

ADDRESSING INTIMATE PARTNER VIOLENCE: IMPLICATIONS FOR MEDICAL CURRICULA IN MOZAMBIQUE

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Dedication

To my father (in memory) who fought - for many years - a disease related to a sensitive topic.

To my husband, my mom, my children, and all real-life superheroes.

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List of abbreviations

CBME: Competency-Based Medical Education

GBV: Gender-Based Violence

HIV: Human Immunodeficiency Syndrome

INE: National Institute of Statistics

IPV: Intimate Partner Violence

IPV_SE: Intimate Partner Violence Self-Efficacy Scale

FHS – UCM: Faculty of Health Sciences of the Catholic University of Mozambique

FM – UEM: Faculty of Medicine of Eduardo Mondlane University

FHS – UniLúrio: Faculty of Medicine of UniLúrio University

FHS – UniZambeze: Faculty of Health Sciences of University of Zambeze

MC – ISCTEM: Medical Course of the Higher Institute of Science and Technology of Mozambique

WHO: World Health Organization

Glossary

Abuse: to insult, hurt, injure, rape and/or molest another person. Such behaviours may include, but are not limited to: physical abuse, emotional abuse, financial abuse, spiritual abuse and/or verbal abuse.

Abuser: a person who uses abusive tactics and behaviours to exert power and control over another person with whom the abuser is in an intimate, dating or family relationship.

Advocate: a trained professional or volunteer working for a non-profit or government-based domestic violence or victim-witness advocacy programme.

Competency: An observable ability of a medical student related to a specific activity that integrates knowledge, skills, and attitudes.

Curriculum: A pathway of planned learning, designed to facilitate progressive development of specified competencies.

Evaluation: A process of employing a set of procedures and tools to provide useful information about medical education programs and their components to decision-makers.

Assessment: A process of gathering and analyzing information on competencies from multiple and diverse sources to measure a medical student's competence or performance and compare it to defined criteria.

Graduate Medical Education: A period of formal structured education which medical students receive during years one to six of medical school.

Perpetrator: A person carrying out domestic violence behaviours; see also “abuser”.

Self-efficacy: Perceived self-efficacy is an individual's beliefs in their capabilities to learn or perform a specific task successfully.

Sexual Abuse: When an abuser uses sexual acts to establish and maintain power and control over a victim without her/his consent. Examples include, but are not limited to: making the victim do sexual things against her/his will, sexual assault, treating the victim like a sex object, forcing sex after violence and/or forcing the victim to watch pornography.

Victim: A person who is abused, harmed, or killed by another person.

List of publications during PhD

1. Manuel, B., Roelens, K., Tiago, A., Keygnaert, I., and Valcke, M. (2019) Gaps in Medical Students' Competence to Deal with Intimate Partner Violence in Key Mozambican Medical Schools. *Front. Public Health* 7:204. Doi: 10.3389/fpubh.2019.
2. Manuel, B., Roelens, K., Tiago, A., Keygnaert, I., and Valcke, M. (2020). Medical Curricula on Intimate Partner Violence in Mozambique. *Acta Médica Portuguesa*, 33(1), 22. doi: 10.20344/amp.12049
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Related publications

1. Mariano E, Manuel B, Maúngue H, Rafael DP, Munguambe C, Mataveia G. 2020. Violence against women and girls in public spaces in Maputo: an exploratory study. *BSJ Pub Soc Sci*, 3(1): 10-21.
2. Tchamo, S., Mucambe, M., José, G., Manuel, B., & Mataveia, G. (2020). Economic Costs of Violence Against Women in Mozambique. *Journal of interpersonal violence*, 886260519898445. Advance online publication. <https://doi.org/10.1177/0886260519898445>
3. Frambach JM, Manuel BA, Fumo AM, Groosjohan B, Van Der Vleuten CP, Driessen EW. How innovative and conventional curricula prepare medical students for practice in Sub-Saharan Africa: A comparative study from Mozambique. *Educ Health* 2017;30:3-10.

4. Janneke M. Frambach, Beatriz A. F. Manuel, Afonso M. T. Fumo, Cees P. M. Van Der Vleuten & Erik W. Driessen (2015) Students' and junior doctors' preparedness for the reality of practice in sub-Saharan Africa, *Medical Teacher*, 37:1, 64-73
5. Rembrant Aarts, Konrad Steidel, Beatriz A. F. Manuel & Erik W. Driessen (2012). Progress Testing in Resource-Poor Countries: A Case from Mozambique. *Med Teach*. 2010;32(6):461-3. <https://doi.org/10.3109/0142159X.2010.486059>

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2. Manuel B; Keygnaert, I.; Tiago, A.; Roelens, K. (2017), When are the Medical Students of Mozambique introduced to Competencies on Intimate Partner Violence? Preliminary Results. Paper presented at AMEE Conference, Helsinki, Finland. DOI: 10.13140/RG.2.2.35396.12160.
3. Medical students' competencies on intimate partner violence in Mozambique. Manuel B; Keygnaert, I.; Tiago, A.; Roelens, K.; Valcke, M. Ghent, Belgium, Conference: Conference on Sexual and Reproductive Health and Rights Policy Research - ANSER, Affiliation: ICRH, Ghent, DOI: 10.13140/RG.2.2.35112.78081
4. Undergraduate Medical Education Curricula in Intimate Partner Violence: A Scoping Review. ANSER Week 2018.
5. Training Needs of Mozambican Medical Students to Deal with Intimate Partner Violence. Eduardo Mondlane University, Scientific Conference 2018.
6. Addressing Intimate Partner Violence: Implications for Medical Curricula in Mozambique. Desafio Seminar 2018.
7. Addressing Intimate Partner Violence: Implications for Medical Curricula in Mozambique. UEM Student Day 2019 and UGent International student day 2017.
8. Conference: ANSER Conference on SRHR Policy Research. 2016
9. Conference: A Couples Approach to IPV and HIV Prevention, LVCT, Kenya. 2016

Doctoral school training

1. Leadership Foundation.
2. Doctoral school course on Global Sexual and Reproductive Health.
3. Project Organization.
4. Advanced Academic English: Conference Skills - Presentation Skills.
5. Advanced Academic English: Conference Skills - Academic posters.
6. Workshop in Reproductiveness of Quantitative Data.
7. 9th From PhD to Job Market: Believing in First-Mover Advantages.

Other training during PhD

1. Kwazulu-Natal Research Institute for Tuberculosis and HIV, K-RITH Biostatistics Course, May 2015.
2. Partnership for Research in Implementation Science Mozambique (PRISM)/Fogarty, Scientific Writing and Systematic Literature Review Training, 2015.
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Dissemination

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Outline of the thesis

This thesis starts with an introduction which gives an overview of intimate partner violence (IPV) and outlines the arguments for researching this field, explains why it is important to introduce this topic in undergraduate medical curricula using Competency-based Medical Education (CBME), and further introduces the aim of this thesis (Chapter 1). Chapter 2 describes the development, the research objectives and methodology of four studies to identify ways to improve curricula on IPV content to enhance the prevention and medical care related to IPV within the health system in Mozambique. The first study is a scoping review of articles published between 1998 and 2020 aimed at synthesizing existing literature and associated research gaps on the key concepts of IPV response training programs that have been integrated into medical undergraduate and graduate curricula. When surveying the content and instructional strategies being adopted globally, we see that IPV content is hardly addressed, and only, inconsistently present. This made us wonder what the gaps are in IPV curriculum contents in Mozambique. In the second study, we surveyed third and sixth-year medical students (N387), enrolled in five medical schools in Mozambique to map in a comprehensive way students' perceived mastery of their knowledge, skills, and attitudes related to IPV. Quantitative results showing critically low levels of self-reported mastery of IPV-related competences by medical students led to a screening of medical curricula to see what attention if any is being paid to IPV in Mozambique. In the next study, we screened curricula of Mozambican medical schools on the base of a state-of-the-art IPV curriculum framework. We based the latter on a review of the literature mentioned above. In the last study, we analysed the outcomes of a simulation-based training module on clinical communication competences when interacting with IPV victims. The four studies are presented in Chapter 3. Also, in Chapter 3, the main findings and conclusions of the previous chapters are combined and summarised to answer the research questions of the thesis. The thesis concludes with a general discussion in Chapter 4, including methodological considerations, strengths of the study, limitations, recommendations, and suggestions for future research.

Chapter 3 is based on two studies published in international scientific journals and two unpublished studies, under review. As each study is written to be read on its own it was not possible to avoid repetition and overlap across chapters.

CHAPTER 1

Introduction

1. 1. Prevalence of Intimate Partner Violence Worldwide

Intimate Partner Violence (IPV), also known as *partner battering* and *domestic violence*, is a critical public health issue. The World Health Organization (WHO) defines *Intimate Partner Violence* as “any behaviour within an intimate relationship that leads to physical, psychological or sexual harm to those in that relationship, including acts of physical aggression, sexual coercion, psychological abuse, stalking, and controlling behaviours.”¹ Women or men in heterosexual or same-sex partner relationships can be victims of IPV.

Globally, as many as 38% of murders of women and 6% of men are committed by an intimate partner ^{2,3}. Some studies report that the percentages of male and female victims of IPV are actually similar ⁴⁻⁷. According to the National Intimate Partner and Sexual Violence Survey from the United States of America (USA), 14% of men have experienced severe physical violence from their female partners, and approximately 1 in 10 men in the USA experience sexual violence, physical violence, and/or stalking by an intimate partner during their lifetime ⁸.

As stated by the WHO, recent figures show that 35% of women worldwide have experienced either intimate partner sexual violence or non-partner sexual violence in their lifetime ⁹. The same authors state that on average, 30% of women report that they have experienced some form of physical or sexual violence from a partner while in a relationship.

A systematic literature review conducted by Muluneh and colleagues ¹⁰ that included 25 studies from Sub-Saharan Africa reported a prevalence of ongoing IPV experienced by women ranging from 13.9% to 97%.

The most recent data on IPV in Mozambique stated that 55% of women report being victims of IPV, compared to 25% of men ^{11,12}. One out of three Mozambican women aged 15–49 report having been a victim of physical violence since the age of 15, with the husband or intimate partner as the perpetrator in 62% of cases. Moreover, 12% of women report being a victim of sexual violence since the age of 15. In general, 50% of reported cases of violence against women were related to sexual abuse ¹³. Sexual violence also affects a large number of orphans and other vulnerable children, including boys ¹⁴. A high prevalence of IPV against men is observed in the north of Mozambique where there is a matriarchal culture (a culture or community dominated by a woman or women)¹⁵: there, 28% of men report being victims of IPV, and 20% reported having suffered IPV during the previous twelve months as reported in a survey

conducted in 2011 in one province in the north of Mozambique ¹⁵. In a study on being a man in low-income settings in Maputo, Mozambique, conducted by Segh and colleagues, the authors stated that 44% of women had experienced physical violence from a male partner, and 45% had experienced psychological violence.

Macucha and colleagues analysed 689 autopsies of victims of homicide in Maputo Province, Mozambique, over two years and found that 14% were victims of domestic homicide ¹⁶. Among the victims of domestic homicide, 42% had primary level education, 65% were males and 35% females, with the median age of 39 years old ¹⁶. The residence was the place of the homicide in 47% of the cases, and suffocation was used in 27%, a blunt instrument in 25%, and poisoning in 17% cases ¹⁶. Of those, 24% of cases were of victims of IPV ¹⁶.

As reported above, Mozambique has a high prevalence of IPV. A multi-country study conducted by the WHO, focusing on women of reproductive age, reported that globally, the overall prevalence of IPV ranges from 15% in urban areas to 71% in provincial areas ¹⁷. These numbers can be inaccurate as victims are hesitant to reveal their experiences of violence due to barriers, both for women and men, such as fear of stigma and shame, lack of awareness of available services, fear of revenge, lack of law enforcement action and attitudes surrounding violence as a social issue ¹⁸⁻²¹. However, the problem is most prominent in low-middle income countries such as Mozambique where socioeconomic status is low, and education is limited, especially in sub-Saharan Africa (SSA) ¹⁰. Slegh and colleagues also report that post-conflict stress, poverty, and economic inequalities contribute to gender-based violence and other forms of violence ²².

The following sections review relevant literature on laws related to domestic violence and the prevalence and incidence of IPV. The text discusses risk factors and impact of IPV and reviews the available evidence on IPV for Mozambique. This section also presents the theoretical and conceptual frameworks related to IPV. We also introduce competency-based medical education and developing competencies on sensitive topics. In addition to this introduction, we also conducted a scoping review to map the nature of undergraduate medical education curricula when addressing IPV worldwide. The scoping review is presented in unpublished manuscript form in the results section.

Although healthcare professionals are mentioned as access points for victims of IPV, for these studies, we focus on medical doctors. While the WHO and much of the literature report research

on women as victims of IPV, our focus is on both sexes. The instruments used for the studies are included in the appendix of the individual manuscripts.

1. 2. Impact and Risk Factors

Globally, the impact of violence against women (VAW) “constitutes 11% of the world’s gross domestic product (GDP)” namely 5.26% related to VAW and 4.25% to child abuse and sexual crimes” ²³. IPV increases costs for society related to medical care, legal and judicial assistance, social services, and production and productivity losses ²³.

The impact of IPV resonates in all areas of health and social programming. Victims of sexual violence experience increased rates of morbidity and mortality, and violence has been shown to exacerbate HIV transmission, alongside other health conditions ²⁴. Unintended pregnancies, abortions, adverse pregnancy and neonatal and infant outcomes, sexually transmitted infections (including HIV) and mental disorders (such as depression, suicidal thoughts and attempts, anxiety disorders, sleep disorders and eating disorders, alcohol and drug use) are some of the health consequences of IPV ^{25,26}.

The WHO reports other consequences of IPV for women such as “isolation, housing insecurity, inability to work, loss of wages, lack of participation in regular activities and limited ability to care for themselves and their children” ³. According to the WHO ³ adolescent girls, young women and women belonging to ethnic minorities, transwomen and women with disabilities are at a higher risk of different types of violence. The same agency added that approximately 20% of women and 8% of men report having been victims of sexual violence as children.

Risk factors associated with IPV for both women and men include lower levels of education; exposure to child maltreatment; witnessing family violence; harmful use of alcohol; holding attitudes and norms that accept violence and gender inequality; male control/controlling behaviours over women (e.g. unequal power in intimate relationships); and mental health problems ³.

The WHO sets out the factors associated with IPV in the following categories ³:

Factors associated with women’s experience of intimate partner violence:

- women’s lack of employment.

- gender discriminatory laws disadvantaging women with regards to ownership of land and assets, marriage, divorce, and custody of children.

Factors associated with men's perpetration of intimate partner violence:

- sexual entitlement (e.g. history of transactional sex and multiple sexual partners).
- involvement in violence outside the home.

Factors specifically associated with the perpetration of sexual violence include:

- beliefs in family honour and sexual purity.
- ideologies of male sexual entitlement; and
- weak legal sanctions for sexual violence.

WHO's categorization of factors associated with IPV

In Mozambique, as reported by Segh and colleagues 22, factors associated with males' later perpetration of physical IPV are:

- witnessing violence between one's parents.
- experiencing psychological or physical violence at home as children; and
- experiencing violence at school.

In a study conducted in Mozambique by Tchambo and colleagues (2020) violence against women cost USD 1,473,828.7 over a period of four years (2005–2008), with the health sector absorbing about 81% of the amount, justice 17%, and organisations working in the area of prevention 2% ²³. The direct and indirect economic costs of violence lead to high costs in society, as reflected in more medical care (visits to health care facilities, stays in hospital, surgical costs, costs of getting to and from a hospital or physical and emotional therapy, time away from paid work, and interruptions to domestic responsibilities at home), legal and judicial assistance, social services, and production and productivity losses ^{23,27}. This also impacts the scarce budget of low-middle income countries so as to "hinder economic development, increase socioeconomic inequality, and erode human and social capital" ²⁸.

1. 3. Laws on Intimate Partner Violence

There exist various international tools related to combating violence gender-based violence including the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW, 1979), the Beijing Declaration and respective Action Template (BPA, 1995), The Council of Europe Convention on preventing and combating violence against women and

domestic violence (Istanbul Convention), the Human and People's Rights African Charter, related to the Rights of the African Women (2005), the Sustainable Development Goals (2015), the SADC Protocol on Gender and Development (2008) and the 1325 Resolution of the United Nations Security Council (2000) ²⁹,

Globally, there are no laws explicitly related to violence against men. This can be linked to the fact that men feel it is shameful to be a victim of IPV ³⁰ and "have difficulties in reporting any offence because they are afraid of being institutionalized or stigmatised" or not been believed ³¹. Pressure from family also prevents men from taking legal action, and they are also afraid of false accusations ³⁰. In addition, possible reasons for underreporting include "fear of losing social respect and position, protection, love toward their children and family, and fear of getting blamed" ³⁰.

The reason that many countries advocate laws on violence against women is related to the fact that "in general, women and men perpetrate equivalent levels of physical and psychological aggression, but evidence suggests that men perpetrate sexual abuse, coercive control, and stalking more frequently than women and that women also are much more frequently injured during domestic violence incidents" ³²; and "studies of couples in mutually violent relationships find more negative effects for women than for men" ³² (p. 10). In contrast, Depraetere and colleagues ³³ found that the prevalence of rates of sexual victimization is common for both men and women, but that care and treatment are primarily targeted at female victims. The authors gave the example that "sexual assault referral/care centres are frequently steered by gynaecologists and are often located in gynaecological or maternity wards, which may create a barrier for men seeking help" ³³. The authors added that "some hospitals are not prepared to collect evidence from male victims via intimate examination of their bodies", and that "researchers have shown that reactions toward male victims differ depending on the characteristics of the victim and perpetrator (e.g. men who had been sexually victimized by a female perpetrator experienced very negative post assault reactions from others)" ³³ (p. 992). As reported by the same authors, seeing men as the dominant and sexually active gender denies the possibility for male sexual victimization, while societal perceptions of men, male sexuality, and sexual victimization prevent men from self-identifying as victims and inhibit them from seeking help to cope with the adverse consequences of sexual victimization ³³. The reports from Depraetere and colleagues are in accordance with Mozambican context.

The government of Mozambique included gender and gender-based violence in several plans, policies, and laws, including all Government's Quinquennial Plans; the National Plan for the Advancement of Women (2010-2014); and the National Plan of Action for Children II (PNAC 2013-2019). In 2009, the Mozambican Parliament passed the Law on Violence Against Women (Law No. 29/2009)³⁴ and in 2019 passed the Family Law (Law No. 22/2019)³⁵. The penalty for sexually assaulting children was increased in a recently revised penal code³⁵. In 2012, the government released the Multisectoral Mechanism for Integrated Assistance to Women Victims of Violence³⁶. This mechanism outlines the roles and responsibilities of the Ministry of Health, the Ministry of Justice, the Ministry of the Interior (police), and the Ministry of Gender, Children, and Social Action that leads this mechanism and co-chairs a Gender Coordinating Group with Forum Mulher (Women's Forum), a local network of 84 women's organisations.

The government of Mozambique also established the Gabinetes de Atendimento Integrado à Mulher e Criança Vítima de Violência (Cabinets of Assistance to Women and Child Victims of Violence) within the Ministry of the Interior^{12,14,37}.

Now in Mozambique there are no specific laws and services directed at men. However, there is a mechanism which gives priority for the assistance of male parents that take their children to health facilities. There are small centres for IPV victims run by civil society organisations, but shelters are lacking. Besides this, the quality and standardisation of care for IPV victims is lacking because of the lack of implementation of specific tools³⁸.

1. 4. Causes of and Factors Associated with IPV

Certain cultural factors may increase the perpetration of IPV, and influence the reactions of its victims. Cultural values may also influence opinions of IPV, and IPV may be considered acceptable within specific cultures³⁹. If a victim views specific acts as acceptable and minor due to their association with specific role expectations, this may prevent them from seeking assistance³⁹. At this point, we present theories linked to causes and factors related to IPV.

Ecological theory

This theory links violence in the family to a "family history of abuse, the popularisation of abuse through the social media or the internet, and the normalisation of abuse in societal general beliefs and attitudes"⁴⁰.

Evolutionary theory

This theory argues that “obedience or submissiveness is valued in a male dominating relationship and contrary to expectations may lead to violence”⁴⁰. Other theories of the causes of violence are linked to the “global trend in male-female power relations” whereby “women have become more independent in many situations, leading to increased friction in the male-female power structure, particularly within their homes”. The authors added that “men perceived independent women as less submissive to their domination”, “upsetting the status quo and challenging the concept of male domination which is interestingly fuelled by religious and cultural influences passed down from generation to generation”⁴⁰.

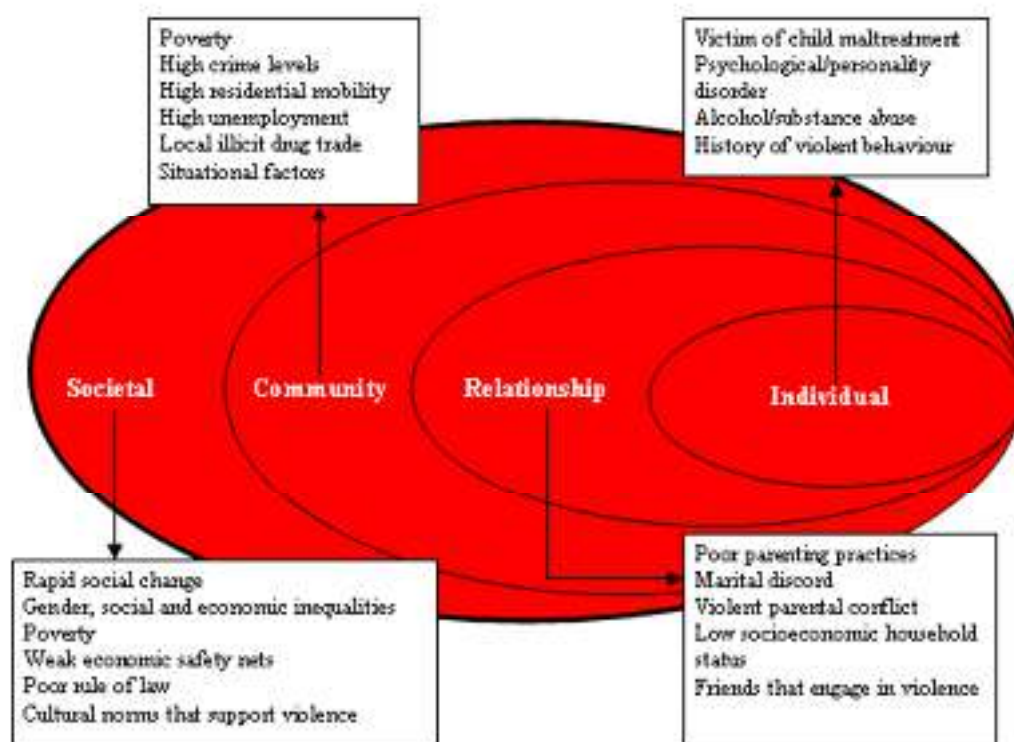
Feminist theory

This theory reports the following reasons related to violence against women: “(a) the dominant class where men have differential access to material, and symbolic resources and women are devalued as secondary and inferior; (b) intimate partner abuse is a predictable and common dimension of normal family life; (c) women’s experiences and skills are often defined as inferior because of male domination which influences all aspects of family life and decision”⁴⁰.

The WHO’s ecological framework

This theory is based on the evidence that “no single factor can explain why some people or groups are at higher risk of interpersonal violence, while others are more protected from it”⁴¹. The framework addresses interpersonal violence as a form of interaction among many factors at the individual, the relationship, the community, and the societal levels (Fig 1).

Figure 1. WHO ecological framework: examples of risk factors at each level ⁴¹



Individual level

Personal history and biological factors influence how individuals behave and increase their likelihood of becoming a victim or a perpetrator of violence (e.g. being a victim of maltreatment as a child, psychological or personality disorders, alcohol and/or substance abuse and a history of behaving aggressively or having experienced abuse) ⁴¹.

Personal relationships

Family, friends, intimate partners and peers may influence the risks of becoming a victim or perpetrator of violence (e.g. having violent friends may influence whether a young person becomes a perpetrator or victim of violence.) ⁴¹

Community contexts

Where there are social relationships (e.g. schools, neighbourhoods, and workplaces), these are likely to influence violence. Risk factors may include “the level of unemployment, population density, mobility and the existence of a local drug or gun trade” ⁴¹.

Societal factors

These factors “influence whether violence is encouraged or inhibited” ⁴¹ (e.g. economic and social policies that maintain socioeconomic inequalities between people, the availability of weapons, and social and cultural norms such as those around male dominance over women, parental dominance over children and cultural norms that endorse violence as an acceptable method of resolving conflicts.) ⁴¹.

Intimate Terrorism and Situational Couple Violence Theories

These theories outline two distinct forms of male violence against female partners:

Patriarchal terrorism (or intimate terrorism): “violence that is embedded in a general pattern of controlling behaviours, indicating that the perpetrator is attempting to exert general control over his partner” ⁴². The author suggests that this type of violence is also called domestic violence, wife-beating, and spousal abuse.

Intimate partner violence or couple violence (situational couple violence) “violence not connected to a general pattern of control” ⁴². The author suggests that this type of violence involves “specific arguments that escalate to violence but showing no relationship-wide evidence of an attempt to exert general control over one’s partner” ⁴².

As reported by the authors ⁴², the differences mentioned above are significant because “they have implications for the development of theories of interpersonal violence, the design of educational programs and intervention strategies, and the implementation of public policy” and “are also important for understanding the effects of violence on its victims” ⁴².

This theory is contradictory to the analysis of feminist theory and family violence theory.

Women’s violence theories

In these theories, a feminist researcher ⁴³ analyses how the literature has constructed violent women as pathological (mad), victimised (sad) or deviant (bad).

Mad women

In this theory, women who kill are seen as mentally disordered ⁴³. The author claims that such women have inherent “biological or psychological dysfunction where masculine traits can be identified”, thus “violence is medicalised and is viewed as the outcome of this dysfunction” ⁴³.

Victimised women

In this theory, women are seen as the objects of victimisation by their partners leading to perpetration of lethal and non-lethal violence ⁴³. Women are seen as helpless, weak and passive which explains why they were unable to leave their abusers ⁴³.

Deviant women

This theory focus on the impact of structural factors such as race, class and regional location as the context which predisposes women to violence. As reported by Africa, ⁴³ studies that defend this theory do not critically examine women’s gendered experiences and “run the risk of stigmatising marginalised women such that violence becomes synonymous with being poor, unemployed and Black” ⁴³.

The author reports that her motivation for a feminist analysis of women’s violence is related to the concern is that violence is inconsistent with femininity ⁴³. She adds that in this way “the feminine-masculine dichotomy is maintained and violence remains framed within a masculine discourse” ⁴³; and that “the categorisation of violence within these frameworks contributes to the silences around women’s experiences as perpetrators thereby continuing to construct these acts as devoid of agency.” ⁴³.

Gender symmetry and mutuality theories

Straus ⁴⁴ has researched the contradiction between the conceptualization of partner violence as almost exclusively perpetrated by men. The author found that much of the controversy arises because those who research gender symmetry do so “on the basis of perpetration rates”, while the ones “who deny gender symmetry” do “on the basis of the effects of victimization” ⁴⁴. The author defends the idea that the different explanations should be replaced by “perpetration versus effects” ⁴⁴. When focusing on prevention of perpetration, the author stated that, as symmetry and mutuality theories are predominant, this suggests that prevention could be enhanced by addressing programmes to both sexes ⁴⁴. When focusing on offender treatment, the same author

suggests that “effectiveness could be enhanced by changing treatment programs to address assaults by both partners when applicable” ⁴⁴.

Theories from Mozambique

In Mozambique, as reported by Slegh and colleagues in a study on perspectives for men in low-income settings, the influence of sociocultural traditions such as strong beliefs in the role of ancestors and spirits “shape gender norms, practices, and relationship dynamics” ²² (p. 29). The same authors reported that “spirits” were said to play a role in provoking IPV, offering men an excuse for using violence and offering women a reason to “forgive” the male partner who inflicted violence” ²². The authors added that men and women think that “women generally cause “problems in families” because they possess “bad powers”, and that “belief in spirits afforded women some autonomy to express anger or refuse sex” ²² (p. 11). The authors added that 40% of men and 13% of women reported that “there are times a woman deserves to be beaten” ²² (p.12). A report of a study on the context of domestic violence in Mozambique, conducted by Braga, Gune and Manuel in 2019 ⁴⁵, stated that the investigation of violence tends to be guided by “an etiological approach that attributes violence to individual problems and conflicts and the other that analyses violence as part of the social environment.” The authors believe that in general in Mozambique, the research carried out on the subject associates domestic violence with the “Patriarchal system” ⁴⁵. The authors added that, however, despite the recognition of multiple dimensions of violence, the focus in the research is more on physical violence and tends to “ignore the collective process of building violence that involves these different dimensions” ⁴⁵ (p. 1).

Braga and colleagues ⁴⁵ citing Osório and Cruz and Silva (2016) consider that “violence is hierarchical to the disadvantage of women, because in patriarchal culture there is a naturalization of the subjection of women to men, and men can exercise this violence as a way to effect the hegemony of masculinity within of the family”. Continuing, they reported that “domestic violence is maintained and used as part of the construction of masculinity that places man at the top of the hierarchy as the one who exercises the power of authority, provider of goods and family decision maker” ⁴⁵ (p.6) where initiation rites prevail.

As explained above, research has shown IPV to be a complex matter. Different theories of causes and factors associated with IPV are also controversial and can lead to erroneous approaches to the role of the healthcare sector in tackling the topic. The most important thing to

consider is that IPV can affect both women and men and that they are part of a society and are not isolated individuals. Healthcare providers must receive training on the dynamics of the society and different theories related to causes and factors pertaining to IPV. As healthcare providers are also part of society, and they may also be victims of IPV, it is important that they have training on the stereotypes and also how to manage their own personal experience of IPV, if relevant.

1. 5. The Role of the Healthcare Sector in Tackling the Topic

Despite the fact that in 1996, the World Health Assembly declared violence against women a significant public health problem that should immediately be addressed by governments and health organisations, the majority of medical doctors still do not recognise IPV as a public health issue, as there is resistance from medical doctors to addressing IPV (because of a lack of skills and resources to manage IPV, limited referral points, sharing the same cultural and gender norms of victims, time constraints, and discomfort with the subject) and also because it is considered by many a social or cultural issue ^{46–50}. Lack of inclusion of violence-response training in medical curricula, absence of clear policies on IPV, and lack of coordination among various actors and departments involved in the planning of delivery of sector-based services and/or integrated services are also recognised as barriers to addressing IPV ⁴⁹.

As reported by the WHO ⁵¹, healthcare providers are often seen as role models in the community and are trusted. Victims of IPV “may have emotional needs, need for reassurance and ongoing safety concerns in addition to physical health needs” ⁴⁴. Besides this, healthcare providers have to understand that their role is to ensure empathic support and care, and referral to other services where available rather than solving the violence or related issues or making decisions for women ⁵¹. As it can be harmful to not address violence appropriately, it is essential to look at the possible consequences of the attitudes of the healthcare providers ⁵¹.

According to the Pan African Health Organization (2015) in 2014, the 67th World Health Assembly (WHA) published the following resolution, stating a commitment to “enhance capacities, including through the appropriate continuous professional development of all public and private professionals from health and non-health sectors”. The same agency stated that it was essential to create professional development curricula to strengthen knowledge and skills and change the attitudes of medical doctors in order to improve care for women who are survivors of IPV and sexual violence.

Research has outlined seven main reasons why health organisations should address IPV suggested ^{48–50,53,54} :

- IPV is one of the leading causes of disability and death among women.
- IPV has adverse consequences for women's sexual and reproductive health.
- If they do not ask about violence, medical doctors may misdiagnose survivors or offer inappropriate care.
- Medical doctors are strategically placed to identify women at risk.
- Medical doctors are in a unique position to contribute to changing societal attitudes about IPV.
- Responding to IPV can contribute to the improvement of the quality of care of victims of IPV and related issues; and
- Medical doctors may inadvertently put women at risk if they are uninformed or unprepared.

In many cases, medical doctors are the entry point of contact of victims of IPV ^{3,21,23}. According to the WHO ³, the health sector has an important role in addressing IPV, for example by providing comprehensive sexual and reproductive health services, referrals to other services; gathering evidence through data and research; fostering prevention policies in other sectors; and advocating for the recognition of the topic as a public health problem and mobilising resource allocation.

The WHO focuses on this significant public health issue through “research and evidence building, development of guidelines and tools for the health sector, strengthening country capacity, and advocacy to increase political will” ³. To attain these goals, related to the strategies mentioned, the WHO suggested the following:

- Research and evidence-building to highlight the magnitude, risk factors and consequences and to identify effective interventions for prevention and response.
- Developing guidelines and tools by setting norms and standards for an effective health response.
- Strengthening the country capacity of health systems for a better response.
- Building political will by encouraging leadership to address the topic through partnerships and advocacy.

It is essential to ensure that medical doctors are aware of IPV and are adequately trained and able to listen to women in a non-judgmental manner; conduct appropriate clinical inquiry; support

and validate disclosure; assess risks, intentions and expectations; and document and keep a record of what victims report ⁵⁵. To achieve this, it is important for medical doctors to ^{38,55,56}:

- Be equipped with knowledge, tools, and skills to identify and understand the vulnerable nature of IPV victims.
- Be trained in how to manage social and cultural issues that may arise as part of the medical encounter.
- Be trained to identify and negotiate different styles of communication, decision-making preferences, family roles, sexual and gender issues, and issues of mistrust, prejudice, and racism, among others.
- Be trained in providing services in non-traditional settings and innovative health care delivery programmes.

Besides what was reported above, medical doctors also must be trained in law enforcement tools related to IPV. Some countries have mandatory reporting laws on domestic violence that require the reporting of specified injuries and suspected abuse by health care providers and “many of the available educational and training resources often emphasize the role of the health care provider as a mandated reporter” ⁵⁷. This mandatory reporting is aimed at “enhancing patient safety, improving health care providers’ response to domestic violence, holding batterers accountable, and improving domestic violence data collection and documentation” ⁵⁷. However, this is a controversial issue, as it is claimed that this might decrease confidentiality and patients’ ability to make critical life decisions, that it raises serious ethical issues and compromises the integrity of the provider’s relationship with a patient ⁵⁷. Moreover, “removing mandatory reporting requirements can help empower” ⁵⁷ victims “to make decisions that they feel are best for themselves based on their knowledge and experience” ⁵⁷. Nonetheless, medical doctors can at least be prepared to help the disclosure of coercive behaviours and reproductive and sexual coercion ⁵⁷.

Braga and colleagues ⁴⁵ also report that many studies conducted in Mozambique have shown that there are gaps in reliability between the victims and the attendants of the offices because the victims may fear that their denouncement will reach the perpetrator who may not be punished and might retaliate. The authors added that research conducted in Mozambique also reported that there is a lack of recognition of the attendance system created within hospitals for victims of violence as the system is not recognized as a support base for victims ⁴⁵. Other barriers for reporting violence include difficulties in collecting evidence of violence, the lack of resources for institutions operating in the field, and poor preparation of the respective agents. ⁴⁵

The perception of IPV as a social issue as well as the complicated and lengthy judicial process, non-compliance with deadlines, formalities and the increasing number of procedures to follow can also contribute to discouraging the victims from seeking justice services ⁴⁵.

In Mozambique, the main obstacles preventing medical doctors from approaching the IPV victims is the lack of a clinical screening policy that helps in the institutionalized response to the victims, and also the gap in standardised tools and management guidelines. The only tool available is one for forensic medicine ⁵⁸. Meanwhile, there are plans to introduce a standardised form in Mozambique on the management of IPV victims ⁵⁸. However, still, years after publication of the “Guideline for Integrated Response to the Victims of Violence” in Mozambique, we do not have clear guidelines and tools to address the victims at healthcare level.

Medical doctors also need to be aware that victims of IPV have their own perspective of their social, educational, economic, and cultural context, and should have the ability to understand the victim in their sociocultural environment. Training for medical doctors on IPV should involve helping them develop the ability to understand how IPV is culturally designed by the victim and also how to avoid judgment and discrimination, even though the medical doctor possesses, in their cultural context, different conceptions about IPV.

1. 6. The Role of the Mozambican Government in Tackling IPV

In order to address this situation, the Government of Mozambique has already developed and implemented a National Action Plan for Prevention and Eradication of Violence Against Women ⁵⁹. One of the objectives of the plan was to “strengthen institutional capacity and education and professional development of the general public on issues of violence against women.” Following this goal, the authors suggested preparing “proposals, modules on preventing and combating violence to the education” alongside professional development for teachers ⁵⁹. Also, regarding capacity building, the Governo de Moçambique (2012) (Mozambique Government) stated the following aims:

- Advise medical doctors on issues of gender, human rights, and violence.
- Organise specific professional development for medical doctors and other staff who are directly involved in the care of survivors of sexual violence.
- Invest in centres of excellence or medical institutions for the expansion of knowledge, professional development and create opportunities for studies and research.

- Integrate issues of violence, IPV and gender in the curriculum of health science institutes, professional development centres, and medical schools.
- Integrate the information system, in coordination with the INE (National Institute of Statistics) and (MMAS) the Ministry of Women and Social Affairs.

1. 7. The Sustainable Development Goals and IPV

The Sustainable Development Goals (SDGs), which are defined in the 2030 Agenda for Sustainable Development, are an opportunity to achieve the commitments on the prevention of IPV. The goals are more related to violence against women and girls however, we propose that this goal can also be reformulated to address violence against both sexes as follows:

- SDG Target 5.2 Eliminate all forms of IPV towards both sexes;
- SDG Target 5.3 Eliminate all harmful practices for both sexes (e.g. there are cultures that advocate practices that may put men at risk of sexual and reproductive health issues such as keeping concubines and inheriting wives of deceased family members, polygyny and hypogamy, the emphasis on toughness, strength and expression of prodigious sexual success and excesses for men.) ⁶⁰
- SDG Target 16.1 Significantly reduce all forms of violence and related death rates everywhere.
- SDG Target 16.2 End abuse, exploitation, trafficking, and all forms of violence against children.

1. 8. How Medical Students Learn: Perspectives on the Competency-based Medical Curriculum and Self-efficacy

Medical schools can play an important role in developing competences to manage victims of IPV. Medical schools are in a unique and privileged position to influence related healthcare provisions. In the context of the current PhD, we focus on future medical doctors. For an appropriate understanding of the concept of a curriculum we have to acknowledge that it refers to (1) learning objectives, (2) learning content, (3) teaching strategies, (4) media, (5) evaluation and assessment approaches, and finally, decisions about the background structure of courses within the curriculum ⁶¹.

Medical doctors are the ones who possess up-to-date knowledge on dealing with IPV and the skills to adopt a more suitable approach. However, it is necessary to offer them training based on scientific evidence.

The current evolution in healthcare has led to a need to adjust medical education in order to “change from the currently mostly knowledge-based education, to focus on skills that are needed to perform duties as a health care professional” ⁶² (p. 247). Miller, Sajid, and colleagues, support this idea saying that “advances in technology, research findings leading to improved methods of disease prevention, diagnosis and treatment lead to a constantly changing definition of the competence a medical student must develop” ⁶³ (p. 11).

Competency-based Medical Curriculum

Competence is defined as “observable abilities students should develop, integrating multiple components such as knowledge, skills and behaviour” ^{62,64,65} (p. 9, p. s5 and p. 248). Chacko added that it “means the acquisition of sufficient knowledge, psychomotor, communication and decision-making skills, and attitudes to enable the performance of actions and specific tasks to a defined level of proficiency” ⁶²(p. 248). Shah stated that “the core competences required of a medical graduate is predetermined in the curriculum and are contextual to the environment in which the medical graduate would eventually practise his profession” ⁶⁴ (p. s5). According to Munz, Competence-Based Medical Education (CBME) is defined as “an approach to preparing physicians for practice that is fundamentally oriented to graduate outcome abilities and is organised around competence derived from an analysis of societal and patient needs. It de-emphasizes time-based training and promises greater accountability, flexibility, and learner-centeredness” ⁶⁵. The Accreditation Council of Graduate Medical Education in the USA reports six domains of general competence: patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice ⁶⁶. In the UK, three broad outcomes have been specified for medical students, namely: doctor as a scholar and a scientist, doctor as a practitioner, and doctor as a researcher ⁶⁴

The following teaching and learning principles are described in the literature ^{67,68}, expressing the need to:

- Establish a significant learning climate, where learners feel safe and comfortable expressing themselves.
- Involve learners in mutual planning of relevant methods and curricular content.
- Involve learners in diagnosing their own needs – this will help to trigger internal motivation.

- Encourage learners to formulate their learning objectives – this gives them more control of their learning.
- Encourage learners to identify resources and devise strategies for using the resources to achieve their objectives.
- Support learners in carrying out their learning plans.
- Involve learners in evaluating their learning – this can develop their skills of critical reflection.

CBME offers flexibility in time and focuses on all the three domains of learning as it is learner-centred ⁶⁴. CBME also focuses on outcomes and prepares students for professional practice; for this reason, teaching and learning activities should be more skill-based, involving more clinical, hands-on experience ⁶⁴. During pre-clinical education, students should be trained using cases/patients. They should be in environments that are closer to reality, for instance, employing simulations, at the beginning of their training to enhance their motivation for learning. The CanMeds framework can also be linked to IPV training. This is reflected in the emphasis on giving appropriate responses to the victims during clinical care; delivering ethical and compassionate care; recognising one's own attitudes; and in the focus on communication with IPV victims ⁶⁹.

Examples of teaching methods include problem-based learning in the preclinical years and case-based learning in the clinical years, clinical-pathological conferences, clinical audits, early clinical exposure, skills training, community-based research and service and information communication technology ⁶⁴. Use of the flipped classroom approach and “team-based learning” are also suggested to enhance training ⁶⁴.

Shah, Desai and Jorwekar reported that as of now, the medical education framework system is dependent on an educational module that is subject-centred and time-based ⁶⁴. They added that most assessments are summative, with little space for input. This leads to teaching-learning and assessment that concentrate on improving skills and continues until the required competence is accomplished. In this system, training proceeds until the standard of necessary competence is achieved ⁶⁴. Assessment is continuous and formative, and feedback is inbuilt during training ⁶⁴. Furthermore, the same authors added that each student is “assessed by a measurable standard which is objective and independent of the performance of other students” ⁶⁴(p. s5). It is important to keep in mind that the settings where future doctors will work – the context, the subject, the local regulations and the cultural conception – are determinant of the competencies necessary to meet the needs of health services ^{61,64,70–73}.

Self-efficacy

Perceived self-efficacy relates to an individual's beliefs in their capabilities to learn or perform a specific task successfully ^{74–76}. As reported by Ammentorp and colleagues, “self-efficacy can change as a result of learning, experience, and feedback; and the magnitude of self-efficacy changes corresponds closely to changes in performance” ⁷⁶ (p. 271). It also “affects individuals' choices of assessment tasks, their effort, and persistence” ⁷⁷ (p. 106). Internal and external factors such as personal competencies, physical condition, self-esteem, interpersonal environment, availability to participate in some activities, task complexity and stress, can also influence self-efficacy and behaviour ⁷⁶. Other factors, such as significant changes in personal characteristics (e.g. skills, knowledge, psychological condition) can also influence how self-efficacy is judged. Addressing sensitive topics and past experiences of abuse can also influence self-efficacy while students are in medical training or during clinical practice. As stated by Celik, individuals who have a high level of self-efficacy have more potential to attempt challenging tasks, persist longer in them, and exert more effort in the process ⁷⁷.

1. 9. Where are the Gaps in the Literature

Paragraph 1.8 provided a structured overview of gaps in the literature which are translated to research objectives in paragraph 1.9.

This research is significant for several reasons. IPV is a public health issue and is becoming more prevalent, thus warranting the attention of government, society, and other relevant stakeholders. Available literature shows that IPV elements in medical curricula are not standardised and that medical doctors receive ineffective or even no training at all, resulting in a lack of appropriate competences to deal with IPV:

Whole curriculum

- Very few studies are available, but those that do exist mainly stress the lack of a consistent focus on IPV in medical curricula and some medical schools have little or no IPV education.
- There is a lack of evidence-based interventions in curriculum on IPV.
- There is a lack of competence frameworks for IPV content.
- Graduates question the adequacy of their IPV training due to a lack of learning opportunities.

Learning objectives and learning content

- Little is known about medical students' comprehensive mastery of IPV competences and how this sensitive topic should be taught to help them acquire better communication skills. Most studies focus on specific components.

Background structure of courses within the curriculum

- There is a lack of studies linking comprehensive IPV competence mastery to background variables.
- There is a need to (re)design and develop curricula to strengthen related knowledge, skills, and attitudes.
- There are no studies addressing the sociocultural and economic settings in which medical students master IPV.
- There are no studies related to access to healthcare amongst IPV victims or to medical students' competences to deal with IPV in such cases.
- Few studies address how medical doctors in Africa are prepared to deal with victims.
- Lastly, there is a lack of literature on IPV curricula for medical students in Mozambique.

Besides what was reported above, we conducted our research to fill the following gaps in teaching and learning principles in medical education:

1. Establish an effective learning climate where learners feel safe and comfortable expressing themselves.
2. Involve learners in evaluating their learning to enhance skills of critical reflection and practice self-efficacy.

We also conducted our research taking into account the following reflections of Turan and colleagues ⁷⁵ on self-efficacy:

- Improving achievement: self-efficacy beliefs can be adopted to predict and increase medical students' achievement.
- Improving self-regulated learning skills and motivation: increasing students' self-efficacy beliefs would be expected to improve their achievement, motivation, and self-regulated learning skills, and vice versa.

- Providing study support: recognizing self-efficacy beliefs might help identify and support students at risk of dropping out or completing successfully.
- Providing social and emotional support to students: assessing and improving self-efficacy beliefs may help trainers provide students with emotional and social support:
- Evaluation of an innovation and/or curriculum: these can influence research about the relationship between – and changes in – the curriculum and self-efficacy beliefs (mostly related to communication competencies and clinical skill performance).

1. 10. Objectives

This study aims to identify ways to improve curricula on IPV content to enhance prevention and medical care in Mozambique. The specific objectives of the study are as follows:

1. To identify the key characteristics of IPV-related undergraduate medical curricula using a scoping review.
2. To identify the perceived mastery of competence components linked to the implementation of IPV-related medical curricula in Mozambican medical students.
3. To screen medical curricula in Mozambique concerning attention paid to intimate partner violence, by applying a framework derived from the international literature.
4. To describe and analyse the outcomes of a simulation-based training module on clinical communication competences when interacting with IPV victims.

CHAPTER 2

Methodology

2. 1. Methodology

2. 1. 1. Study period

The thesis is a compilation of four studies, all of which were conducted in the period between March 2016 and March 2020. Depending on the study design, studies lasted from four months to three years.

2. 1. 2. Description of the Study Sites and Population

The study was conducted in five medical schools situated in three provinces in the south (Maputo), centre (Sofala) and north (Nampula) of Mozambique.

The research sites where the studies were performed are the following:

- Faculty of Medicine at Eduardo Mondlane University, Maputo, Mozambique
- Faculty of Health Sciences of the Catholic University of Mozambique, Beira, Mozambique
- Faculty of Medicine of the University of Zambeze, Tete, Mozambique
- Medicine Course of the Higher Institute of Science and Technology of Mozambique, Maputo, Mozambique
- Faculty of Medicine of UniLúrio University, Nampula, Mozambique

The populations involved in the studies included third- and sixth-year students from the schools of medicine mentioned above and curriculum coordinators of four medical schools – as one curriculum coordinator did not respond to the request to participate in the semi-structured interview to validate the curriculum analysis:

- For the specific objective 2, 304 students (RR 66%) were included (80.85% of third-year students and 25.44% of sixth-year students). Most respondents were male (61%). The average age was 22.33 years (SD = 3.9).
- For the specific objective 3, five curriculum developers from each of the five medical schools were contacted, and four participated in individual semi-structured interviews via e-mail and/or phone. The interview was related to the strengths and weaknesses of medical curricula in Mozambique, considering teaching/learning strategies, evaluation approaches, phase in the curriculum, nature of module/discipline and instructor.

- For the specific objective 4, out of a total of 58 students enrolled for the gynaecology rotation, 59% participated in the research. Their average age was 24 years and six months; 20 were female, 27 were in heterosexual romantic relationships, 24 were single, and seven reported being survivors of IPV themselves.

2. 3. Study Design

Studies were implemented to reach the defined objectives, and qualitative and quantitative research methods were used as applicable. Qualitative methods included a scoping review, document analysis and in-depth telephone interviews, whereas quantitative research data was obtained through a paper-based survey and quasi-experimental intervention. Specific study design was chosen depending on the research questions that needed to be answered as well as the financial and logistical constraints. A summary of the methods used is presented in Table 1.

Table 1. Overview of the research methodology adopted in the studies in the PhD

Specific objectives	Data collection methods	Sample (size) and time frame	Data analysis techniques	Curriculum focus
SO1 To identify the key characteristics of IPV-related undergraduate medical curricula.	Scoping review	Out of 889 studies from 2017 to 2020, 14 studies were included.	Descriptive analysis PRISMA 2009 Flow Diagram	Whole curriculum.
SO2 To identify the perceived mastery of competence components linked to the implementation of IPV-related medical curricula in Mozambican medical students.	Paper-based survey	387, third- and sixth-year medical students surveyed between July to September 2018	Descriptive analysis, one-way ANOVA, one-sample t-tests, p-values, effect sizes (Cohen's d). All analyses were carried out using statistical software SPSS version 24.0.	Learning content
SO3 To screen medical curricula in relation to the attention paid to intimate partner violence, by applying a framework derived from the international literature.	Document review followed by semi-structured interviews to validate data collected by document analysis	The curriculum of five medical schools were analysed and four curriculum coordinators from medical schools were interviewed. From April 2016 to January 2017.	Systematic analysis of concrete medical curricula with follow-up telephone interviews in Mozambican medical schools.	Learning content, evaluation, and assessment approaches and background structure of courses within the curriculum.

SO4 To describe and analyse the outcomes of a simulation-based training module on clinical communication competences when interacting with IPV victims.	Quasi-experimental, one group pre-test/post-test design	Thirty-four fourth-year medical students from one medical school in Mozambique. From March 2019 to June 2019.	Descriptive analysis, Cronbach's Alpha, paired-samples t-test, mixed-effects ANOVA, SPSS® Statistics 25.0	Learning objectives, learning content, teaching strategies, media and evaluation and assessment approaches, background structure of courses within the curriculum.
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2.1.3.1. Qualitative Designs

SO1 To identify the key characteristics of IPV-related undergraduate medical curricula.

A scoping review of medical curricula with contents related to IPV was conducted to identify the approaches used and assessment procedures in the teaching-learning process on IPV considering International and WHO guidelines. We used the scoping review to determine the scope of coverage of a body of literature on IPV curriculum and give a clear indication of the volume of literature and studies available as well as an overview of its focus. Scoping reviews help to identify and map the available evidence.

Methods: We conducted a systematic literature search on studies published between 1998 and 2020, in the field of training on IPV in medical education. Reference lists from included articles were searched for relevant literature. We used descriptive statistics to summarise all data.

Results: Out of 889 studies, 14 met the inclusion criteria, 55% of which reported positive training program effectiveness. IPV learning objectives were hardly considered. Few studies could be identified which presented empirical evidence about the coverage of IPV curricula involving medical trainees.

SO3 To screen medical curricula in relation to the attention paid to intimate partner violence, by applying a framework derived from the international literature.

This systematic analysis of documents explored the conceptual and logical entities regarding the best practices on approaches on medical curricula on IPV in a theoretical way as well as examining critical issues within the programs and surveying each documents central ideas and, later, the objectives, methods and contents on IPV in Mozambican medical schools.

To identify information about medical curricula in Mozambican medical schools, we did an extensive search to track peer-reviewed articles about IPV in Mozambican medical curricula. Due

to a lack of published information, an alternative approach was developed, based on a systematic analysis of concrete medical curricula with follow-up interviews in Mozambican medical schools. The latter phase required a curriculum analysis framework to direct the interviews. We identified key questions to be asked: What are the aims to be achieved? What learning experiences will be invoked and in what way? How are teaching and learning organised? The latter questions raise issues about the didactical strategies being adopted, and the assessment approaches to check mastery of the curriculum's aims, the structure of the curriculum (courses and build-up), and about the teachers taking up teaching responsibilities. With these questions in mind, further analysis of the literature helped to develop the nature of the interview questions.

Methods: We screened curricula of five Mozambican medical schools that were developed based on a state-of-the-art IPV curriculum framework. The latter framework was based on a review of the literature.

Results: Few medical schools of Mozambique could be identified, addressing IPV in their curriculum. When tackled, IPV content is mostly dealt with in the context of Obstetrics and Gynaecology, Community Health and Forensic Medicine rotations. IPV content is integrated as stand-alone modules in some specific subjects. No specific teachers teaching IPV could be identified in any of the schools. No time allocation was specified to address the topic; no teaching and learning strategies could be identified invoking awareness or supporting essential knowledge acquisition; additionally, hardly any information about related assessment methods was found. Only in one medical school was the subject part of the formal curriculum document.

2.1.3.2. Quantitative Designs

SO2 To identify the perceived mastery of competence components linked to the implementation of intimate partner violence (IPV)-related medical curricula in Mozambican medical students.

A paper-based instrument (questionnaire) was developed to cover the content and help get a reported self-mastery of the different domains in the field of IPV. A self-administered questionnaire was used because these are “good for gathering data about abstract ideas or concepts that are otherwise difficult to quantify, such as opinions, attitudes and beliefs” ⁷⁸. Artino and colleagues added that “questionnaires could be useful for collecting information about behaviours that are not directly observable, assuming respondents are willing and able to report on those behaviours” ⁷⁸.

Third- and sixth-year students were randomly selected from each medical school. We expected that competence differences between third- and sixth -year students would occur as IPV- related

topics are dealt with in the clinical years. Sample size calculation was based on an expected prevalence of 50% of medical students mastering IPV competence, with a confidence interval of 95%, a 0.05 and critical value $Z_{\alpha/2}$ of 1.96. This estimation resulted in n of 191 third-year students out of 376 and n of 144 of sixth-year students out of 228.

First, a pilot study was conducted, involving 20 third-year students selected conveniently from a class of students attending a theoretical-practical session in their medical course training (data not used in subsequent data analysis) of each medical school to assess the feasibility of the IPV_KSA, item relevance and clarity. Students were invited to make comments and suggestions. A first data collection round resulted in responses from 167 participants (50%). A second data collection was conducted, resulting in an additional response from 220 students (66%). The average administration time for both the pilot and the actual study was estimated at twenty minutes.

Methods: A survey was administered to third and sixth-year medical students (N387), enrolled in five medical schools in Mozambique. The instrument focused on mapping students' perceived mastery of their knowledge, skills, and attitudes related to IPV.

Results: In total, 387 medical students (Response Rate (RR) 66%) participated in the survey. The overall mean perceived mastery of IPV competence was 36.18 (SD = 24.52) for knowledge, 32.01 (SD = 27.37) for skills, and 43.47 (SD = 27.58) for attitudes; perceived mastery was reported along a scale from 0 to 100%. Though sixth-year students reported a significantly higher mastery level, it is still below a mastery-learning benchmark of 80%.

SO4 To describe and analyse the outcomes of a simulation-based training module on clinical communication competences when interacting with intimate partner violence (IPV) victims.

A quasi-experimental pre-test/post-test design was adopted, enriched with a qualitative analysis of student's perceptions about the IPV-module. A pre-test/post-test IPV self-efficacy scale (IPV-SE) was administered before and after involvement in the clinical simulations. This design was used because the sensitive nature of the IPV topic, as some of the participants could themselves have been victims of IPV or have witnessed IPV.

The results of these analyses were triangulated to provide a more productive and complete understanding of the medical knowledge, professional attitudes, and clinical skills related to how the health sector should address contents in IPV and how this is implemented in the medical schools.

Methods: A quasi-experimental pre-test/post-test design was adopted to study the impact of the intervention to tackle critical IPV knowledge, skills, and attitudes, underlying a script. The intervention was set up as part of an IPV-module within a “Gynaecology and Obstetrics” Bachelor of Medicine.

Results: In total, 34 (59%) fourth-year medical students were recruited from one medical school in Mozambique. The results of the paired samples t-tests point to a significant and positive change in post-test values when looking at the general IPV self-efficacy score (IPV SE) and the subscales. These results mainly relate to attitudes. Participants expressed a desire for additional IPV clinical communication competence and suggested enhancements to the module. We aimed at developing a foundation in the acquisition of IPV-related knowledge, skills, and attitudes in the context of a patient consultation session using simulation-based training IPV-module on clinical communication competences.

2.1. 4. Research Ethics

The studies conducted received prior approval from the Institutional Committee of Bioethics and Health linked to the Faculty of Medicine/Central Hospital of Maputo, Mozambique (registration number CIBS FM & MCH/006/2016). Also, administrative permission was granted by individual medical schools. For three studies, written informed consent was obtained from all study participants as the first study was a scoping review.

Chapter 3

Results

Intimate Partner Violence Training in Medical Curricula: A Scoping Review

Specific objective 1: To identify the key characteristics of IPV-related undergraduate medical curricula.

Intimate Partner Violence Training in Medical Curricula: A Scoping Review

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Abstract

Background – Although Intimate Partner Violence (IPV) has received critical attention worldwide, most medical doctors lack the appropriate competences to deal with IPV and seldom receive effective or any training at all. **Objective** – To map the nature of undergraduate medical education curricula when addressing IPV. **Methods** – We conducted a systematic literature search on studies published between 1998 and 2020, in the field of training on IPV in medical education. Reference lists from included articles were searched for relevant literature. We used descriptive statistics to summarize all data. **Results** – From 889 studies, 14 met the inclusion criteria, 55% of which reported positive program effectiveness. IPV learning objectives were hardly considered. Few studies could be identified as de facto, presenting empirical evidence about the impact of IPV curricula involving medical trainees. **Conclusion** – The number of studies about IPV as part of the medical curriculum is limited. Curriculum development research is needed to establish approaches that respect the complexity of the problem and to take into account the constraints in available resources in medical education.

Keywords: intimate partner violence; medical; knowledge, attitude, and skills; curriculum; scoping review

Introduction

Intimate Partner Violence (IPV) is increasingly recognized as a serious, worldwide public health concern with clinical and societal implications, affecting children, women and men, of different socioeconomic status (Abramsky et al., 2016, 2011; Knox & Spivak, 2005; Koziol-McLain, Giddings, Rameka, & Fyfe, 2008; Kyegombe et al., 2014; Morse, Lafleur, Fogarty, Mittal, & Cerulli, 2012; Van Den Ameele, Keygnaert, Rachidi, Roelens, & Temmerman, 2013; Van Parys, Verhamme, Temmerman, & Verstraelen, 2014; Wittenberg, Joshi, Thomas, & McCloskey, 2007). (Makayoto, Omolo, Kamweya, Harder, & Mutai, 2013; Ntaganira, Muula, Siziya, Stoskopf, & Rudatsikira, 2009; Pronyk et al., 2006; Wagman et al., 2015; Wong, Huang, DiGangi, Thompson, & Smith, 2008).

WHO defines *Intimate Partner Violence* as 'any behavior within an intimate relationship that leads to physical, psychological or sexual harm to those in that relationship' (World Health Organization, 2012). Short and colleagues define intimate partner violence by referring to its various forms: ", e.g., physical violence, sexual assault, emotional/psychological violence, and economic abuse" (Short, Johnson, & Osattin, 1998) (p). They also add that a critical dimension in IPV is the abuse of power "to gain control in relationships (e.g., intimidation, neglect, threats, exploitation, blackmail, stalking)" (p. 285).

Medical doctors are often the earliest - if not the only - point of contact for a victim of IPV (Ashford & Feldman-Jacobs, 2010; Bacchus, Mezey, & Bewley, 2003; Feder et al., 2011; Ramsay et al., 2012; Van Den Ameele et al., 2013). In countries with limited resources, the point of contact could be other health care practitioners. A comprehensive response to domestic violence is claimed to be the best approach to deal with victims of IPV as medical doctors are in a range of specializations (e.g., General Practitioner, psychiatry, gynaecology/obstetrics,

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orthopaedics, internal medicine, emergency medicine) (Oehme & Stern, 2014). Although IPV has received attention worldwide, medical doctors seem to lack mastery of learning objectives to deal with IPV and seldom receive effective or any training at all (Gennari, Harris-Sapp, Simmons, & Messner, 2016; Gregory et al., 2010; Hamberger, 2007; Heinzer & Krimm, 2002; Lawoko, Mutto, & Guwattude, 2012; Leaf & Keys, 2005; Papadakaki, Petridou, Kogevinas, & Lionis, 2013; Roelens, Verstraelen, Van Egmond, & Temmerman, 2006; Simmons, Brüggemann, & Swahnberg, 2016; Stobo & Salmon, 2001). Lack of inclusion of violence response training in national medical curricula, no clear policies about dealing with IPV and a lack of coordination between various stakeholders and departments involved in planning integrated services are also recognized as barriers to address IPV (Colombini, Mayhew, & Watts, 2008; Mancini, Nelson, Bowen, & Martin, 2006). Researchers reported that although some medical curricula incorporate a focus on IPV, this focus is not consistently implemented throughout the medical education curriculum (Colombini, Mayhew, Ali, Shuib, & Watts, 2013; Colombini et al., 2008; De Villiers & De Villiers, 1999; O'Doherty et al., 2014; Papadakaki et al., 2013; Ramsay et al., 2012; Sprague et al., 2017). When offered, it is, typically, of short duration, at a single point in the medical education program, and frequently limited to one type of violence (e.g., sexual violence). Lack of training about IPV may lead to a weak emphasis on monitoring IPV, lack of confidence in dealing with victims of IPV, minimal awareness about referral points for victims and little or no intervention (Ambuel et al., 2013; Bacchus et al., 2003; Hamberger, 2007; Hamberger et al., 2004; Pronyk et al., 2006; Usta & Taleb, 2014; Waalen, Goodwin, Spitz, Petersen, & Saltzman, 2000).

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The adapted "Recommended Components of Health Care Provider Training Programs on Intimate Partner Violence," developed by Short and colleagues, (Short et al., 1998) have been adopted as a guiding framework to map the IPV curriculum literature.

A scoping review approach was adopted to analyze studies addressing key research questions. Available scoping review studies in the IPV-domain centred on the assessment of educational interventions and the evaluation of IPV programs for healthcare professionals (Crombie, Hooker, & Reisenhofer, 2017; Sprague et al., 2017). The present scoping review aims at mapping the nature of undergraduate medical education curricula when addressing IPV. The concept "curriculum" is defined comprehensively (Valcke, 2018) (p. 89) and incorporates the key actors (students and teachers); the decisions made to develop the instructional setting (as learning objectives/competences, learning content, instructional strategies, media and evaluation and assessment approaches); as well as the organizational decisions (timing, structure, pace).

Learning objectives are central to a curriculum. As argued by Short and colleagues (Short et al., 1998), IPV curriculum objectives have to be multidisciplinary and incorporate goals from fields such as law enforcement, social welfare, and advocacy. The latter authors stress three main IPV related clusters:

- (1)**Knowledge:** understand and incorporate a core body of concepts, principles, theories, and regulations as to IPV;
- (2)**Skills:** mastery of specific clinical skills as violence prevention, identification, intervention and follow-up;
- (3)**Attitudes:** reflect a sense of responsibility, acceptance, openness, being non-judgmental, openness to support, appreciation as to victims, perpetrators, and their families (Short et al., 1998) (see table 2).

Materials and methods

The scoping review built on the PRISMA guidelines (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) and the six-stage methodological framework developed by Levac et al. (Levac, Colquhoun, & O'Brien, 2010), being: (1) Identify the research questions; (2) Identify relevant studies; (3) Study selection; (4) Charting the data; (5) Collating, summarizing and reporting the results; and (6) Consultation (not applied in the present study).

1. Identifying the research questions

Building on the above the following crucial research problem was put forward: What are the key characteristics of IPV-related undergraduate medical curricula?

To ensure including relevant studies in line with the research problem, the following research questions guided the literature search:

1. What learning objectives are central in the IPV curricula?
 - a. What knowledge content is addressed in IPV medical curricula?
 - b. What skills are central in the IPV medical curricula?
 - c. What attitudes are stressed as pivotal in IPV medical curricula?
2. What instructional strategies are adopted in the IPV curriculum?
3. What are the evaluation and assessment approaches adopted in IPV curricula?
4. Who are the teachers taking responsibility for the IPV content?
5. In what phase of the medical curriculum is IPV addressed?
6. For how long are medical students trained when focusing on IPV competences?
7. How effective are IPV curricula?

2. Identifying relevant studies

The following databases were consulted: PubMed, Web of Science, and Cochrane Library. The search was limited to English and Portuguese language peer-reviewed articles published between January 1998 and May 2020. The last search update was carried out in May 2020. The following search keywords were used in PubMed: “("intimate partner violence"[MeSH Terms] OR ("intimate"[All Fields] AND "partner"[All Fields] AND "violence"[All Fields]) OR "intimate partner violence"[All Fields]) AND (("education"[Subheading] OR "education"[All Fields] OR "curriculum"[All Fields] OR "curriculum"[MeSH Terms]) AND ("schools, medical"[MeSH Terms] OR ("schools"[All Fields] AND "medical"[All Fields]) OR "medical schools"[All Fields] OR ("medical"[All Fields] AND "schools"[All Fields])))”. The search in the Web of Science was based on: "(intimate partner violence) AND TOPIC: (medical schools) AND TOPIC: (curriculum)". The Cochrane Library database was screened based on: "intimate partner violence and medical students." Google Scholar was tackled with the keywords: "intimate partner violence and medical trainees and knowledge, attitudes and skills."

Reference lists of retrieved articles were checked, and relevant articles were added by hand, based on searches with the following MeSh Keywords: partner violence, intimate; violence, intimate partner; intimate partner abuse; abuse, intimate partner; partner abuse, intimate; dating violence; violence; dating; curriculum; medical school; medical education; medical training; undergraduate medical education; education, undergraduate medical. The final set of articles was screened for duplicates.

3. Study selection: inclusion and exclusion criteria

Inclusion criteria focused on studies published in the field of IPV training in medical education; original quantitative or qualitative research study, regardless of nature, intensity or duration of the training, length of follow-up, or country or setting in which the participants were recruited; published in English or Portuguese; published in peer-reviewed journals; focusing on an IPV curriculum content in medical education; reporting about medical doctors and medical trainees. Articles were screened to be unique as to the data set used. We excluded studies focusing on medical curricula, but with no explicit focus on IPV, not involving medical trainees, not focusing on an educational intervention or assessment, and publications without access to the full article text (see Table 1).

Building on the above, 889 peer-reviewed journal articles were identified, published between 1998 and 2020. Titles and abstracts were examined for relevance, and full articles were reviewed if abstracts were not clear. Duplicates were removed. When different articles reported about the same study, articles were only retained when supplementary data were reported. From the 889 articles, 27 full-text articles were assessed for eligibility (see figure 1). Table 3 gives a detailed account of the 14 studies.

4. Charting the data

Using an adapted PRISMA 2009 Flow Diagram, one reviewer (BM) independently extracted information from the papers. Data extraction was completed for all included articles. Data were extracted concerning study characteristics (author, year of publication, the location of research, type of journal and designation), research design characteristics, and answers to the curriculum-related research questions listed above. Themes in line with these guiding questions were

identified, summarized and synthesized. As stated earlier, the overlap between the articles was checked.

Results

Reporting the results built on the fifth step in the scoping review methodology: collating, summarizing, and reporting the results. We first report about some general characteristics of the studies before answering the research questions.

Descriptive summary

This review found limited literature clarifying the operational curriculum addressing IPV for undergraduate medical students. The available articles were relatively spread evenly across the years, usually one to two articles per year.

Research design and study characteristics

Different research designs were used to describe IPV training methodologies, including cross-sectional, comparative surveys (Alpert, Tonkin, Seeherman, & Holtz, 1998; Potter & Feder, 2018), pre/post-surveys (Ernst, Houry, Nick, & Weiss, 1998a; Heron, Hassani, Houry, Quest, & Ander, 2010; Jonassen et al., 1999), document analysis (Hamberger et al., 2004; Hill, 2005a), written surveys (Kong, Im, Seo, Kim, & Roh, 2018), online Survey (Fawole, Van Wyk, & Adejimi, 2013), Telephone Survey (Joyce, Jung, Lucia, Kavanagh, & Afonso, 2015), and no related information was provided in three other studies (C. Moskovic et al., 2009; Nunez, Robertson, & Foster, 2009; Valpied, Aprico, Clewett, & Hegarty, 2017).

The majority of the 14 studies were set up in one single medical school ($n=9$); four studies involved respectively 5, 15, 34 and 99 medical schools. Such information was lacking in one study. Sample sizes of participants ranged from 12 to 144, but size related information was

lacking in five studies. Only three studies included control/comparative groups and a follow-up period of 4 to 6 months (Alpert, Tonkin, Seeherman, & Holtz, 1998; Jonassen et al., 1999; Joyce, Jung, Lucia, Kavanagh, & Afonso, 2015) (see table 4).

Study location

Studies were predominantly set up in the USA (Alpert et al., 1998; Congdon, 1997; Ernst et al., 1998a; Hamberger, 2007; Heron et al., 2010; Hill, 2005; Jonassen et al., 1999; Joyce et al., 2015; C. Moskovic et al., 2009; Nunez et al., 2009), the others in Canada (Hamberger, 2007b), Nigeria (Fawole et al., 2013), UK (Potter & Feder, 2018), Australia (Valpied et al., 2017) and Korea (Kong et al., 2018) (see table 3).

What knowledge content is addressed in IPV medical curricula?

Regarding knowledge about IPV, studies stress awareness of IPV definitions (Hamberger, 2007a; Joyce et al., 2015; Potter & Feder, 2018), the magnitude of the problem (Ernst, Houry, Nick, & Weiss, 1998; Fawole et al., 2013; Joyce et al., 2015; Valpied et al., 2017), the nature of abuse and past and current risk factor (Hamberger, 2007; Jonassen et al., 1999), uncommon circumstances, lifespan issues and associations (Ernst et al., 1998; Valpied et al., 2017), basic documentation and patterns of abuse (Hill, 2005), legal options and reporting requirements, the victimization process and stages (Hill, 2005; Moskovic et al., 2009), multiple possible complaints, including trauma (Ernst et al., 1998), safety plan (Ernst et al., 1998; Fawole et al., 2013; Hamberger, 2007; Jonassen et al., 1999; Moskovic et al., 2008; Nunez et al., 2009), local resources available to victims of violence (Moskovic et al., 2009; Valpied et al., 2017), victim's perspective in an abusive relationship and the barriers to his or her seeking help and issues specific to multicultural communities (Fawole et al., 2013; Hamberger, 2007; Moskovic et al., 2008) (see

table 4). Also, at a general level, authors question whether IPV should be addressed in isolation from the broader setting in which violence occurs and whether IPV should be addressed as a unique type of violence.

What skills are central in the IPV medical curricula?

The studies identified center on skills focusing on how to discuss IPV (Alpert et al., 1998; Congdon, 1997) on how to be able to conduct a culturally sensitive, empathic history (Moskovic et al., 2009), on screening, assessment, IPV-intervention, referral, safety plan and barriers to identification (Fawole et al., 2013; Joyce et al., 2015; Nunez et al., 2009), on carrying out a physical examination to assess the injuries (Ernst et al., 1998; Fawole et al., 2013), on applying abuse screening tools (Jonassen et al., 1999), on how to provide referrals to counselling (Alpert et al., 1998; Congdon, 1997; Fawole et al., 2013; Joyce et al., 2015), how to support patients of diverse cultures and different values (Moskovic et al., 2008; Valpied et al., 2017), to collect community resource information and discuss coping skills for victims and family (Hamberger, 2007; Moskovic et al., 2008; Valpied & Hegarty, 2015), to check perpetrators' psycho-social status (Kong et al., 2018), to check victims' mental and physical condition (Kong et al., 2018), to negotiate and persuade (Kong et al., 2018), and how to provide information about IPV (Kong et al., 2018) (see table 4).

What attitudes are stressed as key in IPV medical curricula?

Concerning attitudes, studies stress students must be cognizant of their attitudes and biases about IPV (Congdon, 1997), be aware of, and open to examine their attitudes, beliefs, and personal histories regarding IPV (Alpert et al., 1998), be aware of the potential association of negative

feelings when helping victims (Hamberger, 2007) and adopt professionalism (Heron et al., 2010; Nunez et al., 2009) (see table 4).

What instructional strategies are adopted in the IPV curriculum?

Developing future medical doctors' IPV knowledge, skills and attitudes are especially promoted through mainly active instructional strategies and experiential learning approaches. Four approaches are particularly stressed in the literature: small group discussions (Alpert et al., 1998; Hamberger, 2007; Heron et al., 2010; Hill, 2005; Joyce et al., 2015; Moskovic et al., 2008; Potter & Feder, 2018), lectures (Fawole et al., 2013; Valpied et al., 2017), standardized patients (Heron et al., 2010; Hill, 2005; Kong et al., 2018; Moskovic et al., 2008) and case studies (Fawole et al., 2013; Hamberger, 2007; Kong et al., 2018; Valpied & Hegarty, 2015) (see table 5).

What are the evaluation and assessment approaches adopted in IPV curricula?

Identified studies reported OSCE and assessment based on interaction with standardized patients (Hamberger, 2007; Heron et al., 2010; Jonassen et al., 1999; Kong et al., 2018), written exams (Alpert et al., 1998; Ernst et al., 1998b; O. I. Fawole, Van Wyk, et al., 2019; Jonassen et al., 1999), and programmatic assessment (Heron et al., 2010) (see table 5).

Jonassen et al., (1999) compared pre- and posttest the scores using t-tests using the results of OSCE scores with of students that participate in domestic violence (DVI) training. Ernst and colleagues used a pretest-posttest design on 3 hours of instruction in a first-year medical school class (Ernst et al., 1998). The authors used a general-knowledge survey of domestic violence given before and approximately one month after 3 hours of instruction. Joyce and colleagues used a pilot data on a longitudinal curriculum on IPV beginning in a student's second year and culminating in a high-stakes OSCE at the end of the third year (Joyce et al., 2015). In a study

conducted by Heron and colleagues (Heron et al., 2010), students participated in standardized patients exercise during three separate consecutive evaluation intervention period. Moskovic and colleagues (2009) used a randomized study of a selective course developed at UCLA for medical students to counsel adolescents about IPV prevention (Moskovic et al., 2009).

Who are the teachers taking responsibility for the IPV content?

IPV content is delivered by general practitioners (Alpert et al., 1998; Congdon, 1997; Hamberger, 2007b; Hill, 2005; Valpied et al., 2017), or a multidisciplinary team (Hamberger, 2007; Joyce et al., 2015; Nunez et al., 2009), social workers (Valpied et al., 2017), emergency doctors (Ernst et al., 1998; Hill, 2005a; Kong et al., 2018; Moskovic et al., 2009; Potter & Feder, 2018), obstetricians/gynecologists (Heron et al., 2010; Joyce et al., 2015; Kong et al., 2018; Valpied et al., 2017), IPV experts (Hamberger, 2007; Heron et al., 2010; Hill, 2005; Nunez et al., 2009), victims (Congdon, 1997; Hamberger, 2007), clinical residents (Heron et al., 2010), psychologists (Moskovic et al., 2009), public health teachers (Hill, 2005), psychiatrists (Fawole et al., 2013), researchers (Nunez et al., 2009), medical and non-medical academics (Potter & Feder, 2018), internal medicine specialists (Ernst et al., 1998), pediatricians (Nunez et al., 2009), medical humanities staff (Hill, 2005), medical educators (Joyce et al., 2015; Kong et al., 2018), shelter staff (Hill, 2005a), or law enforcement officers (Hill, 2005). IPV is discussed as part of a focus on intimate partner violence (Alpert et al., 1998; Hamberger, 2007; Nunez et al., 2009; Potter & Feder, 2018), domestic violence subject (DV) (Ernst et al., 1998; Jonassen et al., 1999; Potter & Feder, 2018) or family violence (Alpert et al., 1998; Hill, 2005) (see table 5).

In what phase of the medical curriculum is IPV addressed?

Regarding the year of introducing IPV, six studies suggest this should already be addressed during preclinical years (Congdon, 1997; Ernst, Houry, Weiss, & Szerlip, 2000; Hamberger, 2007; Jonassen et al., 1999; Joyce et al., 2015; Nunez, Robertson, & Foster, 2009). Three studies mention the middle training years, and four focus on training during the first two years (preclinical years) (Fawole, Van Wyk, & Adejimi, 2013; Hamberger, 2007; Hill, 2005; Valpied & Hegarty, 2015). Other studies report that IPV content should be longitudinal and start during preclinical years and continue throughout the clinical phase of medical education (Alpert et al., 1998; Heron, Hassani, Houry, Quest, & Ander, 2010; Hill, 2005; Kong, Im, Seo, Kim, & Roh, 2018; Moskovic et al., 2009; Potter & Feder, 2018) (see table 5).

For how long are medical students trained when focusing on IPV competences?

Consistently, studies report that time spent on IPV remains restricted (Alpert et al., 1998; Congdon, 1997; Ernst, Houry, Nick, & Weiss, 1998; Fawole et al., 2013; Hamberger, 2007; Heron et al., 2010; Hill, 2005; Jonassen et al., 1999; Joyce et al., 2015; Kong et al., 2018; Moskovic et al., 2009; Nunez et al., 2009; Potter & Feder, 2018; Valpied, Aprico, Clewett, & Hegarty, 2017). Reviewing the medical schools that indicated the length of training, the majority ($n=5$) organize one single training session about IPV. Two medical schools organized two to five training sessions, one school implemented five training sessions, and in five studies, no information was provided. Some medical schools reported spending approximately 1 to 5 contact hours on IPV during undergraduate medical training, and three schools involved students more than 5 hours in an IPV part of the curriculum (Alpert et al., 1998; Hamberger, 2007; Hill, 2005); in the case of two studies, the number of hours was not reported (see table 5).

How effective are IPV curricula?

Five studies reported positive training effectiveness, and one reported negative effectiveness; the others did not assess the effectiveness of the training (see table 5). An integrated longitudinal curriculum - beginning in the second year and ending with an OSCE at the end of the third year - was evaluated with a pre- post-survey. It was found that students from the second year felt an increase in their knowledge and self-confidence. Third-year students reported an improvement in their ability to screen for IPV (Joyce et al., 2015). A randomized study involving UCLA medical students focused on developing counselling adolescents about IPV prevention. The results show how this community outreach experience improved students' confidence in dealing with IPV in clinical situations (Moskovic et al., 2009). In a study from Heron and colleagues, medical students participated in standardized patient exercises during three sessions; each evaluated consecutively. It was found that students felt increasingly more comfortable when caring for IPV patients (Heron et al., 2010). Jonassen and colleagues measured the competences related to dealing with domestic violence in third-year students. On the base of data resulting from validated written examination (OSCE) administered before, immediately after, and six months after participation in a 3.5-day or two- day intervention, positive results were found. Nine months after the intervention, research data reflected an improvement in IPV screening competences in these third-year medical students (Jonassen et al., 1999).

Discussion

The primary purpose of this literature review was to develop a better understanding of the nature of IPV curricula in the context of medical education. WHO guidelines recommend that medical training focus on IPV in all clinically appropriate situations since IPV is recognized as a

worldwide public health concern (World Health Organization & Pan American Health Organization, 2015).

A first general observation is that the number of studies about IPV medical curricula is limited. The study confirms an ongoing lack of research into the IPV competences for undergraduate medical students as reported by previous researchers (Hamberger, 2007; Heron et al., 2010; Hill, 2005; Joyce et al., 2015; Manuel, Roelens, Tiago, Keygnaert, & Valcke, 2019; Moskovic et al., 2009). Besides, we observe that available reports often lack critical scientific information; e.g., about duration, sample size, lack of evaluation focus or nature of the data collection methods. This may have affected the completeness of the picture we have developed about IPV in medical curricula.

The majority of the articles identified were from the USA and mainly focused on attitudes and skills in dealing with IPV. This suggests that in the USA currently there is more consensus on how to be able to conduct a culturally sensitive and empathic doctor-patient communication on IPV being a sensitive topic, a focus on attitudes related learning objectives should be emphasized to a larger extent as students have to understand the limits of confidentiality surrounding discussion of IPV and interview IPV victims in an empathic, non-judgmental manner.

A second general observation is that no typical curriculum format to address IPV is yet available. Although the WHO and Short et al. stress a set of learning objectives clusters to be pursued, curriculum attention paid to specific IPV goals varies to a considerable extent. Of course, the focus on IPV may differ depending on the social context of a medical education institution, and the emphasis on specific goals may be different between and even within countries. Nevertheless, a "minimum" set of IPV related learning objectives seems non-existent in actual curricula as provided by WHO and Short and colleagues (Short, 1998; World Health Organization, 2019). In

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terms of instructional strategies, most studies embrace active learning strategies. This is consistent with curriculum approaches geared to develop skills and attitudes, next to a focus on knowledge related goals (Leep Hunderfund et al., 2017).

Thirdly, the small number of studies focusing on evaluation and assessment of what was learned in the curriculum raises questions whether current medical staff can meet the needs of individual IPV victims and/or the demands of society when dealing with both victims and perpetrators. This might also raise questions about professionalism in making evidence-based decisions. The range of instructional strategies reported in the studies mirrors the range in learning objectives that focus on knowledge, skills and/or attitudes. However, the range of assessment tools seems less adequate, given the strong focus on OSCE. Of course, some instructional strategies reflect embedded continuous assessment and evaluation approaches, e.g., the adoption of clinical simulations with standardized patients and case studies. Nevertheless, in many of these studies, evaluation of learning was hardly pursued.

Fourth, the observation that a wide range of staff was involved in IPV-related topics is consistent with the pervasive nature of IPV, affecting the practices of many specializations, ranging from GPs to emergency doctors, trauma specialists, gynaecologists, or surgeons just to mention some. The observation that next to general practitioners, also multidisciplinary teams address the topic is therefore reassuring. At the same, this suggests that the focus on IPV should also be pervasive and not isolated as a "one-hour topic" as observed in individual studies.

Fifth, IPV curriculum content did not seem to be offered consistently throughout preclinical and clinical medical years. While most studies reported education in all aspects of IPV, instruction is still predominantly set in preclinical years. This raises questions since it is mainly during the clinical years that students integrate and apply their competences when caring for patients (Alpert

et al., 1998). An IPC-curriculum focus, solely in preclinical years and not integrated as a component of routine clinical care, might be less relevant to deliver holistic patient care (Alpert et al., 1998). Interventions are of short duration (1 to 5 hours), mainly at a single point in the medical education program, and mostly limited to one type of violence. As such, IPV is not re-emphasized over time or in clinical settings. It has been reported that single interventions "are generally not integrated into a student's foundation of knowledge as effectively as learning that occurs in a context is reinforced over time, and is perceived as central to patient care" (Alpert et al., 1998) (p. 277). Single attention paid to IPV that is not integrated with clinical experiences is often not as effective as being involved in real case scenarios or clinical encounters. Alpert and colleagues found that "some students who have received regular and reinforced education about family violence in the preclinical years by committed and supportive faculty report that are incorporating basic principles of screening, assessment, and intervention is not encouraged in clinical rotations, and some cases are actually "trained out" by residents and attenders" (Alpert et al., 1998) (p. 277).

Sixth, looking at the research design of the studies, we observed that mainly pre/post designs had been adopted, involving a low number of participants (n 12 up to n 144). Few studies investigated the impact during a follow-up phase after the intervention or included a comparison with a control group. However, most studies were descriptive and hardly focused on evaluation. It is also striking that only five IPV-curriculum related intervention studies were set up during the last five years. This suggests the IPV-training field is still under development.

From the above, we derive several implications. Firstly, the inconsistent nature of attention paid to IPV during medical education, suggests a need for a curriculum redesign that guarantees a continuous emphasis on IPV. Short and colleagues (Short, Surprenant, & Harris, 2006) suggest

building on online continuous medical education curriculum; and this by involving practising physicians. They state these programs may be "an effective and less costly alternative to live IPV training sessions and workshops" (p. 181). The authors also add that such a program is effective in "improving long-term individual educational outcomes, including self-reported IPV practices" (p. 181). Starting online approaches - already during medical training - could build up this continuous training orientation in future medical graduates; as part of their lifelong learning competence development. Such a plan or policy could start from the curriculum structure identified in the context of this review. A further implication is that the low number of studies reporting about outcomes of IPV curricula presents a clear agenda for medical education research. The study of Alpert and colleagues (Alpert et al., 1998) suggests that IPV training should be integrated throughout the entire medical education career, using a multidisciplinary approach in preclinical and clinical years, and "seek the expertise and collaboration of a range of individuals and organizations that comprise a community-based response network" (p. 277). The authors add that medical schools could foster partnerships with community and direct service organizations where service-learning opportunities to reinforce teaching and learning can occur. The authors also suggest the "involvement of community-based professionals, particularly in law enforcement, legal services, victim advocacy, batterer intervention, elder services, and child protection, among others" in training (p. 277). Effective teaching about IPV requires 'imparting competences and feedback, about how to efficiently, yet compassionately, evaluate patients' concerns in the context of evolving life circumstances (Alpert et al., 1998). The authors add that medical students 'need to know how to ask the right questions, listen to the patient's responses and concerns, and offer information, advice, and support to patients of diverse cultures and different values'. Alpert and colleagues also reported that the medical students "also need to be

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aware of, and indeed open to examining, their attitudes, beliefs, and personal histories regarding family violence". IPV curriculum competences can be "efficiently and effectively" incorporated into medical schools and by piloting and refining and then replicated (Hill, 2005).

Regarding training evaluation, Hamberger suggests randomized, controlled designs. If quasi-experimental designs are used, they should use case-control models, and studies need increasingly to demonstrate the curriculum impact on actual behaviour (Hamberger, 2007).

OSCEs, standardized patients embedded in patient schedules and follow-up evaluation after six months have been suggested by Hamberger (Hamberger, 2007). This author also stresses evaluations need to account for "the existence of clinical protocols for addressing IPV, presence of faculty role models, and a general culture of awareness of and sensitivity to IPV". IPV is a sensitive topic for both medical doctors and for victims that can lead to challenges during mainly screening and referrals. Some doctors feel overwhelmed by the information provided by survivors, and victims may also feel uncomfortable sharing information about being a victim of abuse.

Finally, the weak focus on IPV-related content and instructional strategies suggest that the professional development of medical education staff – also beyond the initial training phase - is essential. Professional development in the IPV-domain seems hardly viewed as important; at least by those who control medical school curricula. A "call to arms" is needed to increase the importance of IPV-related education in and outside medical schools. A promising professional development example is described by Shefet and colleagues (Shefet et al., 2007). They set up – at a national level - simulated patient-based training and describe this as a "pilot program aimed at improving knowledge, skills and detection rates of DV among physicians" (p. 134). They report a

higher self-perceived level of preparedness and competences in dealing with IPV, child abuse, and elder abuse.

Limitations

Despite the possibility to develop a first picture of IPV related medical curricula, the present study has some limitations. The number of available international peer-reviewed articles meeting stringent inclusion and exclusion criteria was small. This affected the possibility to identify clear patterns or to compare studies since we ended up with a broad range of different studies, often lacking in reported critical analytical information. Although the diversity in information/evidence resulting from the review is inspiring, the small number hampers generalization and transfer across contexts. Most of the studies found by this review were from higher-income countries. This might limit transfer of findings to lower and middle-income countries and highlights the need for further research on effective IPV training in medical education in the latter countries. This is particularly important given the high burden of IPV in these settings (Garcia-Moreno, Jansen, Ellsberg, Heise, & Watts, 2006).

Conclusions

IPV content is inconsistently addressed in medical schools, and in some of these schools, it is not clear whether it is addressed as a public health issue. Next to a first structured overview of knowledge, skills and attitudes that could be the core of an IPV curriculum, the current review helped to map a variety of instructional decisions. The review also confirmed the multidisciplinary nature of IPV and the fact that a large variety of medical specializations should be involved. Nevertheless, further curriculum development research is needed to establish approaches that respect the complexity of the problem and to take into account the constraints in available resources (time, staff) in medical education. Lastly, the review also helped to emphasize how medical education continues beyond the initial training period and that IPV deserves a continuous education approach for medical professionals.

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Appendices



Figure 1. IPV Medical Education PRISMA 2009 Flow Diagram

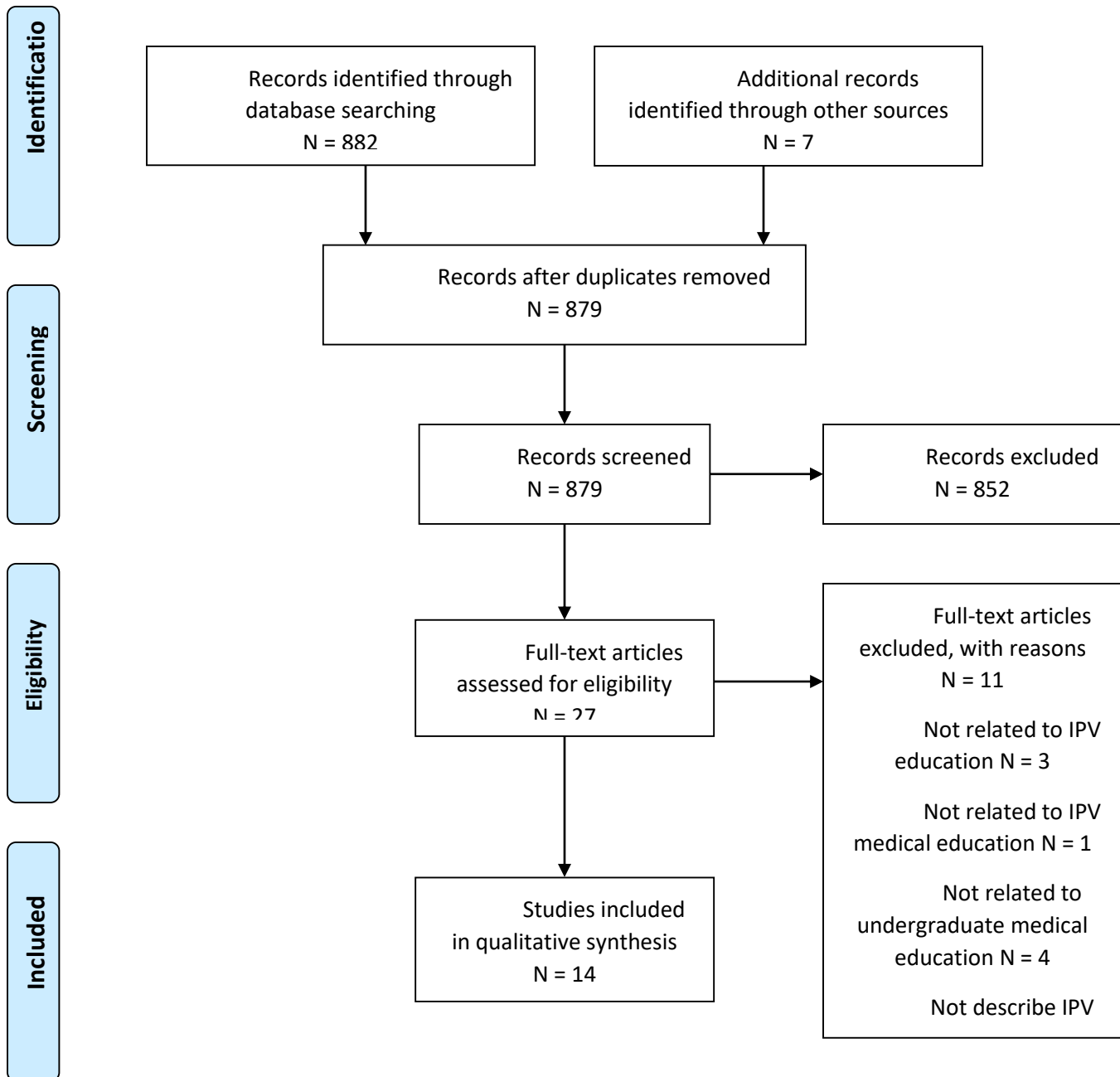


Table 1. Inclusion and exclusion criteria in selecting studies

Criterion	Inclusion	Exclusion
Intimate Partner Violence Curriculum content focus	Studies published in the field of IPV training within a medical education context.	Studies not describing IPV training. Studies not involving medical trainees.
Participants	Medical trainees (medical students)	Students outside the scope of IPV-related medical education (e.g., nursing schools).
Time span	January 1997 - August 2018	Studies outside the time frame.
Type of document	Empirical research published in peer-reviewed international journals.	Non-peer-reviewed studies.
Language	English and Portuguese	Other languages

Table 2. Recommended knowledge, attitudes, and skills on IPV (adapted from (Alpert et al., 1998; Congdon, 1997; Ernst et al., 1998; Fawole et al., 2013; Hamberger, 2007; Heron et al., 2010; Hill, 2005; Jonassen et al., 1999; Joyce et al., 2015; Kong et al., 2018; Levac et al., 2010; Moskovic et al., 2009; Nunez et al., 2009; Potter & Feder, 2018; Short et al., 1998; Valpied et al., 2017))

Knowledge	1. Understand the magnitude of the problem - Intimate partner violence as a public health problem, - The cycle of violence in relationships and families, - The medical and mental health implications for victims and their families, - The unique role that health care providers can play, - The barriers to providing services to victims, and - Being aware of local, state, and national resources, - Community resources. 2. Understand uncommon circumstances - Abuse during pregnancy, - Substance use and abuse, - IPV in same-sex partners, - HIV risks for victims of IPV, - The legal concerns of immigrants and refugees, and - Dealing with the health care provider who has experienced or perpetrated IPV. 3. Understand lifespan issues - The relationship between child abuse and neglect, - The short- and long-term outcomes for children who witness violence in their homes, - Elder abuse by previously abused children, - The cumulative effects of multiple victimizations, and
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	- Other issues related to the types of violence encountered in different parts of the life cycle. 4. Understand legal options and reporting requirements - Be aware of the requirements for reporting intimate partner violence, - Be aware of the role in providing epidemiologic information on the numbers of victims and the patterns of abuse.
Skills	Identification; ability to - Screen universally (if recommended), - Ask questions appropriately to recognize victims of abuse, - Obtain a history of abuse, - Determine the patient's immediate risk of danger, - Assess the patient's mental health needs, - Identify types of abuse against the patient or other family members through a physical and psychological exam, and - Identify general and specific signs and symptoms of distress in victims of abuse. Key topics: - Basics of interviewing, - Documentation, - Mandated reporting requirements, - Basic safety planning for adults, - Physical presentations, - Patient perspective, - Perpetrator issues such as power and control, typical behavior patterns, and so forth, - Applied safety planning for adults and children, - Mandated responsibilities regarding intent to harm, - Purpose of community agencies and ancillary hospital services,

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	- Other reporting mandates (sibling violence reporting, gunshot wound, etc.), - Perpetrator issues, - Cultural issues, including same-sex violence, - Patient compliance and doctor frustration, - Motivational interviewing, - Understanding the patient's perspective and motivations, - Review reporting requirements and incorporate legal or professional changes, - Safety concerns for children (physician custody). - Basic legal protections and remedies available to victims, and - Safety planning. Reporting; ability to - Develop body injury maps, and - Manage abuse appraisal screens.
Attitudes	1. Treatment and intervention - Assure patient confidentiality, - Be understanding, sensitive, and patient, - Provide support in a respectful, non-judgmental manner. Listen to the victim closely, with empathy, and without judging, - Assess and respond to various needs and concerns—emotional, physical, social and practical (e.g. childcare), and - Show her/him that you understand and believe. Assure that she/he is not to blame. 2. Safety - Effectively intervene without placing the patient (or provider) in greater danger: interview patients in private, maintain separation from an accompanying partner, assure confidentiality, and provide privacy and anonymity to protect the victim's safety, and - Discuss a plan to protect her/him from further harm if violence occurs again.

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	3. Availability - Support by helping to connect to information, services and social support, and - Be accessible for future contacts by the victims.
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Table 3 Study characteristics

ID	Author	Year	Country	Type	Study design	Control/Comparative Group	Follow-Up Period	Length of Follow-Up (months)	Designation
1	Congdon	1997	USA	Journal Article	N/A	No			Domestic Violence (DV)
2	Alpert	1998	USA	Journal Article	Cross-sectional, comparative survey	Yes	1987 and 1998	N/A	Family Violence (FV)
3	Ernst	1998	USA	Journal Article	Pre/post-survey	No			Domestic Violence (DV)
4	Jonassen	1999	USA	Journal Article	Pre/post-survey	Yes	Yes	6 months	Domestic Violence (DV)
5	Hill	2005	USA	Journal Article	Document analysis	No			Family Violence (FV)
6	Hamberger	2007	USA and Canada	Journal Article	Document analysis	No			Intimate Partner Violence (IPV)
7	Moskovic	2009	USA	Journal Article	N/A	No			Intimate Partner Violence (IPV)
8	Nunez	2009	USA	Journal Article	N/A	No			Intimate Partner Violence (IPV)
9	Heron	2010	USA	Journal Article	Pre/post-survey	No			Intimate Partner Violence (IPV)
10	Fawole	2013	Nigeria	Journal Article	Online survey	No			Violence Against Women (VAW)
11	Joyce	2015	USA	Journal Article	Telephone survey	Yes	Yes	4 – 6 months	Intimate Partner Violence (IPV)
12	Potter	2017	UK	Journal Article	Cross-sectional, comparative survey	No			Domestic Violence (DV)
13	Valpied	2017	Australia	Journal Article	N/A	No			Intimate Partner Violence (IPV)
14	Kong	2018	Korea	Journal Article	Written survey	No			Domestic Violence (DV)

Table 4. Competences being addressed

Author	Year	Location	Study design	Knowledge	Skills	Attitudes
Congdon	1997	USA	N/A		How to ask about DV. How to provide referrals to counselling, shelters and advocacy. Be aware about role of prevention and intervention.	Be cognizant about attitudes and biases about DV.
Alpert	1998	USA	Written survey		Screening, assessment, intervention, and referral for adult domestic violence. How to ask the right questions, listen to the patient's responses and concerns, and offer information, advice, and support to patients of diverse cultures and different values.	Be aware of, and open to examining own attitudes, beliefs, and personal histories regarding family violence.
Ernst	1998	USA	Pre/post-survey	Historical perspective of DV, the extent of the problem, and the prevalence of DV. Laws governing DV including requirements for reporting to the police. Associations with DV, including drug and alcohol use and pregnancy, and types of DV. The victimization process of DV and stages. How the patient presents to the ED with multiple possible complaints, including trauma.	Screening tools including the ISA. Barriers to identification of the DV victim and possible interventions, including a safety plan. Physical diagnosis: multiple complaints, different-age bruises, and somatic complaints. Complete history and physical examination to diagnose DV.	

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Jonassen	1999	USA	Pre/post-survey	How to ask about abuse, asses past and current risk factors, advice about safety concerns, provide appropriate assistance to those at risk.	Practice abuse screening tools.	
Hill	2005	USA	Document analysis	Statistical information, basic documentation, patterns of abuse, risk factors, and physician legal responsibilities. Adult sexual assault		
Hamberger	2007	USA and Canada	Document analysis	Definitions of IPV: - multiple forms of abuse; - etiology of IPV, the function, and the dynamics of abuse.	Ability to develop a safety planning, collect community resource information and discussing coping skills for victims and family.	The association of negative feelings with helping victims.
Moskovic	2009	USA	N/A	Know how to help the patient develop a safety plan, Be aware of mandatory reporting requirements, Be aware of local resources available to victims of violence, Understand a victim's perspective in an abusive relationship and the barriers to his or her seeking help.	Be able to conduct a culturally sensitive, empathic history.	
Nunez	2009	USA	N/A		Ability to effective screening including a high level of expertise and integration of communication, clinical decision making, maturity, and professionalism.	

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					Ability to develop a safety planning. Ability to assess verbal and nonverbal communication.	
Heron	2010	USA	Pre/post-survey	Patient Care	Empathetic Communication Skills	Professionalism
Fawole	2013	Nigeria	Mixed-method study	Magnitude of VAW. Knowledge of VAW: physical violence, sexual violence, psychological violence and economic violence. Signs and symptoms suggestive of VAW	Recognizing/detecting VAW (e.g. picking up warning signs and symptoms and/or screening techniques for patients suspected to be at risk) Taking history on VAW episodes (e.g. frequency and severity of episodes, involvement of other family members, access to dangerous weapons, contributing factors such as alcohol and drugs) Examining VAW victim (laboratory or side-room investigations, microbiology swabs etc.) Treatment of and medical care for victims Counseling and facilitating the development of a safety plan with the victim (e.g. establishing with the patient if it is safe to go home and, if not, discussion of options, referral for help,	

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					admission to hospital as temporary place of safety) Managing/counseling the perpetrator if he/she is in the setting together with the victim Discussing coping skills for victims of family violence or those in abusive relationships.	
Joyce	2015	USA	Pre/post-survey	Awareness of IPV as a public health. Trigger questions, reporting requirements, and opportunities for intervention.	Screening and referring patients with a positive IPV screen	
Potter	2017	UK	Online survey			
Valpied	2017	Australia	Telephone survey	General overview of IPV against women Local community resources IPV risk factors or correlates Identification of IPV Responding to IPV (e.g., interventions) Characteristics of IPV victims and perpetrators Issues specific to multicultural communities Issues specific to gender Issues specific to indigenous communities IPV in same-sex relationships Utilization of a model, framework, or theory to guide IPV education IPV by women against men		

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				Common couple violence (i.e., abuse by both partners against one another)		
Kong	2018	Korea	Cross- sectional, comparative survey		Disclosure strategy DV related history taking Checking perpetrator's psycho-social status Checking victim's mental & physical condition Negotiation and persuasion Provide information on IPV	

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Table 5. Educational program characteristics

ITEM	N = 14
Instructor	
General practitioners	5
Clinical residents	1
Multidisciplinary team	5
Emergency doctors	2
Psychologist	1
Social workers	3
Public Health teachers	1
Obstetrician and Gynecologist	2
Psychiatrist	1
Researchers	1
Medical and non-medical academics	1
DV/IPV specialists	2
Internal medicine	1
Pediatrics	1
Medical humanities	1
Medical educator	1
Shelter staff	1
Law enforcement officer	1
Victims	2
Not reported	5
Teaching and learning strategies	
Interactive approaches	2
Lectures	6
Role play	2

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Standardized patients	4
Symposium	1
Written information	1
E-learning	1
Classroom presentations	1
Panels	1
Films	3
Case studies	4
Small group discussions	7
Clinic work	1
Journaling	1
Formal review paper	1
Community resource tours	3
Workshops	1
Online modules	1
Multiple methods	1
Not reported	1
Placement in curriculum	
Preclinical	6
Clinical	3
Preclinical and clinical	6
Number of Training Sessions	
1	5
2 to 5	2
>5	2
Not reported	5
Hours of Training	

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<1	0
1 to 5	8
> 5	3
Not reported	3
Training effectiveness	
Positive	5
Not positive	1
Not reported	8
Assessment tools	
OSCE	6
Standardized patients	2
Written exam	1
Programmatic assessment	1
Not reported	4

Gaps in Medical Students' Competence to Deal with Intimate Partner Violence

Specific objective 2: To identify the perceived mastery of competence components linked to the implementation of IPV-related medical curricula in Mozambican medical students.



Gaps in Medical Students' Competencies to Deal With Intimate Partner Violence in Key Mozambican Medical Schools

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Purpose: The researchers aimed to identify the gaps in competencies designed to help medical students to deal with Intimate Partner Violence (IPV) in key Mozambican medical schools curricula.

Method: A survey was administered to 3rd and 6th-year medical students (N387), enrolled in five medical schools in Mozambique. The instrument focused on mapping students' perceived mastery of their knowledge, skills, and attitudes related to IPV.

Results: In total, 387 medical students (RR 66%) participated in the survey. The overall mean perceived mastery of IPV competence was 36.18 (SD = 24.52) for knowledge, 32.01 (SD = 27.37) for skills, and 43.47 (SD = 27.58) for attitudes. Though 6th-year students reported a significantly higher mastery level, it is still below a mastery-learning benchmark of 80%.

Conclusions: Medical students report critically low levels in their mastery of IPV-related competencies. This implies a need for a more comprehensive approach to developing knowledge, skills, and attitudes to deal with the victims of IPV.

Keywords: intimate partner violence, medical education, medical students, competencies, Mozambican medical curricula

INTRODUCTION

Intimate Partner Violence (IPV) focuses on violence committed in a present or past relationship. IPV is an enduring problem in Sub-Saharan Africa (SSA). However, are medical doctors adequately trained to understand and cope with IPV? In this article, we focus on IPV prevalence in SSA. This introduces the setting to analyze students' perceived mastery of IPV competencies aligned with recognizing and dealing with IPV in Mozambican medical schools.

Worldwide Intimate Partner Violence Prevalence, Incidence

Intimate Partner Violence, also known as *battering, domestic violence, family violence, gender-based violence, partner abuse, partner violence, family violence, abuse, spouse abuse, and wife assault*, is a critical public health issue. The World Health Organization (WHO) defines *Intimate Partner Violence* as "any behavior within an intimate relationship that leads to physical, psychological or

sexual harm to those in that relationship" (1). As stated by the WHO (2), "unintended pregnancies, abortions, adverse pregnancy and neonatal and infant outcomes, sexually transmitted infections (including HIV) and mental disorders (such as depression, anxiety disorders, sleep disorders, and eating disorders)" are reflected to a greater extent in abused women than in non-abused women. Zacarias (3) stressed that males can also be victims of IPV.

In SSA, only 10% of all cases of IPV are reported to the police (4). Many women in SSA are forced through violence to maintain sexual relations with their partners, by means of violence and cannot negotiate the use of condoms leading to vulnerability to HIV (5). Cruz et al. (4) added that in official and traditional marriage or in sexual unions where patriarchal views and gender roles prevail, women are marginalized and often seen as the property of men.

Few research reports of exclusive violence against men perpetrated by a female partner in SSA (6). The same authors stated that in 2012, journalists from a local news in the Nyeri region of Kenya, have reported that women justify violence against their male partners "by impugning their husbands' drinking or failure to sustain employment, in other words, for failing to uphold male gender roles in marriage mirroring the excuses given for beating wives" (p. 283). In a study conducted in Dar es Salaam, Tanzania, the authors found that within 2017, 55.3% of men and 33.3% of women reported perpetrating IPV within the same time period and from those, 30.6% of male perpetrators and 54.6% of female perpetrators also reported physical IPV victimization (7). A national household surveys of persons aged 13–24 years to measure experiences of violence victimization in childhood and subsequent perpetration of physical or sexual violence conducted by Swedo et al. [(8), p. 350], in Malawi, Nigeria, Uganda, and Zambia, reported that perpetration of physical or sexual violence was prevalent among both males and females, ranging among males from 29.5% in Nigeria to 51.5% in Malawi and among females from 15.3% in Zambia to 28.4% in Uganda.

Intimate Partner Violence in Mozambique

The above also applies to Mozambique due to patriarchal sociocultural beliefs, poor implementation of equity and empowerment strategies and lack of gender mainstreaming (9). In Mozambique, more than 29,000 women mentioned they are a survivor of violence, an average of more than 7,000 women per year (10). Since many do not report abuse, because of stigmatization, or cultural, social, and economic reasons, real numbers are probably much higher. Misconceptions and lack of information about IPV lead to a reality that "one-third of women believe that a husband is justified in beating his wife" (11).

In the last Demographic Health Survey (DHS) from Mozambique one of three Mozambican women, aged 15–49, reported having been a survivor of physical violence since the age of 15, with the husband or intimate partner as the perpetrator in 62% of the cases (12). Moreover, 12% of all women reported having suffered sexual violence since the age of 15. In general, 50% of reported cases of violence against women were related to sexual abuse (11). The last DHS from Mozambique revealed that

32% of women reported being victims of IPV, compared to 12% in men. In total, 26% of women and 8% of men reported having been victims of IPV during the last 12 months of the last DHS.

A high prevalence of IPV against men is observed in the province of Cabo Delgado, north of Mozambique (12): 28% of men reported being victims of IPV and 20% reported having suffered IPV during the last 12 months of the last DHS (12).

Many families prefer to deal with IPV using traditional justice systems, particularly in rural communities. Moreover, Zacarias et al. (13) stated that only three studies did address the prevalence of IPV against men in Mozambique (12, 14, 15). Most survivors do not report IPV because "the victim can deal with it alone or through the extended family" (47%), the violent act is considered "not serious" (15%) or as a "private issue" (9%), or due to "fear of retaliation from the perpetrator" (11%) [(4), p. 1,591].

Intimate Partner Violence and Health Care Providers

IPV is under-recognized by health care providers (16–20). These authors refer to a reluctance to deal with the issue for fear of retaliation, police involvement, time constraints, cultural differences, lack of trust, lack of knowledge, skills, confidence, limited resources to manage IPV, limited referral points, conflicting cultural and gender norms, or discomfort with the subject. In the Mozambican context, non-disclosure of violence against men is mostly linked to the lack of privacy in attendance. Most "spaces" attending to victims of violence tend to be "feminized" (21). As reported by Swailes et al. (22) given the sensitive nature of IPV-related medical-patient communication, the provider's initial response has potential to influence a patient's course of action once he/she leaves the consultation room. The same authors added that disclosing IPV warrants direct in-depth communication. The provider's initial response should focus on validation of the patient's feelings, therefore establishing a way of empathy with the victim. More discussion should encompass assessing the safety of the victim and family members, the pattern and severity of abuse and embody a safety set-up if abusive behavior escalates. Likewise, the provider also has to assess the impact IPV has on the survivor's physical health, mental state and social relationships to understand the approach for more dialogue and intervention (22).

IPV in Medical Education

Since survivors of IPV often have the first contact with a primary care medical doctor, this may be a key opportunity to tackle IPV efficiently and effectively and in a non-judgmental way (23). In sub-Saharan settings, as there is a lack of medical doctors, it happens that the first contact with the victims of IPV is with professionals at a lower level. Accordingly to Colarossi et al. (24) "family planning service providers are the most likely ones to see women during the years that coincide with the highest risk of victimization" (p. 236). However, medical doctors seem reluctant to ask about abuse issues. In other cases, they do not respond appropriately, mostly due to lack of expertise, training, time constraints, and lack of resources (23, 25). Lack of training on IPV may lead to absence of screening for IPV, lack of confidence

when dealing with victims of IPV, minimal knowledge about referral points and little or no intervention (26–29).

IPV competencies combine a complex of knowledge, attitude, and skill components. Based on a literature review, we used an IPV curriculum framework for medical students, mainly based on IPV literature and available guidelines (19, 30–39). This competence framework—reflected in **Appendix 1**—aims at combining competencies that help ensure medical students can work efficiently with IPV survivors.

When it comes to “knowledge,” students should be able to define IPV, understand the magnitude of the problem and related risk factors and the effect on the survivor, family members and community, next to understanding legal options and reporting requirements. “attitudes” stress students’ orientation toward IPV treatment and intervention. Lastly, “skills” refer to identification, documentation and referral strategies.

Little information is known about medical students’ comprehensive mastery of these IPV and how this sensitive topic should be taught to acquire better communication skills following screening and patient perceptions of those encounters. Most studies focus on specific components. For instance, Kamimura et al. (40) compared students’ opinions, knowledge and attitudes toward IPV in medical curricula of the US, Vietnam China. US students reported higher knowledge levels as compared to Vietnamese and Chinese students. but nevertheless, the scarcely available studies mainly stressed the lack of a consistent focus on IPV in medical curricula. This is e.g., found in the study conducted by Valpied et al. (41) conducted in 18 Australian medical schools. At the pre-vocational secondary education level, students seemed to receive little or no IPV education. Carlson et al. found a lack of IPV- related clinical knowledge. Students question the adequacy of their training due to lack of learning opportunities: “confidence about talking to patients about IPV and talking to patients about IPV would be helpful to increase levels of background and knowledge of IPV” [(42), p. 77].

Related studies also point at background variables playing a role, such as sex, with females being more strongly geared to IPV and knowledgeable about it (40), vs. other studies in which males were reported as being more knowledgeable about IPV (30, 42). Other researchers stressed differences between medical schools (28, 40), or differences linked to year (or age) IPV is tackled (43–47). The latter studies emphasize the need to focus on IPV throughout the curriculum (43–47). However, no studies are available linking comprehensive IPV competency mastery to background variables.

Last, the literature is not clear about a critical benchmark for IPV competence mastery. Most authors state that IPV mastery is not “on par” (30, 40, 41, 48). Benchmarks are defined as: “standards for measurement of performance that can be used for comparison and to identify where needs for improvement exist” [(49), p. 4]. Some authors suggest a 70% benchmark, or state this benchmark has to be defined by the program (50), or that exit level benchmarks are critical but take a lot of time and effort to develop (51). In the present study, we adopted the “mastery learning” benchmark of 80% put forward by Zimmerman and

Dibenedetto (52). This benchmark is high but seems adequate for competencies that are critical for patient care and survival.

The study reported in this paper was designed to address the following gaps in research and evidence: “a general bias of published literature toward high-income countries” and “evidence comes predominantly from high-income countries and is focused on response, with more research needed on primary prevention, including in low-income and middle-income countries” (53).

Objectives and Research Questions

The researchers aimed to map the perceived mastery of IPV competence components in Mozambican medical students by focusing on the following three research questions:

1. What is the perceived mastery of knowledge, skills and attitudes in relation to IPV competencies in Mozambican medical students?
2. Is this mastery level different and how does it vary with students’ background?
3. Is the perceived mastery of IPV competencies on a par with the mastery-learning benchmark?

MATERIALS AND METHODS

Research Sample

The study was conducted in five medical schools situated in the South, Center and North of Mozambique. Third- and sixth-year students were randomly selected from each medical school. We expected that competence differences between 3rd- and 6th-year students will occur as IPV- related topics are dealt with in the clinical years. Sample size calculation was based on an expected prevalence of 50% of medical students mastering IPV competencies, with a confidence interval of 95%, α 0.05 and critical value $Z_{\alpha/2}$ of 1.96. This estimation resulted in n of 191 third-year students out of 376 and n of 144 of 6th-year students out of 228. A first data collection round resulted in responses from 167 participants (50%). A second data collection was conducted, resulting in an additional response from 220 students (66%). The latter is considered a good response rate (54, 55). A total of 304 students represented 80.85% of the 3rd-year student population and 58 students represented 25.44% of the 6th-year population. The smaller proportion of 6th-year students can be linked to their absence from the university during internships and clinical rotations.

All participants signed an informed consent form after receiving an explanation about the focus of the study, that their input would be kept confidential, that participation was voluntary, and that they could withdraw from the study at any time. The ethical approval was obtained from the Institutional Committee of Bioethics and Health linked to the Faculty of Medicine/Central Hospital of Maputo, Mozambique (registration number CIBS FM & MCH/006/2016). In addition, permission was granted by individual medical schools.

Research Instrument Design and Validation

A Portuguese language survey (IPV-KSA) was developed, based on the IPV framework presented in **Appendix 1**. Survey design

TABLE 1 | Socio-demographic characteristics of study participants.

Socio-demographic characteristics	<i>n</i>	%
AGE, YEARS		
≤20 years old	139	35.9
21 to 22 years old	125	32.3
≥ 22 years old	123	31.8
Mean age	22.33	
SEX		
Female	145	37.5
Male	238	61.5
YEAR IN MEDICAL SCHOOL		
3rd	304	84
6th	68	16
YEAR OF IPV INTRODUCTION		
1st	1	2.5
2nd	6	15
3rd	7	17.5
4th	8	20
5th	13	32.5
6th	5	12.5

focused on developing 21 items covering IPV competencies; considering the Mozambique context (see **Appendix 1**). Students were asked to report their self-efficacy perspective in relation to each item on a scale from 0 to 100 (see **Appendix 4**). The self-efficacy scale was developed, based on the guidelines of Bandura (56).

A pilot study was conducted, involving 20 3rd -year students selected conveniently from a class of students attending a theoretical-practical session in their medical course training (data not used in subsequent data analysis) of each medical school to assess the feasibility of the IPV_KSA, item relevance and clarity. Students were invited to make comments and to give suggestions. The average administration time was estimated at 20 min.

In view of the validation of the IPV_KSA instrument, data from 50% of the respondents were used for exploratory factor analysis (EFA). Next, the remaining data were used to carry out a confirmatory factor analysis (CFA). Cut off values for CFA-goodness-of-fit indices were based on Hu and Bentler (57) and Jackson et al. (58). A cutoff of 0.90 recommended suggests “authors should indicate the cutoff values for fit measures they intend to use” [(57), p. 19]. The EFA confirmed the three-factor KSA-structure of the scale explaining 72% of the total variance (see **Appendices 2, 3**). Two knowledge items showed a better fit with the attitudes sub-scale. One attitudes-related item showed a better fit with skills since it referred to “follow-up of patients.” Confirmatory factor analysis (CFA) resulted in acceptable goodness-of-fit indices: $X^2 = 436.6$, $Df = 170$, $p < 0.01$, $CMIN/Df = 2.57$, $CFI = 0.93$; $TLI = 0.91$, $RMSEA = 0.8$ (see **Appendix 3**). The high co-variances between the three factors confirm the interlinked nature of knowledge, skills and attitudes in IPV competencies. Cronbach's alpha reflects a high to very high

TABLE 2 | One-sample *t*-test results related to perceived IPV competence mastery.

	<i>Df</i> ^a	Mean	Mean difference	<i>SD</i> ^b	One-sample <i>t</i> -test
Overall IPV_KSA score	380	36,18	−43,82	24,52	−34,88**
Knowledge	385	33,43	−49,05	24,84	−36,83**
Skills	383	32,01	−50,73	27,38	−35,35**
Attitudes	384	43,47	−36,53	27,58	−25,98**

** $p < 0.01$; ^a*Df* = degrees of freedom; ^b*SD* = Standard deviation.

reliability for each subscale: Knowledge (eight items, $\alpha = 0.93$), Skills (eight items, $\alpha = 0.94$) and Attitudes (six items, $\alpha = 0.90$).

The survey started with a section focusing on student background variables (age groups, male/female students, medical education school, and year in medical education).

Procedure

The study took place between July and September of 2016. One researcher visited the students in each specific medical school. After obtaining informed consent, students filled out the IPV_KSA during a regular classroom session, in the presence of the researcher to clarify possible queries.

Analysis Approach

After developing a general picture on the basis of a descriptive analysis of the research variables, IPV mastery was linked to student-background variables (one-way ANOVA). Next, the perceived mastery level was compared to an external benchmark (80%), using one-sample *t*-tests. Next to *p*-values, we reported effect sizes (Cohen's *d*) to interpret analysis results, considering the guidelines of Baguley (59): $d > 0.3$ = small effect size; $d > 0.5$ = medium effect size; $d > 0.8$ = large effect size. A *p*-value of $p < 0.01$ was put forward. All analyses were carried out using statistical software SPSS version 24.0.

RESULTS

After screening, data from 362 students were included in the data analysis ($n = 304$ or 80.85% 3rd-year students; $n = 58$ or 25.44% 6th-year students). Most respondents were male ($n = 238$ or 61%). Considering population parameters, females were underrepresented ($n = 145$ or 37%); sex data from 9 students were missing. The average age was 22.33 years ($SD = 3.9$).

Perceived Mastery of the IPV Competencies

Table 1 summarizes sociodemographic aspects. At the same time, the table also shows a focus on student-background variables. Overall, the results point at a weak overall mastery of IPV competencies, in particular in IPV knowledge [$F_{(1)} = 19.89$, $p < 0.05$, $d = 0.4$] and IPV skills [$F_{(1)} = 21.26$, $p < 0.05$, $d = 0.4$], and at the level of the IPV competence components, while suggesting differences related to background variables.

Perceived IPV Competence Mastery and Background Variables

Students were split up into three age groups: (1) up to 20 years old ($n = 139$ or 35.9%), (2) from 21 to 22 years old ($n = 125$ or 32.3%), and (3) older than 22 years old ($n = 123$ or 31.8%). Age group differences are significant, with older students reflecting significantly higher KSA scores [$F_{(1)} = 49.36$, $p < 0.01$, $d = 0.3$] in all medical schools. There were no differences based on the school year of the students.

Females master significantly higher the IPV knowledge [$F_{(1)} = 5.33$, $p < 0.05$, $d = 0.01$] and skills component [$F_{(1)} = 10.60$, $p < 0.05$, $d = 0.03$]; with small effect sizes in all medical schools. Differences in attitudes were not significantly different.

We observed that students from medical schools E, B and D reflect higher IPV competence mastery as compared to C and A in relation to the knowledge [$F_{(1)} = 19.89$, $p < 0.01$, $d = 0.17$], skills [$F_{(1)} = 21.26$, $p < 0.01$, $d = 0.18$] and attitudes component [$F_{(1)} = 7.5$, $p < 0.01$, $d = 0.1$]. Effect sizes were small, meaning that differences in medical schools are trivial as means do not differ by 0.2 standard deviations even as it is statistically significant.

Third-year medical students reported consistently significantly lower perceived IPV competence mastery as compared to 6th year students in the knowledge [$F_{(1)} = 61.94$, $p < 0.01$, $d = 0.14$], skills [$F_{(1)} = 89.96$, $p < 0.01$, $d = 0.2$], and attitudes components [$F_{(1)} = 37.76$, $p < 0.01$, $d = 0.1$] in all medical schools. Effect sizes were small, meaning that differences in the year of medical curriculum are trivial as means do not differ by 0.2 standard deviations even as it is statistically significant.

From a total of 387 medical students that participated in the study, only $n = 40$ (10 or 3%) students reported when they were introduced to IPV contents in their medical curriculum. For that reason, we did not analyze data regarding the year of IPV introduction.

Perceived Mastery Compared to the Mastery-Learning Benchmark

Perceived mastery levels of medical students were compared to an 80% criterion. The one-sample t -test results in **Table 2** show consistently that mastery is significantly below the benchmark in all KSA components in IPV competence and **Table 3** the comparison of the means of the total IPV scores based on some of the student characteristics.

DISCUSSION

IPV is a global public health issue, which seems hardly addressed in medical curricula as we found in a previous study on global IPV medical curricula. In this study, perceived mastery of IPV competencies was examined in Mozambican medical students. In relation to IPV competencies, a distinction was made—based on a framework—on IPV-related knowledge, skills and attitudes.

The results are striking; they indicate that, in relation to all IPV competencies, perceived mastery of students is low. This applies

TABLE 3 | Comparison of the mean of the total IPV scores based on some of the student characteristics.

Characteristics	Mean $\pm$ SD
SEX	
Female	39,30 (24,65)
Male	34,23 (24,31)
AGE	
Age groups ≤ 20	27,72 (20,51)
Age groups 21 or 22	30,97 (22,14)
Age groups ≥ 22	51,21 (24,37)
YEAR IN MEDICAL CURRICULA	
$n = 304$ in 3rd	31,34 (22,55)
$n = 58$ in 6th	58,61 (20,74)
YEAR OF IPV INTRODUCTION ($n = 39$)	
1st (1)	28,32
2nd (6)	49,80 (21,55)
3rd (7)	47,25 (10,60)
4th (8)	62,80 (15,93)
5th (12)	62,05 (23,11)
6th (5)	67,56 (10,64)
MEDICAL SCHOOL (n)	
Medical school A (150)	28,92 (18,00)
Medical school B (57)	49,65 (28,18)
Medical school C (101)	30,18 (24,32)
Medical school D (56)	45,10 (24,95)
Medical school E (23)	55,72 (22,06)

to overall IPV competence scores, as well as to the Knowledge, Skills and Attitude sub-scale scores.

Students aged 22 or more reported higher KSA scores on IPV as compared to the younger group of students. In Mozambican context, age matters since, according to academic reports from medical schools, about 1/3 of students enter the level of higher education at a later age and as such may bring their personal and professional experiences into the educational context, which can boost their orientation toward dealing with IPV.

Female medical students reported higher perceived mastery scores in IPV knowledge and skills. This is not in line with Fawole et al. (30) who stated that male students reflect stronger knowledge about violence against women and female students reflect higher attitude scores. Differences can be explained by pointing at the Mozambican context where female students are more acutely aware of IPV. On the other hand, the authors reached their conclusions from studies in settings with high prevalence and incidence of male-to-female IPV in most countries, where almost all programs addressing victims of IPV focus on the male as perpetrators of IPV.

Differences between medical schools could be linked to the nature of the curriculum: one school reflected (a) an innovative problem-based learning/community-based curriculum ($n = 1$), compared to (b) a conventional/community-based curriculum in the other universities ($n = 4$); as found in our previous study on evaluation of Mozambican medical curriculum contents on IPV. However, the results are not in line with curriculum design

we found in the mentioned medical schools as found in our submitted to peer review study on IPV curriculum evaluation. Students from three medical schools (one innovative and two conventional/community-based) reported being better prepared to manage IPV victims as compared to students from medical schools with conventional curricula. To explain this, we need to look at differences between third- and 6th-year students. As will become clear, despite medical curricula being different, all curricula reflect a lack of a consistent and continuous IPV focus.

As expected, perceived mastery of 3rd-year students is more restricted compared to 6th-year students. This seems aligned with the literature stressing IPV contents should be introduced in preclinical years but developed fully throughout clinical years. However, our findings reinforce the view that few medical schools seem to address IPV consistently (30, 43, 45, 60). Perceived mastery is—even in 6th-year students—not on a par with the 80% benchmark, suggesting this consistent and continuous focus on IPV in the curriculum is lacking. Though the guidelines of the National Action Plan for Prevention and Eradication of Violence Against Women of Mozambique suggest integrating consistently and continuously issues of violence, domestic violence and gender in the curriculum of medical schools, this does not seem to be the case (46, 61, 62). Even when IPV curriculum content is studied during different years, it may not be in a standardized format. Examples in the literature show that most IPV curriculum contents are delivered as single, stand-alone items and are not re-considered during the medical curriculum (43, 63).

When comparing perceived mastery levels with a benchmark, the results are questionable. The results from the present study confirm reports from the literature—though mainly related to professionals—about the low knowledge and awareness level in medical staff, relating misconceptions, and prejudices about IPV (25). In our study, the highest mean IPV score—but still below par—is observed in attitudes. Nevertheless, the current perceived mastery levels can be considered as a baseline to direct future research aiming at improving IPV related education or in view of comparison with medical students and staff in other contexts or geographical settings.

Limitations

There are four major limitations in this study that could be addressed in future research. First, the study focused on medical students' "perceived" mastery of IPV competences. Though self-efficacy is accepted as a valid precursor of actual behavior (64), alternative approaches could build on video-vignettes to map behavioral proxies of students' mastery. Secondly, we involved students from different medical schools. But this was hardly linked to differences in curriculum implementation or staff competence. Thirdly, 6th-year students were underrepresented. The input from 3rd-year students may reflect their lack of exposure to clinical situations, including intimate partner violence. Finally, female students reported higher self-mastery of IPV. As IPV is more reported in the female population, we did not ask the students if they had an episode of IPV. This could help us to understand if the higher self-reported mastery of female students is related to an episode of IPV.

CONCLUSIONS

Taking into account the present research findings, a need arises to develop an IPV focus in the Mozambican medical school's curricula. Though currently perceived mastery of competencies needed by physicians to deal with IPV of patients is below par, researchers can use the present findings as a baseline for further research fostering the development of IPV competencies. The IPV framework can also guide the development of interventions with a continuous focus underlying knowledge, skills and attitudes components. In the context of follow-up studies, we will focus on online clinical simulations as an avenue to start up related IPV competence development in medical contexts.

Recommendation for Further Research

Further research is needed to identify the approaches and assessment procedures in the teaching-learning process to present IPV content in Mozambican medical schools. After analyzing the curricula in IPV contents, medical educators can judge the results as to implement an innovative IPV curriculum contents for medical students as designed by the medical schools, or to improve the contents and then implement. It is crucial to evaluate medical students' and medical doctors' perceptions and attitudes toward perpetrators and victims, including their levels of empathy and management skills in dealing with the victims. An evaluation of how the victims of IPV are currently taken care of in different levels of attendance would identify the insufficiencies and omissions that could provide input to guide the introduction of changes in the curriculum. A professional development analysis can help to understand where professional development can contribute to improving medical doctors' competence in delivering IPV curriculum contents and dealing with IPV survivors. Lastly, the instrument developed in the context of this study can be used in other contexts to foster an understanding of IPV-related competencies of medical professionals and eventually the care of IPV victims and conduct a study among practicing physicians to get their perceptions of their competency in dealing with IPV victims.

PREVIOUS PRESENTATIONS

The authors presented the preliminary results of the first data collection set of 167 students at the AMEE Conference 2017, held in Helsinki, Finland, on August 29, 2017.

DATA AVAILABILITY

The datasets generated for this study are available on request to the corresponding author.

ETHICS STATEMENT

The protocol was approved by the Institutional Committee of Bioethics and Health linked to the Faculty of Medicine/Central Hospital of Maputo, Mozambique (registration number

CIBS FM & MCH/006/2016). All subjects gave written informed consent in accordance with the Declaration of Helsinki.

AUTHOR CONTRIBUTIONS

BM, AT, IK, KR, and MV were involved in revising the manuscript critically for important intellectual content, gave final approval of the version to be published, agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved and made substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data.

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SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fpubh.2019.00204/full#supplementary-material>

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Conflict of Interest Statement: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Medical Curricula on Intimate Partner Violence in Mozambique

Specific objective 3: To screen medical curricula in relation to the attention paid to intimate partner violence, by applying a framework derived from the international literature.

Medical Curricula on Intimate Partner Violence in Mozambique

Currículo Médico sobre Violência Perpetrada pelo Parceiro Íntimo em Moçambique



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ABSTRACT

Introduction: The aim of the study described in this paper is to screen medical curricula in relation to the attention paid to intimate partner violence, by applying a framework derived from the international literature.

Material and Methods: We screened curricula of five Mozambican medical schools based on a state-of-the-art intimate partner violence curriculum framework. The latter framework was based on a review of the literature.

Results: Few medical schools of Mozambique could be identified addressing intimate partner violence in their curriculum. When tackled, intimate partner violence content is mostly dealt within the context of Obstetrics and Gynaecology, Community Health and Forensic Medicine rotations. Intimate partner violence contents are integrated as stand-alone modules in some specific subjects. In none of the schools, specific teachers teaching intimate partner violence could be identified. No time allocation was specified to address the topic; no teaching and learning strategies could be identified invoking awareness or supporting basic knowledge acquisition; additionally, hardly any information about related assessment methods was found. Only in one medical school was the subject part of the formal curriculum.

Discussion: Intimate partner violence content is hardly and inconsistently addressed. The limited intimate partner violence content tracked in the Mozambican medical schools' curricula, mainly addresses violence in general, for instance as identified in Orthopaedics or Surgery contexts and sexual violence in Obstetrics and Gynaecology. The inclusion of elements of intimate partner violence in the curriculum remains restricted, questioning the impact of medical education of future practitioners' competencies.

Conclusion: Critical changes are needed in medical curricula to match the current epidemiology of intimate partner violence in Mozambique.

Keywords: Competencies; Curriculum; Intimate Partner Violence; Medical Students; Mozambique

RESUMO

Introdução: O objetivo do estudo descrito neste artigo foi o de examinar os currículos de medicina quanto à atenção dada aos conteúdos sobre a Violência Perpetrada pelo Parceiro Íntimo em Moçambique, aplicando uma ferramenta de comparação derivada da literatura internacional.

Material e Métodos: Examinámos os currículos de cinco escolas médicas moçambicanas com base numa estrutura curricular da Violência Perpetrada pelo Parceiro Íntimo de última geração. A ferramenta de comparação foi baseada numa revisão da literatura anterior.

Resultados: Poucas escolas de medicina de Moçambique podem ser identificadas abordando a Violência Perpetrada pelo Parceiro Íntimo no seu currículo. Se abordada, a Violência Perpetrada pelo Parceiro Íntimo é mais tratada no contexto de Ginecologia e Obstetrícia, Saúde Comunitária e Medicina legal. Os conteúdos da Violência Perpetrada pelo Parceiro Íntimo são integrados como módulos autónomos em algumas disciplinas específicas. Nenhum dos currículos identificou professores específicos que leccionam Violência Perpetrada pelo Parceiro Íntimo. Não foi especificada a alocação de tempo para abordar o tópico; estratégias de ensino e aprendizagem, sensibilização e aquisição de conhecimentos básicos; e dificilmente informação sobre métodos de avaliação específicos. Apenas numa escola de medicina, o assunto fazia parte do currículo formal.

Discussão: O conteúdo da Violência Perpetrada pelo Parceiro Íntimo é difícil e inconsistentemente tratado. O conteúdo limitado da Violência Perpetrada pelo Parceiro Íntimo rastreado nos currículos das escolas médicas moçambicanas aborda principalmente a violência em geral, por exemplo, conforme identificado em contextos de ortopedia ou cirurgia e violência sexual em Ginecologia e Obstetrícia. A implementação no currículo permanece restrita, questionando o impacto da educação médica nas competências dos futuros profissionais.

Conclusão: São necessárias mudanças críticas nos currículos médicos para corresponder à actual epidemiologia da Violência Perpetrada pelo Parceiro Íntimo em Moçambique.

Palavras-chave: Competências; Currículo; Estudantes de Medicina; Moçambique; Violência Perpetrada pelo Parceiro Íntimo

INTRODUCTION

Intimate Partner Violence (IPV) is defined as “any behaviour within an intimate relationship that leads to physical, psychological or sexual harm to those in that relationship.”¹ It is a serious, worldwide public health concern, affecting

both women and men.

In many cases, medical doctors are the first point of contact of victims of IPV, which could be an opportunity to offer appropriate care.² However, research points at reluctance

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in medical doctors to ask about abuse, or to respond appropriately.^{2,3} Lack of IPV-related training leads to a lack of IPV screening, lack of confidence in dealing with IPV victims and therefore weak referral or intervention.⁴⁻⁶ The available literature shows that IPV elements in medical curricula are not standardized and that medical doctors hardly receive effective or any training at all resulting in a lack of appropriate competencies to deal with IPV.^{7,8} In contrast, other research findings show that IPV curricula can help in improving medical doctors' self-efficacy to identify and manage victims of IPV leading to an increase in referral rates.⁹⁻¹¹

Although IPV is increasingly recognized as a public health issue that can lead to fatal outcomes, few studies address how medical doctors in Africa are prepared to deal with victims. This study seeks to fill this gap by assessing how IPV elements are addressed in medical curricula in Mozambique.

Addressing IPV in Mozambique

Osorio *et al*¹² conducted an analysis of the application of the law against domestic violence from 2009 to 2015 in Mozambique and reported that the percentage of women who suffered physical violence (in the 12 months prior to the survey) was 33% and that of men 25%, with the 15 - 19 age group having the lowest prevalence, while for men this age group is where most cases of violence are reported. Osorio and colleagues¹² added that for both men and women (but more for women with about 39% *versus* just over 26% of assaulted men) more cases of physical violence are reported in urban areas. They also added that these findings need to be analysed cautiously because of the relationship between awareness of the law and behavior change since the victims are living in urban areas.

The provinces of Maputo, Maputo city, Sofala and Gaza have the highest number of cases of violence against women, while for men it is the province of Niassa (with almost 50%), Cabo Delgado and Maputo city.¹² The same authors reported that urban areas, particularly for women in Maputo city, are recognized as being the most violent, which may be related to the level of crime associated with the low capacity of law enforcement, especially at night, where many women circulate (e.g. women returning from school). On the other hand, violence occurs in divorced, separated and widowed women and men.

Physical violence was higher in women in the 20 - 24, 25 - 29 and 40 - 49 age groups, and was lower in the 15 - 19 and 15 - 17 age groups (17% and 15%, respectively), unlike in men, where violence is particularly rife in the latter age groups.¹² Physical or sexual violence had the highest proportion for both sexes (37% for women and 29% for men) and was more frequent in the age group of 20 - 24 years in women, being more prevalent in men aged 15 - 17 years (31%).¹²

Regarding the perpetrators of physical violence, Osorio and colleagues¹² found that 62% of women stated that the perpetrator was the current spouse or partner, and among non-single women, the percentage rises to 70%. With

regards to men, in 27% of cases the biggest perpetrators of violence are also the wives or partners, and in non-single victims, the percentage was around 13%.¹² When talking about the type of spouse abuse in the last 12 months, Osorio and colleagues found that about 33% of women and 16% of men have suffered physical and/or sexual violence in the last 12 months. Moreover, about 18% of women reported slapping as the main form of physical violence, while for men it was only 5%.

In 2015, the 67th World Health Assembly adopted a resolution to enhance the capacities of all public and private professionals in the health and non-health sectors¹³ to improve care for IPV and sexual violence victims. This resolution called for (re)designing and developing curricula to strengthen related knowledge, skills and attitudes. This leads to the question of whether Mozambican medical schools' curricula are up to date as far as IPV is concerned.

The study aims to address the following gaps in research and evidence: "more and better programme evaluation is needed to assess promising practices, and to identify and develop new approaches that can be tested through randomised controlled trials or other rigorous approaches." and "(...) countries will need to know what the most effective clinical care interventions are, and what works for strengthening capacity of health-care providers and to scale up services."¹⁴

MATERIAL AND METHODS

In order to identify information about medical curricula in Mozambican medical schools, we did an extensive search to track peer-reviewed articles about IPV in Mozambican medical curricula. Due to a lack of published information, an alternative approach was developed, based on a systematic analysis of concrete medical curricula with follow-up interviews in Mozambican medical schools. The latter requires a curriculum analysis framework to direct the interviews. We built on the study by Taba¹⁵ to identify key questions to be asked: What are the aims to be achieved? What learning experiences will be invoked in what way? How are teaching and learning organized? The latter questions raise issues about the didactical strategies being adopted, the assessment approaches to check mastery of the curriculum's aims, the structure of the curriculum (courses and build-up), and about the teachers taking up teaching responsibilities (see Appendix 1: https://www.actamedicaportuguesa.com/revista/index.php/amp/article/view/12049/Appendix_01.pdf). With these questions in mind, further analysis of the literature helped to develop the nature of the interview questions.¹⁶

Mozambique has seven medical schools; four are public and three are private schools. The schools are - from a regional perspective - equally distributed throughout the country. Five medical schools in Mozambique were contacted to gather information about their medical curricula. The selection was based on their geographical location, especially due to the stretched nature of Mozambique as a country. Next, we selected schools on the basis of the

largest volume of students: South (n = 2) – one private and one public, Centre (n = 2) – one private and one public, and the last populated North part of Mozambique (n = 1) – a public medical school. To respect anonymity, medical schools are designed as A, B, C, D and E in the result tables.

The following research questions guided this study:

- (1) Building on the literature framework, which of the IPV-competence key areas are focused upon in current medical curricula in Mozambique (knowledge, skills, and attitudes)?

- (2) What are the strengths and weaknesses of medical curricula in Mozambique, considering the curriculum-related questions (teaching/learning strategies, evaluation approaches, phase in the curriculum, nature of module/discipline, teacher)?

Initial information about the curricula of each university was collected via email and through the Internet. Research assistants obtained electronic versions of courses and modules regarding IPV contents. Curricula were screened on the basis of the research questions. After developing the

Table 1 – Recommended knowledge, attitudes, and skills on IPV. Topics in blue are tackled in medical schools in Mozambique.

Knowledge	1. Understand the magnitude of the problem: - intimate partner violence as a public health problem, - the cycle of violence in relationships and families, - the medical and mental health implications for victims and their families, - the unique role that health care providers can play, and - the barriers to providing services to victims. 2. Understand uncommon circumstances: - abuse during pregnancy, - substance use and abuse, - IPV in same-sex partners, - HIV risks for victims of IPV, - the legal concerns of immigrants and refugees, and - dealing with the health care provider who has experienced or perpetrated IPV. 3. Understand life span issues: - the relationship between child abuse and neglect, - the short- and long-term outcomes for children who witness violence in their homes, - elder abuse by previously abused children, - the cumulative effects of multiple victimizations, and - other issues related to the types of violence encountered in different parts of the life cycle. 4. Understand legal options and reporting requirements: - be aware of the requirements for reporting intimate partner violence, - be aware of the role in providing epidemiologic information on the numbers of victims and the patterns of abuse.
Attitudes	1. Treatment and intervention - ensure patient confidentiality, - be understanding, sensitive, and patient, and - provide support in a respectful, non-judgmental manner. 2. Safety - effectively intervene without exposing the patient (or provider) to greater danger: interview patients in private, maintain separation from an accompanying partner, ensure confidentiality, and provide privacy and anonymity to protect the victim's safety. 3. Availability - be accessible for future contacts by the victims.
Skills	1. Identification; ability to: - screen universally, - ask questions appropriately to recognize victims of abuse, - obtain a history of abuse, - determine the patient's immediate risk of danger, - assess the patient's mental health needs, - identify types of abuse against the patient or other family members through a physical and psychological assessment, and identify general and specific signs and symptoms of distress in victims of abuse. 2. Reporting; ability to - develop injury body maps, and - manage abuse assessment screens.

first picture, we contacted the deans of each medical school and requested contact details of curriculum development coordinators from each medical school. As such, five curriculum developers from each of the five medical schools were contacted and four participated in individual semi-structured interviews. These were set up via e-mail and/or phone, taking the collected information as the starting point (see Appendix 2: https://www.actamedicaportuguesa.com/revista/index.php/amp/article/view/12049/Appendix_02.pdf). Additional documents, modules and information to enrich the information were requested from each interviewee. All interviews were audiotaped and transcribed. The transcripts were sent to the curricula developers for verification.

This study is part of a PhD protocol that was reviewed and approved by the Institutional Bioethics Committee for Health, Faculty of Medicine/Maputo Central Hospital (CIBS FM&HCM, with approval number CIBS UEM&HCM/006/2015).

RESULTS

Table 1 provides a detailed elaboration of key curriculum areas. Items in blue are currently being addressed in Mozambique's medical school curricula.

What learning aims are put forward in view of an IPV curriculum? Overall, only limited systematic attention is paid to IPV in Mozambican medical school curricula. The analysis of the scarce modules available is discussed below and mapped in Tables 2 and 3; topics explicitly addressed in the modules are printed in bold. Of course, the adopted analysis focus may overlook non-systematic attempts of medical teaching staff to address IPV ad hoc or in the context of cases. As stated earlier, competence development in general and IPV-competence development, in particular, need to be addressed continuously.

Knowledge

In relation to bodily injuries (rape, physical assault), students are introduced to aspects of health education. In the module integrated into the Obstetrics and Gynaecology (OB/GYN) rotation as sexual abuse, students get to know definitions of sexual abuse, rape, and rapists. They are also introduced to the impact of rape on reproductive health, the consequences of sexual abuse, the risk factors, the physical and emotional and behavioural indicators of sexual abuse and barriers to diagnosing it.

One medical school presented a module on Sexual and Reproductive Health (SRH) that includes themes about sexuality, the development of sexuality, sexual orientations and identities, healthy relationships, sexual and reproductive health rights (SRHR) and sexual violence and gender-based violence (GBV). In this SRH module, the following items are addressed to reduce GBV: respect for sexual and reproductive rights; acceptance of domestic violence (DV) by perpetrators and victims; intention to abstain from sex; intention to be faithful; knowing sexual rights and duties; code of conduct: when is a relationship healthy?

In the module "Integrated care for victims of sexual

violence in Mozambique", students are required to explain sexual violence and GBV and to identify the role of Health Units in the care of sexual violence victims.

Skills

In the module "Sexual Abuse integrated into the OB/GYN" rotation, students are introduced to skills to manage abuse, including physical examination, follow-up of victims of abuse and adopting a flow chart to deal with Sexual Transmitted Infections related to sexual assault.

In the module "Integrated care for victims of sexual violence in Mozambique", students are trained to understand integrated care for victims of sexual violence. They are also trained to relate the critical players in the care of sexual violence victims and their responsibility. Students are taught to carry out evaluations of case scenarios of sexual violence victims that include their informed consent, clinical history and circumstances of the incident, physical examination and collection of medical and forensic details. Students are trained to implement therapy and prophylaxis according to clinical evaluation data, to follow up on sexual violence cases and identification of routine needs. Lastly, students are trained to establish a referral and response system with the different sectors/services involved and to perform an appropriate and timely collection and recording of data.

Attitudes

In the module integrated into the OB/GYN rotation as sexual abuse, students are introduced to ethical aspects such as respecting the privacy of the victims and avoiding showing impatience or contempt. Students are also trained to tell the patient that (s)he can control the examination and can ask to stop anytime they feel uncomfortable. They are also encouraged to deal with the victims in a non-emotional or non-judgmental way and if necessary, to translate the consultation into the language of the victim. Refraining from presenting conclusions about a diagnosis or asking about the possibility of sexual abuse until victims are fully dressed and the examination is over, could also be linked to attitudes being developed in students during the OB/GYN module.

In the module "Integrated care for victims of sexual violence in Mozambique", students are required to recognize the importance of integrated care for SV victims and to explain the aspects that ensure respect and dignity for sexual abuse victims.

What are the teaching and learning strategies to pursue the development of IPV competencies?

Table 3 integrates the findings from the curriculum analysis. The teaching strategies seem to be limited to lectures (supported with PowerPoint presentations), brainstorming activities, case study discussion, small group discussion, community health practice and are also linked to bedside teaching. One university adopted a Problem-Based Learning approach; all others could be labelled as embracing a conventional medical curriculum approach.

Table 2 – Overview of modules or disciplines with relevant IPV contents

Medical School	Objectives	Module/discipline	Teaching/learning strategies	Contents
Medical school B	- To know the clinical epidemiology of diseases related to the areas of Dermatology, Venereology, Psychiatry and Legal Medicine: To describe the epidemiology, etiology, risk factors, prevention, control, natural history of the disease and the tracking of diseases related to the areas of Dermatology, Venereology, Psychiatry and Legal Medicine; - Know the mental health program; - Know aspects of health education related to drug addiction, corpse management and bodily injuries; - Be aware of medical responsibility in the various situations that may occur during the future doctors' professional life; - Have basic hospital management.	Community health X	Student-centred methods - lectures and community health practice, small group discussions, bedside teaching, PowerPoint presentations.	- Mental health program. Management of the corpse in the community. Bodily injuries (rape, physical assault), Dermatological manifestations of STIs and HIV/AIDS. - Drug addiction. - Social and community psychiatry. - Infanticide. - Medical responsibility. - Hospital management.
Medical school C		Obstetrics and Gynaecology	Student-centred methods - lectures, small group discussions, bedside teaching, PowerPoint presentations.	Sexual Abuse : definitions, medical treatment, and prevention of STI.
Medical school D	- Knowing oneself as a man or woman with his / her own characteristics and needs; - Recognize the rights and duties of each man and woman; - Increase the ability to make conscious, responsible and healthy choices for own lives, particularly in the areas of sexual and reproductive health; - Reduce transmission of HIV and STIs and unplanned pregnancy; - Increase awareness of the dangers of addictions and dependencies and develop strategies to prevent addictions and dependencies; - Create life, time, resource and conflict management skills.	Skills for life, Sexual and Reproductive Health and Gender and HIV & AIDS	Case studies, exercises, activities, small group discussions, PowerPoint presentations.	Sexual and Reproductive Health : Domestic Violence, Sexual violence, and gender-based violence.
Medical school E	Provide means for acquiring knowledge, developing the skills and attitudes necessary for integrated care for the victims of sexual violence, as well as for the implementation of this service in Health Units.	Integrated care for victims of sexual violence in Mozambique.	Brainstorming, case studies, small group discussions, PowerPoint presentations.	- Explain Sexual Violence and Gender-Based Violence. - To identify the role of Health Units in the care of Sexual Violence victims.

What assessment approaches are stressed?

Table 3 points out that one medical school adopts oral exams that consist of an oral defence of a report alongside a discussion of the lecture topics, and multiple-choice questions (MCQs). Hardly any specific information could be collected about assessment methods used in medical curricula of other universities.

In the context of what modules or disciplines is IPV tackled?

Table 4 integrates the answers to this key question. When it comes to the module or medical discipline context in which IPV is addressed, medical curricula seem poorly developed. In one medical school, IPV content is explicitly addressed in the curriculum via a Community Health course that deals with bodily injuries (rape, physical assault). In two other medical schools, modules about OB/GYN, Skills for life, Sexual and Reproductive Health and Gender and HIV & AIDS and Forensic Medicine reflect a partial focus on IPV. The IPV-related matter seems integrated into OB/GYN courses with a focus on sexual abuse: medical treatment and prevention of sexual transmitted infections. In the Skills for life, Sexual and Reproductive Health and Gender and HIV & AIDS module, the focus is on SRH: DV, sexual violence and GBV. In the Forensic Medicine course, sexual violence is addressed: documenting cases of SV and integrated care for victims of SV in Mozambique.

In what phase of the medical curriculum is IPV addressed?

As to the curriculum phase in which IPV is being addressed, IPV topics are introduced from the fourth year and fifth year in one medical school to the sixth year in another medical school. In one medical school, information about the time spent on IPV content could be defined: two hours per week during one semester.

Who are the teachers taking responsibility for the IPV content?

The medical schools that explicitly focus on IPV content, involve medical doctors from a specific discipline (e.g. OB/

GYN), who also take care of IPV.

Curriculum developers' feedback on interview transcripts

The curriculum developers from the 4 medical schools concurred with the information extracted from the interviews. We tried to contact curriculum developers for all the medical schools, but only four participated in the study. The following quotations illustrate how their input mainly confirms the findings reported above.

For instance, they confirm that IPV content is dealt with during both the pre-clinical and clinical years.

"The contents are distributed throughout the medical degree, implicitly or not. In terms of violence, the focus lies on all the disciplines that cover the topic. In addition to Obstetrics and Gynaecology, forensic medicine, in surgery and traumatology rotations, we also address IPV." (medical schools C and E).

When asked if the curriculum as defined on paper matches the actual curriculum, the curriculum developers from all medical schools answered negatively: "(...) we will improve the monitoring process and see the relationship between what is written and what happens." (medical school C) "(...) in some subjects, we add some things and we give the teacher the opportunity to change." (medical school E).

Focusing on instructional strategies, the earlier findings were clearly confirmed: "The predominant method in clinical areas is the clinical approach, essentially a discussion of cases." (medical schools B, C and E). "Now, if it is suitable for these cases (IPV): most probably not." (medical school C). "We have theoretical classes, then we have specific classes. In the specific classes, they (the students) prepare the lecture that they will deliver to the community", "role-play". (medical school B).

As far as the assessment approaches are concerned, the following quotation is exemplary for the current situation: "Assessment of students is the worst aspect in the current curriculum. It often has no relation to educational goals, in many ways students refer to the assessment as unfair, as the characteristics of our assessment are not designed for

Table 3 – IPV curriculum in medical schools

Medical School	Type of Medical School	Module/discipline	Teacher	Teaching/learning strategies	Assessment approach	Content	Year of induction
A	Public	N/A	N/A	Student-centred methods	N/A	N/A	N/A
B	Public	Community health X	Medical doctor	Student-centred methods	Oral exam (defence of the report + lecture topics)	Bodily injuries (rape, physical assault)	5 th
C	Public	N/A	N/A	Student-centred methods	N/A	N/A	N/A
D	Public	N/A	N/A	Student-centred methods	N/A	N/A	N/A
E	Private	N/A	N/A	Problem-Based Learning	N/A	N/A	N/A

Table 4 – Relevant medical schools' modules on IPV

Medical School	Discipline/subject	Instructor	Module Designation	Year of Induction
A	N/A	N/A	N/A	N/A
B	Community health X	Medical doctor	Bodily injuries (rape, physical assault).	5 th year
C	Obstetrics and Gynaecology	Medical doctor	Sexual Abuse: definitions, medical treatment, and prevention of STI.	4 th year
D	Skills for life, Sexual and Reproductive Health and Gender and HIV & AIDS	Medical doctor	Sexual and Reproductive Health: Domestic violence, Sexual violence, and gender-based violence.	N/A
E	Forensic Medicine	Medical doctor	Sexual violence: documenting cases of sexual violence. Integrated care for victims of sexual violence in Mozambique.	6 th year

the purpose that is proposed. Usually, the assessment used in the Faculty of Medicine is an assessment of knowledge. That is, you assess the first part of Miller's pyramid, you assess the knowledge." (medical school C).

Lastly, the respondents confirm that the focus on IPV remains restricted in Mozambican medical curricula: "First of all, I have to realize that the student we are training is a student who will be a general practitioner. Secondly, I realize that the training that he/she receives in medical school is only one part of the whole of medical training that s(he) will have throughout his life. And thirdly, I realize that if I had to teach all the details the students would never finish the medical degree. Therefore, I support the idea that the approach that should be taken is an approach in the general context of domestic violence (DV) or general violence." (medical school C).

DISCUSSION

The primary purpose of this study was to map the state-of-the-art of IPV education in current Mozambican medical curricula. The findings were based on information from five key medical schools. The analytical findings were confirmed after receiving feedback from interviewees.

The nature of the details of the IPV curriculum, when analysed based on a curriculum framework, remains critical. The IPV curriculum content seems to be regarded as a stand-alone topic or module within other curriculum subjects. Teaching methods remain conventional, with only one school adopting a problem-based learning approach. In most medical schools, it was difficult to identify which teachers focus on IPV, what time is allocated to the topic, or which assessment methods are used. This can be explained by the observation that only in one medical school IPV is integrated as a subject in the formal curriculum. These findings confirm what has been found in the literature, namely that critical IPV curriculum content is hardly offered consistently throughout medical education. We also discovered that when IPV is addressed, this only occurs during a short period of time, mainly at a single point in the medical education

program, and mostly limited to one type of violence.

The findings push the current discussion towards an urgent redesign of current curricula. Firstly, the IPV curriculum content should be integrated throughout medical education, starting in the pre-clinical years and continuing during clinical years. The current focus on IPV only during clinical years is not effective. Another critical observation is that IPV is mainly seen as yet another type of violence and also primarily tackled in the context of Orthopedics or Surgery subjects. We recognize that IPV is one of the many types of violence that should be addressed in Mozambican curricula, but it is vital that it is also taken into account in the context of other disciplines in undergraduate curricula, such as Neurology, Urology, Gastroenterology, Internal Medicine, Psychiatry, Pediatrics, Emergency Medicine, apart from Surgery and Orthopedics.

Building on recommendations of Thomas and colleagues,¹⁷ we suggest the following approach to redesign current curricula:

- Boosting the curriculum design process: specific task force members of the curriculum reform should be present at all meetings related to IPV, carry out a periodic review of the curriculum, screen all assessment approaches, organize informal discussions with students and teachers about the curriculum, and foresee yearly formal curriculum planning meetings.
- Implementing educational changes: foster the adoption of clinical simulations related to IPV, support the use of information technology to instigate medical training in IPV, introduce online approaches such as asynchronous group work and setting up flipped classroom designs.
- Faculty development: train medical staff to guarantee their mastery of the IPV curriculum content, involve medical staff in the development of an IPV training program, develop half-day or two-day workshops to foster interaction with staff from other medical institutions.

This is the first study related to IPV curriculum contents in medical schools conducted in Mozambique. We hope the description of essential IPV curriculum contents for medical schools contributes to the design and development of interventions aiming at prevention and control of IPV. The information might also help to adapt the role of Mozambican medical schools in the prevention and provision of IPV related care, in terms of teaching methods, teaching content and its scientific basis. The latter can build on updated information about IPV and attention being paid to the integration of information about National Policies. The study especially stresses the need to develop curricula that pay more in-depth and consistent attention to IPV.

The present study is not without limitations. First, the study could be enhanced with the voice of additional stakeholders, such as medical students, medical teachers and ultimately IPV victims. Though based on a clear curriculum framework, data collection was marred by the fact that interviewers were not professional curriculum designers well acquainted with the nature of curriculum design, nor with a clear mastery of instructional theory and practice. Lastly, what stakeholders describe as the “curriculum” may differ from its actual implementation. Additionally, our emphasis on a systematic focus on IPV may have neglected interesting and inspiring ad hoc interventions of medical staff about IPV.

CONCLUSION

Our findings strongly suggest there is room for changes in current IPV curriculum design in medical schools in Mozambique. Since medical doctors are often the first and sole point of contact to identify and tackle IPV, their training is of key importance: especially in the Mozambican context where the prevalence of IPV is high, upgrading medical expertise should be a priority. Looking from a wider angle, the latter statement should be broadened to all healthcare providers playing a role in prevention, curation and restoration of IPV incidents as in the reality of Mozambique there are all kinds of other practitioners, other than medical doctors, who establish the first point of contact with victims. In addition, there are many areas where people have no access to a medical doctor but are only attended by other practitioners.

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PROTECTION OF HUMANS AND ANIMALS

The authors declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the Helsinki Declaration of the World Medical Association.

DATA CONFIDENTIALITY

The authors declare having followed the protocols in use at their working center regarding patients' data publication. The data that support the findings of this study are available on request from the corresponding author, BM. The data are not publicly available due to the contained information that could compromise the privacy of research institutions.

CONFLICTS OF INTEREST

None declared.

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Improving medical students' communication competences to deal with intimate partner violence using clinical simulations in Mozambique

Specific objective 4: To describe and analyse the outcomes of a simulation-based training module on clinical communication competences when interacting with IPV victims.

Improving medical students' communication competencies to deal with intimate partner violence using clinical simulations in Mozambique

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ABSTRACT

Background Medical doctors who master communication competencies promote both patient communication and a professional patient-physician relationship. This is especially evident when dealing with sensitive topics. This study describes and analyses the outcomes of a simulation-based training module on clinical communication competency through interacting with simulated intimate partner violence (IPV) survivors. The training was set up as part of a broader IPV module within a Gynaecology and Obstetrics Bachelor of Medicine and Bachelor of Surgery of Medicine (MBBS).

Methods In total, 34 (59%) of all fourth-year medical students from one medical school in Mozambique were involved. A mixed-method approach was adopted. First, a quasi-experimental pre-test/post-test design was adopted to study the impact of the intervention to tackle critical IPV knowledge, skills, and attitudes, underlying a patient communication script. Second, a qualitative analysis of student perceptions was carried out.

Results The results of the paired sample t-tests point at a significant and positive change in post-test values when looking at the general IPV self-efficacy (IPV SE) score and the subscales mainly in attitudes. Participants expressed a desire for additional IPV communication competency and suggested enhancements to the module.

Conclusion We conclude that due to IPV being a sensitive issue, simulation activities are a good method to be used in a safe environment to develop clinical skills. The results of this study are a good complement of the analysis of the competencies learned by the medical students in Mozambique with the current curriculum.

Keywords: Communication competency; medical education; intimate partner violence; undergraduate; doctor-patient communication; pre-post-test; clinical simulation; role plays

BACKGROUND

Mastery of communication competency is critical for medical students to assist patients. Adequate communication competencies promote doctor-patient communication and the development of a proper professional relationship with the patient. Medical schools are starting to recognize the importance of these competencies in their curriculum [1].

Though a variety of concepts is used in the literature – interpersonal communication, clinical communication – we adopt in the present article the key concept of communication competency. It is defined as “face to face verbal or non-verbal exchange of information and feelings between two or more people” [2]. Effective communication between healthcare providers and patients is vital for the improvement of client satisfaction, compliance, and health outcomes. Patients who understand the nature of their illness and its treatment, and who believe the provider is concerned about their well-being, show greater satisfaction with the care received and are more likely to comply with treatment regimens [3].

Mastery of communication competencies enables tackling complex topics that are less comfortable for the patient. Intimate partner violence (IPV) is considered a complex topic and many physicians avoid addressing it [4–6]. It is sensitive for both physicians and survivors with challenges occurring mainly during screening and referrals. Some doctors feel overwhelmed by information provided by survivors regarding their abusive relationships, especially when they do not know how to respond or who to refer them to. Victims may also feel uncomfortable sharing information about their relationships and be reluctant to disclose IPV [7–9].

Clinical simulations combining standardized actors, role play, simulated patients, group discussions, and debriefing have been highlighted to develop communication competencies [1].

Training on the base of a variety of clinical simulation scenarios that medical students may encounter in the future can help to deal with discomfort in both victims and future doctors [10–13]. The literature also points at background variables that might influence physicians' IPV competencies, such as sex, sexual orientation, marital status (married, single, cohabiting, divorced, and widow), number of IPV survivors assisted, and whether the students themselves have experienced IPV or witnessed IPV in their own family.

In general, little information is known about medical students' comprehensive mastery of IPV curriculum contents and how this sensitive topic should be taught to acquire better physician-patient communication skills. At the time of this study, no formal communication skills training related to IPV exists in the Mozambique setting for medical students [14]. In the present study, a module was designed to train medical students to acquire communication competencies in medical students in Mozambique when dealing with IPV survivors during a consultation session. These specific communication competencies build on a set of knowledge, skills, and attitudes concerning IPV patients, their families, the context, and also with a medical doctor's concerns (as being also a victim, sharing the same cultural points of view of the victims, and little or no training on dealing with IPV) [13]. We mainly aim at developing a foundation in the acquisition of IPV-related knowledge, skills, and attitudes in the context of a patient consultation session. Also, the clinical experiences are expected to boost students' self-efficacy in their IPV communication competency. In the medical education literature, self-efficacy is accepted as a precursor of future behaviour and performance [15, 16].

METHODS

A mixed-methods approach was adopted, consisting of a quasi-experimental pre-test/post-test design without comparison groups, and a qualitative analysis of students' perceptions about the IPV module.

Study location

The training was implemented from April to May 2019, in meeting rooms of the General Hospital of Mavalane, Central Hospital of Maputo and classrooms of the Community Health Department of the Faculty of Medicine of the Eduardo Mondlane University, all in Maputo city, Mozambique.

Participants

Participants in this study were volunteering medical students, enrolled for the fourth year in the gynaecology and obstetrics rotation in the Faculty of Medicine at the Eduardo Mondlane University, Mozambique. We contacted the lecturer in gynaecology of the fourth-year rotation at the Faculty of Medicine from the Eduardo Mondlane University telephonically regarding the study and she provided the phone number of the student representative. The student representative was the one in charge of contacting all her classmates in the rotations and organizing dates and times of the training in the different locations. From the 58 students enrolled in the gynaecology rotation, 59% participated. After demographic data screening, all 34 students who volunteered were considered eligible, and their data were included in the analysis. Their average age was 24 years and 6 months; 20 were female, 27 were in a heterosexual romantic relationship, 24 were single, and 7 reported being survivors of IPV themselves. These background variables were taken into account when studying the potential impact of the clinical simulation.

All participants signed an informed consent form after receiving an explanation about the focus of the training, confidential treatment of collected data, the voluntary nature of participation, and their right to withdraw at any time. Ethical approval was obtained from the Institutional Committee of Bioethics and Health linked to the Faculty of Medicine/Central Hospital of Maputo, Mozambique (registration number CIBS FM & MCH/006/2016). Also, permission was granted by the dean of the medical school and the lecturer in gynaecology and obstetrics. Random numbers were given to participants to pair questionnaire responses to pre- and post-intervention instruments.

Structure and validity of the clinical simulation-based training

A new training module was designed with the aim of developing the communication competency to deal with IPV survivors. This implied three key design and development activities. First, real-life cases – focusing on communicating with IPV survivors in a consultation setting – were collected to guide the build-up of the clinical simulations. The collection was influenced by WHO and local sources. Expert opinions were used to validate the cases in the specific Mozambique setting. Scenarios were developed for each case in view of the clinical simulations. Second, the communication competency was operationalized by the development of a script that serves as a protocol when communicating with IPV survivors. This script included knowledge, skills, and attitude components considered critical when dealing with IPV. It was developed and validated in the context of an earlier study [13]. Next, instruments were designed to measure the impact of the intervention on students' self-efficacy related to the IPV communication competency as reflected in their IPV-related knowledge, skills, and attitudes.

Design of the clinical simulations: case and scenarios

The cases to direct the clinical simulations were adapted from Caring for women subjected to violence: A WHO curriculum for training health-care providers. After clustering a representative set, final scenarios were designed. Specific attention was paid to look at – recombined – clinical scenarios that offered opportunities to get in touch with specific IPV-related knowledge, skills, and attitudes as defined in our previous study [13].

Each scenario – duration between 2 and 3 minutes – focused on the physicians' interaction during a different real-life clinical situation. The case scenarios were screened by a multidisciplinary team of physicians (n=3), psychologists (n=4), and forensic doctors (n=3) working at the Integrated Care Centre for Victims of Violence from the General Hospital of Mavalane and the Forensic Medicine Department of the Central Hospital of Mozambique, in Maputo, Mozambique, in order to evaluate their quality in terms of content, adequacy, and realism. We had a follow-up meeting after a previous visit that we made to the centre and to the Central Hospital to understand the workflow of both. In that meeting, we invited the multidisciplinary team to comment on the scenarios. In total, we developed three case scenarios to guide clinical simulations. Any discrepancies in the evaluation of scenarios were resolved by consensus, building on the experience of the multidisciplinary team.

For each specific scenario, a written guide was developed [17]. In this guide, we first described the context. Next, we described different roles: physician, survivor, an accompanying family/community member, and an assailant or alleged assailant. We offered a brief about each role, a description of scenes that would take place, and a necessary role-specific dialogue allowing for a certain level of personal interpretation.

Scenario 0: This baseline scenario involved students in a generic consultation setting in which different script elements were demonstrated. The first author of this article adopted the role of

physician and one participant took the other role. In addition to an introduction to the script, this scenario also allowed students to get acquainted with the clinical simulation format and in particular, the role-playing part.

Scenario 1: a female married survivor accompanied by her mother. This scenario aimed at understanding privacy issues in dealing with IPV survivors, recognizing abuse, and validating patient emotions. This was developed taking into account that the female married survivor was not willing to disclose abuse to her mother.

Scenario 2: a woman (survivor) with husband (assailant or alleged assailant) – they are a couple. This scenario was expected to help identify a survivor of IPV and watch and interpret non-verbal cues that indicate anxiety or distress, to evaluate the related health problems and safety needs of the patient, and to develop a safety plan.

Scenario 3: a man (survivor) with a man (assailant or alleged assailant) – man having sex with a man (MSM) in a romantic relationship. The focus of this scenario was to understand IPV epidemiology and practice attitudes in order to overcome personal bias (diversity, sexual orientation biases). We also expected to help in using referral/linkage of the patient to community resources and to develop a safety plan.

Design of a script to guide the IPV communication competency

IPV-related knowledge, skills, and attitudes interact in IPV communication competencies and play a role throughout a script, directing a specialized patient consultation when dealing with IPV. This script can be seen as a protocol to be followed by students in a flexible way. We designed a script on the base of the Government of Canada's "Talking Tools 1 and 2" [18, 19] combined with modules on IPV from medical schools in Mozambique, NGOs, and the Ministry of Health of

Mozambique, and a literature review submitted to a peer-review journal conducted by the researchers. This script is available online [20].

Research instruments

First, a background questionnaire was developed to collect information about students' age, sex, sexual orientation, marital status, and whether they had personally experienced IPV. Some additional questions focused on whether they had experienced IPV in their family, and whether they had already received IPV-related training. This background information was considered when developing the case scenarios. Second, a self-efficacy scale was developed, following Bandura's guidelines [21]. The scale consisted of 21 items mapping knowledge, skills, and attitudes that play a role in the communication competency. The students indicated the “strength of their efficacy beliefs on a 100-point scale, ranging in 10-unit intervals from 0 (“Cannot do”); through intermediate degrees of assurance, 50 (“Moderately certain I can do”) to complete assurance, 100 (“Highly certain I can do”)[21]. This instrument was developed and validated in an earlier study [13] and is available in Appendix 1. Sample item: “(...) Understanding barriers to an abused person admitted that s/he was abused and seeking help” and “Being able to develop a strategy for interacting with a local community when an IPV case is identified (such as police, social services).” The internal consistency – calculated with Cronbach's Alpha – ranges in the present study from 0.83 (pre-test) to 0.93 (post-test). Thirdly, in view of the qualitative part of the study, six open-ended questions were presented, each on a separate coloured card: (1) What was most challenging in this training? (2) What was the most remarkable part of the training? (3) What was positive? (4) What was negative? (5) What do you think should improve on as a doctor? (6) What did you learn? [22].

Research procedure

Figure 1 depicts the procedure of the study. The students played the roles of medical doctors, patients, and accompanying family and observers in the clinical simulations based on the provided scenarios. The number of students in each group ranged from 7 to 16. All the students were actively involved in at least two case scenarios. The qualitative part of the study in which students responded to the six open-ended questions also functioned as a debriefing session.

<PLEASE PUT FIGURE 1 ABOUT HERE>

Quantitative statistical analyses

Statistical analysis was carried out using IBM® SPSS® Statistics 25.0 and the level of significance adopted for all tests was $p < 0.05$.

Data analysis started by calculating descriptives. Next, sum scores were calculated for the complete IPV SE scale and the IPV SE subscales focusing on the (a) knowledge, (b) skill, and (c) attitude elements in the script. Internal consistency of these scales was evaluated for both pre- and post-test administration using Cronbach's Alpha (α), with the following benchmarks: poor when $\alpha < 0.6$, acceptable when between 0.6 and 0.8, and good when $\alpha \geq 0.8$ [23]. Data normality was verified using the Kolmogorov–Smirnov test.

A paired sample t-test was applied to assess the impact of the clinical simulations on changes in students' IPV self-efficacy from pre- to post-test. Next, difference scores were calculated (post-test minus pre-test) for the total self-efficacy scale and the subscale scores. To check the impact of background variables, ANOVA was carried out – using the difference scores – with background

variables as factors: age groups (≤ 25 years or > 25 years), sex (male or female), sexual orientation (heterosexual, MSM, bisexual), and whether they were a survivor of IPV (yes/no).

Qualitative statistical analyses

One researcher coded the data, obtained through the responses on the six coloured cards. Content analysis was applied to identify themes and subthemes when screening the answers to each of the six questions [24].

RESULTS

Descriptive results

Table 1. Socio-demographic characteristics of study participants

Socio-demographic characteristics	n	%
Age, years		
20 to 25 years old	21	61,8
≥ 25 years old	13	38,2
Mean age	24,64	
Sex		
Female	20	64,5
Male	11	35,5
Sexual orientation		
Heterosexual	27	87,1
Men who have sex with men (MSM)	1	3,2
Bisexual	1	3,2
Marital status		
Married	3	9,7
Single	24	77,4
Cohabiting	3	9,7
Survivor of IPV		
Yes	Yes	Yes
No	No	No

Table 2. summarizes the descriptives of the research variables M (SD)

Variable	N	Mean (SD)
Pre-test IPV SE Knowledge	34	47,38 (19,11)
Post-test IPV SE Knowledge	34	78,66 (19,86)
Pre-test IPV SE Skills	34	59,07 (20,21)
Post-test IPV SE Skills	33	79,72 (18,80)
Pre-test IPV SE Attitudes	34	45,09 (24,92)
Post-test IPV SE Attitudes	33	76,44 (18,18)

Changes in students' IPV SE

The results of the paired sample t-tests point at a significant and positive change in post-test values when looking at the general IPV SE score and the subscales: IPV SE Knowledge ($t(31.28)=7.27$, $p<.01$); IPV SE Skills ($t(19.46)=5.60$, $p<.01$); IPV SE Attitudes ($t(30.28)=5.97$, $p<.01$); general IPV SE ($t(28.19)=7.67$, $p<.01$).

Association with background variables

None of the background variables appear to play a role. The related analysis of variance results are presented in Table 3.

Table 3. Analysis of variance test results, building on background variables as factors

	General IPV SE	SE IPV–Knowledge	SE IPV–Skills	SE IPV–Attitudes
	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>
Age	1,38	1,63	0,23	0,78
Sex	0,05	0,17	0,19	0,43
Sexual orientation	0,43	0,05	0,68	0,98
Marital status	1,84	1,95	1,23	0,73
IPV survivor	0,04	0,31	0,27	1,15

* $p<0,05$

Student perceptions: a qualitative analysis

As explained earlier, students received during a debrief six cards, each with a specific question.

The students' reflection for each question was analysed to identify key themes and subthemes. We report below the themes that occurred the most and/or themes reflecting conflicting opinions. At the same time, the reflections also help understand the positive impact of the intervention on students' IPV self-efficacy.

1. Understanding the positive impact of the intervention on 'students' IPV SE

Students reported that the training helped to develop a broader view of what IPV is. Especially their misconception that IPV only appeared as physical violence was corrected. They also reported that the training helped them in how to address the topic with patients and the how-to guide questions for interviews. They also reported that the simulation activity helped to understand better the attitudes that physicians should adopt before an IPV victim:

Safety

The students reported that the clinical simulation training was a safe environment to help them focus on their feelings and accept feelings of each other:

The simulated consultations showed me some aspects of the day-to-day in the wards and consultations that I unconsciously do wrong, e.g., attention to eye contact, the issue of empathy and others.

It was positive to learn the appropriate use and easy to understand the language of the training.

It was positive to learn the approach to digging in the patient's feeling.

2. Students' IPV SE clearly reflected the multidimensional nature of IPV as a construct.

- Knowledge

Regarding knowledge, students reported that after the training, they could define IPV, and recognize the signals and symptoms, or dynamics. The students reported that with the clinical simulations, they were also able to understand the magnitude, prevalence, and impact of direct and indirect exposure to IPV:

I did not know the topic. I now know that it covers much more than physical violence.

(...) understanding that 50% of women suffer from it in our community (...)

The training (...) was an illustration of the great importance it has for the undergraduate Medicine training, a subject or module that teaches students and future doctors, how to deal with a patient suffering from IPV.

- Skills

Regarding skills, the students reported that they had learned how to address the topic with survivors in an empathic, non-judgmental manner.

It is necessary to have posture and empathy and respect for the victim so that the victim collaborates in every way, and we can provide support.

I have learned how to interact with patients; how to encourage the survivor to speak about it; how to talk with the victim; and enabled me to be able to pick up a clinical history and be able to follow it to the end; also how to follow up the patient, and to not abandon the victim.

- Attitudes

The students reported strong feelings related to overcoming own stereotypes surrounding IPV. They also reported that they had learned how to overcome the common barriers for a physician to identify a survivor of IPV and learned how to conduct a detailed history when IPV is suspected:

It was challenging to leave aside my personal views about the relationship between people from the same sex.

It was challenging to perform the role of a victim of intimate partner violence.

It was challenging to encourage the patient to tell their medical history.

The students also reported that the training had helped in understanding the limits of confidentiality surrounding the discussion of IPV and overcoming stereotypes:

The most remarkable part of the training was to understand the importance of privacy and the good doctor-patient relationship.

The most remarkable part of the training was to understand how and when to approach a patient who has experienced IPV in a way that makes them feel comfortable explaining.

The most remarkable part of the training was the case of sexual assault perpetrated by an intimate partner in a men who have sex with men (MSM) couple.

- Holistic nature

Regarding the holistic nature of the subject, the students reported that:

It was challenging to understand the relevance and depth of the subject, especially in our context; in the sense that it has more impact on our society than I realized.

When asked about the negative aspects of the training, students reported the time of the training constraints such as:

- Schedule

The training took place after the gynaecology module was completed, and is currently the place/moment where we have encountered most potential victims.

- Duration of the training

It should be given at least one week.

The learning time was short during the training.

We have not had enough time to debate over the issue, clarify doubts and do more exercises.

- Curriculum contents

I would also like to make it clear that a treatment to approach abusers is also important.

It would be essential to associate concepts given to the most real situation, i.e. of social impact.

The clinical approach to the victim is unclear, how to proceed and follow up, how to approach the perpetrator, what are the options for the conduct, how to act in the community to change the scenario as many women go through it without knowing it is violence or abuse.

- Barriers to deal with IPV victims

When talking about what the students think they should improve on as a doctor, they reported that they have to learn to understand the limits of confidentiality surrounding discussions of IPV and overcome stereotypes about IPV and to encourage more training on the topic:

(...) some of these cases are not resolved or taken seriously when it is a common situation.

(...) our approach ends only in counselling; we cannot prevent such an act from happening.

I have to (...) be less critical to survivors.

I have to (...) be able to perceive or distrust that I am facing a case of IPV and organize the speech and phrases so that the patient feels open to talk about his or her IPV case.

I have to (...) be able not to judge and instead develop greater empathy and seek solutions that alleviate the patient's distress even if I disagree.

The students reported that the training had a positive impact. They were of the strong opinion that when they started the training, they did not have a clear understanding of IPV and the communication competencies to deal with IPV. After the training, the concept of IPV was better understood, and they had acquired doctor-patient communication skills. The participants acknowledged the opportunity to practice IPV communication competencies in a safe environment had helped them to deal with this sensitive topic and their misconceptions and attitudes toward dealing with the IPV victims. It was also reported that this type of training should be introduced in the medical curriculum to make communication competency learning interactive and standardized.

DISCUSSION

We conducted this study to understand whether there is a difference in students' SE in IPV-related communication competencies before and after being involved in clinical simulations. Simulation has been described as a “more effective method in changing behaviours and thought processes” [11]. It can provide “a secure and protected learning environment for students to develop clinical skills without the risk of patient harm” [11]. Besides, we checked whether students' backgrounds influence this expected change in SE. Our module was scheduled during the gynaecology rotation of the fourth-year students in order to minimize the burden of time by allowing it to fit into already existing schedules. However, we had 59% participation. Overall, the participants believed that the training they received was valuable. The results of the paired sample t-tests point at a significant and positive change in post-test values when looking at the general SE score and the subscales and mainly in attitudes. Participants also expressed a desire for additional education and suggested enhancements to the module. To consider the impact of background variables, difference scores in changes in self-efficacy were compared for the different age groups, sex, and personal IPV experience. Analysis of variance only points at significant differences in older students. The self-efficacy perception of the students on their learning can be considered a reasonable evaluative parameter, since the self-efficacy has been correlated to the practice of communication skills and has shown to improve their outcomes [1, 21, 25]. However, it is also significant in young students as it is crucial that this training can also affect them as the literature recommends that the students have contact with the subject at the early stages of their medical curriculum [13]. Students reported that the training helped to have a broader view of what IPV entails because they assumed it only regarded physical violence. They also reported that the training helped them in how to address the

topic with patients with the help of the how-to guide questions for interviews, how to deal with the referral points, and the impact and national dimension of IPV.

Regarding the positive impact related to curriculum methodology, students reported that playing a role helped to understand better the attitudes that a physician should adopt, and that the training was very interactive. Students also suggested that this topic could be part of the curriculum of healthcare providers and they recognized that they need to be trained in this specific area for better care of their future patients, in their family and/or community.

Practicing communication skills in a doctor's role and scripts of patient roles mimicked well the reality that the students may face in practice as already reported in previous studies [10–12]. The results of the study showed that the medical students' self-efficacy learning outcomes could be summarized in themes as follows: knowledge of doctor-patient communication and understanding the meaning of communication skills in the doctor-patient relationship; awareness of one's own and doctor's communication competency attitudes; and patient-centeredness. If we look at the learning outcomes achieved and compare them to the aims of the module, we claim that the aims were well achieved. Learning was based on students' active observations and their reflections about communication competencies shown in the role plays [26]. Also, during the social interaction and debrief, students were able to discuss and reflect on problematic doctor-patient interaction with peers during and after the exercise. This active debriefing process enhanced learning. Learning was based on having an experience of being in a doctor's role, survivor's role and observer.

This type of teaching and learning is new in the Mozambique setting [14] and is an exemplar for tackling (transferring) other critical competencies (psychiatry, internal medicine, paediatrics, and so on). This module should involve more than just a single training session. It should be an ongoing initiative to ensure that participants continue to retain and enhance their knowledge gains.

Participants expressed plans to incorporate training into their practice. The module can be linked to other parts of the curriculum, not only gynaecology and obstetrics. The module has to be addressed transversally as many patients may present at the healthcare facility complaining about chronic pelvic pain, headache, stomach ache, mental disorder, cardiovascular disease, just to list a few. The healthcare professional must have the ability to perform an excellent differential diagnosis as a history of violence could be part of this differential diagnosis approach. The link should/could be made to IPV problems in other domains. With the results of this IPV SE training, we concluded that IPV being a sensitive issue, simulation activities are an excellent method to be used in a safe environment to develop clinical skills. We also concluded that students reported that they feel more competent after participating in this safe environment training. The results of this study are a good complement of the analysis of the competencies learned by the medical students in Mozambique with the current curriculum [13].

LIMITATIONS

This study has limitations, which must be taken into consideration when evaluating and interpreting the results. The Hawthorne effect may have impacted the results since the medical students knew that their performance during the training was being observed for analysis and publication. It is unclear whether a detailed intervention would be more or less effective among students who may have received more exposure to IPV training. The findings of medical students' communication competencies in these studies may be representative of this cohort, but not necessarily of all medical students. We triangulated the quantitative data with qualitative data of the module. The small number of the sample could limit its power to identify relevant factors. Other than that, the group's variability, the short duration of the module, and the results of the assessment of the module taken solely after its completion are the main limiting aspects of the

study. As all the participants were volunteers, it is possible that the participants were motivated students. The pre-test/post-test design in these studies means that differences found in self-reported learning outcomes may be due to factors other than the module. A randomized controlled trial should have been designed in order to understand the direct impact of the module better. The size of the groups varied between seven and 17 participants, and this could have possibly influenced the learning stimulus and the results of the study. In order to further evaluate the effectiveness of the module, we could have used observation combining practical sessions in clinical settings. It has been suggested that communication training should be integrated with clinical experience and an actual healthcare visit may help medical students to appreciate communication skills at an early stage of their studies.

As this is an uncomfortable topic, and the students can also be victims of IPV, an online module could be used to avoid discomfort with the subject. Further studies must provide an analysis of results in larger samples. Professional secrecy and how to go about IPV when, for example, the physician feels the patient needs more help from other healthcare professionals or police is an important debate at the moment in IPV and should also be a topic for further studies. Apart from that, a follow-up test can be useful to evaluate the content fixation. We plan to do a follow-up questionnaire. This is the first module and the first study conducted in Mozambique on communication competencies in IPV. The training needs to be systematically integrated into the whole of the curriculum of medical schools in Mozambique.

CONCLUSION

With the results of this IPV SE training, we concluded that IPV being a sensitive issue, simulation activities are a good method to be used in a safe environment to develop clinical skills. We also concluded that students reported that they felt more competent after participating in this training

in a safe environment. The results of this study are a good complement of the analysis of the competencies learned by the medical students in Mozambique with the current curriculum [13].

LIST OF ABBREVIATIONS

IPV Intimate partner violence

IPV SE Intimate partner violence self-efficacy scale

MSM Men who have sex with men

DECLARATIONS

Ethics approval and consent to participate

The authors obtained ethical approval for the study from the Institutional Committee of Bioethics and Health linked to the Faculty of Medicine/Central Hospital of Maputo, Mozambique (registration number CIBS FM & MCH/006/2016). All participants signed an informed consent form after receiving an explanation of the focus of the study, that their input would be kept confidential, that participation was voluntary, and that they could withdraw from the study at any time.

Consent for publication

Not applicable

Availability of data and materials

All data generated or analysed during this study are included in this published article through online links to the files.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

BM, MV, KR, and IK: made substantial contributions to conception and design;

BM, MV, KR, and IK: were involved in revising the protocol critically for important intellectual content;

BM, MV, KR, and IK: gave final approval of the version published; and

BM, MV, KR, and IK: agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

All authors read and approved this version of the manuscript.

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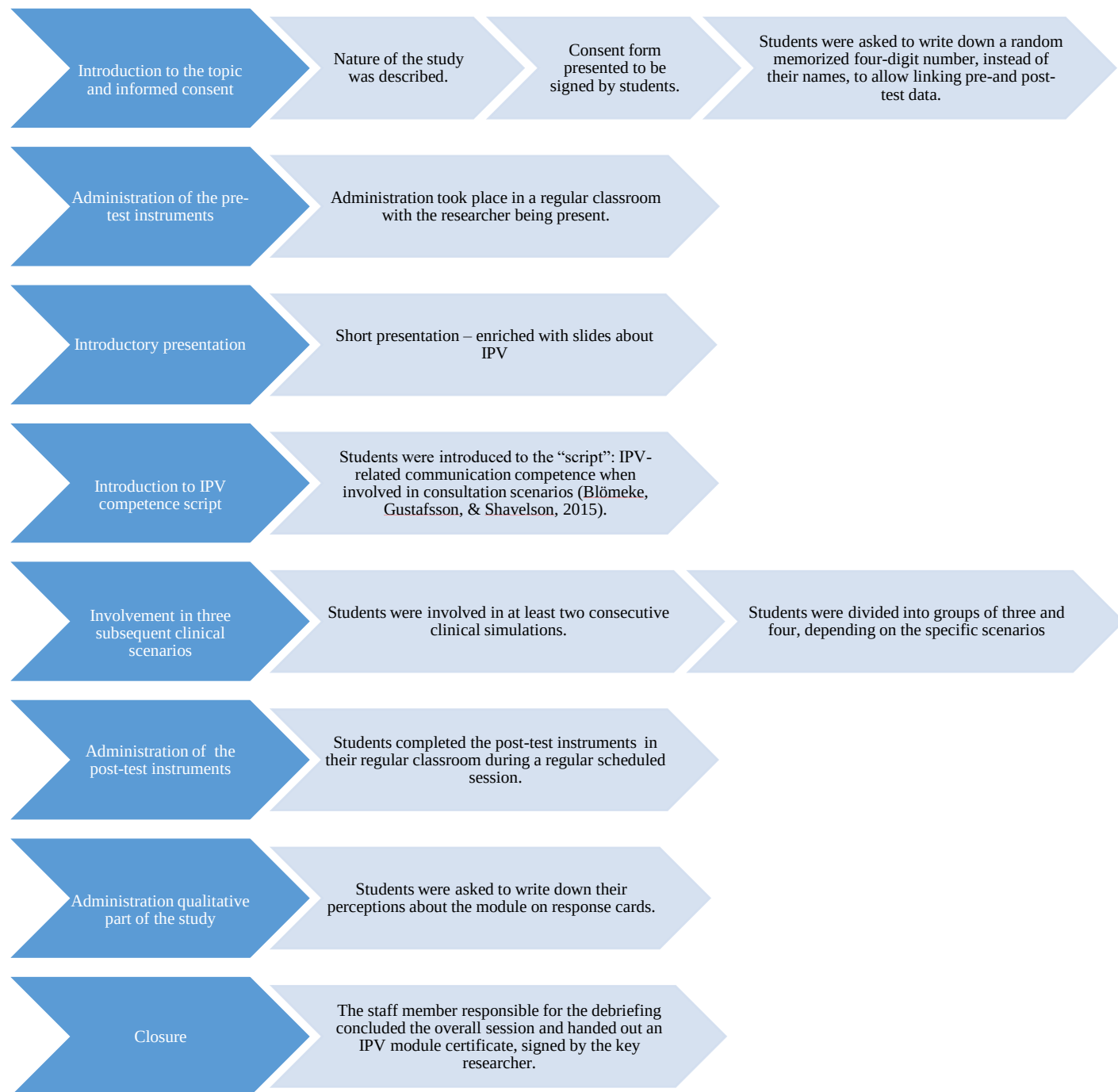


Figure 1. Flow diagram depicting the procedure in the study.

APPENDICES

Appendix 1. Developing competencies to deal with intimate partner violence in Mozambican medical students

Section I: Background information

1. Which best describes your gender identity?
Woman _____
Man _____
Transgender woman _____
Transgender man _____
Genderqueer or gender non-conforming _____
Questioning _____
Other (please, specify) _____
Decline to state _____
2. Do you consider yourself to be:
Heterosexual or straight _____
Gay or lesbian _____
Bisexual _____
Asexual _____
Questioning _____
Not listed _____
Decline to state _____
3. Age

4. Marital status
Married _____ Single _____
Cohabiting _____ Divorced _____
Widow _____

5. Year in the medical curriculum _____

6. Number of IPV survivors assisted _____

7. Own IPV experience Yes _____ No _____

8. Having witnessed IPV in own family Yes _____ No _____

Section II: Your medical training about Intimate Partner Violence

The way you respond is easy. You give us a number between 0 and 100. This number refers to the % of Bachelor of Medicine in which Intimate Partner Violence has been dealt with. Fill out a % next to each element.

0	10	20	30	40	50	60	70	80	90	100
▲					▲	▲				▲
I do not feel that I have studied this subject.					I feel that I have learned the basic knowledge of the subject or skill set so that I can recognize and remember (name and describe) the material.	I feel that I have learned this subject at an intermediate level so that I am able to analyze a situation and use skills / knowledge correctly in isolation.				I feel that I have come to an advanced understanding of this subject and am able to integrate and adapt this skill / knowledge with others in order to create a new idea / experience.

KNOWLEDGE

Being able to define intimate partner violence.	%
Understanding common presenting signs symptoms and ""stories"" of intimate partner violence of survivor and abusers.	
Understanding predisposing and predicting characteristics of abusers and survivors.	
Understanding the epidemiology of intimate partner violence as it relates to race, gender, and sexuality, and its relation to substance abuse.	
Understanding barriers to an abused 'person' admitted that s/'he' abused and seeking help.	
Understanding common barriers for a physician to identify a survivor of intimate partner violence.	
Understanding the limits of confidentiality surrounding discussion of intimate partner violence.	

Understanding the legal requirements regarding disclosure of intimate partner violence and victimization to police.	
Understanding treatment options for abusers and their relative chance of success.	
Understanding the various community resources useful in caring for the survivor of intimate partner violence.	
Understanding the psychological skills necessary to treat a survivor of intimate partner violence such as empathy and concern for safety.	

ATTITUDES

Follow the needs to screen all patients for the issue of intimate partner violence and feelings of being unsafe in their homes.	%
Appreciate the multi-disciplinary nature of caring of the survivor of intimate partner violence.	
Appreciate the profound impact that intimate partner violence can have on adult survivor and children.	
Overcome stereotypes surrounding intimate partner violence (e.g. ethnic minorities as ""classic"" abusers).	

SKILLS

Being able to conduct a detailed history when intimate partner violence is suspected.	%
Being able to conduct a screening history for intimate partner violence (when not suspected).	
Being able to develop a strategy for interacting with a local community when an IPV case is identified (such as police, social services).	
Being able to properly document intimate partner violence cases.	
Being able to interview IPV survivors in an empathic, non-judgmental manner.	
Being able to conduct interviews with proper attention to body position and interactions with the IPV abuser.	

CHAPTER 4

Discussion and conclusions

Discussion

4.1. Overview of the Main Results

In this thesis, we investigated how curricula on IPV should be improved to enhance prevention and medical care in Mozambique. Four specific objectives were formulated in the introduction. In this final chapter, the results of the previously presented studies are summarised and discussed, along with these four specific objectives. Moreover, the limitations of the four studies are discussed and approached as well as directions for future research.

In study 1, we conducted a systematic literature search on studies published between 1998 and 2020, in the field of training on IPV in medical education. Reference lists from articles in the dataset were searched for relevant literature. We used descriptive statistics to summarise all data.

It is known from the literature that medical schools' undergraduate training in IPV is hardly standardised worldwide ^{38,50,79–82}. The placement of undergraduate IPV training is not clear, although we observed recommendations to start from the pre-clinical years and continue in clinical years, alongside considerable variation in the approaches to teaching and learning strategies ^{50,51,83–85}. Despite the calls to integrate IPV curriculum content in medical curricula, and the need for a formal, clearly structured curriculum content, it was challenging to find an established formal IPV curriculum. The content is diluted in interpersonal violence and IPV disciplines/modules. Nevertheless, we found some recommendations for innovative teaching-learning strategies. However, many of these come from high-income settings, and there is a lack of any well-structured framework for teaching-learning approaches for IPV curriculum contents, or literature from sub-Saharan Africa regarding these frameworks. However, in our unpublished, quasi-experimental pre-post-test class-based simulation activity on communication skills on IPV, we showed that this method could improve the competences of medical students to deal with IPV. This was shown and pointed out by the participants in the study.

In study 2, we surveyed third- and sixth-year medical students (N387) who were enrolled in five medical schools in Mozambique. The instrument focused on mapping students' perceived mastery of their knowledge, skills, and attitudes related to IPV.

By screening medical curricula for information about what attention is being paid to IPV globally on the base of a framework derived from the international research literature we found that IPV content is hardly and inconsistently addressed when focusing on the related content and

instructional strategies that are adopted. Through surveying third- and sixth-year medical students (N387) enrolled in five medical schools in Mozambique regarding the perceived mastery of their knowledge, skills, and attitudes related to IPV competences, we found that they reported critically low levels in their mastery of IPV related competences. We also found that the limited IPV content tracked in medical school curricula in Mozambique mainly address violence in general and that only limited teaching and learning strategies were adopted to deal with IPV competences. This is in accordance with the literature that stresses that IPV contents are not addressed adequately, and that medical students lack the competences to deal with the topic^{81,84,86–89}. To supplement the information regarding IPV medical curricula, we contacted some departments who give lectures at the hospitals. However, many refused to participate in the study as they reported that the topic was not related to their subject. This also explains what was found in the literature as different authors reported that the topic is seen as being related to social aspects rather than a clinical aspect. Therefore, in an unpublished manuscript, we designed and evaluated innovative IPV curricula for medical students in Mozambique, considering the content found to be neglected in our previous studies related to competences on dealing with IPV.

In study 3, we screened curricula of five Mozambican medical schools based on a state-of-the-art IPV curriculum framework. This framework was based on a review of the literature. We found that few medical schools in Mozambique could be identified who address IPV in their curricula. If it is being tackled, IPV content is mostly dealt within the context of Obstetrics and Gynaecology, Community Health or Forensic Medicine. Overall, IPV content is hardly and inconsistently addressed. The teaching and learning strategies adopted to deal with IPV competences were also restricted. IPV content is integrated as stand-alone modules in some specific subjects. In none of the schools could we identify specific teachers teaching IPV. No time allocation was specified to address the topic; no teaching and learning strategies could be identified invoking awareness or supporting basic knowledge acquisition; additionally, hardly any information about related assessment methods was found. Only in one medical school was the subject part of the formal curriculum.

In study 4, we analysed the outcomes of a simulation-based training module on clinical communication competences when interacting with IPV victims.

The paired samples t-tests pointed at a significant and positive change in post-test values when looking at the general IPV self-efficacy score (IPV SE) and the subscales, mainly in attitudes. Participants expressed a desire for additional IPV communication competence and suggested

enhancements to the module. We aim to develop a foundation in the acquisition of IPV-related knowledge, skills, and attitudes in the context of a patient consultation session using simulation-based training module on clinical communication competences. Students reported that the training helped them gain a broader view of what IPV entails because previously they assumed it only regarded physical violence. They also reported that the training helped them learn how to address the topic with patients and use the how-to guide questions for interviews, how to deal with the referral points and understand the impact and national dimension of IPV.

Regarding the positive impact related to curriculum methodology, students reported that the role-plays helped to understand better the attitudes that a physician must have when facing an IPV victim and that the training was very interactive. It allowed them to identify and distinguish between different types of situations, thus consolidating what IPV is. The simulated scenarios helped the students to see aspects of their attitudes in the wards and outpatients that they unconsciously were doing less effectively. They added that they better understood the concept of IPV, and they had now acquired better doctor-patient communication skills. Appropriate use and easy-to-understand language and the approach to probing the patient's feelings more profoundly were also reported by the students as a specific skill they learned. Students also suggested that this topic can be part of the curriculum of healthcare providers and they recognised that they needed to be trained in this specific area to offer better care to their future patients, in their family and/or community.

IPV proposes a new challenge to medical education. Medical schools that use methods of teaching and learning that focus on the instructor may find it challenging to influence students' attitudes, clinical reasoning and decision making. The literature shows that when dealing with sensitive issues, the process of teaching and learning must be integrated and managed jointly from various scientific fields ^{51,90-93}.

The competences for effective communication in sensitive areas depend on both the trust of the medical doctors, experience, techniques for history taking and specific counselling ⁹⁴⁻⁹⁶.

Experiences that allow students to explore their feelings about sensitive topics are also essential to improve communication skills.

The first thing that medical doctors should bear in mind is that anyone can be a victim of IPV, and second, that IPV is not only a question of sexual assault ⁹⁷. This is true because we lack effective tools to assess psychological and emotional violence. For this reason, the victims fear that it can be challenging to report psychological and emotional violence, as in some cases reporting can be

subjective. Violence is used to show control, and it affects all the family ⁹⁷. The same author refers to the fact that some victims sometimes do not recognize the issue because of their stereotypes, complexity of their relationship, or because they are in love with their partner, and consequently the authors suggest that the medical doctors should ask questions specific to abuse and provide information related to IPV for all their patients. This is the reason why massive dissemination of information with contents regarding IPV is critical. The same authors added that a lack of privacy, or feelings of shame or embarrassment may lead to the feeling from the patients that medical doctors do not want to know about the barriers to disclosing abuse ⁹⁷.

The available literature suggests that one barrier to appropriate healthcare for IPV victims may be physicians' attitudes. In general, medical doctors hold mostly negative attitudes toward IPV victims ⁹⁸. This is worst for male victims who report IPV. When the victim discloses abuse to medical doctors, Nicolaidis, (2002) suggests that the interview must be private, medical doctors must demonstrate compassion, interest, and openly discuss the issue. Additionally, many victims of abuse recognise abuse ⁸³. However, they prefer to remain in the relationship because of "commitment to the relationship, belief in excuses or apologies, erosion of self-esteem, lack of options, or the danger of leaving an abusive relationship." ^{51,97,99,100}. When receiving care, survivors prefer that medical doctors should: "1. Use care, not to blame the survivor; 2. Tell the patient he/she does not deserve to be abused; 3. Offer resources and referrals; and 4. Leave the ultimate decision to the patient ^{51,83}. Emotionally challenging situations may lead medical doctors to feel helpless or experience aggression in encounters where they find it challenging to provide adequate care ¹⁰¹. Psychological, emotional and spiritual distress may lead to challenging doctor-patient communication ¹⁰¹.

Moreover, medical doctors may encounter emotional distress and job-related stress or even difficult situations in their private lives. For this reason, teaching them how to communicate in emotionally challenging situations becomes relevant in medical schools ¹⁰¹. Empathy and communication skills training have demonstrated positive outcomes with active practice ¹⁰².

At the moment of writing this dissertation, it was not yet possible to identify the actual curriculum contents related to IPV at medical schools in Mozambique. These topics are taught using short courses and modules ^{38,73}. The referred modules are given as pre- and in-service training at healthcare intuitions or organisations working on IPV. However, we recommend country-level adaptations to the modules are recommended to enhance adherence and the feeling of ownership. The WHO published an in-service curriculum, based on the following guidelines

Responding to intimate partner violence and sexual violence against women: WHO clinical and policy guidelines (2013) and an accompanying clinical handbook *Health care for women subjected to intimate partner violence or sexual violence: a clinical handbook* (2014). However, these guidelines and curriculum are only related to violence against women. This limits the potential for assistance to men who are also victims of IPV ^{11,16,22,31,103}.

Innovative teaching and learning strategies can be employed to give medical doctors confidence in their ability to deal with IPV victims. Interactive teaching and learning strategies, such as role-playing, the use of simulated patients, and computer-based models, may reinforce information that is taught in class ¹⁰⁴. Contact with former victims, particularly those who have had positive experiences with the healthcare system, may also help medical doctors in acquiring competences to deal with IPV victims ^{104,105}. Besides training, opportunities to practice IPV intervention skills, a list of IPV-resources locally available to medical doctors and their patients, and a conceptual model to help medical doctors to recognize when they have successfully intervened, may boost professionals' competences to deal with the topic ¹⁰⁶.

With this, we conclude that....

4.2. On the Attention Being Paid to Intimate Partner Violence

The WHO guidelines recommend that medical training should focus on IPV in all situations where it is clinically appropriate^{51,83}. IPV is recognised as a worldwide public health concern. Lack of training about IPV can lead to a lack of screening for IPV, lack of confidence when dealing with victims of IPV, minimal awareness of referral points for victims and little or no intervention. As mentioned in the literature consulted in this review, critical IPV curricula content is not offered consistently throughout medical education. When offered, it is of short duration, mainly at a single point in the medical education program, and frequently content is limited to one type of violence (e.g., sexual violence by men against women).

4.3. On the Gaps in Medical Student Competencies on Intimate Partner Violence

IPV is a global public health issue that seems to be hardly addressed in medical curricula. In this study, perceived mastery of IPV and related competences were studied in Mozambican medical students. Concerning IPV competences, a distinction was made – on the base of a framework – between IPV-related knowledge, skills, and attitudes. For all IPV competences, the perceived mastery of students is low. This applies to overall IPV competence scores as well as to the Knowledge, Skills and Attitude sub-scale scores. We can thus put forward that there is a significant need to develop an IPV focus on curricula of Mozambique medical schools. Though the currently perceived mastery is below par, researchers can use the present findings as a baseline for studies to foster the development of IPV competences. The IPV framework can also guide the development of interventions with a continuous focus on underlying knowledge, skills, and attitude components. In the context of follow-up studies, we will focus on online clinical simulations as an avenue to start up related IPV competence development in medical contexts.

4.4. On the Attention being Paid to Intimate Partner Violence in Medical Curricula in Mozambique

The primary purpose of this study was to describe the evidence regarding the different content and teaching and learning approaches being adopted in IPV focused curricula, including related assessment procedures in Mozambique. To contribute to the improvement of the health sector's prevention and response to IPV, our findings on this curricula screening suggest that there is room for critical changes in the IPV curriculum at medical schools in Mozambique. Development

and implementation of innovative curricula on IPV for medical students are crucial. We recommend that medical schools in Mozambique should give IPV more attention. Different approaches linked to interactive learning can be utilized to integrate IPV among other core content themes of medical curricula in Mozambique.

Our results strongly suggest that there is room for content changes in the current curriculum design related to IPV in medical schools in Mozambique. As doctors are generally the first and only point of contact for identifying and combating IPV, their training related to content about IPV is of fundamental importance: especially in the Mozambican context, where the prevalence of IPV is high, updating medical training should be a priority. More broadly speaking, the last statement should be extended to all health professionals who play a role in health promotion, prevention, treatment and restoration of IPV-related incidents, as in the reality of Mozambique there are also non-medical professionals who are the first point of contact with victims. Besides, there are many communities in which people do not have access to a doctor but are attended only by other professionals.

4.5. On the Innovative Intimate Partner Violence Curricula for Medical Students in Mozambique

With the results of this IPV SE training, we conclude that as IPV is a sensitive issue, simulation activities are an excellent method to be used in a safe environment to develop clinical skills. We also concluded that students reported that they feel more competent after participating in this training in a safe environment. The results of this study are an excellent complement to the analysis of the competencies learnt by the medical students in Mozambique with the current curriculum. However, gender bias on IPV, or a personal history of IPV may affect the outcomes of the training.

4.6. Strengths of the Studies

The first strength of this thesis is its relevance to addressing IPV, the second its suggestions for innovative teaching and learning strategies, and the third, its methodological variety.

The research topic is relevant and timely. In several international publications, the importance of addressing IPV in medical schools has been strongly emphasised. However, the way medical curricula try to address IPV in practice varies considerably. Furthermore, little has been written about the competencies needed, nor about the teaching and learning processes that students in

sub-Saharan Africa undergo to deal with IPV. Therefore, this thesis contributes to this debate around broadening the understanding of competency-based medical education on IPV.

The fifth strength is the fact that we combined the literature on IPV curriculum contents with the expert knowledge and preferences of our medical doctors and gaps of medical students to develop an innovative module on IPV. This resulted in the development of one alternative training format.

The sixth strength was that our study took place at both public schools and private schools, in different regions (north, centre and south) of Mozambique and discussed both traditional and student-centred teaching and learning methods. This enriched the findings of the study.

Moreover, we used both quantitative and qualitative methods to explore and recommend components of IPV curriculum content and the reality of our medical schools in dealing with this topic.

4.7. Limitations of the Studies

The general limitation was that, because the study was concentrated on IPV, it was challenging to have more specific information on this content. The subject of IPV is subjective, mainly self-reported and more challenging to measure than other diseases.

When contacting some departments who give lectures at the hospitals, many refused to participate in the study as they reported that the topic was not related to their discipline. This explains what was found in the literature as different authors reported that the topic is related to social aspects other than a clinical aspect.

In Mozambique, it is hard to find people motivated to do research or participate in research as respondents. Because of that, it was challenging to encounter respondents and authors for recording video-vignettes, and for this reason we had to conduct the training on communication skills for IPV with role plays.

As the study was concentrated on IPV it was challenging to have more specific information on these contents for, as explained, above the courses are general with little content related to IPV, while some information on IPV contents gathered was implicit. As the study was related to the questionnaires, we also had non-responses, so it was difficult to understand if respondents did not know the answers or just preferred not to answer. Also, some medical doctors rescheduled some interviews or did not participate at all, without giving any reason for that.

It was also challenging to encounter mainly students from the sixth year who were interested in participating as respondents; some explained that they had a busy schedule in their clinical

practice. Many respondents promised to return questionnaires, but in most cases this did not happen and this impacted negatively on the response rate; to avoid this problem, it would have been better to first gain the support of the Office of Students from each medical school. We did not obtain information on the students who chose not to participate in the study, and it is hard to say how they differ from the rest of the group. The bureaucracies and institutional hierarchies from some institutions delayed permission to conduct the study.

There may have been significant differences in students' prior knowledge on IPV between the five medical schools, and experience of violence by some students may also have confounded some of the results. Also, the academic abilities and expertise of the students might have influenced the results. However, these are likely to impact on students' knowledge and not on their skills.

Students' experience, perpetration and witnessing violence in the family was self-reported, and this may lead to bias. Besides the fact that self-assessment enhances a student's awareness of their learning and thinking processes and helps them see gaps in their learning, it remains a subjective assessment. We could have asked behavioural-specific questions about what students were exposed to directly and indirectly because this phrasing leaves little to no room for interpretation of what violence is. We could have asked about acts the students *did* or *had to do* such as "did your partner slap, punch or kick you in the face (ever or in the last 12 months)?" In addition, we could have also evaluated students' competence through case studies supervised by medical doctors resembling the activities the students have during their clinical rotations with their teachers. Related to learning objectives, the concepts of IPV could have been better defined, as all medical schools address IPV as domestic violence.

The pre-test, post-test design in the intervention study means that differences found in respondents' attitudes before and after a course and students' self-reported learning outcomes may be due to factors other than the module or the learning methods used. The findings on medical students' competencies in the studies may be representative of this cohort, but not necessarily of all medical students or medical schools of Mozambique.

It has been suggested that communication training should be integrated with clinical experience because it is only in the clinical context that medical students truly realize the benefits of learning communication skills, for instance in discussing clinical cases during rotations. We could integrate communication training with an actual healthcare visit to help medical students appreciate communication skills at an early stage of their medical course.

Being a lecturer, researcher and member of the curriculum coordination office helped the researcher get access to official documents needed for the research. She could also rely on the available academic network to map decision-making in the medical school, to contact lecturers and to involve students. As a member of the curriculum coordination team, the researcher also had the opportunity to influence evidence-based curriculum changes. At the same time, this might introduce a bias related to personal ideas, orientations, opinions, choices. This could have been balanced by involving additional persons with a curriculum-related responsibility. But since many of them were also active medical doctors in the local context, this could have had a negative impact as their participation in research distracts them from their primary tasks in the hospital and community.

4.8. Recommendations and Suggestions for Further Studies

Building on the main research findings, the following recommendations for further studies can be formulated. Further research is needed to identify the approaches and assessment procedures in the teaching-learning process to present IPV content in Mozambican medical schools. After analysing the curricula in IPV contents, medical educators can judge the results so as to implement an innovative IPV curriculum contents for medical students as designed by the medical schools, or to improve the contents and then implement them. Future research should involve more curriculum designers and stakeholders. We could also benefit from the involvement with community and not academics to enrich our curriculum analysis.

It is crucial to evaluate medical students' and medical doctors' perceptions and attitudes toward perpetrators and victims, including their levels of empathy and management skills in dealing with the victims. An evaluation of how the victims of IPV are currently taken care of by different levels of attendance would identify any insufficiencies and omissions and could thus provide input to guide the introduction of changes in the curriculum.

The instrument developed in the context of this study can be used in other contexts to foster an understanding of IPV-related competences amongst medical professionals and maybe also the care of IPV victims and could also be used to conduct a study among practising physicians to explore their perceptions of their competence in dealing with IPV victims.

More studies should be developed on evidence-based teaching and learning strategies on IPV. The efficacy of the simulation training on IPV should be investigated in a larger and more heterogeneous population. It would also be interesting to see if a randomised controlled trial comparing traditional instructor-centred training with this learning strategy as this might be able to

point to the best evidence-based methodology to train communication skills related to IPV. With rigorous study methodology and the standardised performance measures, we will continue our journey to search for the “best” IPV communication skills training strategy. Our innovative training strategy might not only be useful to help students to acquire and maintain communication skills on IPV but might also apply to many other topics. A more programmatic approach to all curricula can be linked to other risky problems or sensitive topics to develop an evidence-based curriculum. Further work can also be done on the development of sensitive topics curricula. Doctor-patient communication training needs to be systematically integrated into the whole of the curriculum.

Further studies should investigate the cultural context, for instance of Mozambique. Training and professional development should be adapted to train other healthcare professionals from the community or in district and provincial settings as there are very few doctors in districts. These healthcare professionals have limited academic training, and if they are trained, they have the responsibility of training others. For this reason, the training of trainers in the field is also recommended.

A professional development analysis can help us to understand where professional development can contribute to improving medical doctors’ competence in delivering IPV curriculum contents and dealing with IPV victims.

Lastly, a multinational curriculum development collaboration can be linked to this work.

4.9. Theoretical Implications of the Study

When discussing the interviews and the studies with the participants, the researcher received requests from participants to do the same study with all the curricula and related to other diseases or interpersonal violence in general. With the literature review used to design the study and the characteristics of an African country, the researcher suggests that this study can be conducted in other countries where IPV is a critical issue. An interesting point for further studies could be to consider what constraints are encountered by medical schools that hinder the coordination of the activities and the access to updated National Policies between the Ministry of Health and the medical schools. Also, further studies on IPV in medical schools can be a helpful tool for gaining more detailed information and suggestions on how to address IPV-specific issues at each institution.

4.10. Practical Implications of the Study

The results from this study serve as a basis for reviewing the curricula of medical schools in Mozambique and involved committed members from the medical schools who will work to enhance and improve students' knowledge, skills and attitudes on dealing with IPV. It is hoped that this study contains strategies suitable for human resources training for victims of IPV and consistency of National Policies regarding these and thus contribute to the production of information that will lead for changes in the prevention and control of IPV. The study should also help identify ways to adopt the role of medical schools in the prevention and provision of care concerning IPV, considering current developments in teaching methods, the content of the teaching program and scientific basis of the medical schools in Mozambique. It aims to increase the use of updated information on IPV and coordinated integration of National Policies within the curricula and to help to present the curricula in a more in-depth and in a consistent way in terms of IPV-related content.

In this thesis, we demonstrated the feasibility and the high success rate of role-plays to acquire excellent communication skills around IPV. Further studies must provide an analysis of results in larger samples. An important debate at the moment in IPV that should also be a topic for further studies is professional secrecy and how to go about IPV when, for example, the medical doctor feels that the patient needed more help from other healthcare professionals or police.. Apart from that, a follow-up test could be useful to evaluate the content fixation. We plan to do a follow-up questionnaire.

We advocate for interprofessional education in graduate and undergraduate medical education – a strategy where two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes. This can be used to help students to have real world experience and insight into IPV as staff from a range of professions provide input into programme development and students learn about the work of other practitioners ¹⁰⁷.

This is the first module and the first study conducted in Mozambique on communication competencies in IPV. Since no research related to IPV communication skills training using role-plays is available in Mozambique to propose a benchmark, we build on general principles as a high attainment level must be pursued before moving to the next learning objective. That formative assessment should be adopted to give immediate feedback to foster the high attainment level of the goals being pursued. Multiple, short interactive training sessions might also be a feasible strategy to further train participants gradually to retain the competences

gained. The training needs to be systematically integrated into the whole of the curriculum of medical schools in Mozambique.

Recommendations on curriculum change

1. Clinical communication teaching should be delivered by a range of teachers from clinical, psychological, sociological, anthropological, and educational backgrounds.
2. The core curriculum must stress the importance of communication skills in medical practice.
3. Communication skills contents should be the responsibility of, and be delivered by, clinicians, basic research scientists working together to integrate their contributions and achieve a common purpose.
4. Medical doctors should be trained in understanding how communication skills on sensitive topics play a role in health and healthcare delivery.
5. Work with champion teachers and students, and patients can advocate and participate in curriculum development and communications skills training on sensitive topics but it is important to make sure that this population also possess the skills necessary to help reshape an entire programme.
6. Communication skills training on sensitive topics should be made an integral part of strategic planning at all levels. Collaboration with all aspects of the medical school is necessary to integrate the importance of teaching the topic in the curriculum.
7. It is essential to understand the importance of an integrated, institutional approach to communications skills in sensitive topics in medical education, with a focus on the whole climate – not just by offering an elective or two classes.
8. Faculty on the clinical side must be especially trained on the importance of awareness of communications skills around sensitive topics in a medical setting.
9. Learning must match not just the different teaching and learning methods of student comprehension but also the curriculum and the situation.
10. Communication skills for Sensitive topics should be integrated into existing curricula and in different subjects in a traversal form in pre-clinical and clinical years at different levels of learning.
11. Evaluation must be considered from the outset of a curriculum change, not just after the fact, and it must complement the evaluated situation. Work with key players to develop a system of review and monitoring and evaluation.

12. Consensus among medical schools and stakeholders about the gaps in the current medical training for sensitive topics and necessary changes in any new medical curriculum should be discussed continuously.

4.11. Conclusions

We developed a new learning strategy providing the basis for further research. We hope that the contents, teaching and learning methods and competence can be more adequate as outlined in this thesis. The training we suggest provides an efficient and effective alternative to the current teaching methods. By providing sufficient hands-on time and debriefing/feedback, this educational strategy allows participants to develop and maintain communication attitude and skills in IPV. The current findings underscore the importance of using novel training strategies for attitudes and skills in dealing with sensitive topics in less time and with more hands-on practice compared to traditional teaching methods. It is necessary to enhance communication skills training for all medical students and medical doctors, mainly in dealing with sensitive topics. We also expect that the results of this study will be used to incorporate IPV curriculum contents to increase awareness among medical doctors to screen for IPV during training and in their practice. We advocate that medical students should participate in several innovative didactic and experiential learning activities which will allow them to gain awareness of IPV-related matters. We hope that knowledge, skills, and attitudes will be evaluated after the results become clear of the innovative module as we suggested.

This dissertation highlights the current and future opportunities for communication skills in sensitive topics training and retraining for better performance and patient outcome. We hope that other researchers will adapt our strategy and continue to refine the training developed and tested thus far. We expect this will encourage further development and future practices and ultimately benefit all victims of IPV.

As stated by Temmerman, “evidence comes predominantly from high-income countries and is focused on the response, with more research needed on primary prevention, including in low-income and middle-income countries”¹⁰⁸. The findings of the study contribute to the understanding of the development of medical education curriculum contents around IPV. The globally limited research on IPV curricula in medical education has been predominantly

conducted in developed countries, and findings from this study contribute to an understanding of how to develop medical students' competence in dealing with IPV in developing settings.

The PhD also looked at making room to implement critical changes in the IPV curriculum at medical schools in Mozambique to contribute to the improvement of the health sector's prevention and response to IPV. Alongside a focus on changes in the curriculum content, the focus was also on interventions that can be used to develop IPV curriculum content. Finally, this PhD intended to examine what is being done at medical schools globally and in Mozambique, and develop the scientific basis for the IPV curriculum content as well as the actual improvement of the IPV capacities in medical doctors in medical schools in Mozambique.

The study's findings should assist policymakers and medical doctors in dealing with a sensitive topic such as IPV in an emphatic and non-judgmental way. The significance of understanding the medical competences to deal with IPV is related to achieving the SDG 3 on strengthening the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks and SDGs 5 and 16 on violence.

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Abstract in English

Background: There is growing evidence in the literature that most medical doctors do not recognise the impact of Intimate Partner Violence (IPV), as it is considered by many as a social or cultural issue. The available literature shows that IPV elements in medical curricula are not standardized and that medical doctors hardly receive effective or any training at all resulting in a lack of appropriate competencies to deal with IPV. We conducted this study to identify ways to improve curricula on IPV content to enhance prevention and medical care in Mozambique.

Methods: The research was conducted adopting mixed methods approaches and consisted of four sub-studies. The research setting builds on five medical schools in Mozambique. The first study tackles a scoping review of the literature published between 1998 and 2018 and helped synthesizing the literature and associated research gaps about key concepts of IPV response training programs as they have been integrated into medical undergraduate and graduate curricula. The second study was built on a survey administered to third and 6th-year medical students (N387), enrolled in five medical schools in Mozambique. The instrument focused on mapping students' perceived mastery of their knowledge, skills, and attitudes related to IPV. A WHO model guided the related IPV competence framework. In the third study, we screened the extent that curricula of Mozambican medical schools focused on IPV and helped developing related competences. The final study adopted a mixed-methods approach. In total, 34 of all fourth-year medical students (59%) from one medical school in Mozambique were involved in a quasi-experimental pre-test/post-test design to study the impact of an innovative intervention to develop critical IPV knowledge, skills, and attitudes, underlying a patient communication script. The quantitative study was complemented with a qualitative analysis of student perceptions.

Results: IPV content is hardly and inconsistently addressed when focusing on the related content and instructional strategies being adopted. There is a need for a more comprehensive approach to developing knowledge, skills, and attitudes to deal with the victims of IPV. The limited IPV content tracked in medical school curricula in Mozambique, mainly address violence in general, for instance, as identified in orthopaedics or surgery contexts and forensic Medicine and as sexual violence in gynaecology and obstetrics. Teaching and learning strategies, adopted to deal with IPV competences were restricted. Simulation activities are a potential instructional strategy to be used in a safe environment to develop clinical skills. **Conclusion:** The results of this study are a promising complement of the analysis of the competencies learned by the medical students in Mozambique with the current curriculum. The research thus provided justification for developing a competency based, interprofessional curriculum to improve

communication skills in sensitive topics in medical education. Our research also identified new content that would be appropriately incorporated in education and training to produce these competencies in medical students as well as specific educational approaches that could be used in delivering this content.

Keywords: intimate partner violence, knowledge, attitude, and skills, competence, curriculum, medical student's competences, role plays intervention, communication skills, Mozambican medical curricula.

Abstract in Dutch

Achtergrond: Er is groeiende evidentie in de literatuur dat de meeste artsen de (medische) impact van partnergeweld (IPV) niet erkennen, aangezien velen partnergeweld beschouwen als een sociaal of cultureel zaak en niet echt een medische zaak. De beschikbare literatuur toont dat het medisch curriculum over partnergeweld niet gestandaardiseerd is en dat artsen nauwelijks effectieve training krijgen wat resulteert in gebrek aan adequate competenties om om te gaan met partnergeweld. We probeerden te onderzoeken op welke manier curricula over partnergeweld kunnen verbeterd worden om op die manier te leiden tot betere preventie en medische zorg in Mozambique. **Methodes:** Bij dit onderzoek werden verschillende methodes gebruikt en dit resulteerde in 4 studies. De eerste studie is een *scoping review* van de literatuur gepubliceerd tussen 1998 en 2018. Dit resulteerde in een synthese van de literatuur en geassocieerde hiaten in onderzoek in verband met IPV respons training programma's in medische curricula. De tweede studie bestond uit een vragenlijst, voorgelegd aan derde en zesde jaar studenten geneeskunde (N387), ingeschreven in 5 medische universiteiten/faculteiten in Mozambique. De vragenlijst peilde naar de perceptie van de studenten over hun eigen Kennis, Attitude, Praktijk (KAP) in verband met IPV. Het gerelateerd IPV competentie kader werd gebaseerd op een model van de Wereldgezondheidsorganisatie. In de derde studie onderzochten we in welke mate de verschillende Mozambikaanse medische curricula IPV en gerelateerde competenties incorporeerden. In de laatste studie gebruikten we verschillende methodes (*mixed-methods approach*). In totaal werden 34 vierde jaar studenten geneeskunde (59%) van één medische faculteit geïncorporeerd in een quasi-experimentele pre-test/post-test studie. De bedoeling was om de impact te onderzoeken van een innovatieve interventie om belangrijke Kennis, Attitude en Praktijk te ontwikkelen, gebruik makend van patiënts simulaties. De kwantitatieve studie werd aangevuld met een kwalitatieve analyse van de percepties van de studenten. **Resultaten:** IPV komt nauwelijks en op een inconsistente manier aan bod, zowel wat de inhoud als wat de onderwijsstrategieën betreft. Er is nood aan een meer globale aanpak om Kennis, Attitude en Praktijk te ontwikkelen hieromtrent. Het weinige dat over geweld wordt onderwezen, gaat over geweld in het algemeen, bijvoorbeeld in de context van orthopedie, chirurgie en forensische geneeskunde en over seksueel geweld in verloskunde/gynaecologie. Onderwijs- en leerstrategieën, om IPV competenties aan te leren, waren beperkt. Simulaties zijn potentieel leerzame strategieën die kunnen gebruikt worden om klinische skills te ontwikkelen in een veilige omgeving. **Conclusie:** De resultaten van deze studie zijn een veelbelovende aanvulling van de analyse van de competenties die studenten geneeskunde in Mozambique leren in het huidige curriculum. Het onderzoek verantwoordt dus de ontwikkeling van een competentie gebaseerd, interprofessioneel curriculum, om communicatie over gevoelige onderwerpen in de medische opleiding te verbeteren. Ons onderzoek identificeerde ook nieuwe leerinhoud die zou moeten geïncorporeerd worden in de medische opleiding, evenals specifieke onderwijsstrategieën die hiertoe kunnen gebruikt worden.

Sleutelwoorden: IPV (intiem partner geweld), kennis, attitude, praktijk, competentie, vaardigheid, competentie van de student geneeskunde, rollenspel interventie, communicatie vaardigheden, Mozambikaanse medische curricula

Abstract in Portuguese

Contexto: Há evidências crescentes na literatura de que a maioria dos médicos não reconhece o impacto da Violência Perpetrada pelo Parceiro Íntimo (VPI), visto que é considerada por muitos como uma questão social ou cultural. A literatura disponível mostra que os elementos da VPI nos currículos médicos não são padronizados e que os médicos quase não recebem formação efectiva ou nenhuma formação, resultando na falta de competências adequadas para lidar com a VPI. Desenvolvemos o presente estudo para identificar formas de melhorar os currículos sobre os conteúdos da VPI para melhorar a prevenção e os cuidados médicos em Moçambique.

Métodos: a pesquisa foi conduzida adoptando abordagens de métodos mistos e consistiu em quatro sub-estudos. O cenário da pesquisa baseia-se em cinco escolas médicas em Moçambique. O primeiro estudo aborda uma revisão de literatura publicada entre 1998 e 2018 e ajudou a sintetizar a literatura e as lacunas de pesquisa associadas sobre os principais conceitos dos programas de formação para resposta à VPI à medida que foram integrados aos currículos de graduação em medicina. O segundo estudo foi construído a partir de um inquérito administrado a estudantes de medicina do terceiro e do sexto anos (N387), matriculados em cinco escolas de medicina em Moçambique. O instrumento teve como foco o mapeamento do domínio percebido dos alunos sobre seus conhecimentos, habilidades e atitudes relacionadas à VPI. Um modelo da OMS orientou a estrutura de competências relacionadas à VPI. No terceiro estudo, avaliamos até que ponto os currículos das escolas médicas moçambicanas se centravam na VPI e ajudavam a desenvolver as competências relacionadas. O estudo final adoptou uma abordagem de métodos mistos. No total, 34 de todos os estudantes de medicina do quarto ano (59%) de uma escola de medicina em Moçambique foram envolvidos numa intervenção pré-teste / pós-teste para estudar o impacto de uma intervenção inovadora para desenvolver conhecimento crítico, habilidades e atitudes sobre a VPI subjacentes a um guião de comunicação médico-paciente. O estudo quantitativo foi complementado com uma análise qualitativa das percepções dos alunos. **Resultados:** o conteúdo da VPI é dificilmente e inconsistentemente abordado quando se concentra no conteúdo relacionado e nas estratégias instrucionais sendo adoptadas. É necessária uma abordagem mais abrangente para desenvolver conhecimentos, habilidades e atitudes para lidar com as vítimas de VPI. O conteúdo limitado da VPI rastreado nos currículos das escolas médicas em Moçambique, aborda principalmente a violência em geral, por exemplo, identificada em contextos de ortopedia ou cirurgia e medicina legal e como violência sexual em ginecologia e obstetrícia. As estratégias de ensino e aprendizagem adoptadas para lidar com as competências da VPI são restritas. Actividades de simulação são uma estratégia educacional potencial a ser usada em um ambiente seguro para desenvolver habilidades clínicas. **Conclusão:** Os resultados deste estudo são um complemento promissor da análise das competências aprendidas pelos estudantes de medicina em Moçambique com o currículo actual. A pesquisa, portanto, forneceu justificativa para o desenvolvimento de um currículo interprofissional baseado em competências para melhorar as habilidades de comunicação em tópicos sensíveis na educação médica. Nossa pesquisa também identificou novos conteúdos que seriam apropriadamente incorporados na educação e na formação para produzir essas competências em estudantes de medicina, bem como abordagens educacionais específicas que poderiam ser utilizadas para este conteúdo.

Palavras-chave: violência, conhecimentos, atitudes e habilidades sobre VPI, competência, currículo, competências do estudante de medicina, encenações, intervenção, habilidades de comunicação, currículo médico moçambicano.

Curriculum vitae

CURRICULUM VITAE

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SUMMARY

Beatriz Manuel is a PhD student at Ghent University in Belgium, a medical doctor, a lecturer and researcher at Faculty of Medicine of the Eduardo Mondlane University in Maputo, Mozambique. The aim of her doctoral research is to identify ways to improve curricula on IPV curriculum-content in order to enhance prevention and medical care in Mozambique. She takes a multidisciplinary approach that encompasses the fields of Medical Education, Family and Community Health, Public Health, Sexual and Reproductive Health and Rights, HIV/AIDS, Gender matters, Research Methods, and Evidence Summaries and Evidence Informed Healthcare. She holds a master's degree in Health Professions Education from the Maastricht University in the Netherlands that investigated the strategies of human resources training approach to People Living with HIV. She is a committed senior lecturer with over 10 years of experience at leading Mozambican academic institutions teaching students and mentoring junior researchers from various social and cultural backgrounds. She also possesses skills on curriculum development, review and implementation. Beatriz Manuel is working on training, research and prevention of interpersonal violence. Possessing excellent administrative, verbal communication and written skills along with constructive and effective teaching methods that promote a stimulating and innovative learning environment.

EDUCATION

2020-2021 Population Reference Bureau (PRB) Policy Communication Fellows Program.

2015-ongoing PhD candidate in Health Sciences and Educational Sciences. **Project title:** Addressing Intimate Partner Violence. Implications for Medical Curricula in Mozambique. International Centre for Reproductive Health, Faculty of Medicine and Health Sciences, Ghent University, De Pintelaan 185 6K4, 9000 Gent, Belgium

2013 International Master's in health Professions Education. **Project title:** Training Health Professionals on HIV/AIDS in Basic and Higher Health Higher Education Institutions in Mozambique: National Policies versus HIV/AIDS Curriculum. Faculty of Health, Medicine & Life Sciences, School of Health Professionals Education, Maastricht University, Universiteitssingel 40, 6229 Maastricht, Netherlands, Maastricht, the Netherlands.

2007 Honors/Bachelors in Medicine. Faculty of Medicine, Universidade Católica de Moçambique, Rua Marquês de Soveral, 960 Palmeiras II – Beira Moçambique.

PROFESSIONAL EXPERIENCE

2020 – ongoing. INGSA COVID-19 Policy-Making Tracker Rapporteur for Mozambique.

2019 – ongoing. President of the National Council of Medical Education at The Board of Medical Doctors of Mozambique. R. Padre João Nogueira, Maputo, Mozambique.

2019 – ongoing. Scientific Collaborator, Mozambique. UNITE Parliamentarians Network.

2019 – ongoing. Head of Project support Department. Scientific Directorate. Eduardo Mondlane University. Av. Julius Nyerere, nr. 3453, Segundo Andar - Edifício da Reitoria, Campus Universitário Principal, PO Box 257, Maputo, Mozambique.

2018 – ongoing. Joanna Briggs Institute (JBI) Scientific Writing program. The Joanna Briggs Institute. Faculty of Health Sciences, The University of Adelaide, South Australia 5005, Australia.

2017 – ongoing. Member of Revision Board of Pre-graduation from the Medical Board of Mozambique. R. Padre João Nogueira, Maputo, Mozambique.

2016 – 2019. Head of Research Department, Centre for Coordination of Gender Matters (CeCAGe). Eduardo Mondlane University. Av. Paulo Samuel Khamkomba, nr 203, 2º Floor D (Edifício da DSS). Maputo, Mozambique.

2014 – ongoing. Member of the Medical Education and Quality Assurance Office, Faculty of Medicine, Eduardo Mondlane University. Av. Salvador Allende, nr 702. Maputo, Mozambique.

2013 – 2014. Review and adjustments of the curriculum of the Faculty of Medicine from the Eduardo Mondlane University. Av. Salvador Allende, nr 702. Maputo, Mozambique.

2012- 2014 – Lecturer at Instituto Superior de Ciências de Saúde (ISCISA). **Subject:** Problem Based Learning. Av: Tomas Nduda nº 977. Cell: +258 823001731 or +258 823001728. Email: info@iscisa.ac.mz. Maputo-Moçambique.

2012 – 2015 – Lecturer at Instituto Superior de Ciências e Tecnologia de Moçambique de Moçambique (ISCTEM). **Subject:** Community Health – Primary Healthcare and Levels of Prevention in Healthcare. Rua 1394 - Zona FACIM, 322 – Maputo, Tel.: +258 21312014/5, Fax: +258 21312993.

2012 – 2016. Researcher and mentor for scientific writing for junior researchers. National Institute of Health, Macro-project of Chronic Non-Communicable Diseases. Maputo, Mozambique.

2008 – 2011. Coordinator of Medical Education and Curriculum Review Department, Faculty of Medicine, Eduardo Mondlane University:

Participated in the design, implementation, monitoring, and evaluation of a student-centred methodology based on PBL (Problem Based Learning) curriculum and participated in development and dissemination activities of the PBL method (organization of short courses and presentations on a student-centred curriculum for teachers and students). Carried out teaching and research duties. From 2013 to 2014 also involved in the review and adjustments of the curriculum of the same faculty.

2012 - ongoing. Senior lecturer. Subject: Primary Healthcare and Levels of Prevention in Healthcare, Introduction of Epidemiology, Introduction to Scientific Research. Faculty of Medicine, Department of Community Health, Eduardo Mondlane University. Av. Salvador Allende, nr 702. Maputo, Mozambique. Involved in the administration of degree and postgraduate courses as well as responsible for organizing lectures and supervising seminars and tutorials.

CLINICAL PRACTICE

2008 – 2011. Emergency Department, Mavalane General Hospital, Maputo, Mozambique.

2008 – 2011. Outpatients follow-up, People Living with HIV/AIDS, Chronic and Infectious Diseases, Maxaquene Health Centre, Maputo, Mozambique.

2009 – 2011. Outpatients follow-up, People Living with HIV/AIDS, Chronic and Infectious Diseases, Matola I Health Centre, Matola, Mozambique.

VOLUNTEER JOB

2018 – ongoing. Cochrane Volunteer: evidence summary assessment and translation.

2018 – ongoing. Member of the Academic Network on Sexual and Reproductive health and Rights from the Ghent University.

2017 - ongoing. Ambassador. Centre for Open Science (COS), 210 Ridge McIntire Rd #500, Charlottesville, VA 22903, USA.

2013 – ongoing. Running a mailing list group which disseminates opportunities and scholarships for youth, and I am following up the candidates to promote equal access to education and job to women and men.

2008 – ongoing. Member of the Medical Association of Mozambique.

RESEARCH

- Mariano E, Manuel B, Maúngue H, Rafael DP, Munguambe C, Mataveia G. 2020. Violence against women and girls in public spaces in Maputo: an exploratory study. *BSJ Pub Soc Sci*, 3(1): 10-21.
- Tchamo S, Mucambe M, José G, Manuel B, Mataveia G. (2020). Economic Costs of Violence Against Women in Mozambique. *Journal of Interpersonal Violence*.

Available at: <https://www.ncbi.nlm.nih.gov/pubmed/31984827> [Accessed 3 Feb. 2020].

- Manuel, B., Roelens, K., Tiago, A., Keygnaert, I., & Valcke, M. (2020). Medical Curricula on Intimate Partner Violence in Mozambique. *Acta Médica Portuguesa*, 33(1), 22. doi: 10.20344/amp.12049
- Manuel B, Roelens K, Tiago A, Keygnaert I and Valcke M (2019) Gaps in Medical Students' Competencies to Deal with Intimate Partner Violence in Key Mozambican Medical Schools. *Front. Public Health* 7:204. doi: 10.3389/fpubh.2019.
- Situação da violência contra as mulheres e raparigas nos espaços públicos na cidade de Maputo. Projecto Maputo: cidade segura livre de violência contra mulheres e raparigas. UN Women and Centro de Coordenação dos Assuntos de Género (CeCAGe_UEM), Universidade Eduardo Mondlane, Maputo, Mozambique. Poster: II MenEngage Africa Symposium, Maputo, 2018.
- Beatriz Manuel. Comprehensive Sexuality Education: Addressing Intimate Partner Violence: Implications in Medical Curricula in Mozambique. Panel Discussion: II MenEngage Africa Symposium, Maputo, 2018.
- When are the Medical Students of Mozambique introduced to Competencies on Intimate Partner Violence? Preliminary Results. Manuel B; Keygnaert, I.; Tiago, A.; Roelens, K.; Valcke, M. Helsinki, Finland, Conference: AMEE Conference, Helsinki 2017, DOI: 10.13140/RG.2.2.35396.12160.
- Medical student's competencies on intimate partner violence in Mozambique. Manuel B; Keygnaert, I.; Tiago, A.; Roelens, K.; Valcke, M. Ghent, Belgium, Conference: Conference on Sexual and Reproductive Health and Rights Policy Research - ANSER, Affiliation: ICRH, Ghent, DOI: 10.13140/RG.2.2.35112.78081
- Frambach JM, Manuel BA, Fumo AM, Groosjohan B, Van Der Vleuten CP, Driessen EW. How innovative and conventional curricula prepare medical students for practice in Sub-Saharan Africa: A comparative study from Mozambique. *Educ Health* 2017; 30:3-10.
- Janneke M. Frambach, Beatriz A. F. Manuel, Afonso M. T. Fumo, Cees P. M. Van Der Vleuten & Erik W. Driessen (2015) Students' and junior doctors' preparedness for the reality of practice in sub-Saharan Africa, *Medical Teacher*, 37:1, 64-73
- Manuel, BAF., Ismail, MR and Fernandes, TH (2010). Assessment of Medical Students in Mozambique, Poster at Ottawa Conference - Miami.
- Manuel, B.A.F., Ismail, M. R., Fernandes, T. H. (2010). Moçambique: Aprendizagem Baseada em Solução de Problemas. Acabar com as Aulas para que os Alunos Aprendam? Poster at International Conference on PBL, São Paulo, Brazil.
- Rembrant Aarts, Konrad Steidel, Beatriz A. F. Manuel & Erik W. Driessen (2012). Progress Testing in Resource-Poor Countries: A Case from Mozambique. *Med Teach*. 2010;32(6):461-3. doi: 10.3109/0142159X.2010.486059
- Cardiovascular Disease in an African Population with High Adherence to Antiretroviral Therapy". Manafe N1, Ngale A2, Manuel B3, Biquiza N2, Bernardo E4, Zimba I2, Majid N2, Mocumbi A1,3,5. Institutions: 1 Instituto Nacional de Saúde; 2 Centro Dream St Egidio; 3 Universidade Eduardo Mondlane, Moçambique;

4 Hospital Geral de Mavalane – Centro de Saúde da Polana Caniço; 5 Instituto Moçambicano de Apoio À Pesquisa e Ensino em Saúde. Corresponding author: A Mocumbi (amocumbi@yahoo.com).

INTERNATIONAL RECOGNITION

Recognised for invaluable contributions to the Joanna Briggs Institute Scientific Writer Program 2018-2019.

TRAINING

Year	Institution	Title
2020	Disater ready	Humanitarian response
2019	Association of Medical Education of Europe	Essential Skills in Medical Education
2018	The BMJ and UCSF	Clinical trial protocols: how to write and publish them
2018	BMJ Learning	Presenting skills
2018	The BMJ and UCSF	How to write and publish a study protocol: an overview
2018	The BMJ and UCSF	Introduction and the research question
2018	BMJ Learning	Communication skills: tips for the 10-minute consultation
2018	WHO	WHO Training of Trainers in Health Response to Violence Against Women
2018	BMJ Learning	Career Planning
2018	BMJ Learning	Good medical writing
2018	Tuning Academy	Estudo de Casos como Método de Ensino – Teaching Case, associado à ferramenta de Mapeamento Mental
2018	BMJ Learning	How to write a research protocol for a grant application
2018	European Union	Evidence-informed Policymaking Seminar - Water-Energy-Food-Health, Pretoria 2018
2017	Ghent University	Leadership Foundation.
2017	Ghent University	Doctoral school course on Global Sexual and Reproductive Health.
2017	Ghent University	Project Organization.

2017	Association of Medical Education Europe	Research Advanced Skills in Medical Education: Experimental Studies in Medical Education
2017	Elsevier Publishing Campus	Gender Bias in Academic Publishing
2017	Elsevier Publishing Campus	Using proper manuscript language
2017	Elsevier Publishing Campus	Structuring your article
2017	Elsevier Publishing Campus	Preparing your manuscript
2017	Elsevier Publishing Campus	Authorship and responsibilities
2017	Elsevier Publishing Campus	Make a Career in Research
2017	Elsevier Publishing Campus	The Impact Factor and other bibliometric indicators
2017	Elsevier Publishing Campus	Preparing your manuscript
2017	Elsevier Publishing Campus	How to promote your article for maximum impact
2017	Elsevier Publishing Campus	Authorship and responsibilities
2017	Elsevier Publishing Campus	How to promote your article for maximum impact
2017	Elsevier Publishing Campus	The Impact Factor and other bibliometric indicators
2016	Ghent University	Presentation Skills
2016	Ghent University	Academic posters
2016	Ghent University	Workshop in Reproduciveness of Quantitative Data
2016	Ghent University	9th From PhD to Job Market: Believing in First-Mover Advantages
2016	Young African Leaders Initiative	Strategies for Personal Growth and Development
2016	Young African Leaders Initiative	Understanding the Rights of Women and Girls
2016	Young African Leaders Initiative	Learn to Lead: Skill Building for Girls Advocacy
2016	Centre for Academic Development Eduardo Mondlane University	Assessment in Student's Centred Learning
2016	Partnership for Research in Implementation Science Mozambique (PRISM)/Fogarty	Scientific Writing and Systematic Literature Review
	Kwazulu-Natal Research Institute for Tuberculosis and HIV	K-RITH Biostatistics Course
2014	Centre for Academic Development Eduardo Mondlane University	Assessment of Students

2014	University of California, San Francisco	Understanding Research: An Overview for Health Professionals
2014	Coordination Center for Gender Matters (CeCaGe) UEM	Training of trainers on Life Skills, Planning and Budgeting at the Gender Optics
2014	University of Washington	Understanding Research: An Overview for Health Professionals
2013	University of Washington	Principles of STD/HIV Research
2013	Faculty of Medicine Eduardo Mondlane University	Gender Mainstreaming
2013	WHO/MoH/ITOCA	Evidence-Based Healthcare
2012	AMREF, Kenya	Training of Trainers: Systems Strength for Africa
2012	Ministry of Health, Mozambique	Policy Briefing in Human Resources
2012	I-TECH Mozambique	Protecting Human Research Participants
2012	I-TECH Mozambique	Clinical Reviser Short Course on HIV/AIDS
2012	Eduardo Mondlane University	Introductory Course in Bioinformatics
2011	Eduardo Mondlane University	Data analysis using SPSS
2011	I-TECH Mozambique	Clinical Management of Distance Learning-HIV
2010	I-TECH Mozambique	Medical Education Continuing, Cases on the Web, Syphilis HIV-Infected in the Patient.
2010	Erasmus MC	International Workshop on HIV Treatment, Pathogenesis and Prevention Research in Resource-limited settings
2010	I-TECH Mozambique	Control and Monitoring of HIV Infection/AIDS
2009	Faculty of Medicine Eduardo Mondlane University	Statistics Questionnaires in Health
2006	Computer-Based Learning Training on HIV	HivEducation
2005	University of Las Palmas of Gran Canaria, in the Faculty of Medicine of Catholic University of Mozambique	Primary Attention to Politraumatized People
2005	Faculty of Medicine of Catholic University of Mozambique	Principles of Anti-Retroviral Treatment and Understanding

		Cares to the Patients infected by HIV in Mozambique
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OTHER

- 2020- Portuguese Translator and Interpreter for Genisis Analytics, South Africa: Planning for Improved Adolescent Girls and Young Women (AGYW) Programming Research.
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Addenda

Addenda 1. Study protocol

Ph.D. RESEARCH PROPOSAL

ADDRESSING INTIMATE PARTNER VIOLENCE: IMPLICATIONS FOR MEDICAL CURRICULA IN MOZAMBIQUE

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LIST OF ABBREVIATIONS

GBV: Gender-Based Violence

HIV: Human Immunodeficiency Syndrome

INE: National Institute of Statistics

IPV: Intimate Partner Violence

FHS – UCM: Faculty of Health Sciences of the Catholic University of Mozambique

FM – UEM: Faculty of Medicine of Eduardo Mondlane University

FM – UniZambeze: Faculty of Health Sciences of University of Zambeze

Faculty of Medicine of UniLúrio University

MC – ISCTEM: Medical Course of the Higher Institute of Science and Technology of Mozambique

MMAS: Ministry of Women and Social Action

PAHO: Pan African Health Organization

WHO: World Health Organization

SUMMARY

There is growing evidence in the literature that the majority of medical doctors do not recognize the signs and symptoms of Intimate Partner Violence (IPV) or its impact on women's health. It is considered by many as a social or cultural issue. Regarding the perceptions of how medical doctors should address IPV, survivors agree that the first thing that physicians should bear in mind is that anyone can be a survivor of IPV and second that IPV is not only sexual assault. Lack of skills and resources to manage IPV, time constraints, discomfort with the subject, limited referral points, sharing the same cultural and gender norms of survivors, are some of the reasons why there is resistance among medical doctors to address IPV.

Aim

Taking into account the findings in this study,

- (1) an analysis of what the scientific bases are for the contents of an IPV mitigation curriculum; and
- (2) what the approaches are for improving the capacity to recognize and treat IPV among survivors in Mozambique, will be undertaken.

The evidence for interventions at facility level that have worked to improve the capacity of medical doctors to recognize and treat IPV among patients in Mozambique are going to be taken into account.

General objective

To identify ways to improve curricula on IPV mitigation-content in order to enhance prevention and medical care in Mozambique.

Specific objectives

- (1) To evaluate existing curricula on IPV mitigation in order to identify important characteristics and the educational formats being internationally adopted;
- (2) To identify the gaps in contents in the medical curricula of Mozambique, taking into account the international curriculum standards and the WHO guidelines on IPV mitigation; and,
- (3) To design and evaluate two alternative IPV mitigation modules in order to design innovative IPV mitigation curricula for medical students in Mozambique.

Methodology

The study will be conducted using mixed methods approaches and will consist of three sub-studies. *The settings will be health units where medical students have clerkships* and five medical schools in Mozambique (Faculty of Medicine of Eduardo Mondlane University (FM – UEM); Faculty of Health Sciences of the Catholic University of Mozambique (FHS – UCM) Faculty of Medicine of University of Zambeze (FM – UniZambeze), the Medicine Course of the Higher Institute of Science and Technology of Mozambique (CFM - ISCTEM) and the Faculty of Medicine of UniLúrio University (FM – UniLúrio).

Founding the theoretical knowledge base about IPV mitigation medical curricula

This study is intended to enhance the use of updated information on IPV mitigation, a coordinated integration of National Policies on curricula contents for addressing IPV, create medical doctor's role models on the topic and create a culture of awareness and sensitivity on IPV.

The study also intends to create a culture to attend continuing education, to explore national and local educational resources and publish in IPV contents. Furthermore, the study also intends to contribute to “The Tuning Africa Initiative” by incrementing efforts “to identify, define and develop curricula and programs in view of their effective implementation, assessment outcomes and competences” (Hahn & Teferra, 2013).

INTRODUCTION AND BACKGROUND

Intimate partner violence prevalence and incidence worldwide

Intimate Partner Violence (IPV), also known as *battering* and *domestic violence*, is a critical public health issue. The WHO defines *Intimate Partner Violence* as ‘any behavior within an intimate relationship that leads to physical, psychological or sexual harm to those in that relationship’ (World Health Organization, 2012)

Women of reproductive age are more commonly victimized or abused by intimate partners than by other perpetrators (Bessa, Drezett, Rolim, & Abreu, 2014; Garcia-Moreno, Jansen, Ellsberg, Heise, & Watts, 2006; Shamu, Abrahams, Temmerman, Musekiwa, & Zarowsky, 2011). As stated by World Health Organization (2013) the recent global prevalence of women worldwide that have experienced either intimate partner sexual violence or non-partner sexual violence in their lifetime is 35%. The same authors refer that on average, 30% of women report that they have experienced some form of physical or sexual violence by their partner while in a relationship. As many as 38% of murders of women globally are committed by an intimate partner (World Health Organization, 2013a). Pico-Alfonso (2005) refers that IPV is characterized by constant risk and lack of control, even without the occurrence of a traumatic event and that it has a high prevalence and incidence among the female population of virtually all world countries. However, the rates of violence specified above cannot be deciphered without extraordinary spotlight on setting and risk factors and further studies concentrating on Africa, specifically, is required. In addition, the findings cannot be summed up to African population given the socio-cultural, political, monetary and sexual orientation power contrasts.

Few studies in Sub-Saharan Africa (SSA), have addressed violence against women perpetrated by their male intimate partners (Zacarias, 2012). Accordingly to Tjaden, Patricia & Thoennes (2000) in SSA, women are forced to maintain sexual relations with their partners, by means of violence, and cannot negotiate the use of condoms leading to their vulnerability to HIV. As stated by the same author and complimented by Cruz, Domingos, & Sabune (2014) in official and traditional marriage, or in sexual unions where patriarchal views and gender roles prevail, women are marginalized and often seen as the property of men. Only 10% of all cases of IPV are reported to the police (Cruz et al., 2014).

The impact of IPV resonates in all areas of health and social programming as survivors of sexual violence experience increased rates of morbidity and mortality, and violence has been shown to exacerbate HIV transmission, among other health conditions (Population Council & Population Council, 2008). As stated by (World Health Organization, 2013a) “unintended pregnancies, abortions, adverse pregnancy and neonatal and infant outcomes, sexually transmitted infections (including HIV) and mental disorders (such as depression, anxiety disorders, sleep disorders and eating disorders)” have higher rates in abused women than in non-abused women. On the other hand, Zacarias (2012) stated that there is growing evidence, mostly from developed countries, that shows that abuse of men by their female intimate partners may also be an important public health issue.

Typologies of Intimate Partner Violence

Research has shown IPV to be a complex matter as this can be divided into types of abuse, sub-groups of perpetrators and subtypes of IPV.

Definitions of terms (Ferris, 2004)

Intimate Partner

“A person with whom one has a close personal relationship that may be characterized by the partners’ emotional connectedness, regular contact, ongoing physical contact and sexual behavior, identity as a couple, and familiarity and knowledge about each other’s lives. The relationship need not involve all of these dimensions.”

Intimate Partner Violence

“Includes physical violence, sexual violence, stalking and psychological aggression (including coercive tactics) by a current or former intimate partner (i.e., spouse, boyfriend/girlfriend, dating partner, or ongoing sexual partner).”

Perpetrator

A person who inflicts the IPV.

Survivor

A person who is the target of IPV.

Types of abuse (Abramsky et al., 2011; Ferris, 2004; PAHO & WHO, 2015)

Physical Violence:

“The intentional use of physical force with the potential for causing death, disability, injury, or harm. Physical violence includes, but is not limited to: scratching, pushing, shoving, throwing, grabbing, biting, choking, shaking, hair-pulling, slapping, punching, hitting, burning, use of a weapon (gun, knife, or other object), and use of restraints or one’s body, size, or strength against another person. Physical violence also includes coercing other people to commit any of the above acts.” (Ferris, 2004):

- *Moderate physical violence*: jerks, objects pitches, slapping, pulling hair, kicking, dragging to the ground or punch;
- *Severe physical violence*: burns, wounds or threats with weapons and strangulation.

Sexual Violence

“A sexual act that is committed or attempted by another person without freely given consent of the victim or against someone who is unable to consent or refuse. It includes: forced or alcohol/ drug facilitated penetration of a victim; forced or alcohol/drug facilitated incidents in which the victim was made to penetrate a perpetrator or someone else; non-physically pressured unwanted penetration; intentional sexual touching; or non-contact acts of a sexual nature. Sexual violence can also occur when a perpetrator forces or coerces a victim to engage in sexual acts with a third party.” (Ferris, 2004)

Emotional (psychological) abuse: such as insults, belittling, constant humiliation, intimidation (e.g. destroying things), threats of harm, threats to take away children, threats to their selves or a close relative, humiliations, and insults.

Controlling behaviors: including isolating a person from family and friends; monitoring their movements; and restricting access to financial resources, employment, education or medical care.

Subtypes of abuse

Literature differs on the typologies of IPV but, in general, the subtypes of IPV can be distinguished as follows:

Characterological/Intimate terrorism - unilateral violence with a high level of coercive control in which the perpetrator uses severe violence as a means of inducing fear and controlling the victim (Friend, Cleary Bradley, Thatcher, & Gottman, 2011; Stith, Mccollum, Amanor-Boadu, & Smith, 2012).

Situational/Situational couple violence - mutual, low-level violence (i.e. pushing or grabbing) perpetrated by both partners involving a conflict over particular issues and poor conflict resolution skills as a means of conflict management (Friend et al., 2011; Stith et al., 2012).

Intimate partner violence prevalence and incidence in Mozambique

In Mozambique, only recently Gender Based Violence (GBV) is started to gain recognition as a public health and human rights issue (Pathfinder International, 2015). Despite Mozambique being a signatory to all important global concessions on gender equity and women empowerment, the effect of strategies on these issues are endured by the patriarchal sociocultural beliefs unequivocally established, poor execution inside of foundations and the predominant approach of gender mainstreaming (Mateus, 2015). Whilst it can be contended that with the progression of time, more characterized and thorough measures were utilized to quantify violence in Mozambique, all more precisely and with more prominent revelation, extremely expansive commonness scopes of violence endure. To give an explanation to these phenomena, Mateus (2015) points out that the late "simplification" or "essentialism" of gender approaches, to a large degree driven by universal motivation, conveys the danger of outline arrangements that don't fall in accordance with national monetary and socio-social realities. As an example, evidence based literature proves effectiveness of domestic violence shelters that can give support for the victims and their children - providing temporary housing, food and other basic items, and help for other assistance - but this alternative is far away of the actual situation of Mozambique as we are still missing guidelines and tools to address the victims.

Accordingly to official data from the Ministry of Interior of Mozambique, violence against women has reached very high levels at the national scale from 2003 to 2008 (Governo de Moçambique, 2008). During this period, the same authors refer that more than twenty-nine thousand women mentioned that they have been a survivor of violence, with an average of more than seven thousand women per year. Since many women do not report abuse, because of stigma, cultural, social and economic reasons the real number of a survivor of violence is probably much higher. Tolerance and acceptance of GBV reflects the fact that approximately "one-third of women believe a husband is justified in beating his wife" (Pathfinder International, 2015).

Accordingly to Pathfinder International (2015), in Mozambique, 1 in 3 women aged 15–49 report having been a survivor of physical violence since the age of 15, having the husband or intimate partner as the perpetrator in 62% of these cases. The same authors refer that 12% of women report having been a survivor of sexual violence since the age of 15. In the same country, 50% of reported cases of violence against women were related to the sexual abuse. In Maputo province, at least, 5 out of 10

women are a survivor of physical abuse and two die each month of physical abuse, most of which the perpetrator is their husbands (Governo de Moçambique, 2012). This numbers are far for being real as

In Mozambique, accordingly to Cruz et al., (2014), the most common reasons for the survivors not reporting IPV are “the victim can deal with it alone or through the extended family” (47%), the violent act is considered as “not serious” (15%) or as “private issue” (9%), and finally “fear of retaliation from the perpetrator” (11%).”. The same author also refers that many families prefer to deal with IPV using the “customary justice systems, particularly in the rural communities.” In the other hand, Mateus (2015) emphasizes that Mozambican women are increasingly cognizant of their qualities and abilities and need to take charge of the construction of gender equity because their passive position only sanctions the reproduction of convivial order characterized by inequality. For this reason, we understand that is important to enquire what are the socio-cultural aspects that can break the barriers that women are facing in order to disclosure violence in a patriarchal society as Mozambique.

Tivane (2015) regrets that the literature on domestic violence in Mozambique has largely fixated on the study of violence that is perpetrated by men against women, albeit this practice occurs in reverse. Zacarias (2012) stated that only three studies in Mozambique have addressed the prevalence of IPV among women and men and that there are no studies of women’s experiences of sustained and inflicted IPV-related to abuse as a child, controlling behaviors, and mental ill- health. Violence against men, says Tivane (2015), is not inside of the setting of conjugal connections that are created on the belief system of the patriarchal model. In one study conducted by the same author in one of the neighborhoods of Maputo City, the author found out that the phenomena of abusive behavior against men perpetrated by their intimate partners, not just has the monetary reliance as a reason for the act of violence. The author also believes that acquiring higher scholastic level on their intimate partner turns women into the perpetrator of IPV. Tivane (2015) refers that men attribute this phenomenon of IPV perpetrated by their intimate partners to factors of the supernatural order, in other words, for men victims of violence by their partners, the culprit of these acts are possession of supernatural spirits that their female partner is subject. We also found reports that polygamist relationships, formally or informally accepted in Mozambique, can be a critical reason for violence perpetrated by women.

In the Mozambican context, another aspect linked to lack of disclosure of violence against men may be the lack of reception rooms and privacy in attendance as the offices that attend victims of violence are “feminized” (Tivane, 2015). Finally, the same author found out that the phenomenon of domestic violence against man, is perceived by them (man), as the light of patriarchal norms and cultural models, that is, man is violent in his nature, particularly verbally, and that woman breaks the role and expectations expected within the marital context by becoming violent - when docility feminine submission and obligation of her account whenever their partner requires fails (Tivane, 2015). To add, higher level of education of women and the monetary reliance are also mentioned as reasons for women to break the role and expectations expected within the marital context to become violent.

HEALTH CARE SECTOR APPROACH TO ADDRESS IPV

Addressing intimate partner violence

Despite that in 1996, the World Health Assembly declared violence against women a significant public health problem that must immediately be addressed by governments and health organizations, the majority of medical doctors do not recognize the impact of this issue on women's health, as there is resistance to medical doctors to address IPV (because of lack of skills and resources to manage IPV, limited referral points, sharing the same cultural and gender norms of survivors, time constraints, and discomfort with the subject) and also because it is considered by many a social or cultural issue (Ashford & Feldman-Jacobs, 2010; Banyard, Eckstein, & Moynihan, 2010; Bott, Guedes, & Guezmes, 2010; Colombini, 2008; Hamberger, 2007). Lack of inclusion of violence-response training in national medical curricula, no clear policies on IPV, and lack of coordination among various actors and departments involved in planning integrated services are also recognized as barriers to address IPV (Colombini, Mayhew, & Watts, 2008).

In Mozambique, the main obstacles for medical doctors to approach the IPV survivors is the lack of a clinical screening policy that helps on the institutionalized response to the survivors and also a gap to define and provide standardized tools and nastiness management. There is also lack of tools/guidelines to manage IPV as the only tool available is for forensic medicine medical doctors ("Guia para Atendimento Integrado às Vítimas de Violência," 2012). Meanwhile, there are future plans to introduce the single form of Mozambique on management of IPV victims ("Guia para Atendimento Integrado às Vítimas de Violência," 2012). But still, after four years of publication of the "Guideline for Integrated Response to the Victims of Violence" in Mozambique, we don't have clear guidelines and tools to address the victims.

Accordingly to Pan African Health Organization (2015) in 2014, the 67th World Health Assembly (WHA) come with the following resolution: "enhance capacities, including through the appropriate continuous professional development of all public and private professionals from health and non-health sectors". The same authors stated that it was important to create professional development curricula aimed to strengthen the knowledge and skills, change the attitudes of medical doctors in order to improve care for women who is a survivor of IPV and sexual violence.

In order to reduce this situation, the Government of Mozambique had already developed and implemented a National Action Plan for Prevention and Eradication of Violence Against Women (Governo de Moçambique, 2008). One of the objectives was to "strengthen institutional capacity and education and professional development of the general public on issues of violence against women." Following this goal, they suggested to "prepare proposals, modules on preventing and combating violence to the education" and professional development of teachers (Governo de Moçambique, 2008). Also regarding capacity building, the Governo de Moçambique (2012) stated the following:

- Advise medical doctors on issues of gender, human rights, and violence.
- Organize specific professional development for medical doctors and other staff who are directly involved in the care of survivor of sexual violence.
- Invest in a center of excellence or medical institution for the expansion of knowledge, professional development and create opportunities for studies and research.

- Integrate issues of violence, domestic violence and gender in the curriculum of health science institutes, professional development centers, and medical schools.
- Integrate the information system, in coordination with the INE (National Institute of Statistics) and (MMAS) the Ministry of Women and Social Action.

There are seven reasons why health organizations should address IPV suggested by (Bott et al., 2010; Colombini, 2008; Garcia-Moreno et al., 2006; Hamberger, 2007; Harvey, Garcia-Moreno, & Butchart, 2007):

- (1) IPV is one of the leading causes of disability and death among women;
- (2) IPV has adverse consequences for women's sexual and reproductive health;
- (3) If they do not ask about violence, medical doctors may misdiagnose survivor or offer inappropriate care;
- (4) Medical doctors are strategically placed to identify women at risk;
- (5) Medical doctors are in a unique position to change societal attitudes about violence against women;
- (6) Responding to IPV can improve the overall quality of health care; and
- (7) Medical doctors may inadvertently put women at risk if they are uninformed or unprepared.

WHO recommendations on IPV

In 2013, the WHO developed “a guideline to provide evidence-based guidance to health-care providers on the appropriate responses to IPV and sexual violence against women, including clinical interventions and emotional support” (World Health Organization, 2013b). The same authors refer that the guideline is also intended to “raise awareness, among health-care providers and policy- makers, of violence against women, to better understand the need for appropriate health- sector response to violence against women.” These guidelines are focused on violence (physical, sexual and emotional) by an intimate - usually male - partner, and sexual assault of women by men, but it excludes female genital mutilation, trafficking or other forms of violence against women. Although men are also victims of IPV and sexual assault, these guidelines are exclusively focused on women because they “experience more sexual violence, more severe physical violence, and more coercive control from male partners” and because there is very limited evidence on interventions for men (World Health Organization, 2013b).

Planning successful responses to IPV includes recognizable proof of risk factors allowing appropriate responses to a specific culture. Studies in different countries have recognized a scope of variables that impact IPV, yet now and again, preventing programs in one setting might be ineffective or increase risk in another setting.

Survivors' perceptions on IPV-related to medical doctors' competences

Regarding the perceptions of how medical doctors should address IPV, the literature refers that survivors agree that the first thing that physicians should bear in mind is that anyone can be a survivor of IPV and second is that IPV is not only sexual assault (Nicolaidis, 2002). This is true as there are missing effective tools to assess physiological and emotional violence. For this reason, the victims fear that it can be difficult to report physiological and emotional violence as in some cases this can be subjective. Another important aspect that the survivors point is that violence is used with the intention to show control and that it affects all the family (Nicolaidis, 2002).

The same author refers that as some survivor sometimes do not recognize the issue because of their stereotypes, complexity of relationship, or because they are in love with their partner, they suggest that the medical doctors should ask questions specific to abuse and provide information related to IPV to all their patients. This is the reason why massive dissemination of information with contents regarding IPV is critical. The authors added lack of privacy, shame, embarrassment, or a feeling that the medical doctors do not want to know about it as barriers to disclose abuse. As an example, we were informally reported that if a man takes a child to a health center, he turns on a victim of physiological violence as the majority of health personnel at maternal and child care programs are woman, men are asked to stand as the chairs and benches in the waiting room of the health center are “only for women”.

When the survivor disclose abuse to medical doctors, (Nicolaidis, 2002) suggests that the interview must be private, medical doctors must demonstrate compassion, interest, and openly discuss the issue. Additionally, many survivors of abuse recognize the abuse but prefer to remain in the relationship because of “commitment to the relationship, belief in excuses or apologies, erosion of self-esteem, lack of options, or the danger of leaving an abusive relationship.” (Nicolaidis, 2002). The same author also stated that the survivor of abuse prefers that when taking care of the survivor, medical doctors should: “1. Use care, not to blame the survivor; 2. Tell the patient he/she does not deserve to be abused; 3. Offer resources and referrals; and 4. Leave the ultimate decision to the patient.”

Medical doctors’ resistance to deal with IPV

Some of the reasons why there is resistance of medical doctors to address IPV suggested by (Office of the Assistant Secretary for Planning and Evaluation, 2013; Zink, Regan, Goldenhar, Pabst, & Rinto, 2004) are “time constraints, discomfort with the subject, fear of offending the patient, frustration with patient’s denial, lack of skills and resources to manage IPV, the fear of opening “Pandora’s box.”, “concerns for their personal safety, apprehension about misdiagnosis and inadequate follow-up resources and support staff”. Limited referral points, sharing the same cultural and gender norms of survivors and lack of tools/guidelines on managing IPV is also linked to resistance of medical doctors to address survivors. The Office of the Assistant Secretary for Planning and Evaluation (2013) also reported that “health care providers did not think it was their role to screen for IPV or felt that they had more pressing issues to address”.

The impact of IPV on children

As WHO (2013b) stated, children who grow up in families where there is IPV “may suffer a range of behavioral and emotional disturbances.” The authors also refer an association with “perpetrating or experiencing violence later in life” and with “higher rates of infant and child mortality and morbidity (e.g. diarrheal disease, malnutrition)” (World Health Organization, 2013b).

Social and economic costs

As stated by World Health Organization (2013b) “women may suffer isolation, inability to work, loss of wages, lack of participation in regular activities and limited ability to care for themselves and their children.”

IPV and HTC linkages

As literature suggests, in sub-Saharan Africa, there is overlapping epidemics of IPV, HIV, and other sexually transmitted infections (Makayoto, Omolo, Kamweya, Harder, & Mutai, 2013; Ntaganira et al., 2008; Wagman et al., 2015; Wong, Huang, DiGangi, Thompson, & Smith, 2008). Forced sex, gender inequities, social norms that give men power over women are critical drivers of both IPV and HIV and are also mediating the relation between abuse and HIV transmission (Wagman et al., 2015). There are reports and literature based evidence that IPV against women increases when a female partner is known to be HIV positive as it is believed to be linked to female promiscuous behavior of women. IPV or fear of IPV is thought to contribute to the poor uptake of testing and to the low rates of partner testing and disclosure of status after testing for HIV at facility level (Antelman et al., 2001; Gari et al., 2013; Musheke et al., 2013; Ntaganira et al., 2008). Medical doctors refer to the lack of confidence in addressing IPV due to concerns over the lack of skills and referral points as well as the fear they may make things worse among couples (Gari et al., 2013; Musheke et al., 2013). The same authors stated that there is also a lack of interventions that integrate IPV mitigation strategies into existing approaches and train and support counselors. This is true to Mozambique as at the moment, the linkage of IPV and HIV is not being documented or dealt with.

Justification of the study

Taking into account these findings at the global level, it is suggested that there is room to implement critical changes in the IPV mitigation curriculum at medical schools in Mozambique in order to contribute for improvement of the health sector prevention and response to IPV. Next to a focus on changes in the curriculum content, the focus will also be on interventions that can be used to attain the IPV mitigation curriculum content.

ADDRESSING IPV IN MEDICAL DOCTORS CURRICULA

Suggested curriculum contents on IPV

The “It’s All One Curriculum”, a practical resource for curriculum development, suggests seven key features for a curriculum in the areas of gender, sexuality, and HIV as follows (Hallgarten, 2010):

- (1) Evidence-based: builds on curricular standards articulated by global researchers, while also integrating important findings about the links between gender dynamics and sexual health outcomes;
- (2) Comprehensive: accurate information about all the psychosocial and health topics needed for a thorough curriculum covering sexuality, HIV prevention, the right to abstain from sex, and family life education;
- (3) Based on core values and human rights: promotes principles of fairness, human dignity, equal treatment, opportunities for participation, and human rights for all as the basis for achieving sexual and reproductive health and well-being;
- (4) Gender-sensitive: emphasizing the importance of gender equality and the social environment in general for achieving sexual and reproductive health and overall well-being for both men and women;
- (5) Promotes academic growth and critical thinking: fostering habits of mind necessary for understanding relationships between self, others, and society and how these relationships affect all of our lives. Thus, it provides a basis for extending sexuality and HIV education into civics, social studies, and language-arts classrooms;
- (6) Fosters civic engagement: championing the idea that each person matters and can make a positive difference in his or her world. It helps build advocacy skills that are crucial to creating a more just and compassionate society; and
- (7) Culturally appropriate: reflecting the diverse circumstances and realities of target population around the world.

Regarding the competencies’ objectives for a module, Short et al. (1997) suggest:

Knowledge

- (1) Be able to define domestic violence.
- (2) Understand common presenting signs symptoms and “stories” of domestic violence of survivor and abusers.
- (3) Understand predisposing and predicting characteristics of abusers and survivor.
- (4) Understand the epidemiology of domestic violence as it relates to race, gender, and sexuality, and its relation to substance abuse.
- (5) Understand barriers to an abused person’ admitted that s/he’ abused and seeking help.
- (6) Understand common barriers to a physician’s identifying a survivor of domestic violence.
- (7) Understand the limits of confidentiality surrounding discussion of domestic violence.
- (8) Understand legal requirements regarding disclosure of domestic violence and victimization to police.
- (9) Understand treatment options for abusers and their relative chance of success.
- (10) Understand various community resources useful in caring for the survivor of domestic violence.

- (11) Understand the different psychological skills necessary to treat a survivor of domestic violence such as empathy and concern for safety.

Attitudes

- (1) Appreciate the needs to screen all patients for the issue of domestic violence and feelings of being unsafe in their homes.
- (2) Appreciate the multidisciplinary nature of caring of the survivor of domestic violence.
- (3) Appreciate the profound impact that domestic violence can have on adult survivor and children.
- (4) Overcome stereotypes surrounding domestic violence (e.g. ethnic minorities as “classic” abusers).

Practice

- (1) Ability to conduct a detailed history when domestic violence is suspected.
- (2) Ability to conduct a screening history for domestic violence (when not suspected).
- (3) Ability to develop a strategy for interacting with a local community when a case is identified (such as police, social services).
- (4) Ability to properly document cases.
- (5) Ability to interview survivor in an empathic, non-judgemental manner.
- (6) Ability to conduct interviews with proper attention to body position and interactions with the abuser.

Summary of WHO recommendations on training of health-care providers on intimate partner violence and sexual assault

(World Health Organization, 2013b):

- (1) Training at a pre-qualification level in first-line support for women who have experienced intimate partner violence and sexual assault should be given to health-care providers (in particular doctors, nurses and midwives).
- (2) Health-care providers offering care to women should receive in-service training, ensuring it:
 - enables them to provide first-line support;
 - teaches them appropriate skills, including: when and how to enquire – the best way to respond to women;
 - teaches them how to conduct forensic evidence collection where appropriate;
 - enables them address: basic knowledge about violence, including laws that are relevant to victims of intimate partner violence and sexual violence;
 - enables them to have the knowledge of existing services that may offer support to survivors of intimate partner violence and sexual violence (this could be in the form of a directory of community services); and
 - enables them to understand the inappropriate attitudes among health-care providers (e.g. blaming women for the violence, expecting them to leave, etc.), as well as their own experiences of partner and sexual violence.
- (1) Training for health-care providers on intimate partner violence and sexual assault should include different aspects of the response to intimate partner violence and sexual assault (e.g. identification, safety assessment and

planning, communication and clinical skills, documentation, and provision of referral pathways).

- (2) Training for both intimate partner violence and sexual assault should be integrated in the same program, given the overlap between the two issues and the limited resources available for training health-care providers on these issues.

Teaching-learning strategies on IPV

Regarding learning activities Tufts et al. (2009) suggest that it “should be designed with the purpose to familiarize learners with various instructional methods, to support the development of skills for assessment and intervention for IPV, and to serve as a model for learning activities that can be used to teach students.”

Pan African Health Organization (2015) suggested a “curricula specifically aimed at healthcare professionals and applicable across low-and-middle-income countries” as a base for two types of professional development as follow:

- *Pre-service*: a classroom-based professional development program for students of medicine, nursing, midwifery and other allied professions.
- *In-service*: a web-based professional development program for medical doctors that would be suitable for self- paced professional development in low and middle resource settings.

Educational models (What works?)

Regarding professional development delivery methods, some authors suggest the following methods (Hallgarten, 2010; PAHO & WHO, 2015; Tufts, Clements, & Karlowicz, 2009; World Health Organization, 2013b):

Pre-service professional development

- *Standardized patient*: to develop skills in conducting bio-psycho-social assessments and practice interpersonal communication skills to address survivor of IPV. This can also be complemented with scripted role-play of client-provider interaction and simulation.
- *Interviews*: to have the experience of face to face dialogue with a survivor of IPV using case scenarios, case studies and survivors’ stories.
- *Service learning*: to provide insight into the social impact of domestic violence and be in contact with available programs and services that may be used for community and clinical experiences, combined with *simulation*: to develop assessment skills and intervention strategies needed to care appropriately for patients who are a survivor of IPV.
- *Case scenarios, case studies, survivors’ stories*: to address problematic behavior and beliefs.
- *Videos* (e.g. simulation of client-provider interactions)
- *Interactive exercises* and aids.

The same authors recommend smaller groups to provide maximum opportunities for interaction. However, in contexts where only larger groups are possible they recommend interactive activities (e.g. videos, polling mechanisms, create smaller groups for discussion, and online discussion forums).

In-service professional development

It is recommended to use the ‘team approach’ on-the-job professional development including all persons working in a given health-care setting in order to promote principles of teamwork and equally distributing the responsibility for providing proper care the survivor of IPV (PAHO & WHO, 2015). The same authors recommend the WHO’s Clinical Handbook ‘Health care for women subjected to intimate partner violence or sexual violence’ as guidance for in-service professional development.

A systematic review conducted by Zaher, Keogh, & Ratnapalan (2014) suggests that medical doctors’ knowledge about domestic violence can be improved through “educational interventions that involve *physicians’ active participation and experiential learning*.” For instance, “*interactive workshops* change clinicians’ attitudes and performance and influence their everyday practices for managing victims of domestic violence” (Zaher et al., 2014). On the other hand, the same authors stated that domestic violence *workshops* for postgraduate trainee physicians “did not produce a meaningful effect on their behavior in identifying victims of domestic abuse.” In contrast, “*e-learning* can improve physicians’ knowledge and skills, and can produce more sustained behavioral change compared with workshops” (Zaher et al., 2014). The authors also suggest that the use of *standardized patients* in domestic violence training improve knowledge and skills and also more reported cases of domestic violence among postgraduate physicians. In support of standardized patients, *Interactive, Web-based* domestic violence modules are shown significant “improvement in medical doctors’ knowledge and self-efficacy to diagnose and deal with survivors of domestic violence” (Zaher et al., 2014). *Multifaceted education* and *institutional or systemic changes* are also referred by Zaher and his colleagues to be effective in improving medical doctors’ behavior on reporting and referrals of domestic violence.

Placement of IPV contents in Medical Schools’ Curricula

Authors suggest that IPV contents should be addressed in the preclinical years included on family medicine and in clinical years in gynecology and obstetrics and/or medico-legal disciplines (Fawole, Van Wyk, & Adejimi, 2013; Joyce, Jung, Lucia, Kavanagh, & Afonso, 2015).

As few medical schools adequately address IPV, there is a need to evaluate curriculum contents to enhance the role of medical schools in prevention and medical care related to this topic. If a medical school already has contents related to IPV Tufts, Clements, & Karlowicz (2009) suggest analyzing the following questions:

- (1) In what course(s) is the content currently being taught?
- (2) How much time is devoted to presenting content?
- (3) What knowledge and skills are students’ being taught and how detailed is the information they are receiving?
- (4) What learning activities are used, and how effective are they in reinforcing knowledge and developing students’ skills to effectively screen?
- (5) Where are the gaps in education, and how can these be filled to enhance the learning experience to assure that students are exposed to critical knowledge and skills necessary to provide competent care?

At the moment of writing this proposal, it was not yet possible to identify the concrete curriculum contents on IPV mitigation at medical schools. These topics are given by a

means of short courses and modules. The referred modules are given as pre- and in-service at healthcare intuitions or organizations working on IPV, for example, the Domestic Violence Module suggested by some Demographic and Health Surveys. However, country-level adaptations to the modules are recommended in order to enhance adherence and the feeling of ownership. When design a curriculum on IPV, it is important to see if there is a correlation between the curricula contents and the National Policies. Increasing the use of updated information on IPV and a coordinated integration of National Policies in the contents of the curricula is also recommended. The use informal learning can help to adjust these important updates. It is also important to have a clear overview on which National Policies the curricula are trying to answer.

This proposal is intended to look for what is being done at medical schools in Mozambique and developing the scientific bases for the IPV mitigation curriculum content next to the actual improvement of the IPV capacities in medical doctors in medical schools in Mozambique.

Possible implementation challenges

As changing competencies of students and medical doctors can be a challenge, the Pan African Health Organization (2015) suggests to sensitize teachers and staff regarding IPV and principles (e.g. gender equality) for addressing IPV. It is important to provide proper guidance to the medical schools on how to evaluate the curriculum's learning objectives in order to present indicators of changes in medical doctors and students' competencies (PAHO & WHO, 2015).

Taking into account, the findings of this study an analysis of what the scientific bases are for the contents of IPV at medical schools in Mozambique will be undertaken.

GENERAL OBJECTIVE

To evaluate existing curricula on IPV mitigation and identify ways to improve curricula on IPV mitigation-content in order to enhance prevention and medical care in Mozambique.

SPECIFIC OBJECTIVES

- (1) To evaluate existing curricula on IPV mitigation in order to identify important characteristics and the educational formats being internationally adopted;
- (2) To identify the gaps in contents in the medical curricula of Mozambique, taking into account the international and the WHO guidelines on IPV mitigation, and;
- (3) To design and evaluate two alternative IPV mitigation modules in order to design innovative IPV mitigation curricula for medical students in Mozambique.

METHODOLOGY

The study will be conducted using mixed methods approaches and will consist of three sub-studies. *The settings will be health units where medical students have clerkships* and five medical schools in Mozambique namely Faculty of Health Sciences of the Catholic University of Mozambique (FHS – UCM), Faculty of Medicine of Eduardo Mondlane University (FM – UEM), Faculty of Health Sciences of University of Zambeze (FM – UniZambeze) and the Medical Course of the Higher Institute of Science and Technology of Mozambique (MC – ISCTEM) and the Faculty of Medicine of UniLúrio University (FM – UniLúrio).

In order to address objective 1, to evaluate existing curricula on IPV mitigation in order to identify important characteristics and the educational formats being internationally adopted, we will do Semi-Structured Interviews (SSIs). With medical doctors and medical students and systematic (literature) review of international medical curricula and existing medical curricula of Mozambique with contents related to IPV mitigation. In order to have evidence-based minimum items to be reported on the systematic reviews regarding IPV contents, the “Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2009 Flow Diagram” and the “PRISMA 2009 Checklist” will be used to identify important characteristics and educational formats internationally adopted (see appendices A and B). The data will be collected to identify different approaches used and assessment procedures in the teaching-learning process among medical students on IPV.

Research Questions

1. How is undergraduate teaching regarding IPV mitigation set up in medical schools: what instructional approaches are being used?

A systematic (literature) review of medical curricula with contents related to IPV mitigation will be held to identify the approaches used and assessment procedures in the teaching-learning process on IPV taking in account International and the WHO guidelines. Medical doctors responsible for bedside teaching, ambulatory care, and lecturing from the four main clerkships (Medicine, Pediatrics, Gynecology – Obstetrics and Surgery), also the community health department in the medical schools will also be contacted to identify the approaches and assessment procedures on IPV mitigation curricula by a means of SSIs. From each of the medical schools, two third years’ students (class representatives) and two sixth years’ students (class representatives) and two medical doctors selected by convenience, will be invited to elaborate further on the topics found on the document analysis. Key respondents, as course directors and head of departments, will also be asked to participate in the SSIs. Purposively selected topics found on the document analysis on IPV would be used to undertake the SSIs.

2. How is undergraduate teaching regarding IPV mitigation set up in medical schools of Mozambique: what teaching methods are being used?

A systematic literature review of existing medical curricula of Mozambique with contents related to IPV mitigation will be held to identify gaps in the approaches used and assessment procedures in the teaching-learning process on IPV taking in account International and the WHO guidelines. Medical doctors responsible for bedside teaching, ambulatory care and lecturing from Neurology, Urology, Gastroenterology, Internal Medicine, Psychiatry, Pediatrics, Gynecology-Obstetrics, Community Health/Family Medicine, Emergency Medicine, Forensic Medicine, Surgery and Orthopedics departments will also be contacted to identify the approaches and assessment procedures on IPV mitigation curricula in Mozambique.

Study design

Systematic (literature) review of medical curricula in Mozambican and other worldwide medical schools also interviews of teachers and medical students.

Study settings

The settings will be health units where medical students have clerkships and five medical schools in Mozambique namely:

- Faculty of Medicine of Eduardo Mondlane University (FM – UEM)
- Faculty of Health Sciences of the Catholic University of Mozambique (FHS – UCM)
- Faculty of Medicine of University of Zambeze (FM – UniZambeze)
- Medicine Course of the Higher Institute of Science and Technology of Mozambique (CM - ISCTEM).
- Faculty of Medicine of UniLúrio University (FM – UniLúrio).

At the moment of submission of this protocol, with the addenda, to the institutional ethical committee, we only have the answer of a request for data collection from the Central Hospital of Maputo, District Health, Women and Social Welfare Services of Nampula and Central Hospital of Nampula.

Data collection

Semi-structured Interviews

From each of the medical schools, two third years' students (class representatives) and two sixth years' students (class representatives) and two medical doctors selected by convenience taking into account the data collected in the questionnaire, will be invited to further elaborate on the topics discussed in the questionnaire. Key respondents, as course directors and head of departments, will also be asked to participate in the Semi-Structured Interviews (SSI). Purposively selected topics on IPV will be used to undertake SSI. The interviews are going to be conducted using validated tools for medical doctors.

Analysis of documents

In a systematic analysis, conceptual and logical entities regarding the best practices on approaches on medical curricula on IPV will be explored in a theoretical way as well as critical issues within the programs and document's central ideas and later the objectives, methods and contents on IPV. All the documents will be analyzed summarized and compared, followed by a systematic analysis to examine each document. In the end, the Mozambique medical schools curricula will be compared with the best practices, recommendations and curricula contents regarding IPV mitigation from the WHO guidelines.

An adaptation of the method of Follingstad & Bush (2014) for a comprehensive literature reviews for collecting the most significant and reliable data in order to establish a criterion standard instrumentation for IPV mitigation, will be used to identify:

- (1) the issues or aspects of the criteria under consideration and the significance of the issues;
- (2) the review method (including the sources for identifying relevant studies, the number of studies considered, the criteria for inclusion and exclusion from the review, and the variables cataloged in each study;
- (3) the results of the review (including a descriptive summary of the studies with respect to methodology, design, and substantive correlates of the

findings, the relevant findings, and the analyzes conducted on these findings); and

- (4) the various options for resolving the issue, the advantages and disadvantages of each option, recommendations, and suggestions for additional research that would be needed to provide a more conclusive resolution.

Ethical considerations

All participants will be explained that the aim of the study is to provide a thorough analysis of the scientific basis for contents on Intimate Partner Violence (IPV) and approaches to improve the ability to recognize and treat IPV in the curricula of medical schools in Mozambique. They will also be explained that the study is also intended to identify ways to integrate IPV in the curricula of medical schools in Mozambique and contribute to improving IPV contents in the curricula to enhance prevention and medical care on the IPV. In the same way, the participants will be explained that their identities and responses will remain confidential, that participation is fully voluntary and can be terminated at any time without consequences.

Assurance of confidentiality maintenance about the respondent's experiences, opinions and location or medical schools that they belong will be guaranteed by the researcher. Permission will be asked for audio-taping. After these explanations, the participants will be invited to sign a written informed consent form. The participants and their responses will be anonymous in any publications and no pictures or film that may expose their identity will be taken unwillingly. The researcher will have full access to all of the data in the study, and will accept full responsibility for the integrity of the data and the accuracy of the data analysis.

The discussions will be general, and no pressure will be used to the participants to share their personal experiences. It is believed, however, that participants' opinions and views are informed by their personal experiences. Upon completion of the interviews, the collected data will be logged and protected on a personal computer file of the researcher. The data is going to be securely stored in a locker at the researcher's office at the Community Health Department of the Eduardo Mondlane University. Measures are going to be taken to ensure the confidentiality of all hard copies and electronic assets of the interviews and ensure the privacy of personal data of candidates.

The design of the study is going to be reviewed by the Institutional Bioethics Committee for Health, Faculty of Medicine/Maputo Central Hospital (CIBS FM & MCH, contact +258 82 5881101), from where the researcher is based, before the data collection. *Permission to carry out the study within the medical schools and health units was obtained from each of the schools and health* that are going to participate in the study.

In order to address objective 2, to identify the gaps in contents in the medical curricula of Mozambique, taking into account the international and the WHO guidelines on IPV mitigation:

Research Questions

1. What is current level of Mozambican medical doctors' competencies on dealing with the survivors of IPV?
2. What are the gaps of Mozambican medical doctors' to address the survivor of IPV in comparison with what the literature shows in relation to the expectations of the survivors of IPV and the WHO guidelines?

Study design

This study will be guided by qualitative methods such as Questionnaires, Focus Group Discussions (FGDs) and In-Depth Interviews (IDI), which are the most suitable to explore challenges that medical doctors can face implementing interventions on IPV.

On the base of the curriculum analysis, we are going to develop an instrument that covers the content and helps to get a reported self-mastery of the different domains in the field of IPV. This new questionnaire will be developed after analysis of the literature and FGDs results. Two FGDs with students from the third and sixth years are going to be set up in order to identify the way they perceive the curriculum, what they consider to be critical to learn and to be taught. This in combination with the literature review results is going to be discussed with medical doctors responsible for bedside teaching and lecturing from the four main clerkships in the medical schools to assure the appropriate content of the questionnaire.

A self-administered questionnaire on students' and medical doctors teaching at medical schools' competencies, factors influencing their acquisition of competencies and prior professional development on IPV will be used for data collection. The questionnaire will consist in background variables, students/doctors perceptions in relation to IPV curriculum components and mastery of IPV knowledge and skills. The final part of the questionnaire will be used to explore students' and medical doctors teaching at medical schools' perceptions and attitudes towards perpetrators and survivor, their levels of empathy for the survivor, and their skills in managing the survivor.

Medical students from the third year and also from the last year of the medical school will constitute the primary respondents while faculty member will be the secondary respondents. Faculty members will include medical doctors responsible for bedside teaching and lecturing from the four main clerkships (Medicine, Pediatrics, Gynecology – Obstetrics and Surgery) and the community health department in the medical schools. Key informants, policy makers and stakeholders working on IPV will also participate in the studies.

FGD and IDI using validated tools will also be applied to medical doctors teaching at medical schools and third year's and sixth years' students of four medical schools in Mozambique, using a combination of closed and open-ended questions. It will be used to verify the extent of coverage of IPV contents in the curriculum. The questions will

also be used to explore the competencies of trainers, and suggestions to improve students' competence on IPV.

A pilot study will be conducted with 20 students (from a different population of students) of all involved medical schools. The pilot study is intended to assess the practicality and utility of using interview techniques relevant to the study and to improve clarity and reduce ambiguity. The students are going to be asked to provide feedback on schedule and the guiding framework of the questionnaire. They will likewise be requested be asked to comment on any confusion and their overall impressions of the loosely structured instrument, as well as to make general suggestions for improvement. The aim is to develop a questionnaire that will address key topics in a sequence that will make most sense to informants. Each questionnaire will take about 20 minutes to complete.

The results of these analyzes will be triangulated to provide a richer and complete understanding of the medical knowledge, professional attitudes, and clinical skills on how the health sector should address contents in IPV and how this is implemented in the medical schools.

For the purposes of validation, the results of the analysis of the documents and comparisons will be triangulated with the results from the questionnaires, and FDGs and IDI. Data from medical students is also going to be triangulated with the ones from the medical students.

Study settings

The settings will be four medical schools in Mozambique namely:

- Faculty of Medicine of Eduardo Mondlane University (FM – UEM).
- Faculty of Health Sciences of the Catholic University of Mozambique (FHS – UCM).
- Faculty of Medicine of University of Zambeze (FM – UniZambeze)
- Medicine Course of the Higher Institute of Science and Technology of Mozambique (CM - ISCTEM).
- Faculty of Medicine of UniLurio University (FM – UniLúrio).

Data collection

Questionnaire

For the purpose of this study, we will use a 50% of the total population of about 293 medical doctors teaching at the medical schools and 50% of the total population of 376 students from the 3rd years and 228 students from the 6th years of the medical schools involved in the study.

Medical students

A randomized selection will be done using 3rd year and 6th year's student's lists. As the percentage of students from medical schools of Mozambique, who have the competencies in dealing with the survivor of IPV is unknown, we calculated a required sample size based on an expected prevalence of 50% with a confidence interval of 95%, α 0.05 and critical value $Z_{\alpha/2}$ of 1.96 obtaining an n of 191 students from the 3rd years and an n of 144 students from the 6th years of the medical schools. Therefore, at-least 191 students from the 3rd years and 144 students from the 6th years involved in the study are going to be invited to participate in the study.

The minimum required number of participants from each medical school is going to be distributed as follows:

- FM – UEM: $n= 62(32.44\%)$ medical students from the 3rd year and $n= 63(43.85\%)$ medical students from the 6th year.
- FHS – UCM: $n= 21(11.17\%)$ medical students from the 3rd year and $n= 15(10.08\%)$ medical students from the 6th year.
- FM – UniZambeze: $n= 38(11.96\%)$ medical students from the 3rd year and $n= 15(22.80\%)$ medical students from the 6th year.
- CM – ISCTEM: $n= 47(24.73\%)$ medical students from the 3rd year and $n=34 15(10.08\%)$ medical students from the 6th year.
- FM – UniLúrio: $n= 23(19.68\%)$ medical students from the 3rd year and $n= 19(13.16\%)$ medical students from the 6th year.

Medical doctors

Recruitment will be done by convenience, from the medical doctors teaching at medical schools and health units. As the percentage of medical doctors from Mozambique, who have the competencies in dealing with the survivor of IPV is unknown, we calculated a required sample size based on an expected prevalence of 50% using a confidence interval of 95%, α 0.05 and critical value $Z_{\alpha/2}$ of 1.96 is obtained an n of 167 medical doctors. Therefore, at-least 167 medical doctors teaching at the medical schools are going to be invited to participate in the study.

The medical doctors teaching at medical schools will be invited to participate on the adapted questionnaire. This questionnaire will be used to explore challenges to implementing interventions on IPV - the participants will be invited to refer the numbers of years in clinical practice (two years before this study, two to five years before this study or from five or more years before this study).

At least 36 medical doctors working at a clinical setting are going to be invited to participate in semi-structured interviews. The purpose of this inclusion is to critically analyze the reality of Mozambique regarding the doctors' perceptions on dealing with IPV survivors referral mechanisms, gaps in curricula contents and teaching-learning strategies, how IPV contents should be integrated in the curricula and collect case examples (real situation) on the topic to be used for the proposed contents in the curriculum and module on IPV.

The minimum required number of participants from each medical school is going to be distributed as follows:

- FM – UEM: $n=110$ (65.87%) medical doctors.
- FHS – UCM: $n=30$ (17.74%) medical doctors.
- FM – UniZambeze: $n=4$ (2.38%) medical doctors.
- CM – ISCTEM: $n=3$ (2.04%) medical doctors.
- FM – UniLúrio: $n=20$ (11.95%) medical doctors.

In-Depth Interviews

From each of the medical schools, two third years' students and two sixth years' students, will be invited to further elaborate on the topics discussed in the

questionnaire. Key respondents, as course directors and head of departments, will also be asked to participate in the In-Depth Interviews (IDI). Purposively selected topics on IPV will be used to undertake IDI. The interviews are going to be conducted using validated tools for medical doctors.

A letter of support from the medical directors from the health units where the medical students have clerkships will be requested prior data collection. The semi-structured interviews are going to be done using telephone calls - as prior studies demonstrated that medical doctors feel more comfortable with this method than face-to-face interviews - after letter of support and phone numbers requested from the head of hospital/health center. Medical doctors are going to be contacted by telephone or by a personal meeting in the field.

Recruitment of medical doctors working at health units where medical students have clerkships is going to be focused on key-persons and key-health units specialized in dealing with IPV survivors. The selected settings will be based in the provinces where the five medical schools included in the study are based (south, center and north provinces of Mozambique). At least 36 medical doctors are going to be invited to participate on the semi-structured interviews. First-wave participants will be the heads of Neurology, Urology, Gastroenterology, Internal Medicine, Psychiatry, Pediatrics, Gynecology-Obstetrics, Community Health/Family Medicine, Emergency Medicine, Forensic Medicine, Surgery and Orthopedics departments or suggested by the Ministry of Health, the Board of Medical Doctors and the medical director. Afterwards these first-wave participants will be invited to indicate other potential participants until saturation of the sample (e.g. indicating medical doctors who were already recruited).

Focus group discussions

In addition to the in-depth interviews, purposively selected topics on IPV will be used to undertake the focus group discussions using validated tools for the medical doctors teaching at the medical schools and 3rd years and 6th years students. The topics will be used to learn more about the degree of medical doctors' and medical students' consensus on how to deal with the survivor of IPV and compare it to the expectations of the survivor that the literature refer. We will purposively select a representative number of participants from the Community Health Department and the four main clinical backgrounds (Medicine, Pediatrics, Gynecology – Obstetrics and Surgery). The participants will be selected by convenience considering the data collected in the questionnaire. Vignettes using purposively selected topics on IPV in combination with the Metaplan technique will be used to clarify medical doctors teaching at medical schools and medical students' perspectives on how to approach IPV contents.

It is aimed to organize 16 FGDs (2 for medical doctors from each medical school/site, 2 for third years' and 2 from sixth years' students from each medical school) each consisting of 8-10 participants. Each FGD is expected to last no longer than 2 hours and will be in the medical schools where participants are recruited. Time and location of the FGD will be jointly decided by field researchers and the participants. During the discussions, a beverage and a light snack will be offered to the participants. Medical doctors and medical students will participate in separate groups - two groups of physicians and three groups of medical students for each school or until saturation.

FGDs will be audio recorded and then transcribed in digital word documents by either the note taker or facilitator.

Data analysis

For quantitative data, descriptive analysis, frequencies, means and standard deviations will be performed using statistical software SPSS 21.0. Bivariate analysis using the chi-squared (χ^2) test is going to be used to determine the associations between variables. Significant variables in the bivariate analysis are going to be entered into a logistic regression model to determine the strength of the associations. P-values <0.05 are put forward as the significant level.

Audiotaped interviews are going to be transcribed and then “cleaned” by the researcher to remove any references that could identify participants as well as to segments obscured by an accent. The researcher will review each transcript, identify key themes, develop a code book with definitions and then use NVIVO qualitative data analysis software to code each transcript. Additional themes are going to be identified and added as analysis progress. As the interviews progress, the researcher is going to review the tapes and transcripts and perform coding checks. After that, the thematic codes are going to be exported from the software and the researcher will develop a thematic analysis which will turn into the core of this study. Only the code families and their definitions are going to be included in the study. If needed, a list of sub-codes will also be included.

Ethical Considerations

All participants will be explained that the aim of the study is to provide a thorough analysis of the scientific basis for contents on Intimate Partner Violence (IPV) and approaches to improve the ability to recognize and treat IPV in the curricula of medical schools in Mozambique. They will also be explained that the study is also intended to identify ways to integrate IPV in the curricula of medical schools in Mozambique and contribute to improving IPV contents in the curricula to enhance prevention and medical care on the IPV. In the same way, the participants will be explained that their identities and responses will remain confidential, that participation is fully voluntary and can be terminated at any time without consequences.

Assurance of confidentiality maintenance about the respondent’s experiences, opinions and location or medical schools that they belong will be guaranteed by the researcher. Permission will be asked for audio-taping. After these explanations, the participants will be invited to sign a written informed consent form. The participants and their responses will be anonymous in any publications and no pictures or film that may expose their identity will be taken unwillingly. The researcher will have full access to all of the data in the study, and will accept full responsibility for the integrity of the data and the accuracy of the data analysis.

The discussions will be general, and no pressure will be used to the participants to share their personal experiences. It is believed, however, that participants’ opinions and views are informed by their personal experiences.

The hours for the FGDs and IDI will be set at time, place and day convenient for participants. They will be informed beforehand that the FGD and IDI will take at a maximum for 2 hours. Participation will not directly benefit, financially or by other

means, for participating in this study, nor will the participants suffer any penalties for failure to participate. However, the FGD participants will be provided with a beverage and a light snack during the FGD. To guarantee the protection of the participants, all staff involved in this research will follow standard data collection procedures and will comply with the Mozambique Ethical Committee guidelines.

The design of the study is going to be reviewed by the institutional ethical committee from where the researcher is based before the data collection. Permission to carry out the study within the medical schools was obtained from each of the schools that are going to participate in the study and also from the Medical Board of Mozambique.

In order to address objective 3, to design and evaluate two alternative IPV mitigation modules in order to design innovative IPV mitigation curricula for medical students in Mozambique, we are going to focus on IPV mitigation content found neglected in studies 1 and 2:

Research Question

What is the differential impact of two alternative IPV mitigation modules on medical students' competencies, considering the moderating/mediating effect on Intrinsic Motivation, Self-Efficacy, IPV curriculum perceptions and Student Satisfaction?

A module will be evaluated using pre-post adapted questionnaire to analyze the impact of the professional development and other dependent mediating/moderating variables. A follow-up interval of 6 months and then 12 months will be used to understand the retention of the competencies gained from students during the medical course and medical practice.

Study design

The quality goals to determine program success are going to be articulated during the Curriculum Design Process. Studies 1 and 2 evaluation results will be compared with the quality goals suggested on the literature review, and the following decisions will be made: 1) To implement the curriculum contents on IPV mitigation as designed or 2) To improve the contents and then implement. Once the course has met or exceeded quality goals, the adapted module on IPV mitigation will be released.

A Pilot Process will be applied to the participants from the target population. For the analysis of the adapted innovative module on IPV mitigation, a methodology adapted by Castro & O'Brien (2011) and Everett et al. (2013) will be used to evaluate cognitive learning using a pre-test and post-test. The pre and post-test will be the same, asking the same questions and measure the same abilities. It will be used the difference between the results of the pre- and post-tests to provide the evidence to learning acquired during the module. The pre-test will identify the entry level knowledge of the participants and the post-test how well the module succeeded in teaching the participants the pretended knowledge. The items on the knowledge check will be designed taking into account the course objectives.

In the end, it will be suggested if it will be necessary to apply changes in the curriculum structure of the medical schools such as the addition of supplemental module/subjects on IPV mitigation contents.

Study settings

The settings will be four medical schools in Mozambique namely:

- Faculty of Medicine of Eduardo Mondlane University (FM – UEM).
- Faculty of Health Sciences of the Catholic University of Mozambique (FHS – UCM).
- Faculty of Medicine of University of Zambeze (FM – UniZambeze)
- Medicine Course of the Higher Institute of Science and Technology of Mozambique (FM - ISCTEM).
- Faculty of Medicine of UniLúrio University (FM – UniLúrio).

Data collection

Based on the findings of studies 1 and 2, an adapted classroom-based interdisciplinary module of IPV will be developed and tested for the same medical students from study 2. The students will be randomly selected and assigned to either innovative professional development approach group (clinical simulations) - based on the findings from studies 1 and 2, regarding the critical IPV mitigation knowledge and skills necessary to provide competent care - or a case-based approach group. One private medical school and one or two public medical school(s) will be randomly selected for the clinical simulations professional development approach group and one private medical school, and one or two public medical school will be randomly selected for a case-based approach group. This module will be evaluated using pre-post professional development by the means of a questionnaire on competencies acquired.

A professional development analysis will be used to understand where professional development can help improve medical doctors' competencies in dealing with IPV.

Ethical Considerations

All participants will be explained that the aim of the study is to provide a thorough analysis of the scientific basis for contents on Intimate Partner Violence (IPV) and approaches to improve the ability to recognize and treat IPV in the curricula of medical schools in Mozambique. They will also be explained that the study is also intended to identify ways to integrate IPV in the curricula of medical schools in Mozambique and contribute to improving IPV contents in the curricula to enhance prevention and medical care on the IPV. In the same way, the participants will be explained that their identities and responses will remain confidential, that participation is fully voluntary and can be terminated at any time without consequences.

Assurance of confidentiality maintenance about the respondent's experiences, opinions and location or medical schools that they belong will be guaranteed by the researcher. Permission will be asked for audio-taping. After these explanations, the participants will be invited to sign a written informed consent form. The participants and their responses will be anonymous in any publications and no pictures or film that may expose their identity will be taken unwillingly.

The design of the study is going to be reviewed by the Institutional Bioethics Committee for Health, Faculty of Medicine/Maputo Central Hospital (CIBS FM & MCH, contact +258 82 5881101), from where the researcher is based, before the data collection. Permission to carry out the study within the medical schools was obtained from each of the schools that are going to participate in the study. Upon completion of the interviews, the collected data will be logged and protected on a personal computer file of the researcher. The data is going to be securely stored in a locker at the researcher's office at the Community Health Department of the Eduardo Mondlane University. Measures are going to be taken to ensure the confidentiality of all hard copies and electronic assets of the interviews and ensure the privacy of personal data of candidates.

EXPECTED RESULTS AND DISCUSSION APPROACHES

Specific Objective 1. To evaluate existing curricula on IPV mitigation in order to identify important characteristics and the educational formats being adopted internationally and to understand how IPV mitigation contents is integrated into Mozambican medical curricula?

The type of curriculum addressed in each school will be categorized, and a small description of methods used in that institution will be defined and described. Triangulation and systematic analysis will be used to enhance credibility by converging validation on theory or ideas.

Specific Objective 2. To identify the gaps in contents in the medical curricula of Mozambique, taking into account the international and the WHO guidelines on IPV mitigation.

Questionnaires, FGDs and IDI (addressed to medical students and medical doctors) will be collected and correlated at different times during the study and construct validation will be used for analysis and interpretation of data.

Specific Objective 3. To design and evaluate internationally validated modules in order to design innovative IPV mitigation curricula for medical students in Mozambique.

An analysis of the knowledge gain from the professional development program of the module on IPV for medical students and medical doctors will be conducted and summarized.

ASSUMPTIONS OF THE STUDY

As few schools of medicine address IPV mitigation on their curriculum or do it informally, probably it will be difficult to encounter the contents in the curriculum of the schools. Also, it can be difficult to have medical doctors willing to participate in the questionnaires, FGDs, and SSIs because of overlap of activities, discomfort with the subject or lack of skills and resources to manage IPV.

Possible theoretical and practical implications

This study will be anonymous and is not intended to make conclusions about specific programs. The study is intended to enhance the use of updated information on IPV, a coordinated integration of National Policies on curricula contents for addressing IPV, create medical doctors role models on the topic, and create a culture of awareness and sensitivity on IPV. The study also intends to create a culture to attend continuing education, to explore national and local educational resources and publish in IPV contents.

TIMEFRAME

	2015		2016		2017		2018	
Semesters	1	2	1	2	1	2	1	2
Objective 1. To evaluate existing curricula on IPV mitigation in order to identify important characteristics and the educational formats being internationally adopted.								
Data collection and Literature Review (curricula on IPV, scientific articles, policies, documents, key informants, etc.).	X	X	X					
Analysis of documents (curricula on IPV, scientific articles, policies, documents, etc.).	X	X	X					
Objective 2. To identify the gaps in contents in the medical curricula of Mozambique, taking into account the international and the WHO guidelines on IPV mitigation.								
Data collection and Literature Review (curricula on IPV, scientific articles, policies, documents, etc.).	X	X	X					
Analysis of documents (curricula on IPV, scientific articles, policies, documents, etc.).	X	X	X					
Participation in classes and support courses.		X	X	X	X	X	X	
Data collection (Questionnaires, FGD, IDI).								
Processing of data.								
Analysis of the data collected.			X	X	X	X	X	
Preliminary results.								
Objective 3. To design and evaluate two alternative IPV mitigation modules in order to design innovative IPV mitigation curricula for medical students in Mozambique.								
Perform a pilot study to adapt the data collection instruments.			X					
Validation and qualification of data collection instruments.			X					
Data collection (Questionnaires, FGD, IDI).								
Processing of data.								
Analysis of the data collected.			X	X	X	X		
Preliminary results.								
Delivery of adapted module of IPV.								
Data collection (pre-protraing questionnaires).								
Processing of data.			X	X	X	X		
Analysis of the data collected.								
Preliminary results.								
Preparation of articles.			X	X	X			
Presentation in scientific events.		X	X	X	X			
Inclusion of feedback provided.						X	X	
Finalizing the thesis.						X	X	
Public defense.								X

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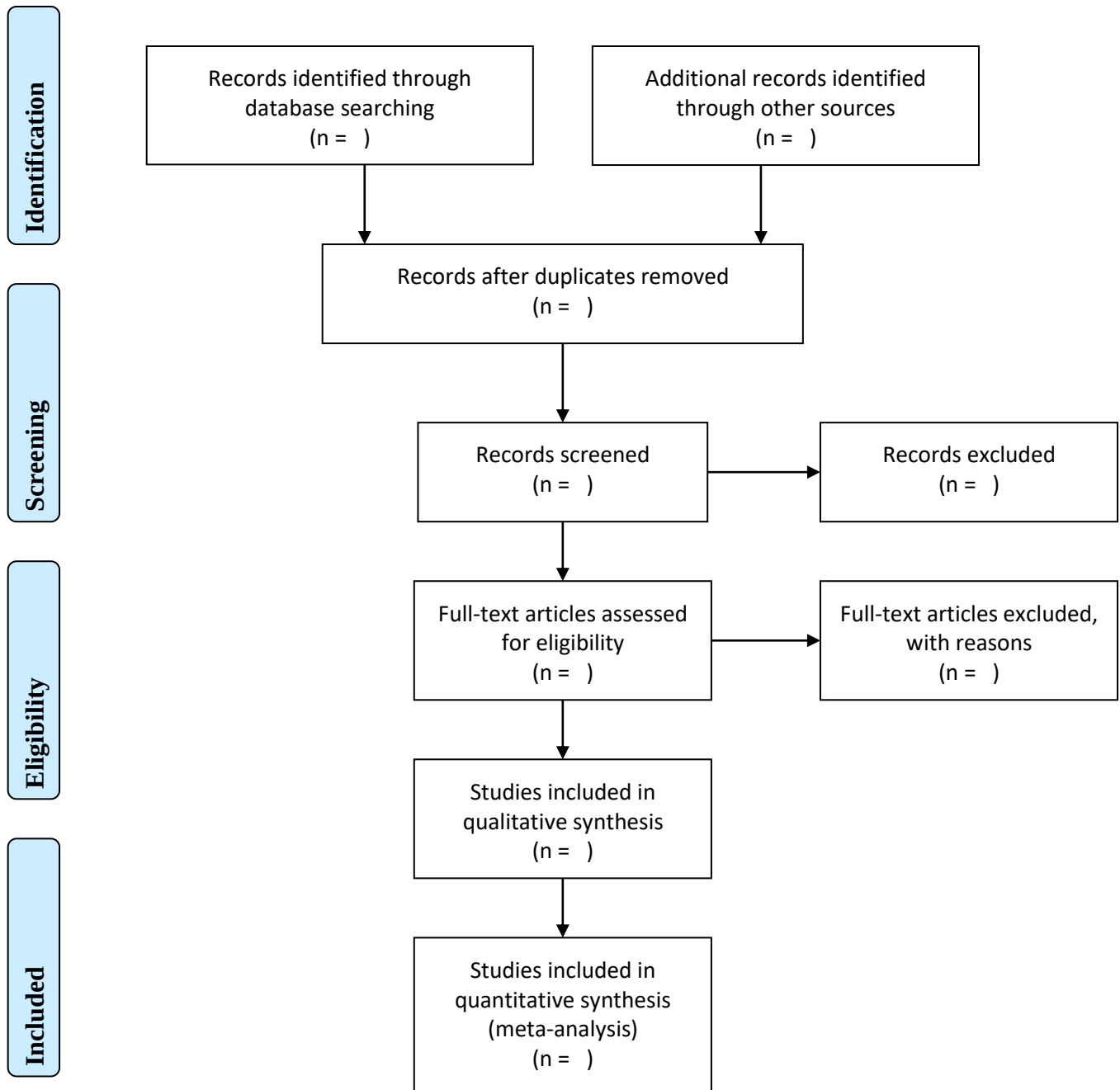
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APPENDICES

Study 1

PRISMA 2009 Flow Diagram



A. PRISMA 2009 Checklist

Section/topic		#	Checklist item	Reported on page #
TITLE				
Title		1	Identify the report as a systematic review, meta-analysis, or both.	
ABSTRACT				
Structured summary		2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	
INTRODUCTION				
Rationale		3	Describe the rationale for the review in the context of what is already known.	
Objectives		4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	
METHODS				
Protocol and registration		5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	
Eligibility criteria		6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	
Information sources		7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	
Search		8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	
Study selection		9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	
Data collection process		10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	
Data items		11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	
Risk of bias in individual studies		12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	
Summary measures		13	State the principal summary measures (e.g., risk ratio, difference in means).	

Synthesis of results		14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	
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B. IDI Informed Consent Form for Medical Students and Medical Doctors
Addressing Intimate Partner Violence: Implications in Medical Curricula In Mozambique (Part 1: For Respondent)

We would like you to participate in a research project that aims at providing an in-depth analysis of the scientific bases for the contents of Intimate Partner Violence (IPV) and the approaches for improving the capacity to recognize and treat IPV among patients at medical schools in Mozambique, will be undertaken.

To this end, we will interview medical students from Mozambique. Based on these interviews we will write a document to identify ways on how IPV should be integrated into curricula of medical schools of Mozambique and contribute to improve curricula on IPV-content in order to enhance prevention and medical care regarding IPV.

We thus invite you to an IN-DEPTH INTERVIEWS that will take about an hour and a half. This interview will be conducted with other medical students and medical doctors, who are also in the same medical schools as you are. The interview takes place at a place that can easily be reached from your medical school/work setting at an hour that was perceived as convenient to the participants. You can quit the interview at any moment without having to provide us with a reason you would like to stop.

This interview will not cause you any harm. In order to take everything into account what you mention, we would like to record the interview. However, only the researchers will listen to it. After the end of the project, the tapes will be destroyed. We will only ask to sign this informed consent form which will be kept separately from the other data gained through the interviews and which will only be accessible to the principle researchers. All the information given in the interview will be analyzed and stored anonymously. Your name will not be communicated to anyone beyond the team of researchers unless you would want it too. Apart from some refreshments, no other incentives will be given.

At the end of the project, we can inform you of the results either through a written report or a short phone conversation. You can contact the principal researchers at any time through email: chonguile@gmail.com and clarifications regarding the ethical approval by Institutional Bioethics Committee on Health Faculty of Medicine/Maputo Central Hospital (CIBS FM & MCH) by calling 82 588 110.

C. IDI Informed Consent Form for Medical Students and Medical Doctors
Addressing Intimate Partner Violence: Implications in Medical Curricula In Mozambique (Part 2: For Researches)

By signed this form you confirm that:

1. An explanation of the nature of the research has been offered and is understood.
2. The doubts you had have been solved.
3. You are participating voluntarily.
4. You give the permission to the researchers to save and report the results anonymously.
5. You are aware that you can quit the interview at any time without consequences.
6. You are aware that you can be informed on the results at the end of the project.

Read, understood and approved on _____

Interviewee identification: _____

Interviewer's name: _____

Interviewer's signature: _____

Date and time of interview: _____

Local of interview: _____

Informed consent obtained: [X one]

Yes _____ No _____

Copy of consent provided: [X one]

Yes _____ No _____

Interview recorded: [X one]

Yes _____ No _____

(Optional: contact details for communicating on end results (tel/e-mail/ address) _____

E. Study 1 IDI guideline

Undergraduate Intimate Partner Mitigation Curriculum

Your candid responses on the following survey will greatly assist us in our attempt to improve physicians' recognition and management of intimate partner violence-related injuries and illnesses.

Please give us your first, instinctive answer, even if you don't think it is "politically correct." Don't try to think about what your answers "should" be. All responses will be coded by an identifying number only, kept confidential, and analyzed in group form so that no personal information is revealed.

Some questions may seem similar to others. However, we ask that you answer all questions to help ensure the reliability of the assessment. Thank you for taking the time (estimated at 25 minutes) for this In Depth Interview.

Today's date: ____/____/____

Section I: Respondent Profile

Your Age: _____

Gender: ☐ Male ☐ Female

Name of Healthcare Facility _____

3. Primary field of practice:

☐ Internal Medicine

☐ Emergency Medicine

☐ Surgery

☐ Pediatrics

☐ Obstetrics/Gynecology

☐ Community health

☐ Other (specify) _____

Years of experience/grade: _____

School/Institution: _____

Position (medical student, medical doctor, head of department, curriculum developer, etc.): _____

Section II: curriculum.

How is undergraduate teaching done – method:

Classic curriculum: _____

Student centered curriculum: _____

Other teaching method (specify): _____

Have you ever received any formal training on intimate partner violence?

1. Yes ☐ 2. No ☐

If Yes, what type? If No go to last question.

\1. Medical school 2. Workshop 3. Lecture 4. Others _____

If medical school? Answer Questions 3, 4 and 5.

If not, proceed to Question 7.

Years of experience/grade: _____

By which department(s) _____

Where?

1. Lecture room 2. Tutorial 3. Bedside teachings

By whom?

1. Doctor 2. Nurse 3. Social worker 4. Others (specify)

. Have you ever done volunteer work at centers/places for survivors of Intimate Partner Violence?

1. Yes 2. No

. Have you had personal links to victims?

1. Yes 2. No

If yes,

How long _____

Where? _____

Section III: Content of Teaching Curriculum on Intimate Partner Violence

12. What were you taught in the teaching or curriculum? Tick one appropriate to each statement

	YES, I am very skilled	Yes, I have some skill	No, I am not skilled	Don't know
Recognizing/ detecting of Intimate Partner Violence (IPV) (such as picking up warning signs and symptoms and /or screening techniques of all patients suspected to be at risk				
Taking history on intimate Partner Violence abusive episodes (such as frequency and severity of episodes, involvement of other family members, access to dangerous weapons, contributing factors such as alcohol & drugs				
Examining IPV victim (such as the relevant laboratory or side room investigations to perform e.g. taking of microbiology swabs)				
Treating and providing medical care for victims (treatment will depend on part of the body injured/diseased, varies for each department)				
Counseling and facilitating the development of a safety plan with the victim (such as establishing with the patient if it is safe to go home and if not discussion of the options, referral for help, admission to hospital as temporary place of safety)				
Managing / counseling the abusive partner or handling of the "perpetrator" if he/she is in the setting together with the victim				
Discussing coping skills for victims of family violence background or in abusive relationships				
Any other (please specify)				

13. What is your one major suggestion to improve student's knowledge on gender based violence? _____

14. What is your one major suggestion on training methods to improve student's skills on violence case management? _____

Thank you very much for your time.

Budget Objective 1

Activity	Description	Quantities	Price per Unit. mt	Duration (days)	Total in mt
Systematic literature review	Desk review and/or asking for documents and/or contacting key persons while conduction study 2. (Maputo, Sofala, Tete and Nampula)			Continuous	00,00

Study 2

F. IDI Informed Consent Form for Medical Doctors

Addressing Intimate Partner Violence: Implications in Medical Curricula in Mozambique (Part 1: For Respondent)

We would like you to participate in a research project that aims at providing an in-depth analysis of the scientific bases for the contents of Intimate Partner Violence (IPV) and the approaches for improving the capacity to recognize and treat IPV among patients at medical schools in Mozambique, will be undertaken.

To this end, we will interview medical students from Mozambique. Based on these interviews we will write a document to identify ways on how IPV should be integrated into curricula of medical schools of Mozambique and contribute to improve curricula on IPV-content in order to enhance prevention and medical care regarding IPV.

We thus invite you to an IN-DEPTH INTERVIEWS that will take about an hour and a half. This interview will be conducted with other medical students and medical doctors, who are also in the same medical schools as you are. The interview takes place at a place that can easily be reached from your medical school/work setting at an hour that was perceived as convenient to the participants. You can quit the interview at any moment without having to provide us with a reason you would like to stop.

This interview will not cause you any harm. In order to take everything into account what you mention, we would like to record the interview. However, only the researchers will listen to it. After the end of the project, the tapes will be destroyed. We will only ask to sign this informed consent form which will be kept separately from the other data gained through the interviews and which will only be accessible to the principle researchers. All the information given in the interview will be analyzed and stored anonymously. Your name will not be communicated to anyone beyond the team of researchers unless you would want it too. Apart from some refreshments, no other incentives will be given.

At the end of the project, we can inform you of the results either through a written report or a short phone conversation. You can contact the principal researchers at any time through email: chonguile@gmail.com and clarifications regarding the ethical approval by Institutional Bioethics Committee on Health Faculty of Medicine/Maputo Central Hospital (CIBS FM & MCH) by calling 82 588 110.

G. IDI Informed Consent Form for Medical Students and Medical Doctors
Addressing Intimate Partner Violence: Implications in Medical Curricula in Mozambique (Part 2: For Researches)

By signed this form you confirm that:

1. An explanation of the nature of the research has been offered and is understood.
2. The doubts you had have been solved.
3. You are participating voluntarily.
4. You give the permission to the researchers to save and report the results anonymously.
5. You are aware that you can quit the interview at any time without consequences.
6. You are aware that you can be informed on the results at the end of the project.

Read, understood and approved on _____

Interviewee identification: _____

Interviewer's name: _____

Interviewer's signature: _____

Date and time of interview: _____

Local of interview: _____

Informed consent obtained: Yes _____ No _____

Copy of consent provided: Yes _____ No _____

Interview recorded: Yes _____ No _____

(Optional: contact details for communicating on end results (tel/e-mail/ address) _____

H. FGD Informed Consent Form for Medical Students and Medical Doctors
Addressing Intimate Partner Violence: Implications in Medical Curricula in Mozambique (PART 1: FOR RESPONDENT)

We would like you to participate in a research project that aims at providing an in-depth analysis of the scientific bases for the contents of Intimate Partner Violence (IPV) and the approaches for improving the capacity to recognize and treat IPV among patients at medical schools in Mozambique, will be undertaken.

To this end, we will interview medical students from Mozambique. Based on these interviews we will write a document to identify ways on how IPV should be integrated in curricula of medical schools of Mozambique and contribute to improve curricula on IPV-content in order to enhance prevention and medical care regarding IPV.

We thus invite you to a FOCUS GROUP DISCUSSION that will take about an hour and a half. This focus group will be conducted with other medical students, who are also in the same medical schools as you are. The focus group takes place at a place that can easily be reached from your medical school/work setting at an hour that was perceived as convenient to the participants. You can quit the focus group at any moment without having to provide us with a reason you would like to stop.

This focus group will not cause you any harm. In order to take everything into account what you mention, we would like to record the interview. However, only the researchers will listen to it. After the end of the project, the tapes will be destroyed. We will only ask to sign this informed consent form which will be kept separately from the other data gained through the focus groups and which will only be accessible to the principle researchers. All the information given in the focus group will be analyzed and stored anonymously. Your name will not be communicated to anyone beyond the team of researchers unless you would want it too. Apart from some refreshments, no other incentives will be given.

At the end of the project, we can inform you of the results either through a written report or a short phone conversation. You can contact the principal researchers at any time through mail: chonguile@gmail.com and clarifications regarding the ethical approval by Institutional Bioethics Committee on Health Faculty of Medicine/Maputo Central Hospital (CIBS FM & MCH) by calling 82 588 110.

I. FGD Informed Consent Form for Medical Students and Medical Doctors
Addressing Intimate Partner Violence: Implications in Medical Curricula in Mozambique (PART 2: FOR RESEARCHES)

By signed this form you confirm that:

1. An explanation of the nature of the research has been offered and is understood.
2. The doubts you had have been solved.
3. You are participating voluntarily.
4. You give the permission to the researchers to save and report the results anonymously.
5. You are aware that you can quit the interview at any time without consequences.
6. You are aware that you can be informed on the results at the end of the project.

Read, understood and approved on _____

Interviewee identification: _____

Interviewer's name: _____

Interviewer's signature: _____

Date and time of interview: _____

Local of interview: _____

Informed consent obtained: Yes _____ No _____

Copy of consent provided: Yes _____ No _____

Interview recorded: Yes _____ No _____

(Optional: contact details for communicating on end results (tel/e-mail/ address) _____

Budget Objective 2

Activity	Description	Quantities	Price per Unit. mt	Duration (days)	Total in mt
Field work	Inquisitors (Maputo, Sofala, Tete and Nampula)	2x4 = 8	350,00	21	58 800,00
	Supervisors (Maputo, Sofala, Tete and Nampula)	1x4	500,00	21	42 000,00
Material	Pens	1 box (60)	360,00		360,00
	Pencils	2 boxes (8)	200		200,00
	Erasers	1 box (10)	15		150,00
	Markers	4	30		120,00
	Flipchart	4	250		1 000,00
	External hard drive	1	4 000		4 000,00
	Antivirus	1	1 500		1 500,00
	Post stick	4	150		600,00
Total					108 730,00
Printing services	Questionnaire printed sheets (1 questionnaire of 5 pages x 900 copies x 5mt per copy)	900 A4 sheets	.5mtx5pg		2.225,00
	Professional development material printing (.5mt x 2 x pgs. 3,600 A4 leaflets)	3.600 A4 sheets			3 600,00
	Printed sheets of informed consent forms	800 sheets A4	.5mt x 5pg		400, 00
	Archives	10	55		550,00
	Folders	10	30		300,00
	A4 Paper sheets	3	150		450,00
FGD and IDI	Note books	10	120		1 200,00
	Recorders	2	15000		30 000,00
	Refreshments	16x10	160		160, 00
Total					36 260,00
Accommodation, Transport and Communication	Flight tickets Maputo - Beira – Maputo	1	20 000		20 000,00
	Flight tickets Maputo - Tete - Maputo	1	20 000		20 000,00
	Flight tickets Maputo - Nampula – Maputo	1	22 000		22 000,00
	Per diem Beira, Tete and Nampula	3	2 800	21	176 400,00
	Accommodation Beira, Tete and Nampula	3	6 320	21	398 160,00

	Modem Internet (Wi-Fi)	1	4 000		22 000,00
	Vehicle rental	1x4	5 000	21	420 000,00
	Fuel	1x4	500	21	42 000,00
	Airtime	1x4	1 200	21	100 800,00
Total					1 221 360,00
TOTAL in metical					1 366 350,00
TOTAL in euros 1eur = 47mts					29,071.28

Study 3

- J. Adaptive Module: Informed Consent Form For Medical Students and Medical Doctors

Addressing Intimate Partner Violence: Implications In Medical Curricula In Mozambique (Part 1: For Respondent)

We would like you to participate in a module on Intimate Partner Violence that will be part of a research project that aims at providing an in-depth analysis of the scientific bases for the contents of Intimate Partner Violence (IPV) and the approaches for improving the capacity to recognize and treat IPV among patients at medical schools in Mozambique, will be undertaken.

To this end, we will conduct pre-prostrating questionnaires to medical students and medical doctors and medical doctors from Mozambique. Based on these questionnaires we will write a document to identify ways on how IPV should be integrated in curricula of medical schools of Mozambique and contribute to improve curricula on IPV-content in order to enhance prevention and medical care regarding IPV.

We thus invite you to participant in the professional development and fill in the pre-prostrating questionnaires. The professional development will last five days and will take place at a place that can easily be reached from your medical school/work setting at an hour that was perceived as convenient to the participants. You can quit the module at any moment, but we would like you to provide us with a reason you would like to stop as we can use this information to improve our professional development.

Participation in the professional development and in the questionnaires will not cause you any harm. We will only ask to sign this informed consent form which will be kept separately from the other data gained through the study and which will only be accessible to the principle researchers. All the information given will be analyzed and stored anonymously. Your name will not be communicated to anyone beyond the team of researchers unless you would want it too. Apart from some refreshments, no other incentives will be given.

At the end of the project, we can inform you of the results either through a written report or a short phone conversation. You can contact the principal researchers at any time through mail: chonguile@gmail.com and clarifications regarding the ethical approval by Institutional Bioethics Committee on Health Faculty of Medicine/Maputo Central Hospital (CIBS FM & MCH) by calling 82 588 110.

K. Adapted Module: Informed Consent Form for Medical Students and Medical Doctors

Addressing Intimate Partner Violence: Implications in Medical Curricula in Mozambique (Part 2: For Researches)

By signed this form you confirm that:

1. An explanation of the nature of the research has been offered and is understood.
2. The doubts you had have been solved.
3. You are participating voluntarily.
4. You give the permission to the researchers to save and report the results anonymously.
5. You are aware that you can quit the module and the questionnaires at any time without consequences.
6. You are aware that you can be informed on the results at the end of the project.

Read, understood and approved on _____

Interviewee identification: _____

Interviewer's name: _____

Interviewer's signature: _____

Date and time of interview: _____

Local of interview: _____

Informed consent obtained: Yes _____ No _____

Copy of consent provided: Yes _____ No _____

Interview recorded: Yes _____ No _____

(Optional: contact details for communicating on end results (tel/e-mail/ address) _____

Budget Objective 3

Activity	Description	Quantities	Price per Unit. mt	Duration (days)	Total in mt
Material	Pens	2 boxes (120)	360		720,00
	Pencils	2 boxes (8)	200		200,00
	Erasers	1 box (10)	15		150,00
	Markers	4	30		120,00
	Flipchart	2	250		500,00
	External hard drive	1	The same used for study 1.		
	Antivirus	1	The same used for study 1.		
	Post stick	4	150		600,00
Total					2 290,00
Printing services	Questionnaire printed sheets (1 questionnaire of 5 pages x 900 copies x 5mt per copy)	900 sheets A4	.5mtx5pg		2.225,00
	Professional development material printing (.5mt x 2 x pgs 3,600 A4 leaflets)	3.600 sheets A4			3 600,00
	Printed sheets of informed consent forms	800 sheets A4	.5mt x 5pg		400, 00
	Archives	10	55		550,00
	Folders	10	30		300,00
	A4 Paper sheets	3	150		450,00
	Note books	10	120		1 200,00
Total					6 100,00
	Facilitators for workshops	2	5000	5	50 000,00
Total in meticals					58 390,00
Total in euros 1eur= 47mts					1,242.34

Addenda 2. Ethical approval

(CIBS FM&HCM)

O Dr. Jahit Sacarlal, Presidente do Comité Institucional de Bioética em Saúde da Faculdade de
Medicina/Hospital Central de Maputo (CIBS FM&HCM)

CERTIFICA

Que este Comité avaliou a proposta do (s) Investigador (es) Principal (is):

Nome (s): BEATRIZ ALMEIDA DE FRENK MANUEL CHONGO

Protocolo de investigação: sem versão e sem data

Consentimento informado: sem versão e sem data

Questionários: sem versão e sem data

Guião de entrevista: N/A

Do estudo:

TÍTULO: "Addressing intimate partner violence: implications in medical curricula in Mozambique".

E faz constar que:

1º Após revisão pelos membros do Comité das respostas dos investigadores das recomendações feitas durante a reunião de 05 de Maio de 2016 pelo Comité, e que foi incluída na acta 04/2016 o CIBS FM&HCM, emite este informe notando que não há nenhuma inconveniência de ordem ética que impeça o início do estudo.

2º Que a revisão se realizou de acordo com o Regulamento do Comité Institucional da FM&HCM – emenda 2 de 28 de Julho de 2014.

3º Que o protocolo está registado com o número CIBS FM&HCM/006/2016.

4º Que a composição actual do CIBS FM&HCM está disponível na secretária do Comité.

5º Que não existiu nenhum conflito de interesse registado pelos membros do CIBS FM&HCM.

6º O CIBS FM&HCM faz notar que a aprovação ética não substitui a aprovação científica nem a autorização administrativa.

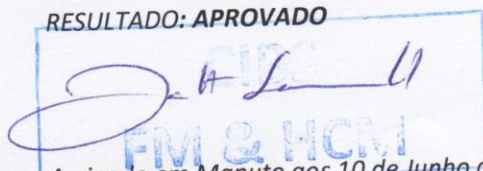
7º A aprovação tem validade de 1 ano e termina a 09 de Junho de 2017. Um mês antes dessa data o Investigador deve enviar um pedido de renovação se necessitar.

8º Recomenda aos investigadores que mantenham o CIBS informado do decurso do estudo no mínimo uma vez ao ano.

9º Solicitamos aos investigadores que enviem no final de estudo um relatório dos resultados obtidos.

E emite

RESULTADO: APROVADO



Assinado em Maputo aos 10 de Junho de 2016

Addenda 3: Permissions to conduct the study

Ao Comité Institucional de Bioética
em Saúde da Faculdade de
Medicina/Hospital Central de
Maputo (CIBS FM&HCM)

CARTA DE COBERTURA AO PROTOCOLO DE INVESTIGAÇÃO DA ESTUDANTE DE
DOUTORAMENTO EM SAÚDE E CIÊNCIAS SOCIAIS, UNIVERSIDADE DE GENT

Como parte integrante das obrigações do curso de Doutoramento em Saúde e Ciências Sociais da Universidade De Gent, a Doutoranda **Beatriz Almeida de Frenk Manuel Chongo**, pretende efectuar uma investigação intitulada "**Addressing Intimate Partner Violence: Implications in Medical Curricula In Mozambique**". Espera-se assim que a experiência adquirida nesta pesquisa possa contribuir para elevar o grau de conhecimentos científicos da proponente e acima de tudo contribuir para enriquecer evidências científicas nos campos de Saúde e Ciências Sociais em Moçambique e no mundo em desenvolvimento.

Ciente da relevância desta pesquisa e por se tratar de estudante, a Faculdade de Medicina espera maior ponderação e assim apoia e sugere sua implementação.

Maputo, aos 24 de Novembro de 2015

O Director da Faculdade



Prof. Doutor Mohsin Sidat, MD, MSc, PhD

(Professor Auxiliar)



UNIVERSIDADE LÚRIO

Gabinete do Director

Nampula – Moçambique

Exma. Sra. Beatriz Almeida de. F. M. Chongo

Nampula ao 11 de Março 2016

N. Ref: 119/GD/FCS/2016

Assunto: Comunicação de Despacho: Solicitação de Autorização para inicio de estudo

Pela presente, com relação ao pedido supracitado, submetida pela senhora **Beatriz Almeida de. F. M. Chongo**, médica e docente da UEM, no qual solicita autorização para inicio de estudo na FCS sobre «Abordagem da Violência por Parceiro Intimo: Implicações Parta os Curricula de Medicina em Moçambique», passamos a transcrever na integra o despacho do Director da Faculdade cujo teor é o seguinte:

“Autorizado.”

O Director da Faculdade



Celso Belo. MD



Exma Senhora
Beatriz Manuel Chongo
Maputo

N^aRef^a 629 /SEC/NB/NC/15
Maputo, 08 de Dezembro de 2015

Assunto: Solicitação de Autorização para início de estudo (recolha de dados)

Cumpre-me informar a V. Excia., que sobre o assunto em epígrafe, recaiu o despacho que a seguir transcrevo:

“ Autorizo”

Assinatura: Prof. Doutor João Leopoldo da Costa
Datado: “23/09/2015”

A Chefe de Secretaria


Dra. Nétria Chimpene





UNIVERSIDADE ZAMBEZE
FACULDADE DE CIÊNCIAS DE SAÚDE – TETE

No. Ref.: 693/GDFCS/UNIZA/2015

Tete, 11/08/2015

Assunto: Solicitação de autorização para início de estudo.

Exma. Senhora

Dra. Beatriz Almeida de Frenk Manuel Chongo

Acuso a recepção da sua carta datada de 03 de Agosto de 2015, com o assunto supracitado e por este meio, venho informar que está autorizada a realizar o estudo na nossa faculdade. Para os preparativos e demais actividades que achar convenientes poderá contactar o Senhor Prof. Dr. Manuel Ortega, Director do Curso de Medicina, através do endereço electrónico <manorteso52@yahoo.es>.

Com os melhores cumprimentos.

O Director da Faculdade

(Prof. Doutor Custódio Pedro Simão Boane)



REPÚBLICA DE MOÇAMBIQUE

GOVERNO DA CIDADE DE MAPUTO
DIRECÇÃO DE SAÚDE DA CIDADE DE MAPUTO
GABINETE DO DIRECTOR

Exma. Senhora

Beatriz Almeida de Frenk Manuel Chongo

Doutoranda pela Universidade de Ghent &

Docente na Faculdade de Medicina da UEM

Tel: 823897700

MAPUTO

N/Ref. nº 653 /DSCM-GD/050 /2017

Data: 27 de Janeiro de 2017

ASSUNTO: Autorização de recolha de dados no âmbito do projecto de pesquisa para doutoramento

A Direcção de Saúde da Cidade de Maputo apresenta os seus melhores cumprimentos e aproveita a ocasião para acusar a recepção do seu requerimento datado de 09/01/2017, no qual solicita a autorização para a recolha de dados no Hospital Geral de Mavalane e no Hospital Geral José Macamo, no período de Janeiro à Junho de 2017, no âmbito do projecto de pesquisa para doutoramento, intitulado ***“Abordagem da Violência Perpetrada por Parceiro Íntimo: Implicações para os Currícula de Medicina em Moçambique”***.

Sobre a matéria, comunica-se que a Direcção de Saúde da Cidade de Maputo autoriza a recolha de dados no Hospital Geral de Mavalane e Hospital Geral José Macamo.

Sem mais de momento, queiram aceitar as nossas calorosas saudações.



A Directora
Dra. Alice Pedro Magaia de Abreu
(Médica de Clínica Geral de 1ª)

Cc: Núcleo de Investigação Científica da DSCM

Hospital Geral de Mavalane

Hospital Geral José Macamo

Endereço: Direcção de Saúde da Cidade de Maputo

C.P. 2217

Av. Maguigwana nº 1240

E-mail: dscm.gabdirector@gmail.com

Telefone: 21-360276/7

Telefax : 21-430212

MAPUTO - República de Moçambique