersection of intimate partner violence and HIV/AIDS among married women living in India.

7.1 BRIDGING THE GAPS IN IPV AND HIV/AIDS RESEARCH AMONG MARRIED INDIAN WOMEN

From a critique of the literature, there are several notable gaps in research design and methodology that should be addressed in future research studies investigating the intersection of HIV/AIDS and intimate partner violence among women. A majority of studies examining this topic in India were among what have traditionally been called ‘high risk’ populations - in this case, female sex workers and wives of substance users. Minimal studies were conducted specifically looking at the intersection among monogamous married women, and among those that did, a majority analyzed cross-sectional data collected from a national household survey. As mentioned previously, the insight gained from such studies has been significant in understanding the relationship between women’s experiences of marital violence and their risk of HIV infection. Though, researchers should recognize the importance of utilizing community-based participatory approaches in the examination of such sensitive and stigmatized topic areas.

Partnering and collaborating with community members and organizations whom these two intersecting issues affect is crucial in furthering an understanding of the multifaceted factors connecting HIV/AIDS risk and incidence of IPV among married Indian women. Collaborating with communities will foster space for the development of long-term relationships and mutual understanding in designing interventions specific to the realities and needs of married Indian women.

7.2 TAILORING PROGRAMS TO MEET THE CONTEXTUAL NEEDS OF MARRIED INDIAN WOMEN

Current health care efforts in India have largely failed to view women's health beyond that of maternal and reproductive health, and tend to be 'women-targeted' rather than 'women-oriented' (Lingam, 1998). Women play a multitude of roles, and thus, programs need to be developed and implemented that are based on the social realities of their individual experiences beyond their role as procreators, but where they are viewed holistically and contextually as women with distinct physical, emotional and spiritual experiences (Lingam, 1998). This has specific implications in health programming and service and resource development addressing HIV/AIDS and IPV as there are "multitudinous ways in which violence against women is entrenched in Indian society" (Kannabiran, 2005). Emphasis needs to be placed on tailoring programs to meet this reality, where the continuum of factors influencing HIV infection and incidence of IPV is highlighted and reflects the needs identified by the women themselves.

7.3 PROMOTE EDUCATION & AWARENESS AROUND HIV/AIDS AND IPV

In order to work towards addressing violence against women and the feminization of the HIV epidemic in India, access to HIV/AIDS information and education needs to be improved and promoted throughout all segments of the population. Emphasis needs to be placed not only on increasing knowledge of transmission and self-protective behaviors, but also on eliminating HIV/AIDS related stigma and discrimination. Campaigns increasing awareness on the prevalence of intimate partner violence should be nationally adopted that focus on combating attitudes of violence being normative behavior and an acceptable form of conflict resolution. These campaigns should also specifically target young people of both sexes and work to promote the development of healthy relationship attitudes and appropriate conflict resolution strategies. Overall, HIV/AIDS education and violence awareness needs to work to empower women, instill male responsibility, negate the power equation within sexual relations, and work to break the ‘culture of silence’.

7.4 IMPROVING MARRIED INDIAN WOMEN’S ACCESS TO CARE

The overall risk environment of violence and HIV/AIDS among women living in India is complex and its overall formation is subject to numerous interlocking layers and factors (AIDS Alliance, 2004; Amaro & Raj, 2000; ICRW, 2002; Lingam, 1998). This results in serious implications on women’s help seeking behaviors. Acknowledging that help seeking behavior varies within different segments of the population and that other factors, such as caste and class constraints, pose significant barriers, an effort can be made to improve women’s overall access

by increasing the knowledge and existence of available resources and services. Legal counseling and services and structural support (e.g. women's shelters, transitional housing) has been found to have numerous positive effects on survivors of violence. Thus, the availability of such services should be increased, offering victims support if necessary. Furthermore, although there is an adequate amount of integrated testing and counseling centers (ICTCs) throughout most states in India, a majority are located within government hospitals. This location influences whether or not women will be willing to seek and utilize its services. Considering the widespread stigma associated with HIV throughout the country, HIV testing and counseling should be made available in other institutions and locations. In order to improve women's access to care, linkages between testing and treatment services should be created that encourages treatment uptake following diagnosis and support and counseling throughout care.

7.5 ENHANCING AND IMPLEMENTING HARM REDUCTION STRATEGIES FOR MARRIED INDIAN WOMEN

Violence against women is a deeply embedded social construct that is maintained in the private and public spheres. Strategies that work to challenge and change these communal attitudes and beliefs may not see immediate success. As a result, harm reduction strategies should be implemented simultaneously where support and care services are available to survivors of IPV and HIV/AIDS. Access to and participation in social groups has been shown to provide Indian women the opportunity to develop a social support network in the relationships of other women. Participation in social groups also fosters a supportive environment for women to collectively

challenge attitudes and beliefs and raise awareness and promote change around violence against women and HIV/AIDS.

8.0 STRENGTHS & LIMITATIONS

Although the search and review of the literature was conducted in a systematic manner, they may not represent an all-inclusive set. The author's use of inclusion criteria narrowed the range of literature gathered for review, limiting access to only peer-reviewed published literature and unable to assess program reports. However, those chosen for final review represent a relevant set of studies to accomplish the goal and objectives of this paper. Beyond the available literature's minimal focus on married women's experiences of IPV and HIV/AIDS, another limitation includes the measures used to assess intimate partner violence. Data on IPV among women was collected as part of national household survey with little qualitative considerations or insight into the unique experiences of individual women and their perceptions of the triggers to violence, frequency, and impact on their overall health and well-being.

Aside from these limitations, a notable strength of this paper is the utilization of multiple methods to elucidate the complex underlying socio-behavioral and economic factors that shape or modify the risk environment for women in India. Besides gaining a better understanding of published study results conducted within this topic, the author's engagement in fieldwork furthered contextual and cultural insight. Discussions with key informants and stakeholders fostered relationship building and the opportunity to gain community opinion and perceptions around such sensitive topics, as well as suggestions for future intervention development by those directly impacted.

9.0 CONCLUSION

Intimate partner violence and HIV/AIDS are serious, complex public health issues severely impacting the health and well-being of women living in India. Although the intersection of IPV and HIV/AIDS has been highlighted as relevant in understanding HIV transmission patterns among women, current prevention strategies have failed to address disease transmission as reflected in the gender disparities of HIV infections and overall prevalence of IPV among women in India. Pervasive gender and social norms in India function as a risk environment, and further exacerbates the intersection between IPV and HIV infection. While there is growing research on the intersection of the two epidemics, there exist significant gaps that need to be addressed if interventions are going to reduce and prevent women's multiple vulnerabilities to IPV and HIV/AIDS. Specific attention needs to be given to the synergies between IPV and HIV/AIDS, as well as the interplay of individual, situational and relationship, community, social, and state level factors that operate as potential pathways and mechanisms between the two epidemics.

Gender-oriented integrated interventions that are developed and implemented to strategically and systematically address this intersecting relationship must do so in a culturally appropriate manner that holistically and contextually view individual Indian women for their unique experiences and needs. Qualitative research design, specifically community-based participatory approaches, and sound IPV measurement are required for the collaborative design

of culturally appropriate interventions specific to the realities and needs of Indian women in order to prevent and treat these mutually enforcing epidemics.

APPENDIX A

LITERATURE TABLES

Table 1. The Intersection of IPV and HIV/AIDS among Women Living in India

TABLE 1A: IPV AND HIV/AIDS AMONG MARRIED WOMEN					
	AUTHOR	AIM	STUDY SAMPLE	METHODS	RESULTS
1	Decker et al. (2010)	To assess the prevalence of past year commercial sex worker (CSW) contact, condom nonuse therein, and associated gendered attitudes among men.	Data from the 2005-06 Indian National Family Health Survey 3 (NFHS-3) was analyzed.	Face-to-face interviews with married women, socioeconomic & demographic characteristics and experiences of IPV were collected	Past year CSW contact was concentrated among young, unmarried men; condom nonuse was common. Traditional gender ideologies supported men's CSW contact.
2	Decker et al. (2009)	To examine whether abusive husbands demonstrate higher HIV infection prevalence and whether their wives' HIV risk based on husbands' HIV infection is a function of their exposure to IPV.	Data from the 2005-06 Indian National Family Health Survey 3 (NFHS-3) was analyzed.	Face-to-face interviews with married women, socioeconomic & demographic characteristics and experiences of IPV were collected	37% of wives experienced IPV. Compared with non-abusive husbands, abusive husbands demonstrated increased odds of HIV acquisition outside the marital relationship [AOR=1.91]. Husbands' HIV infection was associated with increased HIV risk among wives, a risk which was, increased 7-fold in abusive relationships. Abused wives face increased HIV risk based both on an increased likelihood of HIV infection among husbands, and elevated HIV transmission within abusive relationships.
3	Soloman et al. (2009)	To examine the prevalence of physical and sexual violence among married women in low-income communities.	1,974 married women from 40 low-income communities in Chennai were recruited through random selection of households.	Structured interview-administered questionnaire.	Participants reported a 99% & 75% lifetime prevalence of physical abuse and forced sex. 65% of women reported experiencing more than 5 episodes of physical abuse in previous 3 months. Factors found to be associated with violence from multivariate analysis include elementary/middle school education and variables suggesting economic insecurity.

4	Gupta et al. (2008)	To characterize similarities & differences in the relationships, psychological well-being, & sexual behaviors among Indian women.	459 women (219 HIV+ & 243 HIV-) were recruited by flyers and study staff in waiting rooms from general hospitals that offer free health care services in New Delhi (urban) and Chennai (rural).	Prospective, cross-sectional study	HIV+ women were significantly more likely to report marital dissatisfaction, history of forced sex, domestic violence, depressive symptoms, & husband's extramarital sex compared to HIV-women.
5	Silverman et al. (2008)	To assess the relationship between experiencing IPV & the occurrence of HIV infection in a nationally representative sample of married Indian women tested for HIV.	Data from the 2005-06 Indian National Family Health Survey 3 (NFHS-3) was analyzed.	Face-to-face interviews with married women, socioeconomic & demographic characteristics and experiences of IPV were collected	One-third of married Indian women (35.49%) reported experiencing physical IPV with or without sexual violence from their husbands; 7.68% reported both physical and sexual IPV, & 27.80% reported experiencing physical IPV in the absence of sexual violence. Married Indian women experiencing both physical and sexual violence from husbands demonstrated elevated HIV infection prevalence versus those not experiencing IPV. Women's personal sexual risk behaviors were not associated with HIV infection.
6	Chandrasekaran et al. (2007)	To measure the prevalence and correlates of domestic violence among women seeking services at a voluntary counseling and testing center.	295 women attending a voluntary testing & counseling center in Bangalore.	Cross-sectional survey; interviewer-administered questionnaire.	42% percent of respondents reported DV, including physical abuse (29%), psychological abuse (69%), & sexual abuse (1%). Among the women who reported violence of any kind, 67% also reported that they were HIV seropositive. Most common reasons reported for DV included financial problems (38%), husband's alcohol use (29%), & woman's HIV status (18%). Older women ($P < 0.001$) and those with low-income levels were the most likely to have experienced DV ($P = 0.02$). Other factors included husband's education, HIV sero positivity and alcohol or tobacco use ($P < 0.001$).

7	Go et al. (2003)	To examine how marital violence affects women's ability to protect themselves from HIV/AIDS.	Men & women were recruited from two randomly selected slums in Chennai.	In-depth interviews (n=48) and focus groups (n=84).	Community gender norms tacitly sanction domestic violence that interferes with adopting HIV-preventive behaviors. Given the choice between the immediate threat of violence and the relatively hypothetical specter of HIV, women often resign themselves to sexual demands and indiscretions that may increase their risk of HIV acquisition. AIDS-prevention interventions must incorporate gender-related social contexts in settings where husbands strictly enforce their locus of control with prevention messages targeting men in order to effectively reduce women's exposure to HIV/AIDS.
8	Go et al. (2003)	To examine the pathways by which gender norms may influence marital violence in low-income communities.	Men & women were recruited from two randomly selected slums in Chennai.	In-depth interviews (n=48) and focus groups (n=14)	Participants noted that husbands hold decision-making power in economic, social and sexual spheres. Clear patterns of violence were present; respondents reported that husbands regularly beat wives in most marriages. Marital conflicts were intensified by the presence of community level stressors such as poverty & unemployment. Participants perceived violence to be a necessary tool that served to discipline wives and ultimately enforce gender norms. Although many respondents felt wife beating was the norm, the acceptable intensity of violence varied by gender.
9	Shrotri et al. (2003)	To determine the level of HIV/AIDS knowledge among pregnant women in India & the extent to which the women experienced adverse social and physical difficulties within their home.	707 women seeking antenatal care at a clinic in Maharashtra were randomly selected to participate.	Structured interviews related to HIV/AIDS knowledge.	>75% of women displayed knowledge of primary transmission routes; 70% demonstrated knowledge of maternal to child transmission; only 8% knew of any methods of prevention. 30% experienced physical or mental abuse or their spouse's alcohol and/or drug problems.

					Women reporting abuse were >2 times more likely to have adequate HIV/AIDS knowledge compared with women reporting no abuse. No relationship was found between reported household abuse and educational level of woman, husband, occupation of partner, language or religion. No relationship between HIV status & knowledge of HIV. No relationship between HIV status & risk of abuse in the household.
10	Chandra et al. (1998)	To study factors related to anxiety, depression, & suicidal ideation among HIV-seropositive heterosexuals soon after being tested for HIV status for the first time.	51 HIV-seropositive heterosexual men and women with various stages of HIV infection were assessed looking for indicators of anxiety, depression, & suicidal ideation.	Interviews collecting socio demographic & illness related data. Psychiatrist conducted detailed clinical interviews and diagnosis was made.	Depression was present in 40% & anxiety in 36% of the sample. Serious suicidal intent was seen in 14%. Presence of pain, concurrent alcohol abuse, poor family relations, & presence of AIDS in the spouse were significant factors associated with depression, anxiety, and suicidal ideation.

TABLE 1B: IPV AND HIV/AIDS AMONG WIVES OF SUBSTANCE USERS

11	Berg et al. (2010)	To analyze men's childhood exposure to alcohol and frustration and its influence on drinking and forced sex within marriage.	486 married men currently living with their wives in low-income area of Mumbai. 44 married women.	Survey (men); observational and in-depth interview data (women)	Married women associate alcohol use & violence with different patterns of drinking. Ways that alcohol use leads from physical and verbal abuse to emotional and sexual violence in marriage was suggested. Data analysis revealed that among married women, husband's physical violence combined with sexual violence was associated with an increased prevalence of HIV infection.
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12	Cottler et al. (2010)	To examine the prevalence of risky behaviors & effectiveness of an intervention on knowledge and reductions in risky behavior among wives of heavy drinkers.	100 married women as identified by men who scored as having a drinking problem & gave consent for the wife's participation in slum of Bangalore.	Interviews	Though no major intervention effects were found, at follow-up women were less likely to report victimization & perpetrated violence, more likely to feel empowered to make decisions about birth control, & were more knowledgeable about how to protect themselves from STDs & HIV.
13	Schensul et al. (2010)	To conduct formative research assessing the alcohol reduction on marital relationships, with specific attention to violence, household economics, & men's involvement in extramarital sex.	3 communities in a fringe area of Mumbai with an estimated population of 7000,000	Interviews from formative research led further community intervention development projects evaluated.	Reduction in men's alcohol use during the intervention period was associated with a reduction in sexual risk behavior and related variables.
14	Satyanarayan et al. (2009)	To examine the influence of socio cultural factors, perceptions of risk & exposure to violence on consent to HIV testing among at risk woman.	100 married women as identified by men who scored as having a drinking problem & gave consent for the wife's participation in slum of Bangalore.	Interviews	58% of participants refused consent for HIV testing. Reasons for refusal include: spouse/family would not allow it (40%), believed not at risk or would test negative (29%), & underwent HIV testing during an earlier pregnancy (21%). Those who consented did so because site was easily accessible (79%) & it was free and the importance of testing was understood (67%).
15	Solomon et al. (2011)	To characterize the prevalence of HIV, hepatitis B, and Hepatitis C & the risk environment of spouses of ID users.	400 convenience sample of spouses of ID users who were identified from previous cohort study were recruited through community outreach efforts in Chennai.	Risk assessment questionnaire; blood sample collection.	85% reported one lifetime sexual partner; 74% never used condoms with primary spousal partner; less than 1% reported injecting drugs. 34% of women who thought their husband was HIV+ did not know that condoms could protect against HIV. 56% of women reported ever experiencing IPV; of those experiencing abuse, 86% reported sexual violence & 95% physical violence. Female spouses of ID users have a 10-fold higher HIV prevalence compared to the general female population.

16	Panda et al. (2000)	To identify factors associated with transmission of HIV from ID users to their wives.	161 ID users and their wives in Manipur were recruited through outreach workers with the assistance of NGOs and local organizations working within the area.	Case-control study; pre-tested questionnaire collecting data on such things as demographic factors, education, injecting history, duration of marriage, sexual history, number of sexual partners other than spouse, use of condoms, HIV/AIDS knowledge, & history of STDs.	Only 15% of the couples reported regular condom use. A STD in either member, estimated duration of HIV in the husband for >8 years, & a history of blood transfusions were associated with HIV infection in the wife. HIV infection among wives of current or former ID users was found to be facilitated by the presence of STDs in their husband.
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TABLE 1C: IPV AND HIV/AIDS AMONG FEMALE SEX WORKERS

17	George A, Sabarwal S, & Martin P. (2011)	To examine the prevalence of recent physical and sexual violence victimization and associations of types of sex work among FSWs. Assess the relation between contract/non-contract sex work and the various forms of violence experienced by FSWs.	1138 FSWs aged 18-25 years residing in 3 districts of the state of Andhra Pradesh. Women on contract at sex work establishments outside their home districts were considered contract workers.	Cross-sectional survey. Assess physical & sexual violence, and contract/non-contract work.	50% reported physical violence & 77% sexual violence. FSWs performing contract work were at increased risk of physical & sexual violence at work compared to FSWs engaged in sex work in their home district.
18	Go et al. (2011)	To examine prevalence of & factors associated with forced sex among FSWs.	522 FSWs were recruited in Chennai from a larger NIMH study sample.	Probability survey identifying predictive factors for recent forced sex.	28% reported having forced sex with 1 partner, 35% with 2+ partners. Women who had a high number of partners who had a strong tendency to drink alcohol before sex were more likely to have experienced forced sex, and women who had both unprotected sex with a non spousal partner and > 20 days of alcohol consumption in the last 30 days were more likely to have experienced forced sex.

19	Swain et al. (2011)	To understand the linkages between violence and reproductive health and HIV risks among mobile FSWs.	5,498 FSWs were recruited through a 2-stage sampling procedure conducted in selected brothel-based & open solicitation sites.	Cross-sectional behavioral survey conducted in 22 districts from 4 high prevalence states (AP, Karnataka, Maharashtra, TN)	30.5% reported experiencing violence at least once in past year, of which 11% was reported as physical violence & 19.5% as sexual violence. Among FSWs who experienced violence, those who experienced sexual violence were more likely than those who only experienced physical violence reported inconsistent condom use. FSWs who experienced either type of violence were significantly more likely to be vulnerable to both reproductive health and HIV risks.
20	Shahmanesh et al. (2009)	To compare HIV & STIs between FSWs who had been based in a red light district (RLD) with FSWs who had never worked in this RLD.	326 FSWs recruited using respondent-driven sampling in Goa.	Interview-administered questionnaires; tests for <i>Trichomonas vaginalis</i> , <i>Neisseria gonorrhoeae</i> , <i>Chlamydia trachomatis</i> , & antibodies to HIV.	Non-RLD FSWs were more likely to be engaged in high-risk sexual activity. This was partly explained by lack of exposure to HIV prevention and inconsistent condom use, social & professional isolation, and greater experiences of intimate partner and sexual violence.
21	Panchanadeswaran et al. (2008)	To document street-based FSWs' experiences of client and intimate partners and to examine the intersections of violence, alcohol use in condom use, and survival strategies used to avert harm.	49 FSWs in Chennai were recruited through field staff and other outreach efforts.	Focus group discussions and in-depth interviews.	FSWs experience numerous forms of severe client & IPV. Sexual coercion and forced group sex in the context of alcohol use posed significant barriers for condom use negotiation. Traditional gender norms influenced women's inability to negotiate condom use with intimate partners.
22	Reed et al. (2011)	To examine residential instability among FSW and its relation to experiences of violence and sexual risk factors for HIV infection.	673 FSWs were recruited through respondent-driven sampling in Andhra Pradesh.	Survey analyzing HIV risk in the region.	FSW reporting residential instability were more likely to report sexual & physical violence, accepting more money for unprotected sex, and a recent STI symptom. Residential instability appears to be associated with women's HIV risk, above its association with individual risky sexual behaviors.

23	Reed et al. (2010)	To examine context of economic insecurity & debt among FSWs, how this context varies, and its association with experiences of violence and sexual risk factors.	673 FSWs through respondent-driven sampling in Andhra Pradesh.	Survey analyzing HIV risk in the region.	FSWs with debt were more likely to report recent physical violence, unprotected sex with occasional clients in past week, anal sex with clients in past 30 days, & at least one STI symptom in past 6 months.
24	Shahmanesh et al. (2009)	To study suicidal behavior prevalence & its association with social and gender disadvantages, sex work, and health factors among FSWs.	326 FSWs recruited using respondent-driven sampling in Goa.	Interviewer-administered questionnaire regarding self-harming behaviors, socio demographics, sex work, gender disadvantage, & health.	Suicidal behaviors among FSWs were common and associated with gender disadvantage and poor mental health. Suicide attempts were independently associated with IPV, violence from others, entrapment, regular customers, & worsening mental health.

APPENDIX B

KEY INFORMANT TABLE

Table 2. Key Informant and Topic Areas Discussed

	Key Informant	Women's Health	HIV/AIDS	IPV	Law related to Domestic Violence
1	Senior Staff Member, SHARE India	X	X		
2	Senior Staff Member, SHARE India		X		
3	Professor, Medici Institute of Medical Sciences	X	X		
4	Senior Coordinator, Andhra Pradesh AIDS Consortium (APAIDSCON)	X	X	X	
5	Coordinator, APAIDSCON	X	X	X	
6	Professor, Nalsar University of Law	X		X	X
7	Professor, Nalsar University of Law	X		X	X
8	Professor, Nalsar University of Law	X		X	X
9	Senior Staff Member, Andhra Pradesh Mahila Samatha Society (APMSS)	X	X	X	
10	District Employee, APMSS	X	X	X	
11	Professor, Indian Institute of Public Health	X	X	X	
12	HIV/AIDS Consultant, International Center for Research on Women (ICRW)	X	X	X	
13	Women's Health Researcher, University of Chicago	X	X	X	
14	Program Coordinator, Project Parivartan	X	X	X	
15	Senior Staff Member, Chaithanya Mahila Mandali	X	X	X	
16	Consultant, PEARLS 4 Development	X	X	X	
17	Professor, Hyderabad Central University; Senior Staff Member, Anveshi Research Centre for Women	X	X	X	
18	Event Organizer, Kalayika Courts of Women	X		X	
19	Speaker, Kalayika Courts of Women	X		X	
20	Speaker, Kalayika Courts of Women	X		X	
21	Senior Staff Member, World Vision	X	X	X	
22	Coordinator, Home of Hope	X		X	
23	Senior Staff Member, Vasavya Mahila Mandali (VMM)	X	X	X	
24	Senior Staff Member, VMM	X	X	X	
25	Medical Staff Member, VMM	X	X	X	
26	Senior Staff Member, Council for Social Development; Senior Staff Member, Asmita Resource Centre for Women	X	X	X	X
27	Administrative Assistant, Asmita Resource Centre for Women	X		X	

APPENDIX C

WHY INDIA?

Science, Health, Allied Research, and Education (SHARE) India and the University of Pittsburgh have a developing research partnership sparked by Chancellor Nordenberg's visit to Hyderabad, India in 2007. Based outside of Hyderabad in the state of Andhra Pradesh, SHARE India encompasses medical and nursing schools, a teaching hospital, and a research institute. SHARE India was founded and chaired by Dr. P.S. Reddy, who is also a professor of Medicine and has been with the University of Pittsburgh's Division of Cardiology for over forty years. Several Graduate School of Public Health faculty are involved in research projects located in Andhra Pradesh, giving many graduate students the opportunity to participate in research projects or clinical rotations hosted by SHARE India. The University of Pittsburgh Center for Global Health's broad goal is for Hyderabad to serve as a core site for faculty and students across the University to engage in collaborative research, service, and education activities.

Building off this relationship, Dr. Jessica Burke sought to develop a new community-engaged intervention research agenda addressing the intersection of HIV/AIDS and intimate partner violence among women living in Hyderabad and throughout Andhra Pradesh, India. Connecting on similar women's health interests, I was able to partner with Dr. Burke in

developing this thesis project and conduct it with financial support from the University of Pittsburgh Center for Global Health.

While the intersection of intimate partner violence and HIV infection among women is not unique to India, the University's partnership and this opportunity has helped to better understand the multi-level factors involved in connecting IPV and risk of HIV/AIDS among women. Not only is this a first step in community-engaged intervention direction and guidance in Andhra Pradesh, but also has the potential to have positive implications in intervention development in other country settings aiming to address these mutually enforcing epidemics.

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