Preparing medical students to recognize and respond to gender based violence: A mixed method study in southwest Nigeria

OLUFUNMILAYO I. FAWOLE

213558030

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Doctor of Philosophy (PhD) Health Sciences

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As the candidate's supervisor, I have approved this thesis for submission

Name: Dr Jacqueline M Van Wyk

Signed: JMvanWyk Date: 22.03.2019

DECLARATION

I, Olufunmilayo Ibitola Fawole, declare as follows:

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ii. The research reported in this thesis, except where otherwise indicated, and is my original research.

iii. This dissertation does not contain other persons' data, graphs or other information, unless specifically acknowledged as being sourced from other persons.

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Signed ____ ______________________ Date_____23/11/18___________

DEDICATION

To all the victims may this work contribute to the end of gender based violence (GBV).

.

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I wish to express my sincere and heartfelt gratitude to my supervisor Dr Jacqueline van Wyk. I thank her for encouraging me to pursue a PhD, her unflinching support throughout the project and her constructive criticism on the drafts. My gratitude also goes to the University of KwaZulu-Natal for the post-graduate award that supported the implementation of the work.

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ABSTRACT

Background: Medical practitioners are ideally positioned to mitigate the impact of violence on the health of women. Not only are they well placed to educate students but also to screen and treat victims of violence. However, there is a lack of information on the knowledge and skills required of medical students to identify and manage victims of GBV.

Aim: This study determined the factors that impact on student's knowledge and skills in managing victims of GBV. It gathered the perceptions of victims on screening for violence by physicians and health professionals. Lastly, it established consensus amongst inter professional faculty on the content and strategies of a GBV training curriculum.

Methodology: The study adopted a mixed method design. The qualitative methods included the review of curriculum documents, interview of departmental heads, three rounds (RDs) of the Delphi technique and interview of victims. The quantitative method analysed the questionnaire survey of final year medical students from three Schools in South West, Nigeria. The study was in 4 phases: - preliminary phase involving medical students (109) and departmental heads (6). Phase 1 involved medical students (388); Phase II the stakeholders of training (51) and Phase III the victims (33).

Results: Younger respondents, females and married students were found to be less skilled to manage victims. Respondents with prior training in GBV were four times more likely to be skilled than their peers [AOR = 4.33, 95% CI: 2.37 – 7.90 and AOR 3.53; 95% CI 2.16- 5.78 respectively]. Consensus was reached on the content, methods and faculty for training medical students about GBV. There was agreement on the disciplines best suited and the need to assess the training. Further discussions are needed per institution on the contact hours and, duration of training. Most (n=24/33) victim participants advocated for medical practitioners to enquire of all women about their experience of GBV. Physically, medically and socially vulnerable women were identified as vulnerable women. The majority (n=24/33) indicated a need for medical students to be trained about GBV by a trans-disciplinary team.

Conclusion: Formalised skills training on GBV is a necessity, especially for young, female students. The results will inform the design of a GBV curriculum for medical students in the African context.

Key words: Gender based violence, Violence against women, Medical students training curriculum, Medical student's knowledge, Medical student's skills, Perceptions of victims on screening for GBV, GBV training curriculum.

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OPERATIONAL DEFINITIONS

Can MEDS: Can MEDS is a framework devised by the Royal College of Physicians and Surgeons of Canada that identifies and describes the abilities (competencies) physicians require to effectively meet the healthcare needs of the people they serve.

Clinical years: This term refers to the final three years of the five years undergraduate medical degree programme. This is a heavily supervised and formally period of undergraduate training in which students learn from patients in the hospital.

Economic violence: Restriction of access to financial or other resources with the purpose of controlling a partner.

Final year medical student: Student in the fifth and last year of the medical training *programme* in the University.

Gender based violence: Acts that inflicts any physical, mental or sexual harm or suffering, threats of such acts, coercion and other deprivation of liberty. The term GBV refers to the physical, emotional or sexual abuse of a survivor.

Healthcare setting: Refers to a health facility where health services are delivered including the: family practice clinics; antenatal and postnatal services; hospital emergency, inpatient or outpatient services; specialists clinics (for example, obstetrics and gynaecology, psychiatry, law); community health services.

Intimate partner violence: Physical, emotional or sexual abuse perpetrated by a spouse, boyfriend, ex-husband or ex-boyfriend.

Medical discipline: This is a reference to specialised discipline of the medical profession. The medical practitioner in the discipline must have spent a number of years (usually a registered period of 6 years) and has passed a number of entry, interim and exit postgraduate exams set by the professional led bodies.

Physical violence: Physical violence describes acts of slaps, hits, throwing objects at, arm twisting, grabbing and kicking, female genital cutting.

Private health facility: This is concerned with healthcare system provided by private persons, consortiums and companies and does not fall within the governmental fiscal provisions.

Psychological violence: The term covers belittling, insults, doing something to spite someone, saying something to humiliate, threats.

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Public health facility: It refers to healthcare system provided by national, state and local levels of government within various types of institutions including clinics and hospitals.

Public university: This is a description of a university owned by the state or federal government

Screening: Defined as any range of methods, involving specific inquiry about intimate partner violence or inquiry about intimate partner violence as part of general screening.

Sexual violence: Any sexual act, attempt to obtain a sexual act, or other act directed against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting. It includes rape, defined as the physically forced or otherwise coerced penetration of the vulva or anus with a penis, other body part or object.

Survivor: People with lived experiences of violence, but who are able to improve their situation.

Teaching hospital: A hospital usually affiliated to a medical faculty of a university which is accredited by the university as a training hospital. Usually provides the platform for the training of undergraduate medical and other health science students, postgraduate registrars and specialists.

Victim: People who have lived experiences of violence. Almost always women were often the victims and are usually helpless, pitied and trapped in the relationship. The violence is often so severe that not many are able to take control of their lives or improve their situation.

Violence against women: Many types of harmful behaviour directed at women and girls because of their sex. Any act of gender-based violence that results in, or is likely to result in physical, sexual, or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivations of liberty, whether occurring in public or private life.

Women's health: State of physical, mental, social and emotional well-being and not merely the absence of disease or infirmity in women.

ABBREVITONS AND ACRONYMS

AIDS: Acquired Immunodeficiency Virus

AOR: Adjusted Odds Ratio

CEDAW: Convention on the Elimination of All Forms of Discrimination against Women

CI: Confidence Interval

DHS: Demographic and Health Survey

FMOH: Federal Ministry of Health

GBV: Gender Based Violence

HIV: Human Immunodeficiency Virus

IEC: Information, Education and Communication

IPV: Intimate Partner Violence

LGA: Local Government Area

MDG: Millennium Development Goal

NDHS: Nigerian Demographic and Health Survey

OR: Odds Ratio

OSAGI: Office of the Special Adviser on Gender Issues and Advancement of Women

SD: Standard Deviation

STI: Sexually Transmitted Infections

SDG: Sustainable Development Goal

UN: United Nations

UNICEF: United Nations Childrens Fund

UNIFEM: United Nations Fund for Women

USAID: United States Agency for International Development

VAW: Violence against women

WHO: World Health Organization

PEER REVIEWED PUBLICATIONS

Published Manuscripts

***Appendix 1*: Fawole, O.I.**, J. van Wyk, and A. Adejimi. Training needs on violence against women in the medical curriculum at the University of Ibadan, Nigeria. *African Journal Health Professions Education*, 2013. **5**(2): p. 75-79.

***Publication 2*: Fawole OI,** van Wyk J, Adejimi A, Akinsola OJ and Balogun BO. Establishing a consensus among inter professional faculty on a gender based violence curriculum in medical schools in Nigeria: A Delphi Study. *African Journal of Health Professions Education* June 2018, Vol. 10, No. 2, 106-112.

Manuscripts Accepted for Publication

Publication 1: **Fawole OI**, van Wyk J, Balogun BO, Akinsola OJ and Adejimi A. Preparing medical students to recognize and respond to gender based violence in Nigeria. *African Health Sciences* (Ref: WKR0-2017-06-0530.R2- 27/9/18).

Manuscripts Potentially Accepted For Publication

Publication 3: **Fawole OI**, Balogun BO, Adejimi A, Akinsola OJ and van Wyk J,. Victims perceptions of selectively screening women for intimate partner violence in healthcare settings in Nigeria. *BMC Medical education*. (Ref: MEED-D-18-00117R3-31/10/18).

Manuscripts in View

How do victims of intimate partner violence perceive their experience of abuse? – Archives of Ibadan Medicine

A review of training programmes on gender based violence for medical students and other healthcare providers – African Journal of Medicine and Medical Sciences

Perceptions of Perpetrators of IPV on counselling by medical doctors and other healthcare providers in healthcare settings – African Journal of Reproductive Health

CONFERENCE PRESENTATIONS

Fawole O.I. Health Implications of Violence against Women and the Girl-Child: How can the Health Sector Respond. Presented at the 2nd Raising Girls' Ambition (RAGA, 2016) Conference. Combating Violence against Women and the Girl-Child in Africa: Emerging Issues, 17-19 October, 2016. Lead City University, Ibadan, Oyo State, Nigeria.

Fawole OI and van Wyk J. Preparing Medical Students To Recognize And Respond To Gender Based Violence. Presented at the Annual Meeting of The Network Towards Unity for Health (TUFH) Social Accountability, 8-12th April 2017, Hammamet, Tunisia.

Fawole OI and van Wyk J. Establishing Consensus Among Inter Professional Faculty on a Gender Based Violence Curriculum in Medical Schools: A Delphi Study. Presented at The School of Clinical Medicine, University of KwaZulu-Natal, College of Health Sciences Annual Research Symposium. 5-6 October 2017, Nelson R Mandela School of Medicine Campus.

Fawole OI and van Wyk J. Training Medical students: Victims Perceptions on Screening Women for Intimate Partner Violence in Healthcare Settings (A-1424). Presented at The Network: Towards Unity for Health Conference 2018. Community Empowerment for Health: A Multi-Sector Approach, August16-20, 2018, University of Limerick, Ireland.

PREAMBLE

The format of this thesis is in accordance with the recommendations for a PhD via manuscript format, as presented within the School of Clinical Medicine, College of Health Sciences University of KwaZulu-Natal, South Africa. It includes the submission of a thesis with a collection of research articles, in conjunction with introductory and summary chapters, as opposed to a traditional monograph format. The Guidelines of the College of Health Sciences for presentation of PhD thesis by publications states that the thesis may comprise of at least three published papers or in press in accredited journals; such papers must have the student as the prime author. The same College of Health Sciences provides for a thesis by manuscripts that may have at least 3 papers with the student as the prime author that have not yet been published but are in the form of manuscripts; at least two of such papers must constitute original research."

This thesis comprises published journal articles, accepted for publication journal articles, and a manuscript under review. The integrative material links the chapters and the findings to the overall aim of the study *vis-a-vis* to prepare medical students to recognise and respond to gender-based violence.

The synthesis chapter at the end outlines the conclusions formed based on a combination of results from the papers presented and includes recommendations for the way forward. The contribution of the candidate is indicated for each manuscript, with details of the journals and their submission and review processes where necessary.

The candidate essentially followed the same process in terms of planning, conducting and preparing the research for examination with the same key milestones as for a traditional thesis. A large proportion of the methodology and literature is revealed within each of the publications. The methodology and literature review is also presented within the integrative material, especially in Chapter One (Introduction), Chapter Two (Theoretical framework), Chapter Three (Methodology) and Chapter Nine (synthesis), with a summative page after each article to establish the link between the chapters. This may lead to a fair amount of repetition between the integrative material and the manuscripts, which is necessitated by virtue of the manuscript format of PhD presentation.

Please note the following with respect to this particular thesis report:

(i) The Vancouver referencing style has been observed in the integrative material. All references which are not specific to each manuscript are consolidated in Chapter 10

(ii) Manuscripts are presented in the format required of the specific journal; hence stylistic differences (font, line spacing, headings etc.);

(iii) Use of active (first person) and passive voice (third person) have been used in the manuscripts and the integrative material.

CHAPTER 1: INTRODUCTION

1.1 Background to the Study

Globally, gender based violence (GBV) has come to the fore as a major public health problem and human right abuse [1, 2]. GBV is a pattern of assaultive and coercive behaviours, it includes physical, sexual, psychological attacks as well as economic coercion [2]. It is a notable type of violence that occurs in all countries, irrespective of social, economic, religious or cultural group. As a result, it contributes significantly to preventable morbidity and mortality for women and men across diverse cultures. Even though both males and females could be abuse survivors, the overwhelming recipients of violence are females. For instance, worldwide, up to one in five women and one in 10 men report experiencing sexual abuse in childhood. Most of the violence inflicted on women are perpetrated by an intimate partner [3]. This was substantiated in a population-based survey from around the world, in which 24 097 women completed interviews, 15-71% of women reported being physically assaulted by an intimate male partner at some point in their lives [4]. Likewise in Nigeria, violence to women is pervasive as cultural values and norms condone and reinforce abusive practices against women. For example, women are considered the property of their husband and physical violence is accepted as a form of discipline for a wife who has erred [2]. Results from local studies show that between 19 to 83% of women have experienced intimate partner violence (IPV) within their lifetime[5-7] and from 20% to 40% in past year [8, 9].

Consequently, it cannot be refuted that GBV is a critical threat to the health of society because of the severity of its consequences and the high prevalence of male-perpetrated victimization to women [10]. The experience of violence is, in and of itself, a devastating impact. GBV has considerable adverse effects on women's physical and mental health [11, 12]. It increases their risk of reproductive health problems such as sexually transmitted infections (STIs) and human immune deficiency virus (HIV), abortion and unwanted pregnancy [13, 14]. Victims have reported inability to concentrate and loss of self-confidence. The behavioural problems include relationship difficulties [11]. The mental and physical health sequelae of violence often extend to their children. Boys who have witnessed IPV are more likely to be perpetrators, while girls are more likely to be victims [14]. Besides the aforementioned, the social and economic costs of GBV are enormous. It affects individuals and their families, the society and the economy of nations. In addition, it reduces women's productivity, educational attainment and affects their contribution to national development [15, 16]

Medical practitioners are in an ideal position to mitigate the impact of violence on the health of women [9]. Medical practitioners manage women with various health conditions and are thereby able to educate medical students, screen and treat victims of violence. They should also be able to link them with legal

and non-governmental organisations who provide care to the oppressed. Thus, training medical students could be an ideal way to address issues on GBV especially since they are young and therefore their learning and treatment practices can still be influenced before they become fixed. Studies have reported that physicians who received education on the topic are significantly more likely to screen for IPV [(9, 17)]. Also, the presence of IPV instructions in medical schools has been found to play an important role in preventing poor maternal and child health outcomes [(17)]. Furthermore, these students as future leaders would be able to influence other health personnel to screen for abuse later in their profession [(12)]. Even in developed countries healthcare students have been found to have insufficient training, practical skills and classroom knowledge to effectively manage abuse against women [(12, 17)]. Therefore, a comprehensive evaluation of the instructional design, implementation, and learning outcomes on GBV at the medical schools of the universities in Nigeria is imperative.

In the Medical (MBBS) curriculum, the first two years are concentrated around pre-clinical outcomes and the subsequent three years around clinical outcomes. Students are introduced to the discipline of public health in the clinical years through a series of didactically delivered introductory lectures, later on they are exposed to the 'block posting' consisting of both lectures, tutorials and field visits over a period of six weeks. Community exposure is gained through the rural posting course. The final year comprises of revision lectures before the examinations. Students may be exposed to some training on GBV during rotations in different departments. They may be taught some aspects on GBV during the clinical rotation in Paediatrics, Obstetrics and Gynaecology, Psychiatry, Emergency Medicine and Family Medicine. However, the training curriculum of medical students should be reviewed periodically to accommodate emerging health concerns [(18)]. The implementation of a competency-based curriculum will require medical graduates to play multiple roles, namely, those of medical expert, communicator, collaborator, leader and manager and advocate [(19)]. The competency-based curriculum has become dominant at most stages of the medical training and is appropriate for teaching medical students to acquire the skills to identify and manage victims. This curriculum has the potential advantages of flexible training, transparent standards, and increased public accountability [(20)].

1.2 Problem Statement

Gender based violence is a pervasive global problem. According to the World Health Organisation (WHO), the global prevalence of physical and/or sexual IPV among all ever-partnered women was 30.0% (95% confidence interval [CI] = 27.8% to 32.2%). The prevalence was highest in the WHO African, Eastern Mediterranean and South-East Asia Regions. In Africa, 36.6% (32.7%-40.5%) of [(20)]ever-partnered women reported having experienced physical and/or sexual IPV at some point in their lives. Globally, 7.2% (5.3% - 9.1%) of women reported ever having experienced non-partner sexual violence which was highest in the America and European regions (12.6%; 8.9% to 16.2%) and the African Region (11.9%; 95% 8.5% to 15.3%). Globally, 35.6% of all women (15 years and older) have ever experienced either non-partner sexual violence or physical or sexual violence by an intimate partner or both, while 45.6% had experienced the same in Africa. [(21, 22)]

Previous studies have assessed the knowledge and perceptions of medical students on GBV have found that many were not knowledgeable because they had not received training on GBV. The students demonstrated varying attitudes about the justification for abuse against women, help given on survivors of abuse and many did not consider it relevant to their practice **(23, 24).** Researchers have therefore recommended that healthcare students should receive adequate training (practical skills and classroom knowledge) to effectively manage abuse against women. It is also recognised that physicians are generally poorly trained to identify, treat and/or refer victims (**24, 25**). Most healthcare providers do not selectively screen for violence despite the fact that it improves case management of victims and care for perpetrators [(26, 27)]. It is recommended that their training curriculum is reviewed to ensure it includes the topic, and also to be able to equip students with the knowledge and skills to manage victims [(23, 24).] However most of the curricular development studies have been in high income countries, with no assessments to guide the target population, content, method and assessment of GBV curricular for health-care settings in low income countries [(25)]. This will complement primary prevention efforts that aim to prevent violence before it occurs.

In many developing countries, it is unfortunate that traditional gender norms support male superiority and in those settings, cultural beliefs may condone IPV to women. In some settings and situations, the society tends to blame the victim when violence occurs [(10)]. Also, some aspects of the statutory, customary and religious provisions make women vulnerable to violence. Justification for violence frequently evolves from social norms about the expected roles and responsibilities of men and women [(28)]. These situations included: if she goes out without telling him, if she neglects the children, if she argues with him, if she refuses to have sex with him, if she burns the food [(29)]. Thus, violence is highly tolerated and accepted, as it is culturally sanctioned as a form of discipline. Additionally, victims seldom report sexual and other severe forms of violence because of the stigma associated with these behaviours. Consequently, victims suffer in silence, while perpetrators get

away scot free [5, 7, 8], therefore it is important to identify and respond to victims who present at health facilities.

Violence has been a major health problem for Nigerian women [29-31]. Results of the 2013 Demographic Health Survey, reported that 28% of women aged between 15-49 years had ever experienced physical violence since age 15; 11% had experienced physical violence just 12 months prior to the survey. Seven percent (7%) of women age 15-49 reported that they had experienced sexual violence at some time in their life; 25% of married women (15-49) had ever experienced physical , emotional or sexual violence by a partner and 19% in the last 12 months [29]. A survey of University students in South west Nigeria revealed a life-time prevalence of IPV of 42.3% (postgraduate: 34.5%, undergraduate: 44.1%). The lifetime experience of psychological, physical and sexual IPV were 41.8%, 7.9% and 6.6% respectively [23]. Another survey among women in poor urban communities in Ibadan, Nigeria reported the lifetime experience of violence against women (VAW) as being 54.8% (95%CI: 52.2– 57.6), while six months prior to the survey as being 21.9% (95% CI: 20.8.2– 23.0). Women experienced psychological violence (20.8%), physical violence (16.7%) and sexual violence (0.8%) [30]. With respect to the perpetration of IPV in the last one year, a survey of male civil servants in Ibadan reported a prevalence of 66%. The prevalence of male perpetration of controlling behaviours, psychological, sexual and physical violence against women in the same period were 52.2%, 31.2%, 23.0% and 11.7% respectively [32].

1.3 Rationale for the Study

Nigeria has seen an increased effort from government and non-governmental organizations to protect the rights of women and to promote gender equity. These efforts were in line with the United Nations Millennium Development Goal 5, which aimed to achieve a three quarter reduction in 1990 maternal mortality by 2015. The prevention and reduction of violence to women was one of the strategies identified to achieve this goal [33]. Also, the Sustainable Development Goal 5 aims to transform the world by achieving gender equality by 2030 [34]. In line with these goals and other international treaties and conventions [35], the Nigerian Gender Policy affirms its commitment to equity by requesting all programmes to consider the implications on gender and develop gender mainstreaming tools and approaches [36]. `

Gender based violence as a discipline of medical study and practice is now an integral component of medical education in many developed countries [14]. Education of students about family violence can be integrated across courses and discussions can be facilitated by a variety of faculty during the medical training. The value of such a programme or curriculum has been documented in the School of Medicine in the US [37]. Comparison of results of questionnaires completed by the students before and after

exposure to the module revealed dramatic gains in the ability to diagnose domestic violence, and in self-efficacy to intervene in this area, compared with non- exposed students who showed no change in their self-efficacy from baseline to follow-up [(37)].

Physicians and other healthcare providers have the unique opportunity to assist victims of abuse. Apart from being able to identify cases of abuse, it is also imperative that they provide support and are able to refer victims for help in order to end the cycle of violence [(37)]. Thus, students need an understanding of the dynamics and power relations that surround GBV. Many medical faculties are however, apprehensive about the complexities of teaching about GBV. Apart from issues relating to content and training, they have concerns about dealing with victims and ensuring safety from perpetrators. There are also apprehensions about students' attitudes and reactions to patients who had suffered abuse. There, is therefore, a need to identify the comprehensive topics for inclusion in a medical curriculum and agree on the medical faculty who should collaborate to teach and practice in this area [(14)]. Both faculty and students may require education and support to care for victims of GBV. The education may range from knowledge and skills trainings about treatment for on-going individual issues to developing an institutional protocol to address the potential crises.

Additionally, without adequate preparation and supervision, the stress of caring for abused patients can lead to counter-transference, burnout, denial, and projection. Students with a personal background of exposure to family violence are especially at risk of compassion fatigue and therefore may need greater support [(14)]. Also, they may also be experiencing themselves so engaging with patients on this topic may be quite confronting. Thus documenting the GBV experiences of the students is imperative to ensure the development of appropriate and sensitive programmes for the students.

Although many national associations of professional bodies encourage physicians to help prevent abuse [(38)], unfortunately little is known about medical students' attitudes and practices in this area. This is despite the fact that students in the final year should have had some exposure to teachings on GBV in preparation for their future roles as physicians [(39)]. Subsequently, this probably accounted for the demand by medical students in the clinical stage of their training to request for training on sexual violence according to results from the Gender Mainstreaming Committee of the University of Ibadan on the situation analysis of sexual violence. Consequently, this study aims to assess the knowledge, skills and practice of final year medical students on GBV and to obtain a consensus among stakeholders on content, faculty and methods of training relating to GBV curriculum. Finally, it identifies victims of IPV's perceptions on screening for violence by physicians and other health professionals, explores the use of gathered information to support victims and obtains suggestions on how medical students should be trained to address issues relating to IPV in their future profession.

1.4 Research Questions

The study has the following research questions:-

Preliminary and Phase 1

1.4.1 Can final year students describe the types of GBV? Can they identify signs of GBV?)

1.4.2 What are students' perceptions of victims of GBV? (world view versus beliefs; are those with experience or personal links to victims more likely to assist?)

1.4.3 Do medical students have the skills to detect abused women? (skills/competence)

1.4.4 Do medical students regard themselves as being in a position to manage abused women?

1.4.5 What do we know about curricula for GBV? How well are these being used, what is being taught and what should be taught? Do physicians teach students about GBV? Who? (disciplines), How? (one-off or do we teach longitudinally), What format? (lectures /cases/problems), To meet what aims/objectives?

1.4.6 What do physicians teach (and assess) students about caring for abused patients? Where? How? Formal or informal? Cognitive (i.e. theory or skills), Behavioural or Attitude training? (affective); Transformational? Are they taught to see the other side of the story? To non-judgemental? Respectful? etc.

1.4.7 What factors influence/impact on medical students' knowledge of GBV?

1.4.8 What factors influence medical students' skills to manage victims?

Phase 2

1.4.9 What content should be included in a curriculum on GBV in a medical programme? Who else should be part of the training? (stakeholders - teachers , nurses , social workers) What do medical students think about health carers assisting victims of GBV? What kind of help would be required? And how can students be trained for these tasks? At what stage of their medical training?

Phase 3

1.4.1 What do victims of GBV think (respond/value/) about being identified by medical doctors at healthcare facilities? H**ow** would they like physicians to help? Do they think medical students should be trained to assist victims? How?

1.5 Aim and Objectives of the Study

The overall aim of this study is to assess the knowledge, skills and practice of final year medical students on GBV, obtain a consensus of experts on the content and strategy of the GBV curriculum; and describe victim's perceptions on screening at healthcare facilities. The specific objectives are to:-

1.4.1 Investigate final year medical students' level of knowledge on GBV.

1.5.2 Determine final year medical students self-reported skills to identify and manage abused women.

1.5.3 Identify factors influencing student's knowledge and skills to manage GBV victims.

1.5.4 Document the content, models of training and placement for GBV training curriculum for the students.

1.5.5 Establish consensus amongst inter professional faculty on who should be part of a team, where training should occur, competencies (knowledge, attitude, skills) to be acquired in the GBV curriculum.

1.5.6 Identify victims of GBV perceptions on screening for violence by physicians and other health professionals at the health facilities.

1.6 Significance of the Study

Recently, there has been considerable media discussion and global interest in violence. These discussions generally noted the increase in the perpetration of GBV and particularly against females [40]. Also, surveys by researchers have evinced that there is increasing public concern about the occurrence and prevention of violence [41]. These concerns are reflected in increased news reporting, police and judicial involvement, and the occurrence of the health consequences of violence. These marked concerns have resulted in requests for increased participation of healthcare providers in management and care of female patients who had experienced aggression or violence. Given the culture of silence that surrounds GBV, including the slow legal system and the absence of routine screening at most healthcare facilities, it is important to protect person's at high risk of abuse or assist those who may be experiencing victimization [24, 26]. It is equally crucial to counsel and refer perpetrators of violence. These competencies are necessary for students to function effectively later as physicians; therefore it is crucial to have information that can be used to plan a relevant and appropriate training programme to guide victim management in the future. To the best of our knowledge, only a very few studies in Nigeria have attempted to intervene at training level to enable health practitioners to manage GBV patients appropriately [26, 42, 43].

This study aims to assess the knowledge, skills and practice of final year medical students on GBV, obtain a consensus of experts on the content and strategy of the GBV curriculum; and describe victim's perceptions on screening at healthcare facilities. It would provide empirical data to inform the design of a GBV curriculum for medical schools in Nigeria. Thus medical students, stakeholders involved in the training of medical students and victims of IPV were interviewed so as to provide the necessary information that will function as a guide when developing a training curriculum for the students. The study was conducted in three phases and it addressed different study populations namely:
Preliminary Phase – Medical students, departmental heads and curricular documents;
Phase 1 – Medical Students;
Phase 2 – Stakeholders in training
Phase 3 - Victims of IPV

1.7 Literature Review

1.7.1 Defining Gender Based Violence

There is no single or universal definition of GBV. This is because its understanding differs according to country, community and legal context. Different definitions and terminology of violence are used in different countries and context because the pattern of occurrence of GBV differs. Nevertheless, the term GBV refers to the physical, emotional or sexual abuse of a survivor [10]. Research indicates that violent behaviour is seldom an isolated event, and that different types of violence often occur concurrently [44]. VAW is the many types of harmful behaviour directed at women and girls because of their sex. These are violent acts that are primarily or exclusively committed against women [44]. The WHO defines violence against women as "any act of GBV that results in, or is likely to result in physical, sexual, or psychological harm or suffering to women including threats of such acts, coercion or arbitrary deprivations of liberty, whether occurring in public or private life" [3]. The term GBV is widely used as a synonym for VAW, in order to highlight the gender inequality in which much of the violence is rooted [24]. Following this, GBV **is** an expression that can be used to encompass all women, men, girls and boys who have experienced violence, however, it is important to acknowledge that the overwhelming recipients of violence are females. GBV may be direct or indirect and is aimed at harming the abused, their property, or the environment [24].

Different, but overlapping and largely complementary – approaches and perspectives have been adopted in order to comprehend GBV. For instance, the gender perspective emphasises patriarchy, power relations when men use their higher position or authority to dominate women, including hierarchical constructions of masculinity and femininity as a predominant and pervasive driver of the problem. Subsequently, these are used to control women and result in structural gender inequality. Conversely, the human rights approach is based on the obligations of governments to respect, protect and fulfil human rights and therefore to prevent, eradicate and punish VAW and girls. Furthermore, it recognizes VAW as a violation of many human rights which comprise: - the rights to life, liberty, autonomy and security of the person; the rights to equality and non-discrimination; the rights to be free from torture and cruelty, inhuman and degrading treatment or punishment; the right to privacy; and the right to the highest attainable standard of health. These human rights are enshrined in international and regional treaties and national constitutions and laws, which stipulate the obligations of states, in addition to mechanisms to hold states accountable. For example, The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), requires that countries party to the Convention take appropriate steps to end VAW [45]. Relatedly, the criminal justice approach sees its main task as responding to violence after it has occurred by enforcing the law and ensuring that "justice is done". This involves proper identification of perpetrators of intimate partner and sexual violence, ascertaining their guilt and ensuring that they are appropriately sentenced. Consequently, to prevent

and respond to violence, the criminal justice approach relies primarily on deterrence, incarceration, punishment and the rehabilitation of perpetrators.

Essentially the public health approach draws on three approaches and perspectives, namely the gender perspective, human rights and criminal justice. It is a science-driven, population-based, interdisciplinary and inter-sectoral approach that is based on the ecological model which emphasises primary prevention [46]. Rather than focusing on individuals, the public health approach aims to provide the maximum benefit for the largest possible number of people and to extend better care and safety to entire populations. The public health approach draws upon knowledge from many disciplines including medicine, epidemiology, sociology, psychology, criminology, education and economics (Figure 1.1). On account of this, the public health approach to these forms of violence emphasises a multi-sectoral response as GBV presents as a multi-faceted problem. In view of this, the cooperation from people from diverse sectors such as health, education, social welfare, and criminal justice is often necessary to solve what are perceived as "criminal" or "medical" problems. The public health approach (Figure 1.1) considers violence, as the outcome of multiple risk factors and causes, interacting at four levels of a nested hierarchy (individual, close relationship/family, community and wider society), hence response should also be at these levels [10].

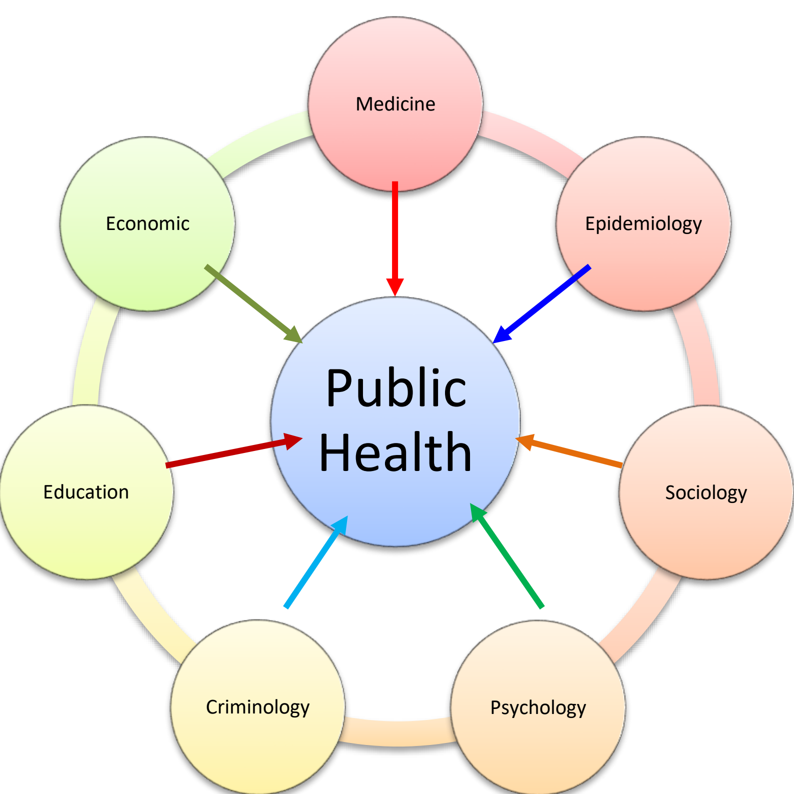


Figure 1.1: The Public Health Approach to Gender based Violence Prevention

1.7.2 Historical Background

For over two decades international advocacy groups attempted to draw more attention to the physical, psychological, and sexual abuse of women and to stress the need for action. They provided abused women with shelter, lobbied for legal reforms, and challenged the widespread attitudes and beliefs that support violent behaviour against women [(44)]. Subsequently, in the 1990s VAW emerged as a focus of international attention and concern.

In 1993, the United Nations (UN) General Assembly passed the Declaration on the Elimination of Violence against Women, UN Resolution 48/104. The Declaration noted that violence could be perpetrated by assailants of either gender, family members and even the "State" itself [(35)]. Since then, worldwide governments and organisations have been working actively to combat VAW through a variety of programmes. Even at both the 1994 International Conference on Population and Development (ICPD) in Cairo and the 1995 Fourth World Conference on Women in Beijing, women's organizations from around the world advocated that ending gender violence should be a high priority [(47)]. By the same token the Cairo Programme of Action recognised that GBV is an obstacle to women's reproductive and sexual health rights. In May 1996, the 49th World Health Assembly adopted a resolution (WHA49.25) declaring violence a public health priority [(47)].

In 1999, the United Nations declared violence against women "a public health priority" [(34)] with a consequent resolution that designated November 25 as International Day for the Elimination of Violence against Women. Still, the Millennium Development Goal (MDG) 3 called for the promotion of gender equality and women's empowerment, while the target for measuring the progress towards this goal was to eliminate gender disparity in primary and secondary education no later than 2015. MDG 3 provides an opportunity for a multi-dimensional approach to gender equality including women's access to reproductive health, education, information, as well as to improve economic and political opportunities [(48)]. The sustainable development goal 5 (SDG) promotes gender equality as a means of transforming our world [(34)].

1.7.3 The National Gender Policy of Nigeria

Historically in Nigeria, gender equality has not received much attention, or treating women equally with men to bring about development. Nonetheless, more recently, the Federal Government of Nigeria, as part of its development strategies, has recognised the need to empower women and improve women's rights [(49)]. As a result, section 2 of the Nigerian Constitution contains a rule that women are to be treated in the same fair manner as men. Yet, in Nigeria like in many other low- income countries, the implementation falls short of the rule. Men receive beneficial treatment over women in almost all areas of life. Women are also more likely to experience discrimination and exploitation [(49)].

The National Gender Policy (NGP) identifies 16 priority areas for action. The second priority area addresses GBV. Its goal is to eradicate all forms of GBV and discrimination, and ensure that women and men enjoy the same rights irrespective of gender, age, ethnicity, religion, and class. Of the 6 objectives that addressed gender based violence, this study addresses objectives 2 and 4 in particular. Objective 2 aims to build the capacity of institutions and persons in support a transformatory change to reform society to be free of all forms of GBV. Objective 4 aims to mainstream gender into school curricula. The strategy for the implementation of Objective 2 includes human rights education at primary, secondary and tertiary levels; and education within the informal sector; and capacity building for the judiciary and the extra-judiciary stakeholders. The strategies to achieve Objective 4 are to review existing school curricula to make them gender sensitive; develop gender resource materials; training of gender experts as teachers in schools; provide gender dis-aggregated data for teaching, and for policy and planning. Additionally, it aims to strengthen gender research and methodologies; institute mentorship programmes in schools at all levels; and institute sexuality and leadership skills training in schools at all levels [(28)]. These are based on the 'dual agenda' principle. First, that gender equity is beneficial to the individuals (men and women). Secondly, it is also essential for producing an effective and efficient system both at national and organisation levels.

1.7.4 The Social Context of Gender Based Violence

Violence in society is socially constructed and built on a hierarchy of gender, race, and class. Gradually, the understanding of VAW as a gender issue is being accepted across sectors. VAW is known to be grounded in women's inequality and is an expression of power and control that men exert over women. Girls and women are the primary victims of sexual assault and the most gravely affected by partner abuse, elder abuse and sexual harassment in the work place. Women's economic dependence on male partners and women's sense of responsibility toward their children may serve as barriers for them to seek help from abuse or to leave a violent relationship. Furthermore, women have fewer options for employment and often are in lower positions in the work-place thereby making them more vulnerable to sexual abuse. Women are also vulnerable to sexual assault due to physical environments that fail to consider their safety needs [(24)]. There is much discussion about the most appropriate terminology to use to describe people with lived experiences of violence, and typically the terms "victim" or "survivor" are used. Both words have strong and very different connotations. The term "victim" is used in this thesis because it more aptly describes women's experiences. The term describes people who have lived experiences of violence. Victim implies that the person is helpless, should be pitied and that they are trapped. In contrast, survivor suggests that people can take control of their own lives - that they can still fight or can improve their situation [(50)].

However, it is important to note that both men and women can experience GBV and both could also be perpetrators. A national violence against women survey in the United States found that 22.1% of women and 7.4% of men reported a physical assault by a current or former intimate partner at some time in their lives [(51)]. The data that exists is likely an under-representation of male rape survivors, as males are less likely than females to report their experience of sexual assault due to prejudices regarding male sexuality that compound guilt, fear, and shame [(46)]. Pervasive cultural attitudes and legal discrimination can also inhibit male survivors from seeking medical care, or legal or psychosocial support (Population Council, 2008). Unfortunately, both men and women strive to blame their partners, neutralise the effects of violence, seek social acceptance, and do not identify their own actions as violent [(10)].

1.7.5 Forms of Gender Based Violence

Gender-based violence includes any act or threat of acts that inflict physical, sexual, or psychological harm on the victim. It comprises violence such as domestic violence; sexual abuse; including rape and sexual abuse of children by family members; forced pregnancy; sexual slavery; traditional practices harmful to women, such as honour killings, female infanticide, female genital mutilation, dowry-related

violence, forced/early marriage, forced labour, burning or acid throwing; violence in armed conflicts such as murder and rape; and emotional abuse, such as coercion and abusive language. Trafficking of women and girls for prostitution, sexual harassment and intimidation at work are additional examples of violence against women. As shown in Table 1.1, violence may be experienced at separate and multiple stages of the life cycle:

Violence can include, but is not limited to:

1. Physical violence (slapping, kicking, hitting, or use of weapons, throwing objects at, female genital cutting)
2. Psychological/emotional violence (systematic humiliation, controlling behaviour, degrading treatment, insults, doing something to spite someone, threats).
3. Sexual violence (coerced sex, forced into sexual activities considered degrading or humiliating, forceful exposure to pornographic materials, forced marriage)
4. Economic violence (restricting access to financial or other resources with the purpose of controlling a person). Denial of rights to:- own property and land, inheritance, equal access to micro-credit facilities, be fully employed, and to receive equal remuneration for work equal in value to men's work [40].

Table 1.1: Types of Violence commonly experienced by women at various phases of the life cycle

Prenatal	Prenatal sex selection, battering during pregnancy, coerced pregnancy (rape during war) , coerced /forced termination of pregnancy
Infancy	Female infanticide, emotional and physical abuse, differential access to food and medical care
Childhood	Genital cutting; incest and sexual abuse; differential access to food, medical care, and education; child prostitution , forced early marriage, physical abuse
Adolescence	Dating and courtship violence, economically coerced sex, sexual abuse in the workplace, rape, sexual harassment, forced prostitution
Reproductive	Abuse of women by intimate partners, marital rape, dowry abuse and murders, partner homicide, psychological abuse, sexual abuse in the workplace, sexual harassment, rape, abuse of women with disabilities
Old Age	Abuse of widows, elder abuse (which affects mostly women)

Source: Violence Against Women: The Hidden Health Burden [44].

1.7.6 Prevalence of Gender Based Violence

The prevalence of GBV can be measured with reference to victimisation and perpetration. Owing to the small proportion of cases routinely reported at healthcare facilities and to the police, the prevalence is most accurately measured by population-based surveys that count self-reports [40]. Victimization findings are presented below because they are more internationally available, easier to compare and less subject to low disclosure rates.

Awareness and documentation of GBV differs from country to country. For instance, it is estimated that only about a third of cases involving domestic violence are actually reported in the US and the United Kingdom (UK) [52]. Lower numbers of reported cases can, therefore, be expected in low-income societies where there are less attention and even fewer support for human rights. The under-reporting of GBV is regarded as almost universal and possibly due to the sensitive nature of the subject [53].

In the "National Violence Against Women Study" (NVAWS) conducted in the US, out of the 8,005 women and 8,001 men surveyed, 24.8% of the women and 7.6% of the men reported they have been physically and/or sexually abused by an intimate partner at a point in their adult lives. This extrapolates to a yearly prevalence of 1.5 million women and 834,700 men raped or physically assaulted by an intimate partner [54].

The WHO Multi-country study on Women's Health and Domestic Violence against Women provides a comprehensive picture of the patterns of IPV and sexual violence victimization in low- and middle-income settings. It was recorded that over 24 000 women between the ages of 15 and 49 were interviewed in rural and urban areas in 10 countries. The key findings were that between 1 and 21% of those interviewed attested that they had experienced child sexual abuse under the age of 15 years; physical abuse by a partner at some point in life up to 49 years of age was reported by 13–61% of interviewees across all study sites; sexual violence by a partner at some point in life up to 49 years of age was reported by 6–59% of interviewees; and sexual violence by a non-partner any time after 15 and up to 49 years of age was reported by 0.3–11.5% of interviewees. The findings showed that physical and sexual violence frequently co-occurred especially in intimate partner relationships. The rates of physical and/or sexual violence by an intimate partner ranged from 15% in Japan to approximately 70% in Ethiopia and Peru, with most sites reporting rates of between 29 and 62%.[1]

Africa

The prevalence and risk factors of GBV among 1,330 female college students in Awassa, Ethiopia were determined during three time periods (lifetime, since enrolling in college, and current academic year). The investigation showed that the lifetime prevalence of GBV was 59.9%. Almost half,

specifically, 46.1% of the participants reported the experience of GBV since enrolling in college, and the prevalence was 40.3% during the academic year of the study (55). A similar study among male undergraduate students in Awassa, Ethiopia verified that nearly a quarter (24.4%) of the students admitted they perpetrated acts of GBV during that academic year. Approximately 15.8% of the students reported they physically abused, and 16.9% reported committing acts of sexual violence against an intimate partner or non-partner (56).

In South Africa, a population survey of over 280 000 secondary school pupils showed that up to the age of 15 years around 9% of both girls and boys reported forced sex in the past year, rising to 13% for males and 16% for females by age 19 years (57). Another study on IPV perpetration and victimization among 549 South African 8th grade student from nine public schools in Cape Town reported that over 10 % of boys reported forcing a partner to have sex, and 39 % of girls reported physical IPV victimization (58).

A population-based survey that involved 2000 randomly selected women aged 18 to 49 years living within four districts of the Central Region of Ghana reported that about 34% of respondents had experienced IPV in the past year, with 21.4% reporting sexual and or physical forms. Past year experience of emotional and economic IPV were 24.6% and 7.4% respectively. Senior high school education or higher was protective of IPV. The study recommended evidence to target interventions to women with mental health problems, disabilities, exposure to violence in childhood, risky sexual behavior and unequal power in relationships will be critical in reducing IPV in this setting (59)

Results of the Nigerian Demographic and health survey (DHS) evinced that 27% of women aged between 15-19 years of age had experienced physical violence, while 16% had experienced physical violence in the last 12months. A focus on the age group indicated an increase in physical violence between the age groups 15-19 and 25-29 years of age, and a decrease thereafter. Women with primary and secondary levels of schooling were more likely than other women to have experienced physical violence since age 15. Women who never attended school were the least likely to have experienced physical violence since age 15 (15%). The perpetrators of physical violence were mostly parents or guardians (mothers/ fathers) and partners. Out of this age group, 6.6% had experienced sexual violence. Current or former partners were the perpetrator of the abuse in 23% of the adolescents. In 23% of respondents, the abuse occurred in childhood (60).

A survey of violent behaviours among female apprentices in Ibadan, Nigeria showed that 65% of the sample had been victims of assault (61). A study in a Sexually Transmitted Infection clinic in Ibadan showed that 22% of the female patients were under the age of 10 years, suggesting that they were victims of coercion (62).

A retrospective study aimed at assessing the prevalence of domestic violence against men, over a period of 5 years retrieved the medical records of victim-patients in the General Outpatient Department, in the University of Port Harcourt Teaching Hospital, Nigeria. The study revealed that from a total of 220,000 patients seen, 48 (22 per 100,000) were victims of domestic violence. Prevalence of domestic violence among married respondents was 0.0023% [63].

A summary of national and local studies in Nigeria is shown below in Table 1.2.

Table 1.2: Summary of Studies Estimating Prevalence of GBV in Nigeria

Author, year	Area	Participants	Prevalence (%)			
			Physical	Sexual	Psychol	Any violence
Okemgbo et al. 2002[7]	Imo state	Women (308)	78.8	21.3		
Ilika et al. 2002[9]	Anambra	Women of childbearing	39.3			
Fawole et al. 2003a [64]	SW Nigeria	Female hawkers	59.1	S.Haras 25.8 Rape 5.5	17.1	
Fawole et al. 2005 [61]	Ibadan	Apprentices	65.4	22.9 Rape- 5.7	19.7	
Fawole et al. 2005[5]	Ibadan	Civil servants	31.3			
Ajuwon et al. 2006 [65]	NE Nigeria	Sec school students		------		
Ekabua et al. 2006 [66]	Calabar	SV victims in hospital (22)		2.1		
Owoaje et al. 2006 [8]	WRA	Migrants				87.7
Umeora et al. 2008 [67]	SE Nigeria	500				68/500
Gyuse et al. 2009 [68]	Jos	Preg women 340				12.6-C 63.2- P
Dienye and Gbeneol. 2009[63]	Port Harcourt	men				22 per 100,000
Fawole et al. 2010 [69]	Ibadan NE	Men(820)	25.1	29.3	44.4	54.1
Ajuwon et al. 2011 [70]	Ibadan	Sec school students (1366)	99.4	34.9	77.6	97.9
Fawole et al. 2011[27]	Ibadan	Pregnant women				12.3- Lft 2.7 -1yr

NDHS, 2013[60]	Nationwide	Women of rep age	28	7%		
Fawole et al. 2013 [30]	Ibadan	Homemaker Destitutes	31.9` 16.7	20.3 0.8	34.7 20.8	21.9 56.7
Fawole et al. 2017[71]	Ibadan	Medical students				4.4%

C= controlling behaviour, P= Physical violence,
LT- lifetime, 1yr = 12 months
WRA= women of reproductive age

1.7.7 Knowledge and Perceptions of Medical Student on Gender Based Violence

Previous studies have assessed the knowledge and perceptions of medical students on GBV[14, 37, 39, 72]. Most of the studies were conducted in the high income countries and they have highlighted the value of training medical students about GBV. For example, in the United States (US) medical students' attitudes, experiences, and practices were assessed to learn what they knew about IPV. The study was conducted on 2,316 medical students at three different times in their training in 16 medical schools. Although 91% of the medical students affirmed that they had received some exposure to training on IPV, only one fifth reportedly received extensive training by their senior year. Also, even though 73% of the students entering wards thought IPV were highly important for physicians to discuss with patients, only 35% of those entering clinical wards, considered IPV as highly relevant to their own practice. Contrastingly, 55% of senior students stated that they have had some communication with their patients about IPV. Senior students reported more frequent discussions on IPV, while the frequency rate was ascertained on the basis of sex. As such the percentage of women was 60%, while men had a proportion of 50% ($p = 0.006$). Additionally, having an orientation was highly important for physicians to talk to patients about IPV ($p = 0.0002$). On a similar note, the perceived relevance of discussing domestic violence with patients was substantially higher among women, underrepresented minorities, those with personal or family history of domestic violence, and those self-categorised as politically liberal or very liberal. The author concluded that gaps in IPV instruction in medical schools were a concern [39].

In University of Rochester New York, USA, results of an assessment of 787 (59%) respondents comprising of 217 medical students and 559 faculty members found that 17% of the female and 3% of the male medical students and faculty had experienced physical abuse or sexual abuse by a partner in their adult life. The estimate of partner abuse for female medical students and faculty appeared comparable with the general population national estimates. The authors concluded that acknowledgement by physicians that family violence is a potential risk for everyone, physicians and patients alike is a step toward enhancing the identification of abuse and initiating interventions on behalf of survivors of family violence [73].

A study conducted in India similarly explored the knowledge and attitudes to VAW among 400 fourth (final) year baccalaureate nursing students and fifth (final) year medical students from two different educational institutions. Only 38% of the participants believed that they had acquired sufficient classroom knowledge on VAW through their respective educational programmes, whereas 43% thought they had applied practical skills to care for victims. All participants were sympathetic toward victims of abuse. Participants, however, demonstrated varying attitudes about the justification for abuse against women, help given to victims, the punishment of offenders and the effect of abuse on women. Female medical students believed more strongly than males and nursing counterparts that wives do not gain from being beaten. In their study, the authors recommended for healthcare students in India to receive adequate training, practical skills and classroom knowledge to effectively manage abuse against women (72).

Some studies had in fact progressed from an exploration of training needs to assessing suitable training methods. This is because it has been recognised that physicians are generally poorly trained to recognize, treat and/or refer adolescents at risk of IPV (37). In a bid to determine whether the experience of serving as educators in a community-based adolescent IPV prevention program improves medical students' knowledge, skills, and attitudes toward victims of IPV beyond that of didactic training, 117 medical students attending 4 medical schools in the US were randomly assigned to didactic training in adolescent IPV prevention with or without participation as educators in a community-based adolescent IPV prevention program (74). The baseline mean knowledge score of 10.25 improved to 21.64 after didactic training ($p \leq 0.001$). The results indicated that medical students in the "didactic plus outreach" group demonstrated higher levels of confidence in their ability to address issues of IPV, (mean = 41.91) than students who only received didactic training (mean = 38.94) after controlling for initial levels of confidence ($p \leq 0.002$). Experience as educators in a community-based program to prevent adolescent IPV improved medical students' confidence and attitudes in recognizing and taking action in situations of adolescent IPV, whereas participation in didactic training alone significantly improved students' knowledge (74).

Another study in the United States (US) used a different training method. Training is beneficial because it can improve student’s knowledge, confidence and skills to manage victims of abuse. A randomised, controlled comparison study in a tertiary care paediatric hospital in the US on 56 second-year residents and third-year medical students was conducted over a period of one year. The students were assigned to a 4-week adolescent clinic rotation. On alternate months, medical students and residents in the intervention group participated in a 3-hour workshop on violence prevention. The workshop included a didactic session; discussion of risk factors for adolescent violence; and training on the approach to the

adolescent interview. The control group received the standard ambulatory clinic manual with articles on violence prevention. Results revealed that a violence prevention education programme with teen health educators improved participants' self-reported violence knowledge and it increased their perceived comfort and for screening for abuse. The participants also improved their identification and management of a standardised violence-related scenario presented in an adolescent clinic setting [(75)].

Learning to care for survivors of domestic violence, is an essential part of undergraduate and graduate medical education. Glick observed that, while classroom instruction may lead to an increase in learners' knowledge, it was not adequate to teach the skills required for students to successfully screen and respond to survivors of violence in the health facility. The use of the simulated patient was found to be a suitable teaching strategy, for it enabled learners to apply their knowledge and skills in a simulated clinical environment. Case scenarios typically included the patient presenting with a complaint (headache) as commonly encountered in the primary care setting. The triggers in the case encouraged learners to ask about domestic violence included, chronic unexplained pain, miscarriages, and possible family history of violence. The method allowed learners an opportunity to practise these skills in a safe, yet realistic venue [(76)]. The post-encounter discussions were filmed and videotape reviewed provided opportunities to reinforce and further strengthen learners' knowledge and skills.

Equally, at the College of Medicine, University of Ibadan, Nigeria, our preliminary study conducted with109 medical students determined the knowledge and skills of final-year students in managing victims of VAW [(77)]. Physical, sexual, psychological and economic abuse was known by 73.8%, 72.6%, 54.8% and 44.0% respectively, of the students. Most students (77.4%) felt it was part of their duty to ask patients about abuse. However, most students regarded themselves as insufficiently skilled to treat victims of violence. Students with previous training about violence were more likely to be knowledgeable (OR 1.6; 95% CI 0.6 - 4.4) and skilled (OR 1.3; 95% CI 0.5 - 3.1). Male students in this study had better knowledge and skills than the females, while female students expressed better attitudes to victims. In depth interview of six departmental heads (or their representatives) at the time revealed that VAW was not included as a topic in the curriculum. Subsequently, the faculty at the College agreed to the need to for curriculum review to improve students' knowledge and management skills regarding VAW[(26)]. This publication constitutes the first paper for the PhD programme (Chapter 4). The study was conducted to determine the knowledge and skills of final-year medical students in managing victims of VAW, and to describe the extent to which VAW is included in the undergraduate curriculum of the College of Medicine, University of Ibadan, Nigeria.

1.8 Overview of the thesis

This thesis is divided into the following six chapters:

Chapter One provides the orientation to the study, problem statement, research questions, aim and objectives. The significance and purpose of the study are described.

Chapter Two presents an overview of the literature pertaining to medical students. It describes the historical background, the social context of gender based violence, definition, types and prevalence of GBV and the ecological and health belief models. An overview of the current medical training curriculum and key factors influencing the curriculum are also provided.

Chapter Three provides information on the materials and methods used in each phase of the study. Additionally, the process of questionnaire development, data management and ethical consideration are also described. It ends with an overview of the thesis structure.

Chapter Four discusses the knowledge, personal comfort and self-reported skills of final year medical students on GBV. The determinants of students' knowledge, attitude, personal comfort and skills are also discussed.

Chapter Five describes how consensus was obtained from stakeholders on the content, faculty and methods of training relating to a GBV curriculum. The reasons for teaching GBV; teaching methods, strategies/resources needed and department best positioned to teach the topic; professions to involve in training; and assessment strategies are highlighted.

Chapter Six explains victims' perceptions on screening for violence by physicians and other health professionals at the health facilities. It identifies the types of support that victims could receive at healthcare facilities and provides information on how students can be trained to respond to victims.

Chapter Seven provides the synthesis of the study results together with the conclusion and recommendations. It proposes educational strategies based on evidence that can be used to improve training content and strategies that will align with victims and societal needs.

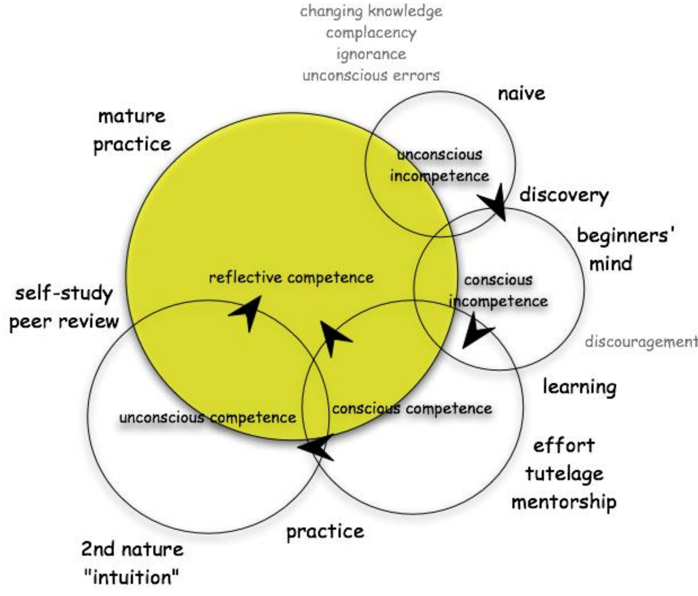
CHAPTER 2: CONCEPTUAL FRAMEWORKS

2.1 Introduction

The previous chapter introduced the problem and context of this study and the literature that informed the framing of this study. Equally, it expounded the problem of GBV and how it affects victims' health. The importance of training medical students to identify and respond to the victims and societal needs as a construct central to this research was also discussed. This chapter furthered chapter 1 by situating the study within the appropriate research concepts, besides presenting a review of the several theories that informed the conceptual framing that underpins this study.

2.2 Competency-based model/ or outcomes-based models

The competency-based approach consists of a functional analysis of occupational roles, translation of these roles into outcomes, and assessment of trainees' progress on the basis of their demonstrated performance of these outcomes (Figure 2.1). It has become dominant at most stages of the medical training and is appropriate for teaching medical students to acquire the competencies to identify and manage victims. Competency is a combination of knowledge, skills, and attitudes which when applied to a particular situation, leads to a given outcome. Competency based medical training is usually developed in four steps: determine what the appropriate competencies are, devise training programmes, devise appropriate assessment methods, and set minimum pass standards. [20]

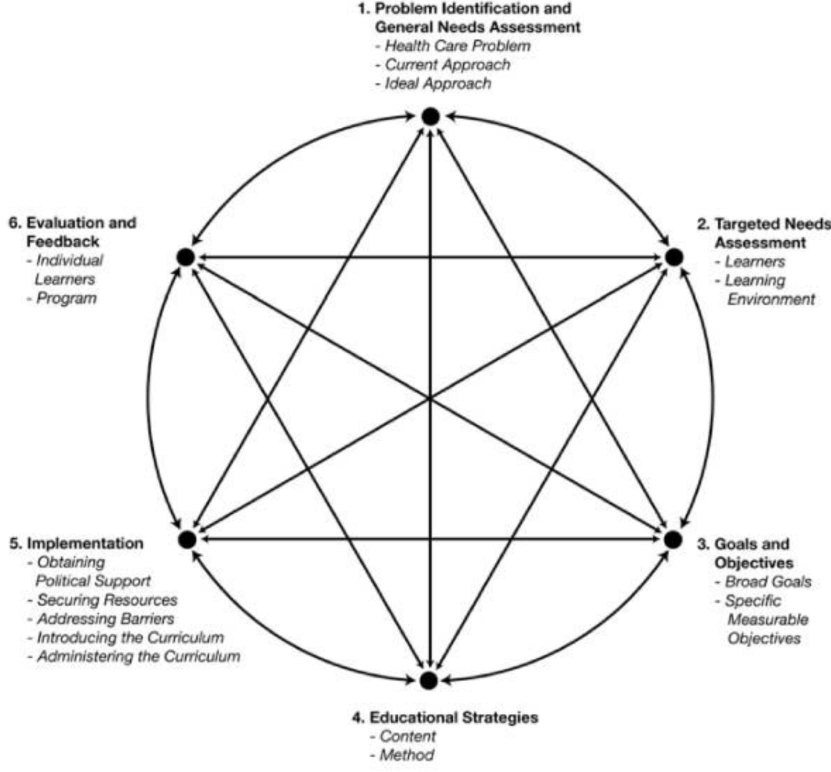


Source: Frank et al [78]

Figure 2.1: The Competency-Based Medical Education Programme

2.2.1 Kerns Six-Steps Approach to Curriculum Development

This study used Kern's et al. six-step approach to curriculum development as the framework of the study (Figure 2.2). As a framework with a six steps curriculum development mode, it is specifically designed to address educational problems. Thus, it was developed to provide a theoretical approach to the development, implementation, evaluation and improvement of educational experiences in medical education. The key assumption is that "medical education should change as our knowledge base changes and as the needs or perceived needs of patients and society change" [79]. Literature indicates that this model has guided the curriculum review of several medical disciplines.



Source: Kern et al, 2009 [79].

Figure 2.2: Kerns six step approach to curriculum development

The six steps include: 1. Problem identification and general needs assessment phase which was the Preliminary study; 2. Needs assessment of targeted learners where the knowledge, attitudes, practice and skills of medical students were assessed; 3. Formulation of specific outcomes where the study objectives explored the content include in a new GBV curriculum and to identify the experts that could be used as teachers in such a multidisciplinary curriculum; 4. Educational strategies where a Delphi technique was use to canvass stakeholders opinion on content and educational strategies to use in the teaching of the GBV curriculum. The remaining steps i.e. 5. Implementation; 6. Evaluation and feedback [(79)] (Figure 2.2) was not included in the current study plan. The authors also advised that the steps are not necessarily implemented in a linear or sequential way but that it follows an on-going process that aims to improve the overall curriculum [(79)].

This study was able to implement the first 4 steps of the process (Table 2.1). Using the first two steps, the study set out to identify the problem in relation of students' gaps knowledge about GBV and thus established the need for the issue to be formally addressed in the curriculum. In the second step identified the targeted needs in relation to final year medical student's knowledge and skills in identifying and responding to victims of VAW. This relates to their future role as doctors who should demonstrate appropriate competencies to respond to patients. For the problem and needs analysis, the researcher determined the knowledge and skills of final-year medical students in managing victims of VAW, and described the extent to which VAW is included in the undergraduate curriculum. This is represented by the preliminary study, which is reported in Appendix 1. The preliminary study reviewed curriculum documents and interviewed departmental heads to determine the extent to which VAW is taught in one of the three medical schools. It also explored the reasons for its exclusion from the curriculum. Next, the researcher identified the factors which impacted on students' attainment of the knowledge and perceived ability to manage victims in other medical schools. This was necessary to understand the adequacy of the students training and to gauge their willingness to respond to victims of abuse. This phase provided information that sought to improve our understanding of medical students' personal and professional experience of GBV.

In step 3 of the Kerns model the objective explored the opinion of GBV experts as training faculty. Their opinion was sought to build consensus on the content, faculty educational forums to use in the GBV curriculum. This was necessary to obtain agreement on the faculty to teach since education about violence is currently taught by a variety of disciplines and faculties. Attention to this step will identify and prepare a range of faculty to teach and practice effectively which is in line with the step four of the Kerns' et al approach. The application of step 4 included consensus form faculty on the use of educational strategies that would enhance the teaching.

Next, victims perceptions on screening for violence at health facilities and their suggestions on how medical students should be trained to address issues relating to IPV in their future profession was

explored. This was necessary so as to understand the patient's perception and obtain their suggestions on how this could be done to help women. This is necessary as many women would normally not disclose abuse and may not even recognise their experiences of abuse as such.

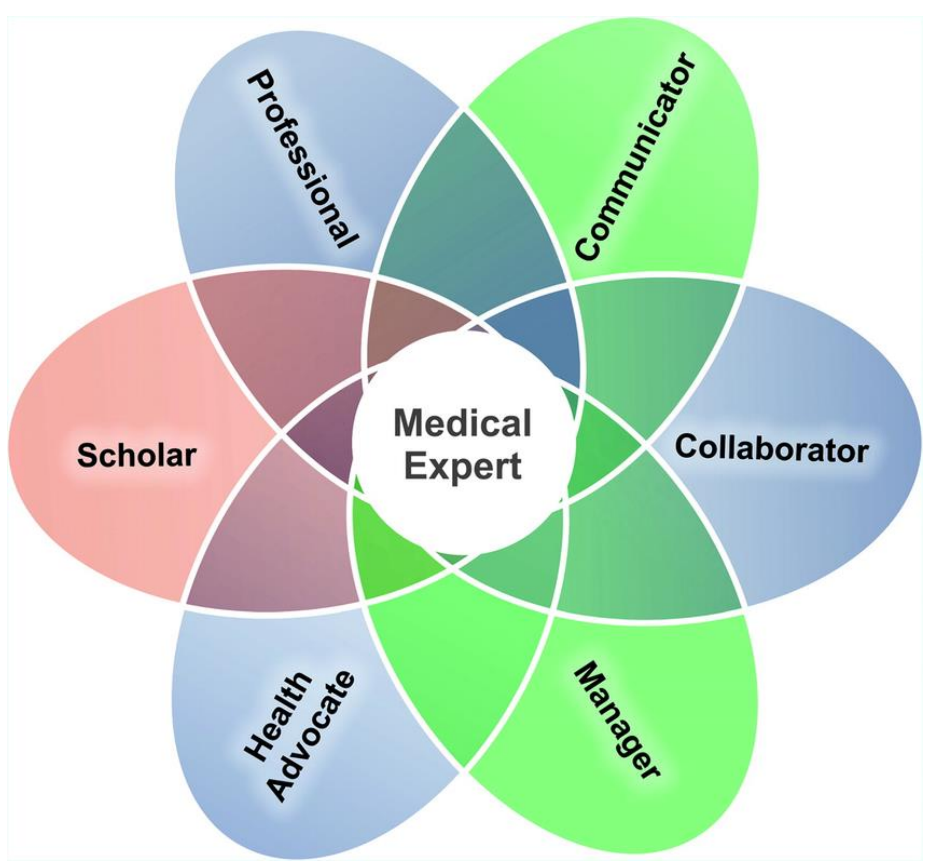
Table 2.1: The Kerns Approach to Curriculum Development in This Study

	Objective	**Steps**	**Manuscript/ Chapter**
1	To assess the knowledge, skills and practice of final year medical students on GBV To describe the extent to which GBV is included in the undergraduate curriculum	Problem identification and general needs assessment	(Appendix 1)
2	To assess the knowledge, skills and practice of final year medical students on GBV To describe victims perceptions on screening at healthcare facilities	Needs assessment of targeted learners (*students and victims)*	1 and 3 (Chapters 4 and 6)
3	To obtain a consensus of experts on the content and strategy of the GBV curriculum	Formulation of specific outcomes *(what should be taught i.e. the goals of the curriculum and what to assess,*	2 (Chapter 5)
4	To develop a GBV training curriculum for medical students and other health care providers	Develop educational strategies (*Consensus building; identification of educational strategies)*	1, 2 and 3 (Chapters 4,5 and 6)
5	To implement a GBV curriculum for medical students	Implementation of strategy	Future research
6	To evaluate the effectiveness of the training programme	Evaluation and feedback	Future research

Finally, there is the need to understand how to translate these findings into educational strategies and how to review the current curriculum (Step 3). To do this, the researcher wanted to understand the factors that needed to be considered when improving the alignment of Nigerian medical student's education with international guidelines aimed at improving women's health.

2.2.2 CanMED Competence Model

The study adopted the CanMED competence model to illustrate the role of the doctor [19]. The seven roles regard doctors as a medical expert, collaborator, manager, health advocate, scholar, communicator and a professional (Table 2.3) [19].



Source: Frank et al, 2007 [78]

Figure 2.3: The CanMEDS Competence Model

As medical experts, physicians should be able to establish and maintain clinical knowledge, skills and attitudes appropriate to their practice. Additionally, as experts doctors should perform a complete and appropriate assessment of a patient; Use preventive and therapeutic interventions effectively; Seek appropriate consultation from other health professionals [78]. Doctors should render clinical practice in addition to providing effective communication in partnership with patients, other healthcare providers and the community [19]. Hence, physicians should be knowledgeable and skilled on GBV. They should be able to identify and care for victims of IPV as well as refer those in need of further care to other specialists. The care and support provided to victims should be current, ensure victims safety and be socially accountable.

As Communicator, physicians should be able to accurately elicit or convey relevant information and explanations to patients and families, colleagues and other professionals. They should also be able to develop a common understanding of issues, problems and plans with patients and families. As regards GBV, they should be competent enough to obtain and communicate information on GBV to victims, perpetrators, contemporaries and members of the public.

Physicians as Collaborators should be able to capable of participating effectively and appropriately in an inter-professional healthcare team. They should be adept enough to effectively work with other health professionals (nurses, counsellors and social works) and sectors (legal, police, media) to prevent, negotiate, and resolve issues around experience and perpetration of GBV.

As leaders, physicians are integral participants in healthcare organisations. Physicians should be able to adroitly participate in activities that contribute to the effectiveness of their healthcare; organizations and systems they should be able to sensitise other members of the health team on GBV to ensure they are able to care for victims of GBV. Also, they are obligated to manage their practice and career effectively to be able to care for victims and perpetrators. Recently, patient safety and quality improvement processes have been given increased emphasis.

Health advocate is another important role of the physician**.** In order to excel in this role, it is needful that physicians should be able to respond to GBV patient health needs and issues as part of patient care; they should also be able to recognise and respond positively to the health needs of the communities that they serve as regards GBV; identify the determinants of health of the populations that they serve; promote the health of individual patients, communities and populations, which include partnership in advocacy to prevent GBV.

*As Scholars***,** physicians demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge. They are obliged to maintain and enhance professional activities through ongoing learning. It is also their duty to critically evaluate information and its sources, and apply this appropriately to practice decisions, besides facilitating the learning of patients, families, students, residents, other health professionals, the public, and others, as appropriate on GBV. As intellectuals, they are equally expected to contribute to the creation, dissemination, application, and translation of new GBV medical knowledge and practices, and accordingly, the concepts of patient safety and a safe learning environment have been newly added to the teacher component role and this applies to GBV.

As *Professionals,* physicians are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour. They should be able to demonstrate a practical commitment to their victim-patients, profession, and society through ethical practice; through participation in profession-led regulation; and demonstrate a commitment to physician health and sustainable practice. Key competencies have been reorganised. Key competencies have been reorganized to reflect the commitment of the physician to the victims, patient, to society and to the profession. [19, 78].

The future role of the doctor will include an enhanced focus on the prevention of illness or health problems. The future doctor must understand and contribute to the improvement of GBV and other conditions in society that affect the health of individuals and of population groups. The doctor must be responsive to society in meeting the needs of people and populations in the area in which he or she works, and at the same time must expand this social accountability to both a national and a global perspective. The role of the doctor should not be bound to one particular culture or region, a prolific should be prepared to take on a more global role, and be ready to practice in other parts of the world [(80)]; as such medical schools need to anticipate the future needs of their societies as regards GBV and women's rights issues. These schools should train competent doctors with professional attitudes, able to act as agents of change in society. The doctors should understand the importance of primary and secondary prevention of GBV. The new doctors should be empowered to be able to work in teams and sometimes to be the leader. They should welcome and interact with the patient as a member of the health team and respect the patient's experience. They should be prepared for lifelong learning and development. Not only will this help medical care to improve continuously, but also, it can inspire advancement in the professional lives of other members of the health team, which will eventually benefit the society and the individual patient as well [(81)].

2.3 The Ecological Model

This study is situated within the ecological model in which violence is investigated as being influenced by both community and societal factors. The "ecological model" allows for the inclusion of risk and protective factors from multiple domains of influence. It can, therefore, provide key points for prevention and intervention on GBV [26].

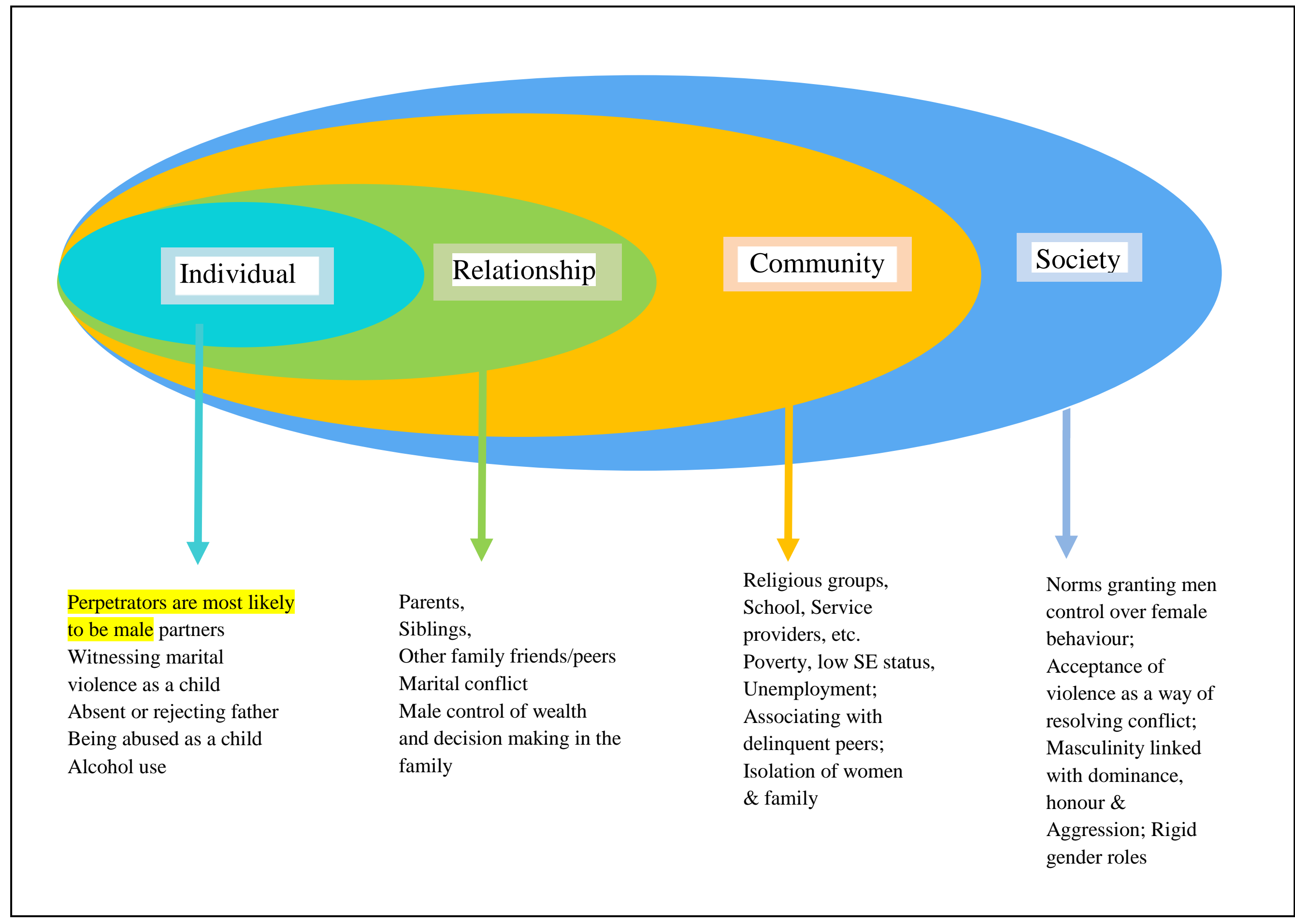


Figure 2.4: The Ecological Model of Factors Associated with Experience of Violence against Women

The model organises risk factors according to the following four levels of influence namely: - individual, relationship, community and society (Figure 2.4). These are discussed below:

***Individual factors*:** This includes biological and personal history factors that may lead to a woman becoming either a victim or perpetrator of violence. Notable is the sex and age of respondents, young women are more vulnerable to GBV.

***Relationship factors*:** These include those factors that increase the risk of GBV as a result of relationships with peers, intimate partners and family members. These include the person's closest social circle that can shape his/her behaviour and experiences; hence women who are married or in relationships are more likely to experience victimisation.

***Community factors*:** Community factors refer to the community contexts in which social relationships are embedded – such as schools, workplaces and neighbourhoods. These factors seek to identify the characteristics in settings that are associated with people becoming either victims or perpetrators of intimate partner and sexual violence. This study is based on the premise that if medical schools train their medics to identify and respond to victims of abuse, including counsel perpetrators it will reduce the prevalence of abuse.

Societal factors: Societal factors point to the larger, macro-level factors that influence sexual and intimate partner violence such as gender inequality, religious or cultural belief systems, societal norms and economic or social policies that create or sustain gaps and tensions between groups of people (Figure 1.1). Unfortunately, in Nigeria as in many other low income countries many religious and cultural factors promote the experience or GBV, hence this study is apt.

In this study, medical students (in preparation for their different roles as future physicians) were interviewed to determine their knowledge and skills, to identify and manage victims of GBV, therefore an understanding of the individual factors that leave victims vulnerable is imperative. The medical school and healthcare settings represent important societal factors that can be employed to prevent GBV. A good understanding of the societal factors that promote the experience of GBV is necessitous for any meaningful prevention efforts. All the victims we interviewed were females, highlighting the vulnerabilities of women.

2.4 The Health Belief Model

The Health Belief Model (HBM) is a cognitive behavioural model which had been developed to explain why people failed to follow preventative health measures [26]. It has also been found to predict compliance with treatment programmes for already diagnosed health conditions[26]. The model is based on the assumption that an individual's health actions will result from an intention to avoid a negative health action or where there is a positive expectation or a belief that they can take the recommended action. The original health belief model consisted of four cognitions, and these are perceived susceptibility, perceived benefits, perceived seriousness, and perceived barriers. However, cues to action, self-efficacy, and modifying variables such as motivating factors have recently been added as additional constructs affecting health behaviour [82]. Each of the cognitions and additional constructs can be used to explain health behaviour (Table 2.5).

In this study, it is believed that the health belief model is also appropriate to explain victim's perceptions to screening; medical student's knowledge, confidence and skills on the topic; and stakeholders' response to training the future physicians on GBV. For example, perceived susceptibility or risk refers to the individual's assessment of the likelihood that an action will be committed against him/her. Theoretically, the greater the perceived risk, the greater the chance the individual will try to avoid it. Practically, a woman who perceives herself as being at risk of experiencing violence from her partner will avoid the triggers and would more likely seek help. Similarly, medical students who perceive themselves as being susceptible to IPV are more likely to try and assist victims.

Perceived benefit refers to the individual's (faculty) belief in the efficacy of the prescribed health behaviour (training on screening for IPV) in preventing, treating, or ameliorating the impact of the health condition (GBV). Perceived seriousness reflects the individual's perception of the severity of the consequences associated with the health-related problem. When healthcare providers perceive a more severe outcome, then they are more likely to screen and train students on IPV, therefore knowledge of the health consequences of GBV is important to encourage medical students and physicians to respond to victims. Oppositely, perceived barriers refers to obstacles that keep an individual from pursuing a new behaviour (screening or teaching on IPV) such as perceived difficulty, cost, or time, concern for emotional pain for victims, security concerns from fear of perpetrators. In contrast, modifying variables reflects personal factors that influence the likelihood of adopting the new behaviour, therefore medical students or physicians socio-economic status, training and inclusion in the curriculum, availability of a guide and, time are important so as to reduce the perceived barriers. Another important factor is self-efficacy, which refers to an individual's personal belief in his/her ability to accomplish a goal. Cues to action are external factors that are critical in starting the path to adopting the new behaviour such as training students (such as a negative change in state, or a story in the media about experience of

violence; incentives or social support to patients who disclose abuse, text messaging to victims, support from family or community leaders [83].

Thus this research was conducted to highlight the importance of training medical students and providing information to guide a curriculum that will address IPV, including its perceived seriousness and the perceived benefits of training. Extant research suggests that a strong sense of self-efficacy, in performing behaviours that minimise the probability of victimisation, is a significant predictor of future screening and that this component should be targeted in programmes relating to this problem. Skill interventions in the form of hands-on training have been found to be effective in increasing self-efficacy [84]. This suggests that some of the components of the health belief model may be effective in the context of GBV prevention.

2.5 Conclusion

The skills and competencies based frameworks to inform the knowledge, skills and practices required of the new medical practitioner, as a potential first respondent, should have a cultural perspective of GBV and therefore be more culturally sensitive; the competencies and skills to communicate and assist the victim in seeking help and appropriate care; the potential to reduce and prevent GBV and work inter-professionally to find a solution. All these aspects provide new knowledge and insights for the future of GBV particularly VAW for not only Nigeria but the African continent.

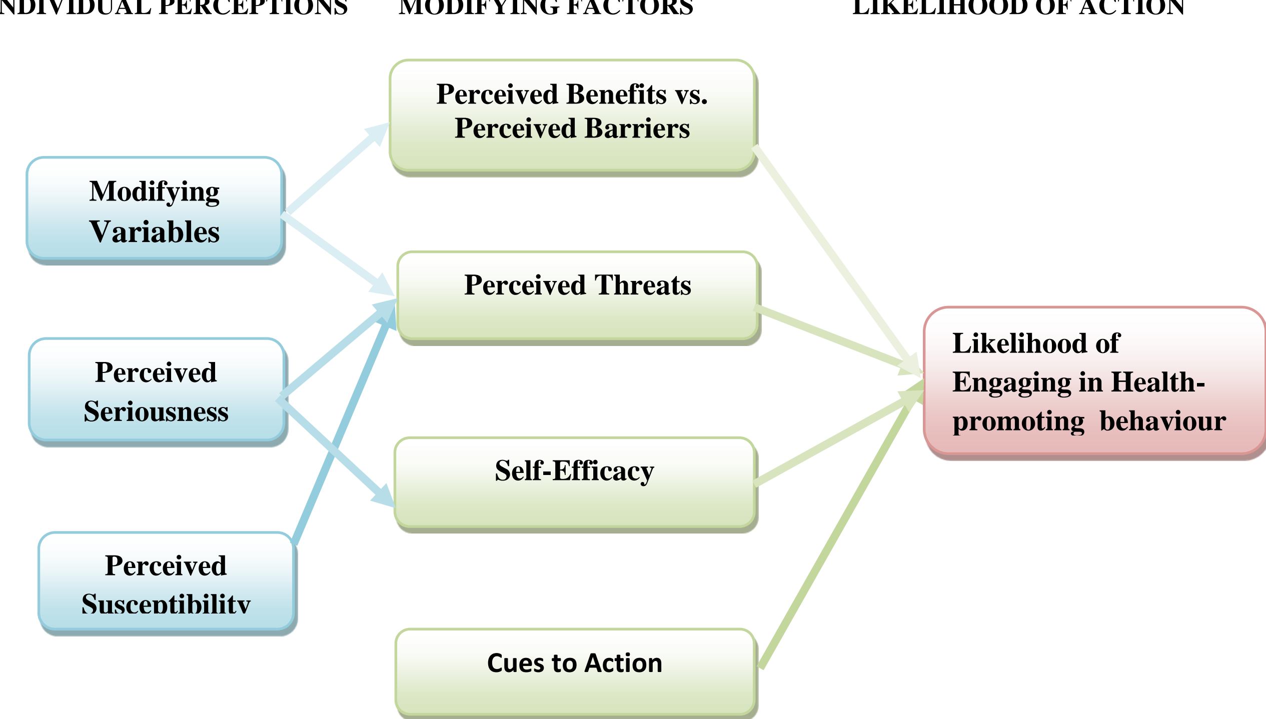


Figure 2.5: The Health Belief Model Source: Glanz et al., 2002 [85]

CHAPTER 3: METHODOLOGY

3.1 Introduction

The previous chapters explicated the context of this study, the literature and theoretical framework drew on in order to answer the research objectives and to develop knowledge relevant to the problems elicited. In addition, it expanded upon the problem of GBV and how it affects victims' health. The importance of training medical students to identify and respond to victims and societal needs as a construct central to the research was also advanced. Accordingly, this chapter locates the study within the appropriate research concepts/theories and justifies the study design, and decisions relating to the data collection and analysis processes. Owing to the design of this thesis by manuscript, each manuscript describes the methods used as indicated in Chapters 4 to 7. Therefore, Chapter 3 provides an overview of the methodological decision that frames the overall study and assists in clarifying the concepts and parameters of this study. Quality inferences and ethical issues related to the research are dealt with, including the reflexive positioning of the researcher.

3.2 Mixed Method Research

The exploratory nature of the research questions in this study presented a number of challenges including the complexity of the constructs identified for analysis. A deeper understanding of the 'what' and 'how' student's medical curriculum could address victims and societal needs on GBV forms an integral component of this research. The overall aim of this study was to generate deeper understanding on the knowledge, skills and practice of final year medical students on GBV; obtain a consensus of experts on the content and strategy of the GBV curriculum; and describe victims' perceptions on screening at healthcare facilities. The social dimensions to GBV allowed for the inclusion of risk and protective factors from multiple domains of influence. It, therefore, provided key points for prevention of GBV, as violence was investigated as being influenced by individual, community and societal factors. [26]. Evaluating complex human intentions and motivations necessitated the use of methods such as the in-depth interview for victims and departmental heads. For example, the in-depth interview obtained information on victim's perceptions on screening and suggestions for students training. In addition, methodologies that align well with used methods such as Delphi technique have been shown to be suitable when combining opinions to build a consensus [86]. This technique was therefore applied to obtain agreement from the training experts on the content and methods of the curriculum. Also, it was crucial to determine the knowledge and attitudes of individual students. These results had to be summarised using quantitative methods to determine the student's level of knowledge and general attitude. The method also allowed for the identification of determinants of students level of knowledge and self reported skills on GBV. Nonetheless, quantitative method alone cannot adequately account for

the generation of credible theories needed to guide the students' future training, as such to ensure the provision of holistic understanding, it must be equipoised with a qualitative approach.

Mixed methods research is the type of research in which a researcher (or team of researchers) combines elements of qualitative and quantitative approaches for the purpose of breadth and depth of understanding and corroboration [87]. The basic premise of this methodology is that such integration permits a more complete and synergistic utilisation of data than do separate quantitative and qualitative data collection and analysis. The assessment of medical students, victims and trainers provide an ideal opportunity for mixed methods studies to contribute to the understanding and to provide information on a GBV medical curriculum. Practically, the qualitative and quantitative components were brought together to inform the content and methods, including the resources required to develop a GBV curriculum.

3.2.1 Strengths and Challenges of Mixed Method Research

Mixed methods research originated in the social sciences and has recently expanded into the health and medical sciences. In the last decade, its procedures have been developed and refined to suit a wide variety of research questions [88]. These procedures include advancing rigour, offering alternative mixed methods designs, specifying a shorthand notation system for describing the designs to increase communication across fields, visualising procedures through diagrams, noting research questions that can particularly benefit from integration, and developing rationales for conducting various forms of mixed methods studies [89].

Using mixed method study has several advantages. First, it is able to compare quantitative and qualitative data. Second, it enables the collection of rich, comprehensive data, which in turn provides a more robust analysis than utilising just one of them. Appositely, these methods are especially useful in understanding contradictions between quantitative results and qualitative findings. Essentially, the utilisation of mixed methods enable a thorough examination of participants and ensure that the eventual findings are grounded in participants' experiences; hence its appropriateness for the investigation of IPV victims' perceptions. By exploring their perceptions it expands the intellectual horizon of multidisciplinary team research because it encourages the interaction of quantitative, qualitative, and mixed methods scholars. Mixed methods have great flexibility and are adaptable to many study designs, such as our cross-sectional surveys, to elucidate more information than can be obtained in only quantitative research.

In spite of its viability, mixed methods studies are challenging to implement, especially when they are used to evaluate complex research such as on GBV. This challenge may include the complexity to plan and conduct. For instance, we had to carefully plan all aspects of this current

research, including the study sample for qualitative and quantitative portions; the timing and integrating qualitative and quantitative data during analysis and report writing. It follows that conducting high-quality mixed methods studies requires a multidisciplinary team of researchers who, in the service of the larger study, must be open to methods that may not be their area of expertise. Hence, I had to learn how to analyse qualitative data from the experts. Given that each method must adhere to its own standards for rigor, ensuring appropriate quality of each component of a mixed methods study can be difficult. Finally, mixed methods studies are labour intensive and require greater resources and time than those needed to conduct a single method study[87]. Despite these challenges, a mixed method was desirous so as to provide richer data than using one method only. The steps of this strategy are pictured in Figure 3.1.

PRELIMINARY STUDY

Exploratory phase

Medical students, Departmental heads & review of docs
QUAL. & QUANTITAIVE

PHASE 1

Medical Students
QUALITATIVE
Data coll. & analysis

PHASE 2

GBV experts
QUAL & QUANT
Data coll. & analysis

PHASE 3

Victims of IPV
QUALITATIVE
Data coll. & analysis

RESULTS

DATA TO INFORM DEVELOPMENT OF GBV CURRICULUM FOR MEDICAL STUDENTS

Figure 3.1: Schematic diagram of the study process

3.2.2 Rationale for using the Sequential Explanatory Strategy

The sequential explanatory strategy is a popular strategy for mixed methods design that often appeals to researchers with strong quantitative leanings. It was characterised by the collection and analysis of quantitative data in the first phase of research followed by the collection and analysis of qualitative data in a second phase that builds on the results of the initial quantitative results. Slightly more weight typically was given to the quantitative data, which is unsurprising considering the researchers background. 'The two forms of data were collected separately but were connected. An explicit theory may or may not inform the overall procedure.

A sequential explanatory design is typically used to explain and interpret quantitative results by collecting and analysing follow-up qualitative data. The qualitative data collection that follows was used to examine the results of the qualitative data in more detail. The straightforward nature of this design was one of its main strengths. It was easy to implement because the steps were in clear, separate stages. In addition, the design was easy to describe and report. However, the main weakness of this design was the length of time involved in data collection with the separate phases of the study [90].

3.3 Design of the Mixed Method

The mixed method is described in terms of time, weight and mix below.

Timing: The timing of the research design was sequential as the three phases were implemented one after the other. It was only when one phase has completed that the next phase has commenced. Hence, data was collected over a long period and the subsequent phases expanded on the knowledge acquired in the previous phase.

Weighting: Overall, priority was given to the quantitative more than the qualitative research. More quantitative methods of data collection were employed. Phase I and 2 (Rounds II & III) and part of Phase 3 employed quantitative methods, while Round 1 of Phase 2 and most of Phase 3 employed quantitative methods. Also, the quantitative method was commenced first. This was because of the study audience were faculty members, physicians and medical students. Also, the results of the study will guide the development of a GBV curriculum for medical students hence quantitative assessment were more useful.

Mixing: Data collection was mixed in Phase 3, that is, both qualitative and quantitative data collection methods were employed. However, most of the mixing occurred during the interpretation stage of the research.

3.4 Overview of the Methodology

The study used a mixed-method design and employed both quantitative and qualitative methods [90]. The quantitative component was both a descriptive and an analytical cross-sectional survey of medical

students. The qualitative component consisted of a desk review, three rounds of the Delphi technique with faculty and key informant interview of victims, hence stakeholders/ experts.

The study was conducted in the phases below:-

Preliminary Phase – Medical students, departmental heads and desk review (Appendix 1).

Phase 1 – Medical students

Phase 2 – Stakeholders of training

Phase 3 - Victims of IPV

The summary of the study methodology is summarised in Table 3.1 and Figure 3.1 below.

Table 3.1: Summary of Study Methodology

Methods	Preliminary	Phase 1	Phase 2	Phase 3
Study location	Oyo	Lagos, Osun & Oyo	Lagos, Osun & Oyo	Lagos, Osun & Oyo
Study population	Medical students & departmental heads	Medical students	Experts from-academics, medical practitioners, officials from GOs and NGOs	Victims of IPV
Sample size	109 students; 6 departmental heads	388	RD 1-52 RD 2-51 RD 3-47	33
Sampling strategy	Cross-sectional survey; Key informant interview	Cross-sectional survey	Delphi technique-3 RDs	In-depth interview
Study instrument	Semi-structured questionnaire - students; Key informant interview guide – dept heads	Semi-structured questionnaire	Expert nomination worksheet RD1-open-ended RD2-Likert scale questionnaire; RD3-semi-structured questionnaire	Structured interview guide Eligibility questionnaire
Data analysis	Chi-square test and logistic regression Thematic	Bivariate and multivariate logistic regression	RD1- thematic RD2- means & standard deviations RD3-proportions, Codes	Thematic

*RD=Round

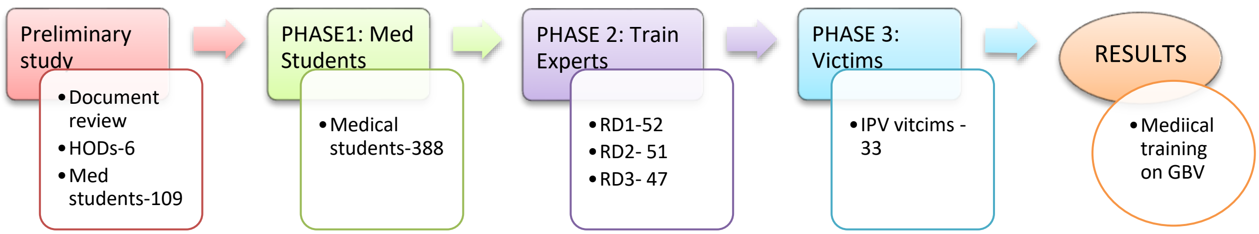


Figure 3.2: The Study Process

3.5 Study Setting

The study was conducted at the College of Medicine of three Universities in South west, Nigeria, namely Lagos, Osun and Oyo States. The College of Medicine of these Universities has a number of faculties – such as Basic Medical Sciences, Clinical Sciences, Dentistry and Public Health [91]. The Faculty of Public Health (sometimes called Department of Community Medicine or Community Health) has a number of departments (or units) whose activities are aimed at preventing disease and improving the total well-being of the community or society. These Colleges of Medicine also have a teaching hospital affiliated with each of them and a number of community outreach clinics. The number of medical students per session in these institutions range between 80 and 150, with a male female ratio of 1.5 to 1.0 [18].

Figure 3.3: Map of Lagos, Osun and Oyo States of South West Nigeria

3.6 Phase 1- Medical Students

Knowledge, personal comfort and self-reported skills
Attitudes to managing victims and perpetrators
Content and context of training on GBV
Personal experience as victims and /or perpetrators
Determinants of knowledge, attitudes, personal comfort and self-reported skills

3.6.1 Study Design

This study was conducted as a descriptive and analytical cross-sectional survey. The descriptive component described the proportions of the students' socio demographic characteristics, knowledge, attitudes, personal comfort and self-reported skills. The analytical component determined the factors influencing students' knowledge, attitudes, personal comfort and self-reported (perceived) skills on GBV.

3.6.2 Study Population

The population consisted of all medical students registered in the final year (fifth year MBBS) cohort. All medical students were invited to participate and those who agreed were interviewed. The sample consisted of 192, 145 and 87 students from Medical Schools in Lagos, Ibadan and Ladoke Akintola respectively.

3.6.3 Data Collection Instrument

Data was collected by means of a semi-structured questionnaire which was developed after adequate review of literature.[74, 75, 77, 92, 93] It built on the instrument used in the preliminary survey. [26] The reliability coefficient of the instrument using Cronbach alpha test was 0.7. To further standardize the instrument, a pretest was carried out on 10 students from another medical school in the region. The self-administered questionnaire comprised 33 items in seven sections. The questionnaire solicited information on students' socio- demographic characteristics; knowledge of GBV; personal comfort to care for victims, attitudes and self-reported skills to manage victims and perpetrators of GBV; previous training on GBV, and personal experience of IPV and history of couple conflict within a 12 month period prior to the survey (Appendix 1). Personal comfort was defined as student's confidence to talk to victims and perpetrators, while self-reported skills to respond to GBV referred to their perceived ability to manage victims and perpetrators.

Respondents were requested to select the correct option from a given list, other questions needed a "yes" or "no" response and a few questions were open-ended. Respondents used a five-point Likert scale to assess attitudes namely, "strongly agree, agree, not sure and disagree, strongly disagree", while self-reported skills were rated on a four point scale indicating "yes, I am very skilled; yes, I have some

skill; no, I am not skilled and I don't know". Responses to assess content relating to GBV among those who had the prior training required respondents to choose the most appropriate of four points namely: - "Yes covered; no it was not covered; no it was not covered but should be and I don't know". Suggestions on how students could be trained to respond effectively to patients experiencing violence were open ended.

3.6.4 Data Collection

The data were collected between June and August 2016. The leaders of the students' association and class representatives were briefed about the purpose of the study prior to commencement. The investigator discussed the aim and ethics relating to the study with all the students. All the students were invited and only those who agreed completed an informed consent form prior to answering the questionnaire. The data were collected with the help of three research assistants, who distributed and collected the completed questionnaires. The questionnaire was self-administered and was in English. Each questionnaire took about 30 minutes to complete. Data were collected from 388 medical students in the three schools (response rate 91.5%).

3.6.5 Study Variables

The explanatory variables were age, sex, ethnic group and school location. Also, knowledge, attitudes and personal comfort were explanatory variables for the students' self-reported skills. The main outcome variables were knowledge and self-reported skills on GBV. Age and sex were possible confounders in the relationship between socio demographic characteristics by knowledge, attitudes and reported skills on GBV. Students were free to use the term GBV, or alternative terms such as IPV and VAW or domestic violence.

The knowledge score was computed on 11 questions that assessed type, symptoms of violated patients, general knowledge on GBV and perpetrators of GBV. Each correct answer was awarded a score of one mark. The maximum obtainable score was 11 marks, while the minimum was 0. The median score (7) was used to dichotomise respondents into two groups. Respondents with scores below 8 were considered to have inadequate knowledge, while a score of 8 and above was considered as adequate. An attitude score was calculated on 16 questions relating to respondents' attitude to GBV victims and perpetrators. The questions were assessed on a 5-point Likert scale. A positive attitude was awarded a score of 5, while a negative perception scored 1. The maximum obtainable score was 80, while the minimum was 5. The median (54) was used as cut off for two groups - positive or negative attitudes. Personal comfort was assessed on 13 questions using a 5-point Likert scale. The maximum obtainable score was 65 points. The median score (45) was used to categorise respondents into two groups, while self-reported skills on GBV management were assessed based on 7 questions. One mark was awarded

if a respondent stated that they had the skills to manage a specified condition. Using the median of 3, two groups were developed, those who had adequate skills (4-7) and those with inadequate skills (0-3).

3.6.6 Data Entry and Analysis

Data were entered and analysed using SPSS version 16 software. The open-ended questions were coded using thematic content analysis [94]. In the descriptive analysis, frequencies, means and standard deviations were done as appropriate. Bivariate analysis using logistic regression analysis was used to determine the factors influencing the students' knowledge and skills[95]. Significant variables in the bivariate analysis were entered into a multivariate logistic regression model to adjust for the effect of confounders. P values of less than 0.05 were considered significant.

3.7 Phase 2 – Training Stakeholders

Consensus building by stakeholders on content, faculty and methods of training relating to GBV curriculum

3.7.1 Study Design

The Delphi technique [96] was used to obtain consensus among experts on issues relating to the design of a GBV curriculum. Three rounds of questionnaires were circulated. The first round (RD 1) used open ended questions; the next two rounds (RDs 2 and 3) were structured. The responses from each round were summarised and reported to the stakeholders who were then given an opportunity to respond in the subsequent round.

The questions in the RD1 asked whether GBV should be included in the curriculum. The questionnaire also explored the content and methods to be used and asked experts about their previous training. The focus of RD 2 was to consolidate and validate suggestions on the content and methods generated following the administration of the RD1 questionnaire. Stakeholders prioritised their responses by ranking it according to importance. RD 3 sought stakeholder's level of satisfaction on the responses results of RD 2.

3.7.2 Study Setting

The study was conducted in Lagos, Oyo and Osun States of South West Nigeria in three medical schools namely: - University of Ibadan, University of Lagos, and Ladoke Akintola University of Technology respectively. Also, the relevant focal persons from the Ministries of Health and Women affairs in the three states were invited as stakeholders. The three universities are public institutions and all are affiliated to a teaching hospital.

3.7.3 Selection of Expert Panel

An expert was defined as having relevant knowledge and experience on GBV with contributions regarded as useful to inform the education of medical students. Four categories of experts were identified: academics, medical practitioners, officials from government and non-governmental organisations (NGOs). Each category of experts was identified using different methods

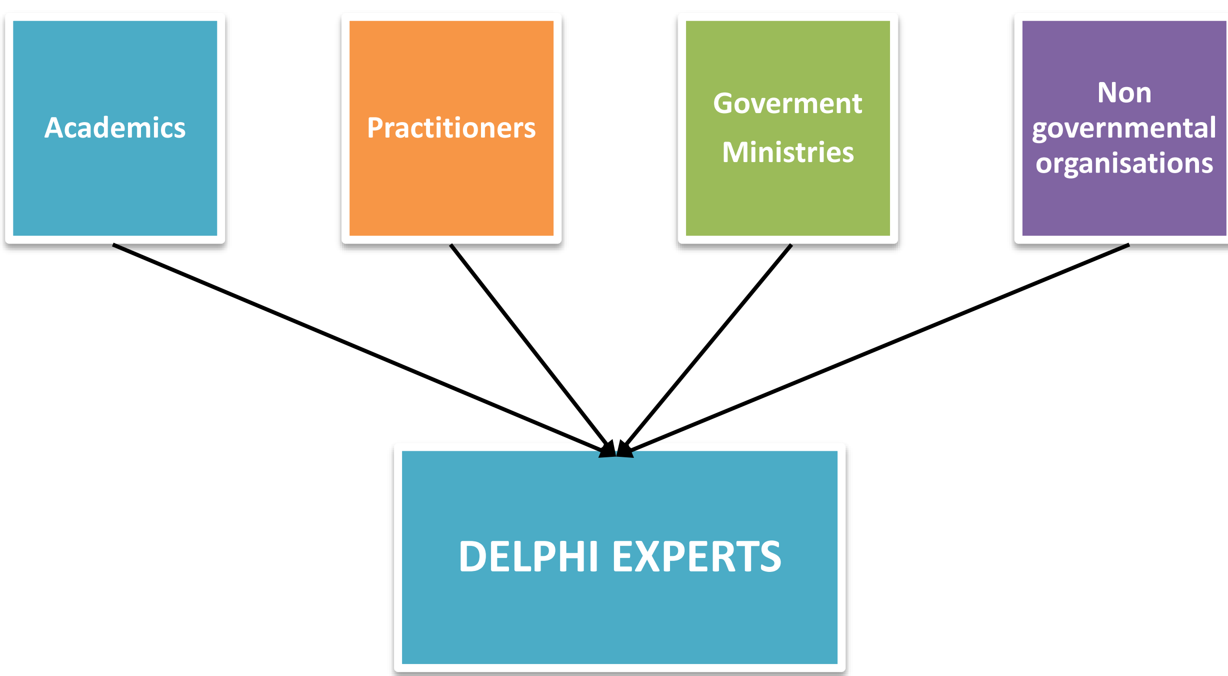


Figure 3.4: Selection of the Delphi Experts

1. Academics: The selection of academic experts was identified primarily on the basis of their publications via literature review of scientific journals and on recommendations from other experts.
2. Practitioners: The medical practitioners were selected based on their experience with managing patients with GBV. These spanned across different relevant disciplines of Medicine and Surgery.
3. Government: The programme managers in charge of women's or family health in the Ministries of Women Affairs and Health were nominated as experts.
4. Non-Governmental Organisations (NGOs): Programme managers/ officers from local and international NGOs in the three cities who are involved in women's rights and GBV prevention activities were invited to participate in the panel (Figure 3.4).

3.7.4 Preparation of Expert Nomination Worksheet

A research team of two academic researchers and three practitioners, all familiar with issues relating to GBV in Nigeria, generated a list of nominees. They brainstormed and identified the most appropriate disciplines, organizations, and literature for identifying the categories of experts [97, 98].

3.7.5 Invitation of Experts

Experts were contacted by phone or in person and invited to participate. A detailed information sheet, explaining the purpose and procedures, including the commitment required accompanied the RD 1, 2 and 3 questionnaires [99] (Appendix 2-4). The participants were asked to complete and return the questionnaire within a five day period. Some, however, had to be followed up repeatedly.

3.7.6 Seeking Consensus

A consensus was defined as a gathering around mean responses with minimal divergence, which was taken as a mean score of $\geq$3.5 with a standard deviation of 1.5 or less to the RD2 questionnaire [86]. A very strong consensus was a mean $\geq$4.0. For the RD 3 questionnaire consensus was regarded as more than 50% satisfaction with the rankings from RD2. A strong consensus was taken as 60 % satisfaction with results from RD2 and very strong as more than 70%.

3.7.7 Sample Size

Following a review of the literature, the target was to obtain 10-20 health professional experts from each site[86]. A total of 52 experts participated in RD 1, 51 in RD 2 and 47 in RD 3 (Table 1).

3.7.8 Questionnaire Development

RD 1: The RD 1 questionnaire was developed after an extensive literature review [100, 101] based on the results of our previous study with medical students and faculty in one of the institutions[26]. The questionnaire had 11 items and was open-ended. It solicited information on reasons GBV should be taught, the academic level where it should be taught; content to be covered; teaching methods and strategies; contact hours; duration, format; medical department(s) to teach; other health professionals to involve in teaching; and suitable teaching platforms to explore (Appendix 5). The experts were also asked if they had prior experience in teaching, and/or managing victims and whether they could share their materials.

RD 2: The RD 2 questionnaire was developed after analysis of RD 1. The RD 2 questionnaire ranked the 12 themes identified from the RD1 questionnaire on a 5 point scale of 1 to 5 (Appendix 6). The ranking was done in order of importance, with 5 ranked as most important and 1 as least important. .

RD 3: The RD 3 questionnaire informed participants of the results received on each variable from the 12 themes obtained in RD 2 (Appendix 7). Stakeholders were requested to comment on the results and to suggest additional items that they might not have considered initially and/or make changes to earlier responses.

3.7.9 Data Collection

The Delphi questionnaires were delivered by hand to participants and retrieved a few days later by a research assistant. Each round was accompanied by an information sheet which (in RD 1) introduced and explained the purpose of the study to respondents under the following subheadings: - What is a Delphi study? What is the purpose of the study? Why have I been invited to take part? What will I be asked to do if I take part? Who is organising the research? Confidentiality, what do I do now and how do I contact the principal investigator? (Appendix 2). The information sheet used in subsequent RDs provided feedback on the results of the previous RDs (Appendix 3 and 4).

The study instruments and information sheets were pretested on five resident doctors from the University College Hospital, Ibadan. The necessary adjustments were made before data collection commenced. Data collection was preceded by telephone calls to the experts by the principal investigator, next a member of the research team made physical visits to the experts to distribute the information sheet and questionnaire. RD1 data collection occurred between June and July, 2016. The questionnaire was self-administered and took approximately 30 minutes to complete. RD 2 data collection was between August and October, 2016; while RD 3 commenced in November 2016 and ended in January 2017. RD 2 took about 15 minutes, while the duration of RD 3 was about 20 minutes. The interviews were conducted by 3 trained resident doctors, who were assisted by a research assistant each.

3.7.10 Data Analysis

The three rounds were analysed using different methods.

RD 1: The data generated from the open-ended questions were coded. Data were entered into Statistical Package for Social Sciences (SPSS) version16 and analysed using Microsoft Excel. The open-ended, qualitative data were coded and categorised in response to each research question.

RD 2: The data was entered and analysed by using SPSS version 16. Means and standard deviation (SD) were calculated for all responses. Each mean was used to obtain a numerical indication of the overall support for a statement where the responses on the statements were measured on a scale from 1 to 5. A score of five marks was awarded for most important and one mark for least important. Mean values between 2 and 3 were interpreted as uncertainty or indicating no consensus, while $\geq$3.5 and $\leq$1 indicated clear positive and negative consensus respectively. The standard deviation provided a measure of dispersion of the responses. A smaller standard deviation ranged between 0.1 and 1.5 was interpreted as indicating greater certainty and consensus on the item being measured.

RD 3: The data were entered into Statistical Package for Social Sciences (SPSS) version16 and analysed using Microsoft Excel. Respondents' level of satisfaction with the results generated was described in percentages, while quotes on suggestions were made.

3.8 Phase 3 – Victims of Intimate Partner Violence

Perceptions on screening for violence by physicians and other health professionals

Possible use of gathered information to support victims

Suggestions for medical students IPV training

3.8.1 Study Setting and Design

The study was conducted in the three public tertiary health facilities located in Lagos, Oyo and Osun States of South West, Nigeria. The hospitals offer antenatal, emergency, primary care and community outreach clinics which are well attended by women and where screening can occur.

Screening in healthcare settings aims to identify victims and offer support appropriate to their needs that will prevent any further abuse, as well as reduce any consequent problems. Screening has been defined as any range of methods, involving specific inquiry about IPV or inquiry about IPV as part of general screening [102, 103]. This may include the use of validated screening tools, and simply asking one or a range of questions related to IPV on one or several occasions.

Healthcare setting refers to a health facility where health services are delivered which include the: family practice clinics; antenatal and postnatal services; hospital emergency, inpatient or outpatient services; specialists clinics (for example, obstetrics and gynaecology, psychiatry, law); and community health services.

This explorative, cross-sectional study employed qualitative methods [104] to collect data from women (N=33) who had experienced physical, psychological and/or sexual violence from a current or former intimate partner. A purposive sampling technique was employed to identify possible IPV patients who had attended clinics from three Teaching Hospitals in the aforementioned three states in South- western Nigeria. Five women refused to participate because they were afraid that it may results in more severe forms of violence.

3.8.2 Study Population

Potential respondents were identified by the research assistants or health care providers from their medical history, while their eligibility was confirmed through a short questionnaire (Appendix 8). The eligibility questionnaire was based on questions from the Universal Violence Prevention Screening Protocol, which enabled the documentation of the participant's experience of physical, sexual and psychological violence in their lifetime, last one year and last one month [105]. This was done strictly for the purpose of this study as women are not screened for violence in the health facilities. Both men and women were eligible for participation but only victimised women were seen at the health facilities.

3.8.3 Study Instruments

A structured interview guide was developed after reviewing the literature on the instruments used for screening for victims of IPV [102, 103, 106-108]. It collected socio-demographic information including age, marital status, highest education level, occupation, ethnicity, religion, number of children and the perpetrator of the violent act. The reliability coefficient of the instrument using Cronbach alpha test was 0.8. A pilot study was conducted with four women attending a private health facility in Ibadan, Oyo State to standardise the instrument.

Additionally, the 13-item interview guide explored the extent of the previous help-seeking behaviour of victims, their opinion whether medical practitioners should screen all or selected women for IPV and their recommendations on how the gathered information should be used. Additionally, it explored their perceptions of other stakeholders who could assist victims of IPV as well as their opinions and recommendations for the training of medical students on IPV (Appendix 9).

3.8.4 Data Collection

The data was collected between June and November, 2017. The data collection was facilitated by three research assistants, who were trained by the primary investigator on how to administer the interviews. They were also trained on the types, causes and consequences of GBV and on the importance of keeping responses confidential. The assistant were female MPH graduates with experience in qualitative methods. The questionnaire was administered in English and Yoruba, the local language. There was one contact per interview and each interview took about 60 minutes to complete. Data were collected from 33 participants. Data saturation occurred and when no new themes were noted.

3.8.5 Data Management

The qualitative data collected was recorded on a mobile phone. Codes were assigned to ensure the confidentiality of the participants. The recorded data was transcribed, cleaned and coded in response to the main objectives of the study(94). To code the qualitative data, two authors independently read through transcripts and used highlights to assign initial broad codes to the texts. Next, the deductive analysis led to discussions of the themes in relation to the questions posed (theoretical considerations) during the structured interviews. The authors came to a common understanding of views expressed by participants (109); for example, whether victims were in favour of screening and their reasons for supporting screening. The analysis was done using the Excel and Atlas Ti software packages. The recordings and notebooks were stored in a locked cabinet by the investigator.

3.9 Ethical Considerations for Phases 1-3

The WHO recommendations on ethical and safety recommendations for intervention research on violence against women was used as a guide (50). Ethical clearance was obtained from the Oyo State Ministry of Health Ethical Review Committee (AD13/479/165) (Appendix 10), the University College Hospital Institutional review board (UI/EC/15/03/11)(Appendix 11) and the University of KwaZulu-Natal Humanities and Social Science Research Ethics Committee (HSS/1447/015D)(Appendix 12). Also, gatekeepers' permissions to access the facilities were obtained from each facility (Appendix 13-15). The purpose of the study was explained prior to administration of the instruments and respondents were informed of their rights to decline or withdraw without fear or intimidation. Informed consent was signed by those who chose to participate (Appendix 16-18). Respondents were reassured of confidentiality and anonymity (50). Personal identifiers were not recorded on the questionnaires, the informed consent forms were collected and the completed questionnaires were dropped into a box. The completed questionnaires were kept in a secure compartment in the custody of the investigator. Data were entered into a password-protected computer. The safety of respondents and the research team was paramount and guided all project

decision . The research assistants were also trained to refer women requesting assistance to available local services and sources of support.The results of the study were fed back to the students and school

administration, students who had experienced victimisation were informed and referred to sources of help. The investigators had no conflict of interest and the results did not influence their work in any way.

3.10 Reflective Statement

It is useful to reflect on the events, thoughts, experiences, or insights around the research and on the impact for the future. Research has clearly demonstrated that the effects of the reflection improves understanding of issues around the topic [110]. This research was borne out of my experience as a Nigerian Public Health Physician working in a public University for over 20 years. I am also a consultant to the Teaching Hospital. I have and do play a number of roles that have influenced this research significantly. I am a woman and I do not experience IPV but I am always deeply saddened when I see women suffering from abuse and whose progress is hampered because of GBV. I consider myself fortunate for this and wished to explore ways to improve the lot of women who may not be so lucky!

Also as a lecturer, trainer and mentor, I teach post graduate students about diseases and social problems of public health importance. Teaching the causes, types, and prevention of GBV has been my passion. However, I observed that undergraduate medical students have no educational exposure to GBV and that these students are not adequately knowledgeable on the topic. This "lack of knowledge" was confirmed in the results of the preliminary survey that was conducted in one of the participating medical schools. Departmental heads at that school confirmed that the topic was not addressed as it was not included in the students' training curriculum. Any teaching and learning is incidental and may occur when victimised patients present for treatment of GBV complications. The study also reported that students were willing to intervene to assist victims but lacked adequate knowledge, confidence and the skills to do so. The students suggested that it should be included in their students training curriculum[26]. Inclusion in the curriculum will ensure that the students are trained and on graduating as doctors should be able to intervene for the abused.

As a medical student, I did not receive any training on GBV. However, the reality that I contributed to preventable morbidity and mortality for women and their children dawned on me during my work as a clinician. As a medical doctor I realise I can help patients who are victimised to be survivors. As an administrator, I realise I can make use of my position to bring about a positive change in the students training on the topic. As one of the 'experts' working in the field of GBV, I found this study as a unique opportunity to work with other professionals to begin the process of bringing about change. It was also

an opportunity to communicate with victims. This PhD programme has been a steep learning curve for me and confirms the concept of life-long learning of the medical profession.

I became interested in researching the topic of GBV in the middle stage of my career. This interest was developed following implementation research on HIV/AIDS prevention among young women, in which I found that for the interventions to be successful there was the need to address issues around GBV. In my role as clinician and administrator, I advocated for ending violence to women among different health professionals. As a researcher and public health physician, I recognised that I can contribute to the prevention of GBV. Therefore, I have been working with different stakeholders in my bid to contribute to the end of GBV. Hence, my PhD thesis aims to assess the knowledge, skills and practice of final year medical students on GBV; obtain a consensus of experts on the content and strategy of the GBV curriculum; and describe victims' perceptions of on-site screening at healthcare facilities. I believe this project will improve understanding of medical students' preparedness to care for victims and provide information for revisions to the curriculum on the topic to be socially accountable and thereby improve women's health and well-being. It will also foster collaboration within different disciplines in the health sector, and between the other sectors.

3.11 Conclusion

This chapter delineates the multiple methodological methods taken in this study and provides a rationale for the choices in methodology. The detail of methodologies specific to each component of the study is discussed more extensively in the manuscripts in Chapters 4 to 7. The phases and stages of the study and their interconnections to each research objective are presented, in addition to providing a clarification on the various aspects of the data collection, data analysis as well as measures taken to ensure rigour. Also, ethical considerations, methodological challenges, and the reflexive positioning of the researcher are thoroughly elucidated.

CHAPTER 4: MEDICAL STUDENTS

'Preparing medical students to recognize and respond to gender based violence in Nigeria'

4.1 Introduction

In the previous chapter, it was reported that medical students lacked the fundamental knowledge and skills to effectively assist victims of GBV, despite the fact that they were willing to do so. This result was from a study conducted in one medical school. The current study expands on this by assessing the knowledge and perceived skills of medical students from three medical schools. The content and training on GBV for the students were documented. It furthered the findings in Chapter 4 in that the personal experiences of the students are reported, coupled with their knowledge and skills to assist batterers. In line with the research objectives that set out to assess the knowledge, skills and practice of final year medical students on GBV and identify factors influencing knowledge and perceived skills, this manuscript reports the findings.

Evidence suggests that women are likely to disclose IPV to medical practitioners(60), but the inadequate training of practitioners may leave them unable to recognise or, unable to respond to victims who disclose abuse. Concern has been raised about reports (42) of women suffering abuse or neglect and the perceived reluctance of health personnel to discuss physical and sexual violence with patients who disclose being in violent relationships (44). Learning to care for vulnerable individuals and populations, including survivors of IPV, is already an essential part of undergraduate and postgraduate medical education in high income countries (111).

To realise the central role of medical schools in preparing a future generation of practitioners that can address societal needs, requires that medical students are educated about treatment, referral systems and the impact of GBV when managing possible victims. This publication reports on the knowledge, skills and practice of final year medical students on GBV. It also identified factors influencing student's knowledge and skills to manage GBV victims. It builds on the results of a preliminary study among medical students in one of the medical schools (26). It documented the content, models of training and placement for GBV training programmes of the students who had received some exposure to the topic.

4.2 Publication Details

The next paper published on the topic is below.

Title:	Preparing medical students to recognize and respond to gender based violence in Nigeria.
Authors:	Olufunmilayo I. Fawole, Jacqueline van Wyk, Busola O. Balogun, O.J. Akinsola and Adebola Adejimi
Journal:	African Health Sciences
Details	Open access, internationally referred, peer reviewed
Status:	Accepted awaiting publication

4.2.1 Journal Information

African Health Sciences is an open access, free online, internationally refereed journal publishing original articles on research, clinical practice, public health, policy, planning, implementation and evaluation, in the health and related sciences relevant to Africa and the tropics. African Health Sciences acknowledges support provided by the African Health Journals Partnership Project that is funded by the US National Institutes of Health (through the National Library of Medicine and the Fogarty International Center) and facilitated by the Council of Science Editors. The journal is indexed on MEDLINE/PUBMED; PUBMED Central; African Index Medicus; HINARI; Bioline; AJOL; Science Citation Index - Thompson Reuters. Its impact factor is 0.666. Publication history: 2001-present. ISSN: 1680-6905 (print); 1729-0503 (web).

Its objectives are to: Advocate for and promote the growth of reading culture in sub Saharan Africa; Provide a high quality journal in which health and policy and other researchers and practitioners in the region and worldwide, can publish their work; Promote relevant health system research and publication in the region including alternative means of healthcare financing, the burden of and solution of health problems in marginalised urban and rural communities amongst the displaced and others affected by conflict; Promote research and the systematic collection, collation and publication of data on diseases and conditions of equity and influence; Promote development of evidence-based policies and guidelines for clinical, public health and other practitioners [112].

4.2.2 Publication Record

The paper was initially submitted on the 3 July, 2017 to the journal editor and was accepted on 15 September, 2017 (Appendix **19**).

4.2.3 Contribution Record

The candidate conceptualised the paper and was the main author. Dr Van Wyk contributed towards the concept and writing of the paper. Drs Balogun, Akinsola and Adejimi coordinated data collection in the medical schools and reviewed the manuscript.

4.2.3 Key Findings and Contribution of the Chapter to the Thesis

The main findings reported were that, general awareness on GBV was good. Students were also knowledgeable on sexual and physical forms of GBV and unfamiliar with other forms. Many participants correctly identified signs and symptoms of women who have been violated. Majority perceived GBV (or IPV) as common problem in the society, but felt it was as an "invasion of privacy" to enquire about possible GBV when confronted with a victimised patient. They also feared that it could endanger the victims' life to do so. Student's attitudes towards victims were just fair, suggesting inadequate knowledge of the power dynamics of GBV. Many believed healthcare provider can do a lot to help the victim. Also, many indicated willingness to ask patients about GBV (IPV); however a smaller proportion was confident or skilled to do so in their future practice. The good thing however was that many perceived that they lacked knowledge on how to manage the abused patient and welcomed training on how to identify and support patients of abuse.

The investigation also revealed that students who are expected to be future medical experts, advocates and agents of change were also victims and perpetrators of violence, hence the personal experiences of the students may also need to be addressed. While about one quarter had received some training on the topic of GBV, most had the exposure in the final year in medical school highlighting the importance of inclusion in the medical curriculum. The medical school was the only factor which impacted on student's knowledge, which suggests differences in institutional exposure to information on GBV. Likewise female students had more positive attitudes than the males. Additionally, the student's school, previous exposure to some training and personal comfort remained significant determinants of students' reported skills to respond to victims of GBV after controlling for other variables.

The implication of the findings, is that it is requisite to improve the students' knowledge about GBV. It also underscores the importance of improving their skill to manage GBV patients, however this may be unachievable with inadequate knowledge. A multi-disciplinary training programme will promote students' learning. It will also allow for professional and personal development on GBV. Thus, in consideration of the aforementioned, this paper re-iterates the need to review the medical curriculum in

these schools and probably other medical schools on the continent to prepare the medical students, as future practitioners in an ever changing world.

The above information provides insight into the knowledge, attitude, personal comfort and perceived skills of medical students in south west Nigeria. It identifies the group of students who are lacking in knowledge and the skills on GBV. The students recommended that GBV should be included in their training curriculum, while the study provided information that would be useful when reviewing the curriculum of the medical students in these medical schools. Following these, this result guided the implementation of the next chapter that sought to build a consensus among experts or potential trainers on the content and methods of a GBV curriculum for medical students.

PREPARING MEDICAL STUDENTS TO RECOGNIZE AND RESPOND TO GENDER BASED VIOLENCE IN NIGERIA.

Authors: Olufunmilayo I. Fawole[1], Jacqueline van Wyk[2], Busola O. Balogun[3], OJ Akinsola [4] and Adebola Adejimi[5]

[1] Department of Epidemiology and Medical Statistics, Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria (fawoleo@ymail.com)

[2] Department of Medical Education, Nelson R. Mandela School of Medicine, University of Kwa-Zulu Natal, South Africa (vanwykj2@ukzn.ac.za)

[3] Department of Community Medicine, College of Medicine, University of Ibadan, Nigeria (oobalogun1@gmail.com)

[4] Department of Community Medicine and Primary Health Care, College of Medicine, University of Lagos, Nigeria(ojakinsola@cmul.edu.ng)

[5] Department of Community Medicine, College of Medicine, Ladoke Akintola University of Technology, Osogbo, Nigeria (adebolaadejimi@yahoo.com)

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Running title: Medical students and Gender based Violence

ABSTRACT

Background: Medical practitioners are ideally positioned to mitigate the impact of gender based violence (GBV) on the health of victims. However, there is a lack of information on students' ability and willingness to do so.

Objective: To identify factors which impact on students' attainment of the knowledge and perceived ability to manage victims.

Methods: A cross-sectional survey was conducted on 388 (91.5%) final year medical students from three medical schools in South West, Nigeria.

Results: Students were knowledgeable on sexual (63.7%) and physical (54.6%) forms of GBV and unfamiliar with other forms. The mean scores for knowledge (7.1 ± 2.5 out of 11); attitude (52.6 ± 10.3 out of 80); personal comfort (44.1 ± 10.0 out of 65) and skills (3.1 ± 2.6 out of 7) were calculated. Younger respondents, females and married students reported less skill to manage victims. The location of school, previous training and personal comfort remained significant determinants of students' self reported skills on GBV. Respondents with prior training on GBV and comfortable with managing patients, were four times more likely to perceived they were skilled than their peers [AOR = 4.33, 95% CI: 2.37 – 7.90 and AOR 3.53; 95% CI 2.16- 5.78 respectively].

Conclusions: Formalised skills training on GBV is a necessity, especially for young, female students and training cannot be left to serendipity. The medical curriculum should be reviewed.

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INTRODUCTION

Globally, gender based violence (GBV), particularly violence against women (VAW) and intimate partner violence (IPV), contributes greatly to public health problems and violates the human rights of women.[1] GBV is frequently described as violence against women (VAW) as men are the perpetrators in more than 80% of cases with women with whom they have intimate relationships. [2, 3] VAW and intimate partner violence (IPV) occurs in all countries, irrespective of social, economic, religious or cultural group. Based on the estimates of violence against women from the global prevalence data surveys, between 1% and 40% of women were physically assaulted by an intimate male partner in the last 12 months. [4] In Nigeria, VAW is pervasive as cultural values and norms condone and reinforce abusive practices against women. For instance, it is believed that a man has a right to physically discipline a woman for "inappropriate" behaviour and sexual coercion is a marker of masculinity. Also, discussions of IPV is considered a "taboo" [5] and reporting abuse is regarded as being disrespectful in Nigeria [6]. Results from the 2013 Demographic and Health Survey, found that 28% of women aged 15-49 years had experienced physical violence since the age of 15; 11% had experienced physical violence within a 12 month period preceding the survey; 25% had experienced physical, emotional and/or sexual violence and 19% had been a victim of IPV in the 12 months prior to the survey.[7] GBV impacts on the physical and mental health of the victim.[1] It increases their risk of suffering from reproductive health complications, reduces their productivity and educational attainment and limits the contributions of the victim to community and national development. [3]

Medical practitioners are in an ideal position to mitigate the impact of violence on the health of women [8]. Apart from the skills necessary to diagnose GBV, it is important that doctors are knowledgeable and skilled to care for, support and refer victims of abuse. [9] It is therefore ideal to train medical students during their undergraduate programme to identify and address

issues relating to GBV as early exposure will provide opportunities to influence their perceptions and practices before they become fixed.

Physicians with prior training were found to be significantly more likely to screen patients for GBV. [10] The presence of specific education on GBV in medical schools also reportedly plays an important role in improving maternal and child health outcomes for victims who experienced violence in pregnancy. [11] The trained students were also able to influence other health personnel to screen for abuse. [12, 13]A comprehensive evaluation of the instructional design, implementation, and learning outcomes on GBV at the Medical Schools of the Universities in Nigeria is therefore necessary.

It is argued that medical students need training to provide adequate treatment and to have a positive attitude towards victims of GBV. Final year medical students should also have been exposed to topics relating to GBV to prepare them as future physicians. [14, 15] However, little is known about the knowledge, ability to manage cases (skills) and attitudes of final year medical students. Neither are there any documented reports of the adequacy of their knowledge, skills and attitudes towards victims of GBV. Inadequate preparation, lack of supervision and stress caused by caring for abused patients can further lead to counter transference, burnout, denial, and projection. [16] Students who are victims themselves or those with personal experience of family violence are especially at risk and in greater need of support. [17] It is therefore necessary to explore the prevalence and experiences of students of GBV to inform the appropriate design of support programmes.

This study sought to fill this gap to improve our understanding of medical students' personal and professional experiences of GBV. It assessed the knowledge, personal comfort and self-

reported skills of final year medical students on GBV. Students' attitudes were also sought on managing victims and perpetrators of GBV; the content and context of their training on GBV and their personal experience as victims and /or perpetrators of GBV. Lastly, students were asked to identify determinants of good knowledge, attitudes, personal comfort and perceived ability or self reported skills to manage patients.

METHODS

Study Setting

The study was conducted at three medical schools namely: - the University of Ibadan, University of Lagos, and the Ladoke Akintola University of Technology, located in Lagos, Oyo and Osun states respectively of South West, Nigeria. All three institutions are public facilities with the first two universities being owned by the federal government and the last being, state owned. The state university provides insight on the situation in a public state owned university and like the other 2 institutions it is located in the state capital and is a popular training institution. Also, the state did not have a federal university in the capital city like the other states. The College of Medicine, University of Lagos was established in 1962 and has three faculties: Basic Medical Sciences, Clinical Sciences and Dental Sciences. The College consists of 32 departments with a student population of almost 2000 students [(18)]. The College of Medicine of the University of Ibadan is the largest and oldest medical school in Nigeria and consists of the faculties of Basic Medical Sciences, Clinical Sciences, Public Health and Dentistry and has 38 departments. While it started as a faculty, it became a college in 1980 and has approximately 1500 students. [(19)] The College of Health Sciences of Ladoke Akintola University, Osogbo, was established in 1991 and has 2 faculties, 17 departments and about 1000 students. [(20)] Each of these Colleges of Medicine are affiliated to a teaching hospital that facilitates the professional training of students.

The five year medical training programme at these institutions is the Bachelor of Medicine, Bachelor of Surgery (MBBS) curriculum. The first two years focus on pre-clinical content and the subsequent three years on the achievement of clinical outcomes being the clinical training offered by the departments of Obstetrics and Gynaecology, Paediatrics, Medicine, Surgery and Community Medicine. Students are introduced to the disciplines through didactic lectures and bedside teaching. Students are exposed to lectures, tutorials, field visits relating to public health problems during the Community Medicine course. Students gain community and research exposure through the rural placements in their fourth academic year. During the fifth year, many of the previous topics are revisited and addressed in the clinical context. Students are exposed to some training relating to GBV during clinical rotations through these departments in their third, fourth and fifth years of schooling. They are taught some aspects on GBV as part of courses such as social paediatrics, patient communication, cultural factors influencing maternal health, maxillofacial trauma, medical sociology, family health and socio cultural determinants of health. [18, 20] [19]

Study Design

This study was conducted as a descriptive, exploratory analytical cross-sectional survey. The descriptive component described the proportions of the socio demographic characteristics, knowledge, attitudes, personal comfort and self-reported skills of the students. The analytical component explored for factors influencing students' knowledge, attitudes, personal comfort and self-reported skills on GBV.

Study Population

The population consisted of all medical students registered in the final year (fifth year MBBS) cohort. All medical students were invited to participate and those who agreed, were interviewed. The sample consisted of 192, 145 and 87 students from the Universities of Lagos, Ibadan and Ladoke Akintola respectively.

Data collection Instrument

Data was collected by means of a semi-structured questionnaire that had been adapted from prior studies on domestic violence and primary care attitude, practices and beliefs in the United States and training needs about GBV against women in Nigeria. [9, 17, 21, 22]. It built up on an earlier instrument used in a pilot survey in one of the medical schools [21]. Reliability and validity of the instrument was ensured by adequate review of literature. [23, 24] The reliability coefficient of the instrument using Cronbach alpha test was 0.7. To further standardize the instrument, a pretest was carried out on 10 students from another medical school in the region.

The self-administered questionnaire comprised of 33 items. The questionnaire solicited information on students' socio- demographic characteristics; knowledge of GBV; personal comfort to care for, attitudes and self-reported skills to manage victims and perpetrators of GBV; prior training on GBV and personal experience of IPV and/ or couple conflict within a 12 month period prior to the survey. Personal comfort was defined as student's confidence to talk to victims and perpetrators, while self reported skills to respond to GBV referred to their ability to manage victims and perpetrators.

Respondents were requested to select the correct option from a given list, other questions needed a "yes" or "no" response and a few open-ended questions explored their reasons for a specific response. Respondents used a five-point Likert scale to indicate "strongly agree, agree, not sure and disagree, strongly disagree", while self reported skills were rated on a four point scale indicating "yes, I am very skilled; yes, I have some skill; no, I am not skilled and I don't know". Responses to assess content relating to GBV in the schools' training

programme required respondents to choose the most appropriate of four points namely: - "Yes covered; no it's not covered; no it is not covered but should be and I don't know". Suggestions on how students could be trained to respond effectively to patients experiencing violence were open ended.

Data Collection

The data was collected between June and August 2016. The leaders of the students' association and class representatives were briefed about the purpose of the study prior to commencement. The investigator discussed the aim and ethics relating to the study with all the students. All the students were invited and only those who agreed completed an informed consent form prior to answering the questionnaire. The data was collected with the help of three research assistants, who distributed and collected the completed questionnaires. The questionnaire was administered in English. Each questionnaire took about 30 minutes to complete. Data was collected from 388 medical students in the three schools (response rate 91.5%).

Study Variables

The explanatory variables were age, sex, ethnic group and school location. Also, knowledge, attitudes and personal comfort were explanatory variables for the students' self-reported skills. The main outcome variables were knowledge and self reported skills on GBV. Age and sex were possible confounders in the relationship between socio demographic characteristics by knowledge, attitudes and reported skills on GBV. Students were free to use the term GBV, or alternative terms such as IPV and VAW or domestic violence.

Knowledge score was computed on 11 questions that assessed type, symptoms/ complaints of violated patients, general knowledge on GBV and perpetrators of GBV. Each correct answer was awarded a score of one mark. The maximum obtainable score was 11 marks, while the

minimum was 0. The median score (7) was used to dichotomise respondents into two groups. Respondents with scores below 8 were considered to have inadequate knowledge, while a score of 8 and above was considered as adequate. An attitude score was calculated on 16 questions relating to respondents' attitude to GBV victims and perpetrators. The questions were assessed on a 5-point Likert scale. A positive attitude was awarded a score of 5, while a negative perception scored 1. The maximum obtainable score was 80, while the minimum was 5. The median (54) was used as cut off for two groups - positive or negative attitudes. Personal comfort was assessed on 13 questions using a 5-point Likert scale. The maximum obtainable score was 65 points. The median score (45) was used to categorize respondents into two groups, while self-reported skills on GBV management were assessed based on 7 questions. One mark was awarded if a respondent stated that they had the skills to manage a specified condition. Using the median of 3, two groups were developed, those who had adequate skills (4-7) and those with inadequate skills (0-3).

Data Entry and Analysis

Data was entered and analysed using SPSS version 16 software. The open-ended questions were coded using thematic content analysis. In the descriptive analysis, frequencies, means and standard deviations were done as appropriate. Bivariate analysis using logistic regression analysis was used to determine the factors influencing the students' knowledge and skills. Significant variables in the bivariate analysis were entered into a multivariate logistic regression model to adjust for the effect of confounders. P values of less than 0.05 were considered significant.

Ethical Considerations

The study was a minimal risk educational project; however ethical clearance was obtained from the Oyo state Ministry of Health Ethical Review Committee (AD13/479/165) and the University of KwaZulu-Natal Humanities and Social Science Research Ethics Committee

(HSS/1447/015D). The purpose of the study was explained prior to administration and students were informed of their rights to decline or withdraw without fear or intimidation. Informed consent was signed by those who chose to participate. Respondents were reassured of confidentiality and anonymity. Personal identifiers were not recorded on the questionnaires, the informed consent forms were collected and the completed questionnaires were dropped into a box. The completed questionnaires were kept in a secure compartment in the custody of the investigator. Data was entered into a password protected computer. The results of the study was fedback to the students and school administration, students who has experienced victimization were informed and referred about sources of help. The investigators had no conflict of interest and the results did not influence their work in any way

RESULTS

Respondents Socio-demographic Characteristics

A total of 388 students participated in the study. They were mostly from the University of Lagos (47.7%) and the University of Ibadan (30.4%). The mean age of the respondents was 24.1 ± 3.0 years, and 210 (54.1%) were males. Respondents were mostly Yorubas (79.4%) and 90.7% were unmarried.

Knowledge on Gender Based Violence

Three hundred and fifty two (90.7%) respondents had heard of GBV and/or the alternative terms used in the study. Many were knowledgeable about the sexual (63.7%) and physical (54.6%) forms of GBV and less informed of the psychological (30.7%) and economic (25.3%) forms (Table 1). Many participants identified injuries and abrasions (35.1%), stress and anxiety (32.7%), and headache (29.4%) as possible complaints of women who have been

violated, whereas loss of weight (14.9%), dizziness (12.6%), and joint pains (11.1%) were less known (Table 2). Most (86.4%) participants knew that GBV would increase in frequency and severity with time. Regarding perpetrators; 303(78.1%) participants were aware that health care providers could use alternative methods to ask perpetrators about their violent behaviours to minimize the risk to potential victims.

Table 1: Respondents Knowledge on Gender Based Violence (N = 388)

Variable	Knowledgeable	Total
Acts of physical violence	212(54.6)	388
Acts of sexual violence	247(63.7)	388
Acts of psychological violence	119(30.7)	388
Acts of economic violence	98(25.3)	388
Intimate partner violence tends to become more frequent and severe over time.	335(86.3)	388
Some patients personalities cause them to be abused	70 (18.0)	388
There are strategies to encourage perpetrators to seek help.	257(66.2)	388
There are ways health care providers can ask perpetrators about their behaviour to minimize risk to the potential victim.	303(78.1)	388

Attitudes to Gender Based Violence

One hundred and sixty-six (42.8%) students regarded the problem of GBV/IPV as common (<10% of population), and very common (152, 39.2%) affecting between 10-15% of the population.

The majority (77.6%) perceived it as an "invasion of privacy" to enquire about possible GBV when confronted with signs and symptoms on a victim. Two hundred and thirty two (59.8%) respondents indicated that it was not the physician's duty to be involved with how a couple

resolved their conflict. One hundred and forty eight (38.1%) respondents perceived that questioning perpetrators about their behaviours would endanger the victim.

Participants in this study had varied attitudes towards victims of GBV. Their responses indicated that they believed the 'victim to be just as guilty' when it comes to domestic violence (70.6%); that 'people are victims if they choose to be' (59.6%) and that 'the victim's passive-dependent personality are often the cause of abuse' (25.5%) and (Table 2).

Table 2: Respondents Attitudes to GBV and Perpetrators of GBV (N = 388)

Attitude Statements	Frequency (%)				
	SA*	A*	NS*	D*	SD*
Asking the perpetrators about their behaviours will put the victim in more danger	26 (6.7)	96 (24.7)	118 (30.4)	123 (31.7)	25 (6.4)
When challenged, perpetrators frequently direct their anger toward health care providers	20 (5.2)	125 (32.2)	136 (35.0)	92 (23.7)	15 (3.9)
In many cases, the battering would stop if the perpetrator would quit abusing alcohol and drug	47 (12.1)	181 (46.6)	102 (26.3)	47 (12.1)	11 (2.8)
Treatment programs for batterers just aren't effective to get them to stop physical abuse	75 (19.3)	137 (35.3)	108 (27.9)	57 (14.7)	11 (2.8)
The role of the healthcare provider is limited in being able to help victims of gender based violence	35 (9.0)	138 (35.6)	54 (13.9)	126 (32.5)	35 (9.0)
A victim must be getting something out of the abusive relationship, or else he/she would leave	26 (6.7)	115 (29.6)	56 (14.5)	146 (37.6)	45 (11.6)
It is not the physician's role to interfere with how a couple chooses to resolve conflicts	16 (4.1)	70 (18.0)	70 (18.1)	165 (42.5)	67 (17.3)
There is nothing a healthcare provider can do to help the victim because he/she is unlikely to leave the situation/relationship	8 (2.1)	25 (6.4)	44 (11.3)	200 (51.5)	111 (28.6)
Asking patients about GBV is an invasion of their privacy	13 (3.4)	25 (6.4)	49 (12.6)	194 (50.0)	107 (27.6)
Patients who think that health care providers should not interfere in their private lives will not reveal abuse	76 (19.6)	219 (56.4)	34 (8.8)	36 (9.3)	23 (5.9)
It is demeaning to patients to be questioned about abuse	14 (3.6)	46 (11.9)	62 (16.0)	188 (48.5)	78 (20.1)
People are only victims if they choose to be	31 (8.0)	63 (16.2)	62 (16.0)	156 (40.2)	79 (19.6)
When it comes to domestic violence, the victim is just as guilty	19 (4.9)	28 (7.2)	67 (17.2)	167 (43.0)	107 (27.6)
Women who choose to step out of traditional roles are a major cause of GBV/ domestic violence	14 (3.6)	69 (17.8)	88 (22.5)	142 (36.6)	76 (19.6)
The victim's passive-dependent personality often	24	175	88	72	29

leads to abuse	(6.2)	(45.1)	(22.7)	(18.6)	(7.5)
The victim has often done something to bring about violence in the relationship	15 (3.9)	68 (17.5)	84 (21.7)	155 (39.9)	66 (17.0)

* SA = Strongly agree, A = Agree, NS = Not sure, D = Disagree, SD = Strongly disagree

Personal Comfort about Gender Based Violence

Two hundred and eighty seven (73.9%) participants indicated a willingness to ask patients about GBV/IPV, while 59.3% (n=230) were confident about their ability to treat a victim in their future practice" (Table 3). With respect to perpetrators, 61.8% of the respondents were confident that they could discuss issues of abuse; 40 % (n=154) indicated being afraid that discussing GBV may lead to more violence for the victim; and 23.0% (n=89) indicated being concerned for their personal safety if they questioned the perpetrator (Table 3).

Table 3: Respondents Personal Comfort on GBV and Perpetrators of GBV (N = 388)

Personal Comfort	SA*	A*	NS*	D*	SD*
A non-abused patient will get very angry if I ask them about domestic violence or abuse	11 (2.8)	40 (10.3)	89 (23.0)	198 (51.0)	50 (12.4)
I don't know how to ask about the possibility of GBV.	20 (5.2)	85 (21.9)	79 (20.4)	163 (42.0)	41 (10.6)
I think that investigating the underlying cause of a patient's injury is not part of medical care	13 (3.4)	23 (5.9)	39 (10.1)	163 (42.0)	150 (38.7)
I don't think I will have time to ask about GPV in my intended practice	12 (3.1)	31 (8.0)	54 (14.0)	176 (45.4)	115 (29.6)
I am (or would be) afraid of offending the patient if I ask about GBV.	16 (4.1)	53 (13.7)	58 (14.9)	180 (46.4)	81 (20.9)
If during my intended practice I find a patient who is a victim, I would not know what to do.	17 (4.4)	66 (17.0)	75 (19.4)	145 (37.4)	85 (21.9)
I am willing to ask patients about intimate partner violence	96 (24.7)	191 (49.2)	59 (15.2)	28 (7.2)	14 (3.6)
I feel there are ways of asking about battering behaviour without placing myself at risk.	75 (19.3)	237 (61.1)	70 (18.0)	6 (1.5)	-
I feel I can effectively discuss issues of battering and abuse with a battering patient.	58 (14.9)	182 (46.9)	121 (31.2)	24 (6.2)	3 (0.8)
I am afraid that talking to the perpetrator will increase risk for the victim	37 (9.5)	117 (30.2)	107 (27.6)	112 (28.9)	15 (3.9)
I am (or would be) reluctant to ask batterers about their abusive behaviour out of concern for my personal safety	22 (5.7)	67 (17.3)	91 (23.4)	171 (44.1)	37 (9.5)
I am (or would be) afraid of offending patients if I ask about their abusive behaviour.	24 (6.2)	85 (21.9)	84 (21.7)	155 (39.9)	40 (10.3)

I am willing to ask perpetrators about intimate partner violence	69 (17.8)	177 (45.6)	102 (26.3)	32 (8.2)	8 (2.1)

* SA = Strongly agree, A = Agree, NS = Not sure, D = Disagree, SD = Strongly disagree

Self Reported Skills to Manage Gender Based Violence

Two hundred and nine (53.9%) respondents perceived themselves as skilled at detecting signs of GBV, and 195 (50.3%) could provide medical care to victims. However, 251 (64.7%) participants could not manage or counsel the abusive partner and 240 (61.9%) respondents were not skilled to discuss coping skills with victims (Table 4). Also, many respondents perceived that they lacked knowledge on how to manage the abused patient (33.2%) and training (34.0%) on the major barriers to screening patients for abuse.

Table 4: Respondents Self Reported Skills to Manage GBV (N = 388)

Activity	Frequency (%)			
	Yes, I am very skilled	Yes, I have some skill	No, I am not skilled	Don't know
Recognizing/ detecting of gender based violence	33 (8.5)	176 (45.4)	114 (29.4)	65 (16.7)
Taking history on gender based violence abusive episodes	32 (8.2)	167 (43.0)	126 (32.5)	63 (16.3)
Examining domestic violence victim	22 (5.7)	133 (34.3)	169 (43.6)	64 (16.5)
Treating and providing medical care for victims	26 (6.7)	169 (43.6)	127 (32.7)	66 (17.0)
Counseling and facilitating the development of a safety plan with the victim	21 (5.4)	139 (35.8)	160 (41.2)	68 (17.5)
Managing / counseling the abusive partner or handling of the "perpetrator" if he/she is in the setting together with the victim	24 (6.2)	113 (29.1)	179 (46.1)	72 (18.6)
Discussing coping skills for victims of family violence background or in abusive relationships	18 (4.6)	130 (33.5)	159 (41.0)	81 (20.9)

Experience of Gender Based Violence

In this study, 17 (4.4%) respondents had personal experience as a victim of GBV. Perpetrators of the most recent incidence of violence were mainly former partners (63.6%). Six (35.3%) medical student victims experienced sexual violence, four (23.5%) experienced psychological and two (11.8%) were victims of physical violence.

Experience and perpetration of IPV by students in relationships was explored and documented. In the current study, 176 (45.4%) participants were in a relationship or had been in a relationship in the year preceding the survey. Of these, 20.4% had either been pushed, shoved, or slapped, and 32(18.2%) had been punched, kicked, or beaten by a partner. Regarding the students' role as perpetrators of violence; 18.8% had pushed, shoved, or slapped their partner, while 16.5% had punched, kicked, or beaten a partner.

Exposure to GBV Training

Eighty-eight (22.7%) respondents had received formal training on the topic of GBV and/or women's rights. Most (65.9%) were trained at medical school. Many (63.5%) received training in their final year, by medical doctors (94.8%) in a lecture setting (72.4%). The topics covered included, detecting of GBV (48.4%), examination of the GBV victims (39.8%), treatment and medical care for victims (47.7%), and services and options available to support victims of GBV (43.2%) (Table 4).

Table 5: Frequency distribution of content of training on gender based violence (N = 88)

Topics	Frequency (%)			
	Yes, it was covered	No, it was not covered	No, it was not covered but should be	Don't know
Recognizing/ detecting of GBV/IPV	51 (58.0)	12 (13.6)	12 (13.6)	13 (14.8)
History taking about GBV/IPV	39 (44.3)	16 (18.2)	21 (23.9)	12 (13.6)
Examination of the IPV victim	35 (39.8)	16 (18.2)	28 (31.8)	9 (10.2)

perception. Respondents who were not knowledgeable were 38% less likely to be comfortable with patients of GBV, while those with positive attitudes were twice as likely to feel comfortable (AOR = 0.6, 95% CI: 0.4–0.9 and AOR 1.9; 95% CI 1.3-2.9) respectively (Table 6).

Self Reported Skills: One hundred and sixty eight (43.3%) respondents stated that they had the ability to manage patients (mean skills score of 3.1 ± 2.6). Variables that significantly influenced the self-reported skills of respondents were the medical school, age, skills, marital status, previous training and personal comfort. In this study, females (OR 0.6; 95% CI 0.4-0.9), married women (OR 0.5; 95% CI 0.2-0.9) and younger respondents (OR 0.4; 95% CI 0.3-0.6) were less likely to be report being skilled.

After adjusting for confounders, the location of the school, previous training and personal comfort remained significant determinants of students' self-reported skills to respond to victims of GBV. Respondents who had received training on GBV and who were comfortable with managing patients were four times more likely to be report being skilled than those without prior training (AOR = 4.3, 95% CI: 2.4–7.9 and AOR 3.5; 95% CI 2.2-5.7 respectively). As observed with determinants impacting on knowledge, respondents from the medical school in Lagos were less likely to be perceived they were able to manage patients (AOR 0.3; 95%CI 0.2-0.5) (Table 6).

Table 6: Logistic regression analysis of Determinants of Respondents' Knowledge, Attitude, Personal comfort and Self reported skills on GBV

Knowledge		Attitude		Personal Comfort		Skill
OR [95% CI]	AOR [95% CI]	OR [95% CI]	AOR [95% CI]	OR [95% CI]	AOR [95% CI]	OR [95% CI]
					-	
0.43 [0.27, 0.70]	**0.43 [0.27, 0.69]**	0.99 [0.63, 1.58]	0.91 [0.57, 1.15]	0.64 [0.39, 1.01]		**0.30 [0.19, 0.49]**
2.86 [1.56, 5.24]	**3.02 [1.45, 6.29]**	**0.47 [0.26, 0.83]**	0.66 [0.33, 1.34]	1.00 [0.58, 1.77]		1.55 [0.87, 2.75]
1	1	1	1	1		1
					-	
0.41 [0.27, 0.64]	1.08 [0.59, 1.97]	**1.97 [1.28, 3.03]**	**1.38 [0.77, 2.48]**	0.80 [0.53, 1.22]		**0.40 [0.26, 0.62]**
1	1	1	1	1		1
	-				-	
0.86 [0.57, 1.28]		**2.11 [1.40, 3.17]**	**1.85 [1.21, 2.83]**	0.98 [0.66, 1.46]		**0.59 [0.39, 0.89]**
1		1	1	1		1
	-		-		-	
0.69 [0.34, 1.42]		1.50 [0.73, 3.12]		0.82 [0.40, 1.69]		**0.47 [0.23, 0.97]**
1		1		1		1
	-		-		-	
0.84 [0.52, 1.36]		1.45 [0.89, 2.37]		1.14 [0.70, 1.85]		**2.44 [1.48, 4.00]**
1		1		1		1
-	-		-			
		1.37 [0.91, 2.05]		**0.62 [0.42, 0.93]**	**0.62 [0.42, 0.94]**	**0.57 [0.38, 0.86]**
		1		1	1	1
-	-	-	-			
				1	1	1
				1.91 [1.27, 2.85]	**1.89 [1.26, 2.85]**	0.76 [0.51, 1.14]
-	-	-	-	-	-	
						1
						2.25 [2.25, 5.23]

DISCUSSION

This study assessed medical students' knowledge, personal comfort and self-reported skills to respond to victims of GBV. It also investigated their personal and professional experiences of GBV. It identified the determinants of knowledge, attitudes, personal comfort and skills to manage patients. The content and context of training received on GBV was also described. The high response rate was due to advocacy by the student association and involvement of the class representatives prior to data collection. Also, the students perceived participation in the study as an educational endeavor and a way of learning more about IPV.

This study found differences in participants' knowledge that were greatly influenced by their association with a specific medical school, while students' attitudes were influenced by their sex. In this study, female students had better attitudes towards victims of GBV and abuse. This was also the finding of other researchers. [17, 21, 25, 26] The knowledgeable students and those with positive attitudes were more comfortable to discuss issues about GBV with patients, victims and perpetrators.

The medical students' skills to manage patients were related to their age, sex and marital status and even after adjusting were still related to medical school, previous training and personal comfort. As reported in some other studies, the students who were trained on GBV, those with higher knowledge and who were comfortable and prepared to manage victims and perpetrators were more likely to self-report the skill of being able to respond to victims. [14, 15, 24] The older aged, male, never married, and the students from the Osogbo Medical School also perceived that they were skilled to respond to GBV than their colleagues. The students from the Osogbo medical school may have been exposed to trainings which differed from the other two schools in that their training had been more active. The higher knowledge levels may also have been a reflection of teaching from religious institutions and NGOs. [17] Osogbo, is the smallest of the three cities with the least number of medical students in

comparison to the other schools, perhaps this may also have encouraged learning. On the contrary, it is also possible that the students, may have overestimated their abilities and over-reported their skills to respond to GBV victims and perpetrators.

Although the students demonstrated satisfactory knowledge on the symptoms and health related consequences of GBV, they lacked knowledge in identifying some types of GBV. The students' knowledge was best on physical and sexual forms of violence, while they were less knowledgeable on psychological and economic aspects of GBV. Knowledge levels of the cohort might have been lower as some might have opted not to participate due to a perceived lack of knowledge. Previous studies to assess knowledge and skills of medical students were predominantly conducted in high income countries. These studies however highlighted the value of exposing students to training on GBV. (9, 14) The current study is one of the first to explore and describe the topic in a low income country. (12, 17)

Older students were more likely to be knowledgeable than their younger counterparts probably due to their cumulative life experiences.(27) Male students were also more knowledgeable which could be due to their increased exposure or to the fact that some might have been the perpetrators of VAW. Other studies have also found males to be more knowledgeable. (21) This improved knowledge should translate into improved attitudes, better screening practices and good case management during clinical practice. (22) Contrary to findings of Abraham et al (23), this study reported no relationship between students' knowledge and having been trained on GBV detection and management. (23) This might be due to the relatively small proportion of students who had been trained on the topic or the absence of the topic in the medical curriculum.

Many students had an accurate estimation of the magnitude of GBV/IPV in society and correctly perceived it their duty to ask patients about violence. They believed that they could help both victims and perpetrators. Some, however, blamed the victim and attributed

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incidences of violence to the victim's passive personality or a disregard for accepting traditional roles. This attitude was similar to that of Chinese and Vietnamese medical students. [28] Research has indicated that some of these incorrect attitudes could still be challenged and changed by training. [14] Even after adjusting for confounders, female students had better attitudes and empathised better with victims, possibly due to life experiences with friends, family, neighbours or due to being in similar situations. [29] Older students and those with prior training were more likely to have positive attitudes to victims and perpetrators.

The students' personal comfort to manage victims and perpetrators was influenced by their knowledge and attitudes. This highlights the importance of improving students' knowledge on the topic. Many students were willing to ask patients about abuse and were prepared to screen for abuse. It was no surprise to find that students preferred to discuss issues relating to GBV with victims rather than with perpetrators. This appeared to be out of concern for the victims and their safety. [24] The implication is that health facilities need to ensure measures to protect health care providers from possible assault and intimidation from perpetrators. More importantly, the students need training to inform them on how to approach perpetrators, introduce the topic and refer or refrain from further engagement with violent perpetrators.

Most final year students admitted to having limited abilities to manage victims of violence; which possibly reflects their lack of training on this issue.[21] The students were more confident at detecting violence and history taking on GBV, and least confident to provide medical care and to develop a safety plan for victims. Older students, particularly male students, considered themselves as more skilled in identifying and managing patients of GBV. This may be a reflection of their more daring nature. [27] Students in this study who had been trained, and who were knowledgeable and comfortable to manage victims and perpetrators were significantly more likely to be skilled. The implication of our finding reflects the necessity to improve the students' knowledge about GBV. It also highlights the

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importance of improving students' knowledge to enhance their skill in managing GBV. An effective training programme is likely to promote students' learning and will enable professional and personal development on GBV. [23] We therefore re-iterate the need to review the medical curriculum in this context and that that of many other medical schools on the continent to prepare our practitioners. [19]

This study confirms and expands the findings of previous studies on medical students' knowledge and experiences on GBV in Nigeria [21] in that more medical schools were involved, attitude and personal comfort to perpetrators were assessed, and the GBV experience and perpetration of the medical students were also documented. Student participants in this study included both perpetrators and victims of physical IPV, however many stated that they had learned and were now able to resolve conflict more amicably with their partners. Training on non-violent conflict resolution for students in relationships is an imperative as personal experience may also affect their attitudes in their future professional work. [17]

There are three limitations to the study. Firstly, we did not obtain information on the students who chose not to participate in the study and are unable to say, if and how they differ from the rest of the group. There may have been major differences in students'prior knowedge on GBV between the three medical schools . Secondly, the experience of students on violence may have confounded some of the observed associations. Similarly, the academic abilities and expertise of the students might have influenced results. However, these are likely to impact on students' knowledge and not skills. Lastly, students' experience and perpetration of GBV was self reported hence subject to social desirability bias. Some qualitative analysis will have further enriched the study. Despite this, the results still show a need to improve education and training on GBV.

CONCLUSION

While most students were willing and considered it their duty to ask patients about abuse, they reported a lack of fundamental knowledge and skills to do this effectively. This study affirmed the need for students to become knowledgeable on issues relating to GBV as this improved their personal comfort and self-reported skills to screen and manage patients and perpetrators. There is the need to review the curriculum in these schools, and perhaps at many other medical schools to ensure the students receive comprehensive and educative training on GBV. The training should target the younger, female students and particularly those who had never received training on GBV. The results from this study served as a basis to initiate processes to review the curriculum and improve students' knowledge, skills and attitudes on this important topic.

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CHAPTER 5: STAKEHOLDERS OF THE GBV TRAINING

'Establishing Consensus among Inter Professional Faculty on a Gender Based Violence Curriculum in Medical Schools in Nigeria: A Delphi Study'

5.1 Introduction

The previous chapters assessed the knowledge, skills and practice of final year medical students on GBV and identified factors influencing knowledge and perceived skills. The medical school was identified as an important factor that influenced student's knowledge, personal comfort and perceived skills. However, VAW was not included as a topic in the students' curriculum. The faculty and students agreed that there was the need to review the curriculum and on the basis of this, they recommended the inclusion of GBV in the students' training curriculum to improve their knowledge and management skills [26]. In line with the research objective that set out to establish consensus amongst inter professional stakeholders on the content, methods and faculty to involve for educating and training medical students about GBV in south west Nigeria this phase of the study used the Delphi technique. The study also identified areas where training might be required and the stage of curriculum best suited to teach the topic and how to assess the effectiveness of training.

Training medical students could be an ideal way to address issues on GBV. Studies have reported that physicians who receive IPV education training are significantly more likely to screen for it [113]. The presence of IPV instructions in medical schools have been found to play an important role in preventing poor maternal health outcomes [9]. Education about GBV could be spread among many courses and delivered by a variety of faculty throughout the years of medical training. However, medical faculty in low income countries are just beginning to appreciate the need and complexities of teaching about GBV. On account of this recognition, it is needful therefore to identify the issues that should be considered in preparing medical students and a broad range of medical faculty in different medical schools to teach and practice effectively in this area [14]. This chapter reports on the 'why, how and what' agreement was reached by training experts to inform a GBV curriculum for medical students

5.2 Publication Details

The finding of this study has been submitted for publication and the details are summarised below.

Title:	Establishing Consensus among Inter Professional Faculty on a Gender Based Violence Curriculum in Medical Schools in Nigeria: A Delphi Study
Authors:	Olufunmilayo I. Fawole, Jacqueline van Wyk, Adebola Adejimi, O.J.Akinsola and Busola O. Balogun
Journal:	African Journal of Health Professions Education
Details	Peer reviewed (double-blinded). Listed with department of higher Education and training (DoHET)
Status:	Accepted

5.2.1 Journal Information

The AJHPE is an online, quarterly journal for health professionals. It carries research articles and letters, editorials, education practice, personal opinion and other topics related to education for health professionals. It also publishes related African education-related news and general correspondence. All submissions are reviewed by an editorial advisory group, who will check for scope, fit, quality, originality, interest for the readership, etc., and recommend acceptance, rejection or referral for review. Once an article has been accepted for peer review, it is assigned to an Associate Editor who will manage it through the peer review process.

A double blind review process is followed, which means that both the reviewer and author identities are concealed from each other throughout the review process. A majority of manuscripts will be sent to one or two reviewers, under the management of an editor assigned to the submission. Reviewers as experts in the field provide comments to authors and editors on the importance, originality and scientific merit of the manuscript and suggest changes which may improve the quality and validity of the manuscript. The journal is published online quarterly (one volume comprising 4 issues per annum). It is an open access journal and provides immediate open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge [(114)].

5.2.2 Publication Record

The paper was submitted on the 10th June, 2017 to the journal. The reviewers' comments were received on the 5th November, 2017. The paper was resubmitted on the 30 December and the paper was accepted on 10 January 2017 (Appendix 20).

5.2.3 Contribution Record

The candidate conducted the research, interpreted the data and was the main author of the manuscript. Dr Van Wyk contributed towards the study design, verified data and contributed to writing of the manuscript. Drs Balogun, Akinsola and Adejimi coordinated data collection in the medical schools.

5.3 Key Findings and Contribution of The manuscript to the Thesis

This paper highlighted findings of the Delphi technique involving experts from the academia, practitioners, government, and non-governmental organisations were conducted. The themes identified in RD 1 were: reasons for teaching GBV; teaching methods; strategies needed and departments best positioned to teach; professions to involve in training; academic level to offer training; and strategies to assess effective training. From RD 2, the topics ranked highest for inclusion in training were: complications of GBV and safety plans. Training in the final year of the medical training was the most preferred level; the use of videos for training was ranked highest, followed by information, education and communication materials. Discussion with victims ranked highest as the most preferred format for teaching followed by didactic. The departments recommended to teach were public health, accidents and emergency; family medicine and obstetrics and gynaecology. Other professionals who can teach GBV were: - psychologists; social workers and lawyers. As regards assessment methods, written examination ranked highest. RD 3 results confirmed experts satisfaction with the rankings received from RD.

The paper concluded that there was the need for periodic revision of the curriculum of medical schools. It provided insight to inform the development of evidence based competencies relevant to healthcare providers in the African context. Furthermore, with regard to each institution, it was discovered that discussions are needed on the contact hours, duration of training and particular disciplines to involve in the training. In furtherance of the study, understanding the perceptions of IPV victims after being identified by heath care providers in health facilities, how healthcare providers can best assist survivors, and their suggestions on how students can be trained on GBV are reported in Chapter Seven.

Research

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Establishing consensus among interprofessional faculty on a gender-based violence curriculum in medical schools in Nigeria: A Delphi study

O I Fawole,[1] MBBS, MSc, FNMC (PH), FWACP; **J van Wyk**,[2] PhD; **A A Adejimi**,[3] MBBS, MPH, FWACP; **O J Akinsola**,[4] BSc, MSc, MPhil; **O Balogun**,[5] MBBS, MPH

[1] *Department of Epidemiology and Medical Statistics, Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria*
[2] *Department of Clinical and Professional Practice, Nelson R Mandela School of Medicine, University of KwaZulu-Natal, Durban, South Africa*
[3] *Department of Community Medicine, College of Medicine, Ladoke Akintola University of Technology, Osogbo, Nigeria*
[4] *Department of Community Medicine and Primary Health Care, College of Medicine, University of Lagos, Nigeria*
[5] *Department of Community Medicine, College of Medicine, University of Ibadan, Nigeria*

Corresponding author: *O I Fawole (fawoleo@ymail.com)*

Background. Gender-based violence (GBV), as a topic of medical study and practice, is an integral component of medical education in many developed countries. There is an increasing need to equip medical practitioners with appropriate knowledge, attitudes and skills to care for victims of GBV.
Objectives. To obtain consensus among stakeholders on content, the members of faculty who should teach the subject and the methods of training relating to GBV curricula in three medical schools in south-west Nigeria.
Methods. Three rounds of the Delphi technique involving 52 experts from among academics, medical practitioners, government and non-governmental organisations were conducted. The first round (RD 1) was open-ended, while subsequent rounds were structured. Consensus was defined as a gathering around mean (>3.5) responses with minimal divergence (standard deviation (SD) <1.5) to the RD 2 questionnaire; strong consensus was >4.0. For the RD 3, consensus was regarded as >50% satisfaction with the rankings from RD 2. A strong consensus was taken as >60% satisfaction.
Results. Themes identified in RD 1 were: reasons for teaching GBV; teaching methods, strategies needed and departments best positioned to teach it; professions to involve in training; academic level to offer training; and strategies to assess effective training. From RD 2, the topics ranked highest for inclusion in training were (mean (SD)): complications of GBV, 4.44 (0.63); and safety plan, 4.44 (0.51). Offering training to final-year medical students was most preferred, at 4.25 (1.13); for teaching methods, using videos for training, at 4.63 (0.89), was ranked highest, followed by information, education and communication materials, at 4.50 (0.82). Discussion with victims ranked highest as the most preferred format for teaching, followed by didactic lectures, at 4.06 (0.93) and 4.00 (0.89), respectively. The departments selected to teach GBV were Public Health, at 4.19 (0.91); Accidents and Emergency, 4.06 (0.85); Family Medicine, 3.81 (1.05); and Obstetrics and Gynaecology, 3.81 (0.89). Other professionals suggested were psychologists, social workers and lawyers. With regards to assessment, written examination ranked highest, at 4.06 (0.85). RD 3 confirmed the rankings of RD 2 on all themes, and sought additional suggestions for the training. Most (82.9%) respondents had no additional suggestions; the few elicited included clarifying cultural misconceptions around GBV, involving religious leaders and psychologists, and the recommendation that the teaching should be sustained.
Conclusion. These results will inform the development of evidence-based competencies relevant to healthcare providers in the African context. The need for periodic review of the curricula of medical schools to ensure that they address patient and societal needs is highlighted.

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There is growing international consensus that health services need to respond to the needs of those experiencing abuse.[1] There is also an increasing recognition of the need to equip medical practitioners with the appropriate knowledge, attitudes and skills to care for victims of intimate partner violence (IPV). Concerns have been raised that faculty possibly neglect teaching of the topic, as it is not included in medical curricula.[2] It is therefore imperative to address this shortcoming in medical curricula, especially in low-income countries where traditions have supported and condoned levels of IPV.[3] Different specialised groups of physicians are needed to care for women who have experienced IPV, when managing complications linked to abuse.[3]

Education about gender-based violence (GBV) in general offers a logical solution in addressing the problem of ignorance.[4] Education about violence has been integrated into medical schools, and is being taught by a variety of faculty in many high-income countries.[5,6] Evaluations show that training on GBV and IPV generally improves the knowledge, attitudes and skills of students and clinicians.[4] However, medical faculty in many middle- and low-income countries are apprehensive about the complexities of addressing the topic. Apart from concerns over content and training methods, there is also a lack of agreement on the faculty best positioned to offer such training.[7,8] Therefore these issues need consideration, to prepare a range of medical faculty to teach, serve and practise effectively in this area.

The present study was conducted to obtain consensus among interprofessional stakeholders on the content, methods and faculty to involve in educating and training medical students on GBV in south-west Nigeria. The study also explored reasons why stakeholders thought the teaching was necessary; it identified the stage in the curriculum best suited to teach the topic, and how to assess the effectiveness of training.

Methods

Study design

The Delphi technique[9] was used to obtain consensus among experts on issues relating to the design of a GBV curriculum. Three rounds

of questionnaires were circulated. The first round (RD 1) used open-ended questions; the next two rounds (RD 2 and 3) were structured. The responses from each round were summarised and reported to the stakeholders, who were then given an opportunity to respond in the subsequent round.

The questions in RD 1 asked whether GBV should be included in the curriculum. The questionnaire also explored the potential content and methods to be used, and asked experts about their previous training. The focus of RD 2 was to consolidate and validate suggestions on the content and methods generated by the RD 1 questionnaire. Stakeholders prioritised their responses by ranking each suggestion according to importance.

Study setting

The study was conducted in Lagos, Oyo and Osun states of south-west Nigeria in the medical schools of the University of Ibadan, the University of Lagos and the Ladoke Akintola University of Technology. In addition, relevant officials from the Ministries of Health and Women Affairs in the three states were invited as stakeholders. The three universities are public institutions, and all are affiliated to a teaching hospital.

Selection of expert panel

An expert was defined as a person with relevant knowledge of and experience in teaching about issues relating to GBV, with experience regarded as useful to inform the education of medical students. Four categories of experts were identified, and one academic, two medical practitioners, three government officials and four representatives of non-governmental organisations were included in the study.

The research team of two academic researchers and three medical practitioners, all familiar with issues relating to GBV in Nigeria, generated a list of nominees. They brainstormed and identified the most appropriate disciplines, organisations and literature to be used in identifying the categories of experts.[3,10]

Invitation of experts

Experts were contacted by telephone or in person and invited to participate. A detailed information sheet explaining the study purpose and procedures, including the level of commitment required, accompanied the RD 1 questionnaire. The participants were asked to complete and return the questionnaire within 5 days, but some had to be reminded repeatedly.

Seeking consensus

Consensus was defined as a gathering around mean responses with minimal divergence, which was taken as a mean score $\geq$3.5, with a standard deviation of 1.5 or less, and consensus issues were included in the RD2 questionnaire. Very strong consensus was set at a mean $\geq$4.0. For the RD 3 questionnaire, consensus was regarded as >50% satisfaction with the rankings from RD 2. A strong consensus was taken as 60% satisfaction with results from RD2, and very strong as >70%.

Sample size

The target was to obtain responses from 10 - 20 health professional experts from each site. A total of 52 experts participated in RD 1, 51 in RD 2 and 47 in RD 3 (Table 1).

Table 1. Sociodemographic characteristics of participants

Variable	RD 1 (*N*=52), *n* (%)	RD 2 (*N*=51), *n* (%)	RD 3 (*N*=47), *n* (%)
Medical school			
Ibadan	11 (21.2)	11 (21.5)	10 (21.3)
Lagos	14 (26.9)	14 (27.5)	10 (21.3)
Osogbo	27 (51.9)	26 (51.0)	27 (57.4)
Age (years)			
20 - 29	1 (2.0)	1 (2.0)	1 (2.1)
30 - 39	15 (28.8)	18 (35.3)	14 (29.8)
40 - 49	28 (53.8)	27 (52.9)	23 (48.9)
50 - 59	8 (15.4)	5 (9.8)	9 (19.2)
Sex			
Male	22 (42.3)	23 (45.1)	2 (44.7)
Female	30 (57.7)	28 (52.9)	26 (55.3)
Organisation			
Academics/practitioners	42 (80.8)	42 (82.4)	41 (87.2)
Ministry of Health/Women Affairs	6 (11.5)	5 (9.8)	4 (8.5)
Non-governmental organisation	4 (7.7)	4 (7.8)	2 (4.3)
Medical specialty	(*n*=48)	(*n*=47)	(*n*=47)
Accidents and emergency	4 (8.3)	5 (10.6)	4 (8.5)
Dental surgery	3 (6.3)	3 (6.4)	3 (6.4)
Family medicine	5 (10.4)	5 (10.6)	5 (10.6)
Obstetrics and gynaecology	7 (14.6)	8 (17.0)	7 (14.9)
Paediatrics	4 (8.3)	4 (8.5)	2 (4.3)
Public health/ community medicine	12 (25.0)	11 (23.4)	6 (12.8)
Psychiatry	3 (6.3)	3 (6.4)	4 (8.5)
Other*	10 (20.8)	8 (17.1)	16 (34.0)

*Ophthalmology, pathology, internal medicine, surgery.

Questionnaire development

RD 1: The RD 1 questionnaire was developed after an extensive literature review[5-11] based on the results of our previous study with medical students and faculty in one of the institutions.[2] The questionnaire consisted of 11 items, and was open-ended. It solicited information on reasons why courses on GBV issues should be taught (Table 2); the academic level at which they should be taught; the content to be covered (Table 3); teaching methods and strategies; contact hours; duration; format; which medical department(s) should do the teaching; other health professionals to involve in teaching; and suitable teaching platforms to explore. The experts were also asked if they had prior experience in teaching and/or managing patients/victims of GBV, and whether they would share their material.

RD 2: The RD 2 questionnaire was developed after analysis of the RD 1 results. The RD 2 questionnaire ranked the 12 themes identified from the RD 1 questionnaire on a 5-point scale, in order of importance, from 5 as most important to 1 as least important. The themes were summarised as follows: the reasons why GBV issues should be taught; medical/clinical and other professionals to include in the training; content and teaching strategies to use; and the academic levels at which to offer training. The results of the ranking are shown in Table 4.

RD 3: The RD 3 questionnaire informed participants of the results received on each variable of the 12 themes in RD 2. Stakeholders were asked to comment on the results, and to suggest additional items that they might not have considered initially, and/or make changes to earlier responses.

Data collection

Data collection was preceded by telephone calls to the experts by the principal investigator; next, a member of the research team made physical visits to the

Table 2. Reasons for GBV issues to be taught at medical schools

Area of concern	Quote	Participant characteristics
Students	'To prepare them to recognise and handle GBV cases.'	40 - 49 years, male, Lagos, community medicine, 0 - 9 YWE
	'To empower them to recognise potential victims.'	50 - 50 years, male, Ibadan, O&G, consultant/lecturer, ≥20 YWE
	'To create awareness of GBV among medical students.'	40 - 49 years, male, Lagos, ophthalmology, senior lecturer, 10 - 19 YWE
GBV as a problem	'To promote enlightenment for prevention of GBV.'	40 - 49 years, male, Ibadan, family medicine, consultant, 10 - 19 YWE
	'It makes them know what constitutes GBV as some of them perpetrate without knowing.'	40 - 49 years, male, Lagos, public health, consultant/lecturer, 10 - 19 YWE
Community	'Most people don't really know what GBV is.'	20 - 29 years, female, Lagos, accidents and emergency, medical officer, 0 - 9 YWE
	'It's the paradigm shift all over the world, it will ensure a better nation.'	30 - 39 years, female, Osogbo, dentist, dental officer, 0 - 9 YWE
Victims	'To break [the] culture of silence on the issue. Silence by female victims [is] common.'	30 - 39 years, female, Osogbo, Ministry of Women Affairs, gender officer, 0 - 9 YWE
	'They will be able to do some counselling of the victims.'	40 - 49 years, male, Lagos, family medicine, consultant, ≥20 YWE

GBV = gender-based violence; O&G = obstetrics and gynaecology; YWE = years of work experience.

Table 3. Topics to include in a GBV training programme

Topic	Participant characteristics
'Epidemiology of GBV; identification and understanding signs of GBV'	40 - 49 years, female, Lagos, community medicine, senior lecturer, 0 - 9 YWE
'Causes of GBV; types of GBV; medico-legal view of GBV'	40 - 49 years, male, Ibadan, family medicine, consultant, >20 YWE
'Types of GBV; prevalence of GBV; identification of victims of GBV'	50 - 59 years, female, Ibadan, community medicine, senior lecturer, 10 - 19 YWE
'Risk factors, causes, management of GBV and the local and national laws on GBV'	40 - 49 years, female, Osogbo, paediatrics, consultant, 10 - 19 YWE
'GBV and culture; societal responsibilities to GBV victims'	40 - 49 YWE, female, Osogbo, family medicine, consultant/lecturer, 0 - 9 YWE
'Female genital cutting and widow inheritance'	20 - 29 years, female, Lagos, paediatrician, consultant, 0 - 9 YWE
'Ethics of managing GBV and policy issues around GBV'	50 - 59 years, male, Ibadan, community medicine, lecturer/public health physician, 10 - 19 YWE
'Measurement issues in GBV'	50 - 59 years, male, Lagos, O&G, senior lecturer, 10 - 19 YWE
'Understanding the mind of perpetrators, including forensics and jurisprudence of GBV'	40 - 49 years, male, Ibadan, oral pathology, lecturer/consultant, 10 - 19 YWE

GBV = gender-based violence; YWE = years of work experience; O&G = obstetrics and gynaecology.

Table 4. Ranking of categories for the training curriculum by participants

Categories	Responses received	Mean (SD)
Reasons why GBV should be taught		
	Awareness of GBV	4.56 (0.63)
	Prevention and control	4.44 (0.81)
	Support or counsel victims	4.44 (0.81)
	Refer to where to seek help	4.44 (0.81)
	Identify/screen GBV cases	4.19 (1.05)
	Preparedness to treat GBV cases	4.13 (1.09)
Content of GBV training for the students		
	Prevention and safety	4.44 (0.51)
	Complications	4.44 (0.63)
	Medical/legal aspect of violence	4.38 (0.60)
	Signs and symptoms	4.38 (0.72)
	Role of physicians in GBV control	4.38 (0.80)
	Risk factors of GBV	4.31 (0.70)
	Causes of GBV	4.31 (0.79)
	Types of GBV	4.31 (0.95)
	Ethical issues, e.g. confidentiality etc.	4.25 (0.93)
	Management of victims	4.19 (0.66)
	Gender equality	4.19 (1.17)
	Definition of GBV	4.13 (0.89)
	Prevalence/epidemiology	4.13 (0.19)
	Identification of victims	4.13 (1.03)
Strategies for teaching GBV		
	Video – documentaries, clips	4.63 (0.89)
	IEC material – posters, flyers, charts	4.50 (0.82)
	PowerPoint presentation	4.19 (0.98)
	Web-based/internet	4.06 (0.85)
	Skills training	3.94 (0.93)
	Case-based learning	3.94 (1.06)
	Role play	3.75 (1.13)
	Didactic lectures	3.75 (1.54)
Level/year GBV should be taught		
	600	4.25 (1.13)
	500	3.88 (1.09)
	400	3.44 (1.03)
	300	3.13 (1.26)
	200	2.69 (1.54)
	100	2.69 (1.54)
Duration of GBV training		
	Longitudinal	3.88 (1.26)
	Periodic	3.81 (1.17)
	Once	2.19 (1.22)
Contact hours		
	4 hours	3.25 (1.4)
	2 hours	3.19 (1.8)
	>4 hours	2.94 (1.6)
Formats for teaching		
	Discussion with victims	4.06 (0.89)
	Didactic lectures	4.00 (0.93)
	Bedside teaching	3.69 (1.49)
	Case study/presentation report	3.88 (1.26)
Departments well positioned to teach		
	Community medicine	4.19 (0.91)
	Accidents and emergency	4.06 (0.85)
	Public health	4.06 (0.93)

continued...

Table 4. (continued) Ranking of categories for the training curriculum by participants

Categories	Responses received	Mean (SD)
	Obstetrics and gynaecology	3.81 (0.89)
	Family medicine	3.81 (1.05)
	Psychiatry	3.56 (1.21)
	Dentistry	3.19 (1.42)
Other professionals who can teach		
	Psychologist	4.19 (0.98)
	Social worker	4.13 (1.02)
	Nurse	3.94 (0.99)
	Lawyer	3.81 (0.83)
	Counsellor	3.81 (1.11)
	Sociologist	3.81 (1.11)
	Paediatrician	3.44 (1.41)
Why other professionals should teach		
	Multidisciplinary	4.38 (0.81)
	Intersectoral	4.31 (0.79)
	Social problem	4.23 (0.86)
Venue to teach GBV		
	Hospital	4.38 (0.95)
	Community	4.38 (0.96)
	Classroom	4.31 (0.79)
Assessment methods on GBV		
	Written examination	4.06 (0.85)
	Term paper (assignment)	3.75 (1.07)
	Oral examination	3.63 (1.03)
	Clinical examination	3.56 (0.89)

GBV = gender-based violence; IEC = information, education and communication.

experts to distribute the information sheet and questionnaire. The study instruments and information sheets were pretested on five resident doctors from the University College Hospital, Ibadan, and necessary adjustments were made before data collection commenced. The Delphi questionnaires were hand-delivered to participants, and collected a few days later by a research assistant. Each round was accompanied by an information sheet, which in RD 1 introduced and explained the study to respondents under the following subheadings: What is a Delphi study? What is the purpose of the study? Why have I been invited to take part? What will I be asked to do if I take part? Who is organising the research? How will confidentiality be maintained? What do I do now? How do I contact the principal investigator?

The information sheet used in RD 2 provided feedback on the results of the previous RD, and it was modified to suit RD 3 of the study.

RD 1 data collection occurred between June and July 2016. The RD 1 questionnaire took approximately 30 minutes to complete. RD 2 data collection took place between August and October 2016, while RD 3 commenced in November 2016 and ended in January 2017. RD 2 took about 15 minutes to complete, and RD 3, 20 minutes. The data collection was conducted by three trained resident doctors, who were assisted with retrieval of the completed questionnaires by a research assistant.

Data analysis

The three rounds were analysed using different methods.

RD 1: The data generated from the open-ended questions in RD 1 were coded. Data were entered into Statistical Package for Social Sciences (SPSS; IBM Corp., USA) version 16 and analysed using Excel (Microsoft, USA). These open-ended, qualitative data were coded and categorised in response to each research question.

RD 2: The data were entered and analysed using SPSS version 16. Means and standard deviations (SDs) were calculated for all responses. Each mean was used to obtain a numerical indication of the overall support for a statement, where the responses to the statements were measured on a scale from 1 (least important) to 5 (most important). Mean values between 2 and 3 were interpreted as uncertainty or indicating no consensus, while $\geq$3.5 and $\leq$1 indicated clear positive and negative consensus, respectively. The SD provided a measure of the dispersion of the responses. A small SD between 0.1 and 1.5 was interpreted as indicating greater certainty and consensus on the item being measured.

RD 3: The data obtained were coded and entered into SPSS version 16, and analysed using Excel. Respondents' level of satisfaction with the results generated was described in percentages, while quotes on suggestions were collected.

Ethical considerations

The study was a low-risk project; however, ethical clearance was obtained from the Ethical Review Committee of the Oyo State Ministry of Health (ref. no. AD13/479/165) and the University College Hospital Institutional Review Board (ref. no. UI/EC/15/03/11). The purpose of the study was explained to participants, and verbal informed consent obtained. Stakeholders were assured of confidentiality and anonymity, and identifying details were not recorded on the questionnaires. Responses were kept confidential. The

completed questionnaires were kept in a secure compartment in the custody of the main investigator. The investigators had no conflict of interest and the results did not influence their work in any way. Data were entered into a password-protected computer.

Results

Round 1 results

Sociodemographic characteristics of experts

A total of 52 expert participants participated in RD 1. A little over half (53.8%) of the experts were between 40 and 49 years of age. There was a slight female preponderance (57.7%). Most (80.8%) participants were from a university or hospital, while the others represented government ministries and non- governmental organisations. The medical specialties of those from training institutions cut across 11 disciplines, including preventive medicine (25.0%), obstetrics and gynaecology (14.6%), paediatrics (8.3%) and accident and emergency (8.3%). Regarding years of work experience, 44.2% had worked for between 10 and 19 years (Table 1).

Categories generated

In response to RD 1, eight categories were identified for teaching about GBV issues. These were regrouped into five categories (A - E).

A. Reasons why GBV issues should be taught at medical schools: Stakeholders gave reasons why GBV should be included in the medical undergraduate curriculum. The responses, as illustrated by the quotes in Table 2, focused mainly on four areas of concern, namely preparedness of students, the effect of GBV on health, and its effects on the community and on the victims. Concern was expressed that students should become knowledgeable and skilled. There was also concern to improve awareness of GBV as a public health problem, as it was believed that its inclusion in medical curricula would reduce its prevalence in the community, and providing training to students would improve the protection and treatment for victims.

B. Teaching methods, strategies/resources needed and department best positioned:

B1. Topics to include in a GBV training programme: Stakeholders proposed several topics to include in the curriculum, namely causes of GBV, signs and symptoms, complications, types of GBV, and management of GBV cases (Table 3). Some experts proposed the inclusion of contemporary and culture-specific topics.

B2. Teaching strategies for GBV: The strategies identified as most useful included didactic lectures, seminar/small group discussions, case studies, students' presentations of group work and student-driven research projects on GBV. According to some participants:

> 'Didactic lectures, discussion format, group work for presentation and research' (30 - 39 years, female, lecturer/public health physician, Lagos: 10 - 19 YWE)
> 'Topics can be incorporated into core lectures, followed by case studies and group discussions, clinical clue ship, observer ship, and term paper/ essay' (40 - 49 years, female, emergency medicine, consultant physician, Ibadan, 10 - 19 YWE)

B3. Format for teaching: Stakeholders suggested using didactic lectures, supplemented by video documentaries, information, education and communication materials and case studies, as a possible teaching format:

> 'Didactic lectures, true cases, case studies, skills training' (40 - 49 years, female, clinical pathology, consultant pathologist, Ibadan, 0 - 9 YWE)
> 'Didactic lectures, true cases, case studies' (30 - 39 years, male, obstetrics and gynaecology, senior registrar, Osogbo, 0 - 9 YWE).

C. Teachers:

C1. Other professionals who can teach on GBV: Apart from medical practitioners, other professionals suggested who could teach on GBV included psychologists, sociologists, lawyers, nurses and social workers. For example, some participants suggested:

> 'Psychologist' (30 - 39 years, female, internal medicine, consultant physician, Lagos, 10 - 19 YWE)
> 'Sociologist' (40 - 49 years, male, community health, senior lecturer, Lagos, 10 - 19 YWE)
> 'Social workers' (30 - 39 years, female, dental surgery, dental officer, Osogbo, 0 - 9 YWE).

C2. Reasons why other professionals should teach GBV: The experts motivated for teaching by other health professionals, describing GBV as a social, multidisciplinary and multidimensional problem. According to these stakeholders:

> 'There are various aspects to GBV, it requires multidisciplinary approach' (40 - 49 years, male, oral pathology, lecturer/consultant, Ibadan, 10 - 19 YWE)
> 'GBV is a social problem that needs to be tackled by all' (30 - 39 years, female, Women Department official, gender officer, Osogbo, 0 - 9 YWE)

C3. Previous teaching experience on GBV

Ten experts (19.2%) had prior teaching experience in GBV and had taught medical students on managing patients/victims of GBV. Seven (70%) of these experts were willing to share their materials with other teachers.

D. Academic level(s) of medical students to whom training should be offered, and number of contact hours suggested by experts: The experts had various suggestions on year of schooling. These included:

> 'Clinical years' (30 - 39 years, female, consultant, obstetrics and gynaecology, Osogbo, 10 - 19 YWE)
> '400 - 600 levels' (30 - 39 years, male, senior registrar, psychiatry, Lagos, 1 - 9 YWE)

On the number of contact hours, one participant (40 - 49 years, female, community health, lecturer I, Lagos, 10 - 19 YWE) suggested two, while another (40 - 49 years, male, Institute of Child Health, senior research fellow, Ibadan, 0 - 9 YWE) suggested four.

E. Strategies to assess the impact and effectiveness of the training: Written examinations were recommended by one participant (40 - 49 years, female, clinical pathology, consultant, Lagos, 0 - 9 YWE), while another (60 years, male, surgery, senior lecturer, Lagos, 10 - 19 YWE) suggested clinical examination.

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The highest-ranked reason for implementing teaching on GBV (4.56 (0.63)) was to increase awareness. Additional reasons selected were to provide support to victims; to prevent and control violence; and to appropriately

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Round 2 results

The highest-ranked reason for implementing teaching on GBV (4.56 (0.63)) was to increase awareness. Additional reasons selected were to provide support to victims; to prevent and control violence; and to appropriately

refer patients for care (4.44 (0.81 each)). As shown in Table 4, the 14 suggested topics for content of the GBV programme all ranked above 4.00. The highest-ranked topics were complications of GBV (4.44 (0.63)) and safety plans (4.44 (0.51)), and the least the definition (4.13 (0.89)), prevalence (4.13 (0.19)) and identification of victims (4.13 (1.03)).

Stakeholders preferred training to be offered to the most mature students, i.e. at final-year level (4.25 (1.13)). The preferred teaching strategies included videos (documentaries and clips; 4.63(0.89)) and the use of information, education and communication materials (4.50 (0.82)). Allocating 4 contact hours to teaching was the most preferred option (3.25 (1.4)) among the experts.

A longitudinal training programme was preferred over once-off training (3.88 (1.26) v. 2.19 (1.22)). The experts ranked discussions with victims as the most preferred strategy, followed by didactic lectures and case studies (4.06 (0.93), 4.00 (0.89) and 3.88 (1.26), respectively (Table 4).

The medical departments considered best positioned to teach GBV were those dealing with community medicine (4.19 (0.91)), public health (4.06 (0.93)), accidents and emergency (4.06 (0.85)), family medicine (3.81 (1.05)), obstetrics and gynaecology (3.81 (0.89)), and psychiatry (3.56 (1.21)). Dentistry was the least preferred (3.19 (1.42)). The multidimensional nature of GBV was the main reason (4.38 (0.81)) for including other professionals in the teaching, followed by 'it is a social problem' (4.23 (0.86)). Other professionals identified included psychologists (4.19 (0.98)), social workers (4.13 (1.02)) and nurses (3.94 (0.99)). Teaching platforms included hospitals (wards and clinics, 4.38 (0.96)), community (4.38 (0.96)) and classrooms (4.31 (0.79)).

A written examination ranked highest (4.06 (0.85)) as the preferred method to assess students' learning on GBV.

Round 3 results

Most (>60%, depending on the theme) stakeholders were satisfied with the rankings from RD 2. There was consensus (Table 5) on the strategies for teaching on GBV (83.0%) and reasons why it should be taught (89.3%). Most disagreement related to the 'format' (23.4%), 'venue' for teaching (23.4%) and the 'duration of the training' (34.0%). The comments were, however, positive and affirmed a need for continuous and synchronised training, rather than irregular sessions, with preference shown for 2 contact hours per module. The Department of Public Health was indicated as being the best positioned to offer a course (Table 5).

The majority of all the stakeholders (82.9%) offered no suggestions on how to improve training on GBV. However, some respondents suggested clarifying cultural misconceptions around GBV (4.3%); the involvement of religious leaders (4.3%) and psychologists in teaching (2.1%); using mid- and end-of-term assessments (2.1%); and that training should be sustained (4.3%).

Discussion

This study was conducted to obtain consensus among stakeholders on the necessary content and teaching methods for a GBV curriculum at 3 medical schools in Nigeria. Most of the experts surveyed, representing the 3 states, were based at training institutions. However, they represented various disciplines, indicating some consensus on the multidisciplinary nature of the problem and interdisciplinary dimensions needed to address IPV as a curricular topic. Only a few participants represented the relevant government ministries and non-governmental organisations. This is not surprising, as GBV has only recently started to receive government attention in Nigeria, despite the country having been a signatory to international treaties and declarations on women's rights for more than a decade.[12] IPV in particular in many low- and middle-income countries is often shrouded in secrecy, which inhibits victims from open discussions of abuse.[13]

Most of the reasons for introducing GBV into the medical curriculum centred on students' training needs, and an awareness of the need to address the issue in the community and to help victims of GBV. The benefit of improved awareness created by training on GBV was highly favoured. Participants preferred a structured curriculum for its ability to provide evidence-based and scientific information,[14] which is more likely to be factual, comprehensive and acceptable to healthcare practitioners and students.[15]

Training on the prevention and complications of GBV were considered important, to enable students, as practitioners, to identify and manage victims appropriately. Training on the signs and symptoms of GBV, with the appropriate knowledge and skills to identify victims, was also considered important. Several instruments are used by healthcare providers to identify victims of GBV in healthcare settings. The instruments target different categories of victims, such as women, men, pregnant women or women attending special clinics, and paediatric patients. The instruments also cater for self-reporting, while clinician-administered or computer-based instruments are also used.[16] Stand-alone didactic lectures were not the most

Table 5. Consensus on content and methods of a GBV curriculum

Theme	Satisfied with ranking, frequency (%)	Gave some other options, frequency (%)	No response, frequency (%)	Total, frequency (%)
Reason why GBV should be taught	42 (89.3)	1 (2.1)	4 (8.5)	47 (100.0)
Strategies for teaching GBV	39 (83.0)	2 (4.3)	6 (12.8)	47 (100.0)
Content of GBV training for student	37 (78.7)	4 (8.5)	6 (12.8)	47 (100.0)
Other professionals who can teach GBV	32 (68.1)	5 (10.6)	10 (21.3)	47 (100.0)
Level/year GBV should be taught	30 (63.8)	11 (23.4)	6 (12.8)	47 (100.0)
Format for teaching	30 (63.8)	6 (12.8)	11 (23.4)	47 (100.0)
Reasons other professionals should teach GBV	31 (66.0)	7 (14.9)	9 (19.1)	47 (100.0)
Venue to teach GBV	31 (66.0)	5 (10.6)	11 (23.4)	47 (100.0)
How training should be assessed	29 (61.7)	9 (19.1)	9 (19.1)	47 (100.0)
Department in best position to teach	28 (59.6)	11 (23.4)	8 (17.0)	47 (100.0)
Contact hours	24 (51.1)	15 (31.9)	8 (17.0)	47 (100.0)
Duration of GBV training	22 (46.8)	16 (34.0)	9 (19.2)	47 (100.0)

GBV = gender-based violence.

preferred format for training, but the experts in our study recognised their value in complementing visual materials to enhance learning, as has been reported in a previous study.[17]

The experts did not reach a clear consensus on the duration of training necessary, possibly owing to the varying lengths of medical degrees at the three medical schools, and the variable ability to accommodate curricular additions.[1] It is also possible that experts differ across the disciplines on the number of hours necessary to dedicate to the topic, and that these decisions require further discussions before the start of a programme.

There was strong consensus and agreement on the departments that should offer the training. The departments of community medicine and public health were preferred, suggesting a recognition of GBV as a major public health concern.[18] The department of accidents and emergency was preferred over obstetrics and gynaecology, which is surprising considering that GBV can result in a number of reproductive health complications in women. Studies have been conducted on GBV among physicians in both these specialties.[19,20]

Many stakeholders appreciated the emotional problems that may arise following an episode of violence, and recommended the inclusion of a psychologist on the training team. Mental health complications following abuse, including anxiety disorders, depression, low self-esteem, post-traumatic stress and substance abuse have been reported previously.[21,22] Stakeholders considered the social constructs surrounding GBV, and the need for practical safety plans for victims and their children, including support from social services. Involving social-work practice in student training on GBV would provide comprehensive services to promote women's health and safety, and to foster social principles of meeting clients at their points of need.[23] As found in our study, prior studies have also identified the teaching role of nurses. Tuft *et al*.[24] similarly recommended the training of nurses as educators on GBV, while legal practitioners can advise on laws to protect victims.[25] Assessment is crucial, as it drives learning,[26] and the training institutions agreed that they needed further in-house deliberations on the best assessment practices, for consideration at each university.

The strength of this study lies in the use of the Delphi technique, which allows for repeated iterations on the content and format with the experts. The main limitations related to the fact that most experts represented academia, and to the attrition in later rounds. Despite attempts, few experts were available to participate from government and non-governmental organisations, owing to industrial action in two states at the time of study. Secondly, there was no response or consensus to some themes presented in RD 3, which could be viewed as indicating either satisfaction with or a lack of interest in the theme. Despite this shortcoming, the results still provide information useful for the development of a curriculum on GBV in the medical schools. It may also be possible to generalise the findings to other medical schools in Nigeria.

It is recommended that an interdisciplinary and transdisciplinary approach be followed, to design a GBV curriculum to address issues relating to GBV in medical schools in the region.

Conclusion

Consensus was reached on the content, methods and faculty necessary for training medical students on GBV in south-west Nigeria. There was agreement on the disciplines best suited to teach such a programme, and the need to assess the training. Further discussions are needed per institution on the appropriate contact hours, duration of training and particular disciplines to involve in the training. The results will inform the development of evidence-based competencies relevant to healthcare providers in the African context.

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Conflicts of interest. None.

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CHAPTER 6: VICTIMS' PERCEPTIONS ON SCREENING

'Training Medical students: Victims Perceptions on Screening Women for Intimate Partner Violence in Healthcare Settings'

6.1 Introduction

The previous chapter described how a consensus was obtained from an inter-professional group of GBV experts to inform students' training on GBV. Subsequently, the agreement spanned from the reasons, topics, methods, professions who should teach the students to the assessment methods. However, total agreement was not obtained on the number of contact hours and the duration of the training; the decisions, nevertheless were left at the prerogatives of the institutions. In this chapter, victims' perceptions of screening for IPV in healthcare settings were explored. In addition, their suggestion for the students training was obtained.

It has been noted that most acts of GBV are perpetrated by an intimate partner and are against women. Most acts of GBV are perpetrated by an intimate partner and are against women [(10)], while IPV is a major public health problem with serious consequences for the physical, mental, sexual and reproductive health of women. Besides, IPV is a major cause of death and disability worldwide [(22)]. For instance, women often present at healthcare facilities and demand for attention due to violence. Given this, health professionals are increasingly required to undertake screening in accordance with professional guidelines and national health policies [(3)]. Hence medical students need to be prepared for this role as future physicians. Screening in healthcare settings are meant to identify women with current or past experiences of intimate partner or ex-partner violence to ensure that they are referred or offered, other (therapeutic) interventions leading to beneficial outcomes. It can enhance the quality of care for victims within and outside the health facility. IPV is addressable in the healthcare setting not only via screening, but also through provider-based counselling and referral to legal or social services, as appropriate [(103)].

It is crucial to know women's acceptability and expectations of such interventions. There is an urgent need to assess and identify victims perception of health sector screening for IPV for several reasons [(113)]: in order to have clear evidence about what health professionals can do safely and effectively to decrease the impact of IPV on women [(102)]; to inform health professionals and policy makers about the benefits and challenges of screening; and to guide content and methods of the training curriculum of medical students on the topic. This is reported in the publication below.

6.2 Publication Details

The result of this study has been submitted for publication and the details are summarised below.

Title:	Training Medical students: Victims Perceptions of Selectively Screening Women for Intimate Partner Violence in Healthcare Settings.
Authors:	Olufunmilayo I. Fawole, Busola O. Balogun, Adebola Adejimi, Olutosin J.Akinsola and Jacqueline van Wyk,
Journal:	BMC Medical Education
Details	Open access journal publishing original peer-reviewed
Impact factor:	2-year impact factor of 1.572 and a 5-year impact factor of 1.929.
Status:	Under review

6.2.1 Journal Information: *: BMC Medical Education* is an open access journal publishing original peer-reviewed research articles in relation to the training of healthcare professionals, including undergraduate, postgraduate, and continuing education. The journal has a special focus on curriculum development, evaluations of performance, assessment of training needs and evidence-based medicine. All articles published by *BMC Medical Education* are made freely and permanently accessible online immediately upon publication, without subscription charges or registration barriers.

6.2.2 Publication Record

The paper was submitted on the 7th of February 2018 to the journal editor and has undergone three revisions since then. The first revision was submitted on the 3rd of August, second revision was submitted on the 26th of September, while the third revision was resubmitted on the 31st of October, 2018 (Appendix 21).

6.2.3 Contribution Record

The candidate conceptualised the paper and was the main author. Dr Van Wyk contributed towards the concept and writing of the paper. Drs Balogun, Akinsola and Adejimi coordinated data collection in the medical schools and reviewed the manuscript.

6.3 Key Findings and Contribution of the Chapter to the Thesis

This publication reported the perceptions of survivors of IPV to sensitise physicians to the relevance of discussing IPV as a topic at health care facilities. In addition, the paper reports on research that sought to determine specific categories of women who should be targeted for inquiry by medical personnel. The chapter explored the suggestions of victims on the possible use of gathered information and their recommendations on whether and how medical students should be trained to address issues relating to IPV.

The main highlights of this qualitative interview, was that the victims wanted medics to enquire from women who present at healthcare settings about their experience of IPV. They thought that this practice would not only help the women who might be afraid to speak about their experiences, but might also provide solutions to stop the cycle of violence and enable victims to receive holistic care. Quite differently, others preferred, that doctors should only ask women with specific signs of possible abuse, that is, selective enquiry. Almost all participants stated that all women who were married or in relationships should be screened for abuse. Moreover, they suggested that screening should be specifically targeted at physically / medically vulnerable women; socially vulnerable women and those in relationships with men in high risk occupations.

This chapter provides information on the use of data collected from victims, which was in 2 categories. The first category is *within the health facility* and it comprises as a guide on patient referral, for victim counselling, to form support groups for women, to provide mental healthcare for victims, to give immediate medical care and prescribe treatment. The second grouping is o*utside the health facility*, and it encompasses for legal, research, documentation purposes, to create media awareness and guide NGOs on how to help victims. Also, it is important that social systems are put in place in these hospitals or through social services to respond and support victims. Another highlight of the chapter was that, most of the women were in favour of GBV training for medical students. Many suggested inclusion of the topic in the school curriculum. Other suggestions included the "posting on work-based learning, small group discussions and offering awareness programmes." Participants also thought students could be guided through a set of interview questions. In this paper, the women suggested that other professionals including lawyers, journalists and nurses should be invited to assist with the training of medical students. This confirms the findings of chapters 4 to 6, which recommended a multi-disciplinary approach to the students training.

BMC Medical Education

Training Medical students: Victims Perceptions of Selectively Screening Women for Intimate Partner Violence in Healthcare Settings.

--Manuscript Draft--

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Full Title:	Training Medical students: Victims Perceptions of Selectively Screening Women for Intimate Partner Violence in Healthcare Settings.
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Corresponding Author:	olufunmilayo ibitola Fawole, PhD University of Ibadan Ibadan, Oyo NIGERIA
Corresponding Author Secondary Information:	
Corresponding Author's Institution:	University of Ibadan
Corresponding Author's Secondary Institution:	
First Author:	Olufunmilayo Ibitola Fawole, MBBS, PhD
First Author Secondary Information:	
Order of Authors:	Olufunmilayo Ibitola Fawole, MBBS, PhD
	Busola O Balogun, MBBS, MPH
	Adebola A Adejimi, MBBS, MPH, FWACP (PH)

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Training Medical students: Victims Perceptions on Screening Women for Intimate Partner Violence in Healthcare Settings

ABSTRACT

Background: Routine IPV screening is a controversial topic and there is no evidence to suggest that it improve the health outcomes of women. Consequently, understanding the socio-cultural dimensions becomes essential to ensure that victims receive appropriate and local support. This study was conducted to gather the perceptions of victims of IPV on the relevance of raising the topic at healthcare facilities and to determine specific categories of women to target for screening by medical personnel. It also explored how the gathered information could support victims and whether medical students should be trained on issues relating to IPV.

Methods: Thirty-three key informant interviews were conducted among women attending clinics from three teaching hospitals in Lagos, Oyo and Osun States of South West Nigeria. The hospitals offer antenatal, emergency, primary care and community outreach clinics which are well-attended by women. A six-item questionnaire assessed eligibility for participation in the study and participants were then purposively sampled. Interviews were conducted using a semi-structured guide. Ethical approval and gatekeepers' permission was obtained and each participant signed informed consent. Data was collected between June and November 2017. The data was entered into Excel and analysed deductively to answer each objective.

Results: Most (n=24) participants stated that medical practitioners should ask all women who present to healthcare facilities about their experiences of IPV. Physically, medically and socially vulnerable women including those in relationships with men in risky occupations, were identified as needing special attention and possible follow-up. They supported the use of the information within and outside of the health facility, depending on the need of the woman. The majority (n=24) indicated a need to train medical students about IPV and 19 participants suggested for the topic to be curriculated. Most victims favoured the inclusion of a multidisciplinary team in teaching students at IPV.

Conclusions: Victims of IPV were in support of initiatives to discuss the topic among some groups of female patients at healthcare settings. They thought it would enhance the quality of care (medical, psychological, legal and social) to victims. They identified an inter-professional team of stakeholders to include when training students about IPV.

Word count: 346

INTRODUCTION

In recent years, attention has increasingly focused on Intimate Partner Violence (IPV) due to the high prevalence, adverse health consequences, culture of silence around the social evil and the potential to prevent its recurrence[1]. International studies report that males are the **perpetrators of physical violence** in 1**5-71% of reported cases [2].** Intimate partner violence can impact the wellbeing of women and lead to physical, mental and reproductive health problems. Consequently, it limits their participation in society, and causes great human suffering. Women often seek medical attention at healthcare facilities due to violence [3]. Survivors of IPV identified medical doctors as the healthcare professionals from whom they are most likely to seek help [4].

As essential as the detection of IPV is to facilitate the well-being of women in particular, currently, globally there is insufficient evidence to implement a screening programme either in health services generally or in specific clinical settings. There is also insufficient evidence to to confirm that screening leads to a reduction in IPV or an improvement in quality of life or health outcomes [1]. While the World Health Organization (WHO) does not recommend universal screening for violence among women attending health care, it does encourage health care providers discuss the topic with women suspected of possible IPV-related injuries and conditions. However, the WHO considers the need for a more selective approach on the basis of clinical and diagnostic considerations to screen for IPV in under sourced settings where limited health-care personnel and limited capacity may impact on the ability to respond to the health needs of women[5]. Accordingly, the WHO provides guidelines to enable health care practitioners to respond appropriately to women who have experienced violence by addressing their emotional and physical health, ongoing safety and support needs [5]. In addition, researchers have recommended for more qualitative studies to explore women's expectations

from screening interventions, and cohort studies to measure the risk factors, resilience factors and the lifetime trajectory of partner violence [6]. Additional research is needed particularly in different local settings, because strengthening health systems can enable providers to address violence against women, including screening [7].

In the United States researchers have found that screening may provide opportunity for counseling and referrals in cases of women with recent histories of IPV. These strategies were considered helpful in responding to IPV [8]. A study in the United Kingdom similarly found that most women patients considered screening an acceptable practice (range 35-99%), although they identified some challenges with screening [6]. Likewise, a study of indigenous women in Australia reported that pregnant women were more likely to disclose abuse when they perceived the health personnel as showing caring qualities and interest in their patients. Consequently, the authors concluded the importance of discussing abuse with pregnant women to encourage disclosure of IPV to ensure that they could subsequently be helped [9]. Approximately 80% of all female patients seen in a hospital in Germany approved to routine inquiry into domestic violence as part of the medical history protocol of the Emergency Department [10]. Relatedly, many studies reported positive results to evaluations of IPV screening programmes. They found it beneficial, particularly to identify victims of abuse. The extent to which these programmes can prevent future episodes of abuse however, remains unknown. The substantial heterogeneity among studies regarding intervention characteristics, study methodologies, and outcome measures additionally limited researchers from making conclusive and clear recommendations for optimal methods of screening [11].

In the Nigerian context, approximately 20% to 40% of women experience IPV per year. These include both physical or sexual forms of violence [12]. However, only 31 percent of the women who had experienced these forms of IPV had sought help [12]. Consequently, the

perceptions of Nigerian women on screening for IPV in health facilities are unknown. Hence, there is the need for local studies that assesses women's perceptions on screening as a possible intervention. This is especially necessary since routine IPV screening is a controversial topic and there is no evidence to indicate that screening will result in improved health outcomes for women. Given this, understanding the socio-cultural dimensions including women's perceptions become necessary to ensure that victims receive locally appropriate support for their safety and well-being [13-15]. To this end, this study provides evidence to address this gap in knowledge among women in South West Nigeria. Therefore, the study was conducted to identify and appraise the perceptions of victims of IPV in order to enable and sensitise physicians to the relevance of discussing IPV as a topic at healthcare facilities. In addition, the research sought to determine specific categories of women who should be targeted for inquiry by medical personnel. Finally, it explored the suggestions of victims on the possible use of gathered information and their recommendations on whether and how medical students should be trained to address issues relating to IPV.

METHODS

Study Setting and Design

The study was conducted in the three public tertiary health facilities located in Lagos, Oyo and Osun States of South West, Nigeria. The tertiary health facilities or teaching hospitals provide specialist training in disciplines which include Community Medicine, Family Medicine, Obstetrics and Gynaecology, Dentistry, Psychiatry, Accidents and Emergency. The hospitals offer antenatal, emergency, primary care and community outreach clinics which are well attended by women and therefore present a possible location where screening can occur.

Intrinsically, screening in healthcare settings aims to identify victims and offer support appropriate to their needs. Screening includes as a range of methods, involving specific inquiry about intimate partner violence or inquiry about intimate partner violence as part of general screening [3, 16]. Screening can be done by using a validated screening tool or simply by asking one or a range of questions related to IPV. It is envisaged that screening may increase awareness and educate victims and this prevent further abuse and possibly reduce consequent problems due to IPV.

A healthcare setting is a facility where health services are delivered and include family practice clinics; antenatal and postnatal services; hospital emergency-, inpatient or outpatient services; specialists clinics (for example, obstetrics and gynaecology, psychiatry, law); community health services.

This explorative, qualitative case study collected qualitative data from women (N=33) who had experienced physical, psychological and/or sexual violence from a current or former intimate partner. A purposive sampling technique was used to identify eligible participants from women who had attended clinics from three teaching hospitals in the aforementioned states of Southwestern Nigeria.

Study Population

Possible respondents were identified in the health care setting through a review of their medical complaints and based on findings on physical examination. Their eligibility to participate was confirmed through a questionnaire. The eligibility instrument was based on questions from the Universal Violence Prevention Screening Protocol, which enabled the documentation of each participants' experience of physical, sexual and psychological violence over different periods

prior to the day of screening[17]. The eligibility criteria included that the respondent be an adult i.e. 18 years older; the respondent be female and that she must have had a prior experience of abuse by an intimate partner.

Study Instruments

A structured interview guide was developed informed by literature on instruments used for screening of victims of IPV [3, 16],[18],[9],[19]. The guide collected socio-demographic information including age, marital status, highest education level, occupation, ethnicity, religion, number of children and identification of the perpetrator. The reliability coefficient of the instrument using Cronbach alpha test was 0.8. A pilot study, to standardise the instrument, was conducted with four women who attended a private health facility in Ibadan, Oyo State.

In addition, the 13-item interview guide explored the extent of previous help-seeking behaviour of victims, their perceptions on whether medical practitioners should screen all or selected women for IPV and their recommendations for the use of gathered information. Additionally, it explored victims' perceptions on other stakeholders who could assist victims of IPV and their opinions regarding the training of medical students on issues relating to IPV.

The qualitative methodology allowed for the exploration of women's views on a sensitive topic. It facilitated the exploration of their perceptions on implementation of screening at health care facilities. The interviews, being face-to-face, could be suspended if deemed inappropriate or if the victim showed signs of distress. This method enabled the interviewer to develop a relationship with respondents and thereby allowed for the collection of comprehensive information from participant on screening for IPV[20].

Data Collection

The data was collected between June and November, 2017. The data collection was facilitated by three research assistants, who were trained by the primary investigator on securing and ensuring of anonymity and confidentiality. The questionnaires were administered in English and Yoruba, the local language. The screening tool took about 20 minutes to administer. Potential participants were identified based on their medical complaints and evidence of injuries on physical examination. The questionnaire was administered by a research assistant in a consulting room or a private area in the heath facility. Only two patients declined to be interviewed after having been found to be eligible to participate. They were afraid of the consequences if their partner were to discover their involvement in the study.

Each interview took about 60 minutes to complete. Data was collected from 33 participants, this number was determined as sufficient when discussions on the issues did not generate any new themes. After discussion and agreement, the researchers (OF and JV) concluded that saturation had been reached [21].

Data Management

The qualitative data collected was stored on a mobile phone. Codes were assigned to ensure the confidentiality of the participants. Interviews were transcribed and stored electronically in a Microsoft Word Document file. The recorded data was transcribed, cleaned and deductively coded i.e. in response to the main objectives of the study. To code the qualitative data, two authors (OF and JV) independently read through the transcripts and used highlights to assign initial broad codes to the texts. Next, the deductive analysis resulted in discussions of the frameworks in relation to the questions that had been posed (theoretical considerations) in the structured interviews. The researchers then came to a common understanding/made meaning

of expressed views [21], for example whether victims expressed opinions indicating that they were in favour of screening or not, and or their reasons for/or against screening. The process of analysis was facilitated through the use of Excel [22] and Atlas Ti [23] software packages. The recordings and notebooks were stored in a locked cabinet.

Ethical Considerations

Ethical approval was obtained from the following institutions: The Oyo State Ministry of Health Ethical Review Committee (AD13/479/165), the University of Ibadan/University College Hospital Joint Institutional Review Board (UI/EC/15/23/13) and from the University of Kwa Zulu-Natal Humanities and Social Science Research Ethics Committee (HSS/1447/015D). Gatekeepers' permissions to access the facilities were obtained from each facility. The purpose of the study was explained to the participants before conducting the interviews, while they were equally informed of their rights to decline further participation at any stage. Participants were also assured of their right to withdraw and that it would not affect the quality or their access to medical care in any way. Those who selected to participate signed an informed consent form. Importantly, participants were reassured on confidentiality of their responses and anonymity. Responses were not seen by anyone apart from the investigation team. The interviews were kept in a secure compartment in the custody of the investigators. The investigators had no conflict of interest and the results did not influence their work in any way. Data was entered into a password-protected computer.

RESULTS

Characteristics of the participants

Table 1 presents the socio-demographic characteristics of the participants. The mean age of the participants was 35.9±8.01 years. Many had secondary (33.3%) and tertiary (54.5%) education. The participants' occupations included trading (42.4%), professional work (nursing, legal practitioners) (15.2%) and working in the civil service (2.2%). Most participants (63.6%) were of the Christians faith. Just more than half were married (51.5%), while 33.4% were either separated or divorced. Perpetrators of violence were mainly current or former husbands (90.9%).

Table 1: Participants characteristics (N=33)

+ = civil servant included teaching

*= professionals included nursing and legal practitioner

Experiences with Intimate partner violence

When asked about their experiences with IPV, all participants that participated in this study had experienced either physical, sexual and/or psychological forms of violence. As shown in Table 2, the fear of physical harm was the commonest in the lifetime, previous year and previous month with 72.7%, 39.4% and 36.4% respectively. The victims reported that the violence had been perpetrated either by a current or former intimate partner. The second most frequent violent acts included being slapped, pushed, grabbed or shoved.

Ten participants reported having sought police and/or legal protection. Three had sought shelter from family/friends and three admitted that they had separated from their partners following a violent episode.

Should doctors screen for IPV during the consultation?

As indicated in Table 2, almost all participants (29) stated that all women who were married or in relationships should be screened for abuse. Moreover, they suggested that screening should also be extended to three categories of vulnerability highlighted below:

a) Physically or medically vulnerable women, such as those presenting to the health facility with injuries, high blood pressure; or those who are mentally unstable.
b) Socially vulnerable such as those women with infertility, those who are pregnant or nursing, homemakers, women of reproductive age, separated/divorced women and those with previous experience of IPV, and
c) Those in relationships with men in high risk occupations such as drivers, vendors and hawkers (someone who moves around selling goods usually informally in public spaces and typically advertises them by shouting).

Twenty four (73%) participants stated that medics should ask all women who present at healthcare settings about their experience of IPV. They thought that screening would not only help those women who might be afraid to speak out and that it may offer solutions to stop the cycle of violence and to enable holistic care to victims of abuse. Some of their statements are quoted below:

"Yes, so that their treatment can be holistic. Women can easily confide in their doctors" (B_007).

"Yes, because some women come to the clinic with complaints which are different from their real problem which is regular battering from their partners. Victims may be placed on wrong medications if the correct diagnosis is not made" (C_012 and C_07).

"Yes, so as to offer solutions before the condition gets out of hand" (A_001).

Quite differently, some respondents did not support the idea that all women should be screened for IPV. They thought that screening should only be done with women who showed specific signs that suggested abuse. Among the reasons offered by those who disagreed with the inquiry from doctors were concerns about possible emotional trauma to victims and the possibility that questions may trigger further arguments with abusive partners.

> *"No, because it is a family affair, asking victims about it can trigger mental health problems in such women"*
> *(B_002).*

> *"No, because sometimes it could cause problems or women who have arguments with their partners may begin to complain all the time to the doctor in the hospital" (C_009).*

Table 2: Intimate partner violence prevention screening (N=33)

Use of Information gathered during screening for IPV

Responses regarding where and how the information should be used revealed the following major categories. Firstly the categories revealed for the use either within or outside the health facilities, namely:

i) Use within the health facility: It was recorded that the information should be used to guide patient referral, for victim counselling, to form support groups for women, provide mental health care for victims, to give immediate medical care and prescribe treatment.

ii) Use outside the health facility: Equal in relevance, it was suggested that the information should be used for legal purposes to support those in need of evidence and in cases of

recurrence of IPV; research purposes to raise awareness on abuse; documentation in order to study pattern of IPV; to create media awareness; guide non-governmental organisations (NGOs) on how to help victims and conduct seminars for women.

Secondly, the participants suggested that the information irrespective of facility be used to inform the

i.) Treatment and care to victims: Both involve medical treatment, referral, and establishment of inter-professional team (counsellors, human right activists, etc.) in order to help women in need.

ii) Education/Training: This is concerned with the organisation of seminars or provision of awareness programmes for other patients; health education programmes for victims, partners, other women and the society at large.

iii) Counseling/ Advice/ Advocacy: This entails giving counsels and guidance to partners, victims and married people.

These were stated as follows:

"The doctor can advise the woman and give her the necessary treatment. But in order to prevent death the doctors can refer the woman to a place where she would get help".

(C_003).

"They should advise and counsel them. They can organise seminars for women too"

(C_008).

"The doctors and nurses can also include the topic in health talks for patients who come to the hospital or clinics" (A_006).

The participants included a range of suggestions on other possible stakeholders, to include when assisting victims after they had been identified at the health facility. The other stakeholders that were most frequently cited included family members, social workers, nurses, teachers, parents, religious leaders, in-laws, lawyers and law enforcement agents (police). Other less frequently mentioned stakeholders were journalists and non-governmental organisations; foreign organisations; government, psychologist/psychiatrists, local chiefs (Baale) and neighbours.

Training medical students to screen for IPV

Twenty-four participants supported training about IPV for medical students, four did not, and five did not respond to this question. Those who embraced the stance that student's should "*be trained in listening. They should give victims time to express themselves; be taught procedures to identify and treat victims and that training would enable students to offer help to victims of IPV in their own neighborhoods.*" Those who did not support the training of medical students indicated that training "*is not needed as it can make matters worse, and that*… "*the medical student can complicate the matter.*"

The most common suggestion in favour of training of medical students was for the inclusion of the topic in the school curriculum. Other suggestions included the "use of lectures by their lecturers or teachers, posting on work-based learning; small group discussions and offering awareness programmes." Participants also thought students could be guided through a set of interview questions. They suggested for partnerships with professionals including lawyers, journalists and nurses to assist with the training.

"The training should be inculcated in their curriculum" (B_010).

““During their lecture period, their lecturers can teach them. They can interview those women who have such challenges and learn from them” (C_003)

“Law enforcement agents, lawyers, teachers, lecturers, nurses, social workers and NGO can help” (B_004).

“Non-medical professionals such as social workers can assist with training the medical students” (B_005).

DISCUSSION

This study describes the perceptions of victims of IPV about screening for violence by physicians and other health care practitioners and the use of the information, gathered during screening, at the health care settings. It obtained recommendations on how medical students should be trained and other professionals to involve in addressing issues relating to IPV. Almost all the participants felt it was “the right thing to do” citing both victim and professional related reasons. Women who have been victimised by partners are sometimes unaware that the behaviour constitutes abuse or may be actively seeking support to change their partners’ behavior [5]. They may also find it difficult to share their experiences and seek help. Studies indicated that women, even when they were aware of being abused, were hesitant to disclose abuse for personal (embarrassment, fear of retaliation, economic dependency) and social (gender power imbalance in society, family privacy, victim-blaming attitudes) reasons [13, 14]. One should thus consider that a response to victims of abuse may involve help from caring medical and other health care professionals [17]. The concerns of those who did not think that medical personnel should screen for victimisation should also be considered. Thus, it is important that provision be made to manage women who may have an emotional breakdown

during the screening/consultation process. Precaution should also be taken to ensure the safety of health care providers and victims from aggressive partners.

There is much controversy about the benefits and harm of screening for IPV in health care settings. A large evidence-based review reported no evidence of the benefits, costs or potential harm on the use of screening for women's health and well-being. The study rather favoured a case-finding approach to assess patients based on their risks for (and/or clinical signs or symptoms of) exposure [6]. However, an updated systematic review in the United States concluded that, despite inconclusive evidence of benefit to women, that screening practices can identify abused women. That study concluded that some intervention studies had shown promise and thatsuch findings therefore should warrant the inclusion of universal screening protocols at health care settings. Those authors also concluded that benefits of universal screening for IPV would vary by population and setting [24].

Two large trials, one in Canada [25] and a second in the USA [26] concluded that health care providers should be alert to signs and symptoms associated with IPV on possible victims. Health care practitioners should also ask questions about possible abuse when presented with clinical findings of such. They recommended that screening be done sensitively to identify the women's needs and safety concerns. Health care settings are also advised to develop and implement protocols to appropriately refer abused women to local services that are informed by their individual needs [27]. The commonality of the fear of being harmed and the physical forms of violence perpetrated against women globally, highlight the need to go beyond service provision and to the importance of simultaneously working to prevent violence from happening in the first place [28].

The severity of the women's experiences of IPV varied. Some experiences necessitated police and legal interventions while it resulted in the separation from abusive partners in other cases.

Bonomi et al reported that women exposed to severe physical or psychological IPV or injury were more likely to involve the police than women who suffer from other forms of abuse. Among callers, women made more calls if a weapon was involved, when experiencing severe sexually abuse and when they experience severe physical abuse. Women with children at home also made more calls to the police. Hence, the level of severity and types of IPV experienced and the characteristics of the family influenced the decision of women victims to involve the police [29]. The identification and accurate classification of IPV were found to inform the decisions and the future care of the children for women who decided to separate or divorced from abusive partners. It can also assist researchers and mental health practitioners in the design of interventions for affected women and their families [30].

The typical obvious consequences of physical violence include bruises, abrasions, burns, fractures, head injuries and damage to the spinal cord [17, 31]. Emergency medicine physicians report that the proportion of women with physical injuries who seek emergency medical care were typically fewer than those who sought help for psychological complaints [32]. Psychological violence, particularly verbal abuse, was common to women in this study. Other studies have also found psychological violence to be the commonest form of IPV experienced by women [12]. The consequences of psychological violence are numerous [33]. Consequently, this necessitates for health care providers to be aware of signs and symptoms of psychological violence when treating women, and not limit their observations only to injuries that result from physical violence. Hence, complaints of anxiety, depression, sadness, insomnia, irritability, confused thinking, feelings of extreme elation or sadness, dramatic changes in eating or sleeping patterns, fear of intimacy, loss of self-esteem and self- respect and anger should serve as possible indicators of spousal abuse [1]. Also, frequent psychosomatic complaints such as pain in the head, back, breast, abdomen, gastrointestinal

disorders and disturbances in menstruation and reproductive health were found to be suggestive of abuse and should be investigated [34, 35].

The identification of vulnerable women is especially important for practitioners working in resource constrained settings which may include restrictions on time, personnel and referral options. However, before screening is advocated in health care settings, health personnel need to be competent to respond appropriately to abused women [3]. According to the WHO, the minimum requirements for a facility in the health sector to be responsive to victims of IPV include having the necessary policies and protocols to management, finance and refer patients to non-governmental organisations and community based organisations for support. In addition it need clinical guidelines and should offer skills training to providers. It would be deemed unethical and potentially harmful to commence screening on IPV without having appropriate measures at health settings [5, 7]. Considering the limited resources in the African setting, selective enquiry will be more appropriate for use in local health care settings [5]. Selective enquiry is recommended for women with physical and mental health problems, women with infertility, pregnant or nursing women, homemakers, separated/divorced women and those with previous experience of IPV. Pregnant women are well recognized as being a vulnerable group to IPV experience [2]. These extant studies recommended that mothers are asked about IPV at antenatal clinics as the practice has been reportedly helpful to ensure adequate referral and services to stop the cycle of violence among prenatal women in the United States, New Zealand, and Sweden [36]. Studies have also recommended for the use of selective enquiry for women with sexually transmitted infections [37], living with HIV and AIDS [38], and those who choose to induce an abortion [39, 40].

A noteworthy suggestion from participants in the current study was for information obtained from victims to be used both within and outside the healthcare setting. Preventing violence against women requires a multi-sectoral approach, in which the health sector plays a central role. This strategy includes the early identification of abuse, providing victims with the necessary treatment, and referring women for appropriate and informed care [41]. An effective strategy will reduce maternal morbidity and mortality and it will promote family health by preventing child abuse. Recommendations for the management of victims of IPV include advocacy, counseling and support from other groups based and available at the health facility. A systematic review of 12 trials found that interventions such as advocacy and cognitive behavioural therapy played a major role to reduce both physical and psychological associated with IPV [42]. Also, significant reduction in IPV victimization was reported following a counseling intervention [43]. These forms of interventions were regarded as beneficial to victims, their partners and members of the public. This multi-sectoral approach to ending abuse should involve governmental and non-governmental organisations, research institutes, the media, and educational organisations. All these stakeholders have crucial roles in providing comprehensive care to the victims of abuse [34].

Apart from medical assistance and regarding help to victims, the women's responses confirmed the significance of a multidisciplinary approach to stopping violence against women. Recognised interdisciplinary (medical) groups such as obstetrician and gynaecologist; internal and emergency medicine physicians; psychiatrist, family and community physicians have launched effective interventions and care to respond to victims of IPV [3]. Other health disciplines include psychologists, social workers, and nurses, while trans-disciplinary groups include the police and legal practitioners. These groups have been effective in interventions to

stop violence against women [1, 34] and medical students could learn from their strategies and interventions to mentoring and partnerships.

Most of the victims acceded that medical students should be trained on IPV. They suggested for training to include the use of an inter-professional approach as reported in previous studies with medical students [44] and stakeholders [45]. Studies in high-income countries found that the training of medical students on gender-based violence can improve the identification of victims [16]. Thus training may be helpful to improve identification of abused women who come to the health facility; however it is unclear what education strategies will be most helpful for victims. Thus, it is important for further studies to evaluate existing IPV education programmes and identify the most effective education strategies to promote improved health care and health outcomes for abused women and their families [46]. Confidentiality of information on victims should be emphasised in training programmes to alay the concerns of women who cited confidentiality as the reason for excluding medical students from training. A previous study had recommended for the training to be offered to mature, senior students who were thought to be better able to handle sensitive information [45].

Our findings underpin the need for the health sector to take IPV against women more seriously than hitherto and to play a greater role in responding to IPV against women. Multiple entry points within the health sector exist where women may seek health particularly in sexual and reproductive health services, such as antenatal care, post-abortion care, family planning, mental health and emergency services. These services provide good opportunities to educate women about IPV. One crucial aspect of training for health care practitioners is to identify opportunities to provide support and to link women with other services that they may need [28]. The WHO guidelines on IPV [7] emphasises the urgent need to integrate IPV victim care

in upskilling in-service training to include the topic in undergraduate curricula for health care professionals. This health sector response needs to be part of a multi-sectoral response, as recently endorsed in the Agreed Conclusions of the 57th session of the Commission on the Status of Women [47].

The strength of this study lies in the views gathered from the participants as victims of IPV. Not only were the women from different locations and attending different clinics in the training hospitals they had experienced different types of abuse over varying periods of time. Hence, the participants' diversity in background and experiences of violence provided better insight into their perspectives across settings, and thus increased our confidence in the results.

The study was unique in that it considered victims' (patients) perceptions as important to the training of the healthcare practitioners and therefore to obtain their insights on issues in the training of medical students to prepare them for their future role as medical doctors. In addition, the originality of the work lies in the fact that, to our knowledge, this is one of the first studies that provides qualitative data on this topic in the African context. However, our study has some limitations. The victims were selected from healthcare facilities that are linked to training institutions and they were therefore perhaps more accepting of screening for IPV and training of medical students, than if they were selected from centres in the community. The study participants may also be more familiar with the procedures and challenges of big health facilities, therefore we also interviewed women attending primary health care facilities and outreach clinics attached to these big hospitals to include a variety of women with diverse backgrounds and experiences. Despite this the participants were not representative of the general population of Nigeria women as most were well-educated and therefore may be more informed on IPV and the health-care setting.

From the foregoing, it is obvious that the findings of this study improve our understanding of the target population for selective screening at health facilities. Moreover, the most important contribution from this study relates to how the information obtained can be used to intervene for victims IPV and for the training of medical students and in-service health care professionals. Subsequently, it is believed that these recommendations will guide curricular interventions to improve women's health. Nonetheless, this study did not explore the perceptions of male patients and hence it could be interesting to explore the perceptions of male victims to screening practices and their opinions on the training of staff and students in health care settings.

A medical curriculum that improves student's knowledge and skills on GBV is urgently required. The curriculum should address issues on identification of victims, treatment and care, support services, including medico-legal aspects of violence, as this will empower students to intervene for victims in the future as medical doctors and foster trans-disciplinary collaboration. Future research should develop practical and feasible training curricula for African students. This curriculum could be developed through a consortium of experts consisting of doctors, social workers nurses, etc., who in collaboration with experts from other relevant disciplines, and institutions should develop a protocol for the management of victims of abuse in healthcare settings. These gender based violence experts should lead the implementation of training and periodical re-training, in collaboration with non-governmental, governmental and legal organisations, for all health providers working in critical areas of the health facility. Also, developing a register of victims (data collection for active monitoring and quality control) and a network of assistance for victims after leaving the health facility is recommended.

CONCLUSION

The victims of IPV supported an approach that healthcare practitioners in healthcare settings in Nigeria should selectively screen women, particularly female patients with physical and mental health problems and social vulnerabilities, for signs of abuse. IPV is addressable in the healthcare setting not only via screening but also through provider-based counseling and referral to appropriate legal or social services. Hence, selective screening of female patients within the healthcare setting may enhance the quality of care to women who are victims of IPV. Most participants thought that students should be taught about IPV and recommended for training to students by a multidisciplinary group of experts. However, health professionals must first acknowledge IPV as a possible cause of injuries and other health complaints in female patients and be prepared to work with professionals from other sectors to address the issue.

ABBREVIATIONS

AIDS: Acquired Immune deficiency Virus

GBV: Gender Based Violence

HIV: Human Immunodeficiency Virus

IPV: Intimate Partner Violence

NG O: Non-governmental Organisation

SD: Standard Deviation

WHO: World Health Organisation

DECLARATIONS

Ethics approval and consent to participate - Ethical clearance was obtained from the Oyo State Ministry of Health Ethical Review Committee (AD13/479/165), University of Ibadan/University College Hospital Joint Institutional Review Board (UI/EC/13/23/13) and the University of Kwa Zulu-Natal Humanities and Social Science Research Ethics Committee (HSS/1447/015D). The gatekeeper's permission to access the facilities were obtained from each facility. The purpose of the study was explained before conducting the interviews. Participation was voluntary and the participants were free to stop during the data collection process. Those who chose to participate gave informed consent.

Consent for publication -"Not applicable"

Availability of data and material - The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests- "The authors declare that they have no competing interests"

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Authors' contributions – OIF and JVW- Conception; OIF, JVW, AAA - Design; OIF-Administrative Support; BOB , AAA, OJA- Collection of data; OIF and JVW- Data Analysis and Interpretation; OIF and JVW- Manuscript writing; OIF, JVW, BOB, AAA, OJA - Final manuscript approval; All authors read and approved the final manuscript.

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Authors' information (optional) – OIF is an epidemiologist and public health physician; JVW is a medical education specialist, BOB and AAA are community physicians, and OJA is a medical statistician.

Endnotes

+ = civil servant included teaching, *= professionals included nursing and legal practitioner

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CHAPTER 7: SYNTHESIS

7.1 Introduction

This chapter summarises findings from each of the manuscripts in relation to the research objectives of the study stated in the general introduction of the thesis. It attempts to demonstrate how each manuscript adds insight to address the overall aim of the study and complement each other. It draws on literature, and the relationships inferred from the literature are discussed and summarised to make judgments.

The chapter starts with a description of the core assumptions and study objectives. It also highlights the main findings of the study. The contributions and novelty of the study is discussed, which is followed by the theoretical and philosophical analysis. The implications for education and training, policy and future research on this topic in medical schools in Nigeria are discussed, which is followed by the strengths and limitations of the study, and it ends with the conclusions.

7.2 Summary of Objectives and Main Findings

The core assumptions that underpin this study are that:

- Medical practitioners are ideally positioned to identify and respond to GBV, but are inadequately trained /prepared to do so effectively.
- There is a need to equip final year medical students with the knowledge and skills to identify and respond to GBV to help victims receive care.
- Final year medical students need to acquire specific skills to enable them respond effectively to victims of GBV in health facilities
- GBV victims are willing to be identified and receive care in healthcare settings
- Need for consensus amongst inter professional faculty on the content, methods and assessment to be acquired in the GBV curriculum
- GBV education should be multi-disciplinary and inter-sectoral to prepare medical students for their role as doctors.
- GBV education in medical schools will inform present and future medical practice.

The overall aim of the study was to determine the knowledge and self-reported skills and practice required by final year medical students on GBV to recognise and refer victims of GBV and identify the determinants manage patients. It also aimed to establish a consensus amongst inter professional

faculty on the content, methods, and assessment of training in a GBV curriculum. Lastly, the study aimed to identify victims of GBV perceptions on screening for violence by physicians and other health professionals at health facilities. Each of these objectives has been achieved. Table 8.1 summarises the objectives, findings of the study, journal published/chapter in thesis and the implications of each as regards education, policy and research.

The study is described in six chapters. Chapter 1 enunciates the Introduction by providing information on the background to the study, problem statement, justification and the objectives of the study. It equally gives a brief description of the social-cultural factors that condone GBV and the fact that victims often do not seek help. Hence, there is the need to identify victims when they seek care at health facilities for any ailment or disease.

Chapter 2 details the literature review. It explicates general information about GBV and medical training programmes / curriculum. The historical background, social context, definitions, types and prevalence of GBV are described. Also, the ecological and health belief models were used to buttress the need for the study. An overview of medical training frameworks was also provided following a review of relevant literature.

Chapter 3 describes the methodology of the different phases of the study mentioned above, in addition to stating the study designs employed, which was mixed method. The chapter also expanded on the fact that mixed methods involved a semi-structured questionnaire survey, (Preliminary and Phase 1), the Delphi technique (Phase 2) and in-depth interviews (Phase 3). Quantitative data (Phase 3) generated from the questionnaire survey was subjected to rigorous analysis involving three stages namely, univariate, bivariate and multivariate analysis. The qualitative data was generated from the Delphi technique (Phase 4: RD 1) and key informant interviews (Phase 5) were analysed until themes were exhausted.

Chapter's 4-7 highlights the findings in the form of manuscripts. Table 8.1 presents a summary of how each specific research objective had been addressed in the appropriate manuscript, as well as summarises the contribution of each manuscript towards the achievement of the overall aim of the study (Appendix 22 and 23).

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Table 7.1: A Summary of Study Objectives and Implication of Findings

	Objectives	Manuscript	Contribution of the paper to the study
1	Determine final year medical students' level of knowledge on GBV	Chapter 4 and 5 -Training needs on violence against women in the medical curriculum -Preparing medical students to recognise and respond to gender based violence	These publications highlighted significant gaps in knowledge about the psychological and economic forms of GBV. Most students knew that GBV would increase in frequency and severity with time. Regarding perpetrators; participants were aware that healthcare providers could use alternative methods to ask perpetrators about their violent behaviours to minimise the risk to potential victims.
2	Determine final year medical students skills to identify and manage abused women	Chapter 4 and 5 -Training needs on violence against women in the medical curriculum -Preparing medical students to recognise and respond to gender based violence	These papers brought to the fore that many of the students perceived themselves as not sufficiently skilled at detecting signs of GBV, or providing medical care to victims. They felt that they could not discuss coping skills with victims. A greater proportion could also not manage or counsel the abusive partner.
3	Identify factors influencing student's knowledge and skills to manage GBV victims	Chapter 4 and 5 -Training needs on violence against women in the medical curriculum -Preparing medical students to recognise and respond to gender based violence	The papers reports on the determinants of student's knowledge on GBV. The location of medical school of respondents, significantly influenced students' knowledge. Also, men had significantly better knowledge than women. -Younger respondents, females and married students were found to perceive that they were not skilled to manage victims. Students with prior training on GBV and who were comfortable with managing patients were more likely to perceive they were skilled compared with their peers. The school was also a significant determinant of students' self-reported skills on GBV, thus suggesting differences in knowledge and skills between schools.
4	Document content, methods of training and placement for GBV training programmes among the students	Chapter 4 and 5 -Training needs on violence against women in the medical curriculum -Preparing medical students to recognise and respond to gender based violence	The papers reported that GBV was not included as a topic in the curriculum and an absence of teaching on GBV in the programme of the three medical schools. The teaching was left to the discretion of the Faculty. The few students who had been exposed to the topic, had teaching given mainly by medical doctors and was mostly delivered as didactic lectures. Some of the topics taught were detection, examination, treatment and support to victims of GBV. Most teachings were in the final year of medical school, and were primarily offered by doctors from the Departments of Community Medicine; Obstetrics and Gynecology; and Psychiatry. Both the students and the faculty stated that they would like these issues addressed in their teaching curriculum.
5	Establish consensus amongst inter professional faculty on who should be part of the team, where training should occur, competencies (knowledge, attitude, skills) to be acquired in the GBV curriculum	Chapter 6 Establishing a consensus among inter professional faculty on a GBV curriculum in medical schools	The themes identified in RD 1 included reasons for teaching GBV; teaching methods, strategies needed and departments best positioned; professions to involve in training; academic level to offer training; strategies to assess effective training. From RD 2, the topics were ranked for inclusion in training and included: complications of GBV and safety plan. Training was to be longitudinal with emphasis on final medical year students. Videos for training were most preferred, followed by use of educational materials. Discussion with victims ranked highest as the most preferred format for teaching followed by didactic lectures. The departments to teach were Public Health, Accidents and Emergency; Family Medicine and Obstetrics and Gynaecology amongst others. Other professionals identified to assist with educating students were - psychologists; social workers and lawyers. As regards assessment, written examination ranked highest. RD 3 confirmed that the experts were satisfied with the RD 2 findings.
6	Identify victims of GBV perceptions on screening for violence by physicians and other health professionals at the health facilities	Chapter 7 Training Medical students: Victims Perceptions on Selectively Screening Women for Intimate Partner Violence in Healthcare Settings	This manuscript describes the perceptions of victims to screening at health facilities. It found that most of the women felt that medical practitioners should ask all married women about their experience of IPV when they present at healthcare facilities. Physically, medically and socially vulnerable women including women in relationships with men in risky occupations were identified as groups who should be selected for screening and possible follow-up. The chapter also reported that majority indicated a need to train medical students about IPV. Many suggested that the topic is included in the training curriculum.

A preliminary study determined the knowledge and skills of final-year medical students to manage victims of VAW, and described the extent to which it was included in the undergraduate curriculum after interviewing departmental heads and reviewing documents. The students were found to be knowledgeable on some forms of GBV and less familiar with other forms. They were willing to identify victims but there were no formal training on the topic. Phase 1 of the study (Chapter 3) identified factors which impact on students' attainment of the knowledge and perceived ability to manage victims. Consequently, it was evident that the knowledge of the students' was related to their age and medical school, while about half of the students perceived themselves as skilled at detecting victims of GBV. Younger respondents, females and married students were significantly less likely to be skilled. Nonetheless, the medical school, having some previous training and personal confidence to manage patients remained significant determinants of students' self-reported skills to respond to GBV. Respondents with prior training on GBV and who were confident to manage patients, were more likely to be skilled than their peers. Thus age, sex, marital status, school, previous training constituted important modifying factors using the health belief model to explain student's knowledge and skills. Phase 2 of the study (Chapter 6) that sought to obtain a consensus among stakeholders on content, faculty and methods of training relating to GBV curriculum in the medical schools identified the following themes: - Reasons for teaching GBV; Teaching methods, strategies needed and department best positioned; Professions to involve in the training(s); Academic level to offer training; and Strategies to assess effectiveness of training. These options were ranked and the stakeholders stated their level of satisfaction with the rankings. Thus a consensus was obtained on the content, method and assessment of the GBV programme for medical students. Phase 3(Chapter 7) that aimed to identify victims of IPV's perceptions on screening for violence by physicians and other health professionals found that most women were accepting of the intervention. The women provided vulnerable groups of women to be screened namely: - physically, medically and socially vulnerable women. As regards support of victims providing medical care, referral, counselling, mental health services and formation of support groups were suggested. To ensure that medical students were trained effectively on IPV suggestions given included:- insert topic in the curriculum, lectures on the topic, clerk patients, train faculty, standardised screening questions, posting with NGOs and involve other disciplines.

The 6-step approach for curriculum design by Kern's et al. served as a guide to develop the GBV curriculum for the medical schools in South west Nigeria. The studies represent the first three steps, which are: problem identification and general needs assessment (step1); the need assessment for targeted learners (step 2); as well as defining the goal (step 3). The last three steps comprise, educational strategies (step 4) and the implementation and evaluation of the IPV curriculum (step 5 and 6 respectively) could not be addressed. This was due to the social context surrounding the introduction of a new curriculum in the medical school particularly concerns on the ownership of the

curriculum. A curriculum developed by an individual researcher would not be acceptable to the faculty and the institutional authorities as one developed by the medical institution themselves. However these publications can provide information to guide the curriculum review initiated by these medical schools.

7.3 Main Insights of the Study

The following key insights emerged from the study:

- Insight into the determinants of medical students' knowledge and self-reported skills to identify and respond to victims in health facility settings
- Insight into curriculum related factors in need of review to ensure medical student education address GBV
- Insight into victims' perception of selectively screening at health facilities
- Implications for students' future role as medical doctor, particularly as advocates, communicator, professional and leader.

7.3.1 Insight into the Determinants of Medical Students Knowledge and Self-reported Skills

The results of objectives 1-3 above showed that students knowledge and perceptions were fair, but self-reported skills to manage victims and perpetrators were poor. Also, only a small proportion had been exposed to some form of GBV training. This confirms the results of our previous study which established that the medical curriculum did not adequately address issues relating to GBV, despite the fact that the students were willing to screen patients for abuse. Hence the gap in the literature (26). Many national associations of professional bodies encourage physicians to help prevent abuse by screening women for IPV (38).

This intervention is in line with the United Nations Millennium Development Goal 5, which aimed to improve women's health. The prevention as well as the reduction of violence to women was one of the strategies identified to achieve this goal (33). Also, the Sustainable Development Goal 5 aims to transform the world by achieving gender equality by 2030 (35). The Nigerian Gender Policy requests all programmes to consider the implications on gender, and develop gender mainstreaming tools and approaches to protect the rights of women (36). However, final year students with inadequate knowledge and skills will be unable to fulfil such roles as future physicians (39).

A novel aspect of this study was the assessment of the students' personal experience as victims and as perpetrators of GBV. Studies in the US had documented that students and member of staffs' personal experiences may either influence their care of victims and patients in a positive or negative manner [14]. Acknowledging GBV, particularly IPV as a potential risk for everyone, students and patients alike is a step toward enhancing the identification of abuse and initiating interventions for survivors [73]. The implication of this is that, persons teaching issues around violence in medical schools need to be sensitive to the universal nature of partner violence when teaching. Health professions educators should not assume students and faculty to be exempted from experiences of abuse, rather they should encourage/refer them to seek care from the appropriate source. The contacts of possible sources of care and support should be included in the proposed curriculum. Secondly it highlights the importance of exposing students to the world view on GBV as some of them justified and even perpetrated IPV. Justification and perpetration of abuse is unacceptable for persons who are expected to be health advocates in the future. According to the health belief model [83], if medical students perceive themselves as being susceptible to IPV they are more likely to want to assist victims. Also, when students perceive the seriousness of the consequences of GBV and the benefit of identifying students they are more likely to intervene for victims.

Chapter four reported the urgent need to expose students to comprehensive training on GBV. Most of the students who had been exposed to some training obtained it from the medical school, showing its importance as a source of knowledge to the students. The final year student participants sampled stated the topics they had been exposed to were mainly issues around history taking and physical examination. It is important to ensure that the content of the training is comprehensive, standardised and consistent. Therefore, it is advisable to incorporate modules on GBV types, causes and prevention into the medical curriculum and not leave the drawing up to the discretion of health profession educators which oftentimes is when patients present at the health facility with complications of abuse. However, it is important to also come to an agreement with the faculty and other experts on what medical students should be taught and the skills they should acquire in the medical training curriculum.

The implication of these findings is the need to improve student's skills to respond to GBV in the health facility. In the proposed medical curriculum that will address GBV, there should be a balance in the teaching to impart knowledge and those that will impact upon their skills. Medical training is lifelong, therefore apart from ensuring that the medical curriculum addresses issues around GBV, continuing professional development programmes and work based learning programmes should be developed for doctors already in service to enable them acquire the skills on how to intervene for women who have been victimised. Further studies should observe students' skills to identify and manage victims in health facilities, rather than rely on self-reported skills.

Hence, advocacy for curriculum review in the three medical schools and probably several other medical institutions in the country as well, are necessary as this is most likely to be a national problem. Based on the WHO recommendations[103], and in line with the goals of SDG 5, [34] including that of the national gender policy [28], a policy to ensure the three institutions and probably other medical institutions review their medical curriculum periodically so as to guarantee that they are socially accountable and competency based on GBV management is necessary. In addition to policy development on curriculum review, developing institutional plan or protocols for routine screening and dealing with emergencies, for students and/or medical practitioners during practice may also be necessary. Interventions that provide assistance/help desks for those in abusive relationships are required. Counselling programmes for students and faculty with a history of abuse may also be necessary to ensure GBV is comprehensively addressed.

Future research that will review the curriculum of other medical schools in other parts of the country will be beneficial. Also, curricular review at private universities, which are becoming increasingly popular educational institutes, may be necessary. The future studies should progress from self-reported skills to observe students as they manage victims to accurately determine their skills.

7.3.2 Insight into Curriculum Related Factors that are in need of Review to Ensure Medical Student Education Address GBV

Chapter 4 reported that students lacked basic knowledge and skills to identify and manage abused women. The chapter concluded that the medical curriculum and its learning outcomes did not adequately prepare final year medical students to respond to victims and perpetrators of GBV when they have to act in the clinical practice environments. Still as presented in the chapter, it was enounced that, the departmental heads admitted that topics on GBV were not included as part of the formal curriculum. On account of this neglect, they agreed to review the current training programme to include GBV issues in order to improve students' knowledge and management skills of victimised women [26]. The lack of research on the proposed changes required in the curriculum, together with the absence of assessment of victims' needs, necessitated the exploration into how to appropriately align the curriculum to address the problem of GBV. Therefore the study was expanded to involve three medical schools in the region (Chapter 5) so as to have a clearer insight into students' teaching and learning.

Most of the participants in the consensus building process (Chapter 6) were from academia and were equally responsible for training medical students. Those from the Medical Schools were from 13 disciplines /departments. Chapter 6 achieves its objectives which were to obtain consensus among inter-professional stakeholders on the content, methods and the faculty to

involve in educating and training medical students about GBV in medical schools in south west Nigeria. The reasons stated for the need to teach GBV indicated that the faculties appreciated their professional role and the need to be a communicator and a health advocate. The topics indicated they recognised the need to work with other disciplines and sectors apart from their own. The issues to be considered when developing a GBV training programme for students were well delineated. The faculty opted for a teaching strategy that involved the use of visuals rather than a strictly didactic training. Hence there is a need for a balance between the didactic and competency based learning (visuals, demo, counselling).
Simulations with standardized patients is another way for students to have interactive learning and to practice the skills for responding to GBV, this may be particularly important for students to practice their empathy and response.

Establishment of a clinical and health professions unit will assist with the curriculum review in the medical schools. Also, they favoured gradual and repeated exposure over the levels of schooling (to a one-off training), with most of the training occurring in the final year. This is in order as training in the first three years may be to sensitise the students on the issue and therefore may employ more visual training methods, while in the clinical years they should be able to improve competencies and therefore be more practical or hands on. Appositely, life-long medical training and the competency based training models are well recognised educational principles for medical training [115].

The team approach to the consensus building had the advantage of producing a comprehensive programme as it would have inputs from different departments and sectors. It also has the advantage of preparing students to address gender issues in different disciplines when they specialise later in their profession. It may also initiate future collaborations. There was agreement that the teaching should be multi-disciplinary and that each speciality has its own unique contribution/perspective in the response to victims of GBV. Using the multi-disciplinary approach, student training guideline a screening tool for health settings can be developed and disseminated for the students.

As regards departments best positioned to be part of the training and professions to teach the students, the need for doctors to collaborate amongst themselves (public health, accidents and emergency, family medicine, obstetrics and gynaecology, psychiatry, paediatrics and dentistry) (Figure 8.1) and with professionals (lawyers, psychologists; social workers and nurses) from outside their field was recommended. (Figure 8.2) The sexual and reproductive, including mental and dental complications of violence are well documented [10]. The stakeholders agreed that less popular specialities such as

dentistry and psychiatry including persons from outside the academia should be involved. Law enforcers especially lawyers and police officers will be able to advice students on the medico-legal aspect of violence and on the laws to protect victims. These recommendations are.

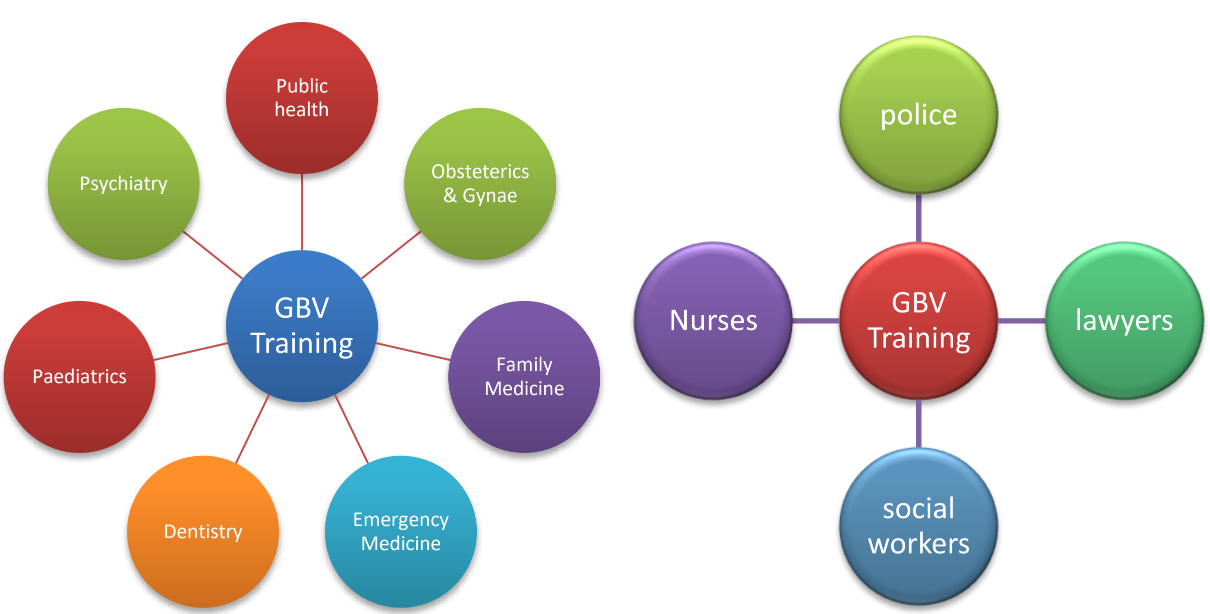

Figure 7.1: Societal Stakeholders: Medical Disciplines and Non-Medical which could be involved in GBV training

novel as hitherto the training of medical students had been done mainly by medical practitioners as all professions tend to keep to themselves. The good thing about this is when the medical professionals involve other professions in their teaching it fosters respect and encourages reciprocity, therefore taking leadership in this will be commendable.

Despite the agreement it is still needful to assess the knowledge and skills of faculty members from the various participating departments (apart from the experts) to ascertain their ability to impact effectively on the students. The duration and number of the contact hours students should be exposed to GBV training in the medical curriculum may need to be finalised by each training department and institution as there was more variation in stakeholders' responses on this theme. However a minimum acceptable numbers of hours of training should be established. Assessment of other faculty members from other medical schools would provide baseline and a guide on how to ensure they are knowledgeable enough to teach or whom to assign to teach the topic. We envisage that more teaching resources particularly capacity building for faculty may be required, given the limited numbers of experts in some disciplines. Assessment of the training by having a written examination was the main suggestion given by the faculty, more contemporary assessment methods such as the objective structured clinical examination (OSCE) and objective structured practical examination (OSPE) could be considered as these test have been found to be effective in other countries [116, 117].

The duty to teach about IPV is self-evident for most doctors, nonetheless, this duty is not just to students and other health professionals; but to the wider society [80]. However, with the changing societal health needs, medical doctors need to strive for excellence continuously in their teachings. They need to be competent in the skills that emphasise lifelong learning so that their training method is responsive and evidence based. In defining the lifelong learning role, it is essential not to define the role of the doctor in isolation from other professions [81]. It is when this is done that they can contribute effectively to societal needs.

7.3.3 Insight into Victims' Perception of Screening at Health Facilities

The results of the women's perceptions on screening for violence by physicians and other health professionals verified that they supported the intervention. Almost all the participants felt it was "the right thing to do". Women who have been victimised by partners are sometimes ignorant that the behaviour constitutes abuse or may be actively looking for support to change their partners' behaviour. They may also find it difficult to share their experiences and seek help for personal and societal reasons [107]. Thus the response to their needs may involve the help of medical and other healthcare personnel, who care for them [80]. This is particularly, important considering the absence of shelters and the slow legal process that occurs in most income countries. It is also important to put in place measures to

address the unease of those who did not perceive screening as useful and therefore guarantee the safety of healthcare providers or victims from aggressive partners. Also, confidentiality of information on victims should be emphasised in the medical training programmes. However, our previous study recommended that training is offered to more mature, senior students [27].

Largely, all types of violence were experienced by participants and for varying duration. Psychological abuse was the most common form of GBV, followed by the physical forms of violence, and accordingly the consequences of psychological violence are numerous. These include depression, anxiety and panic attacks, nervousness, insomnia, concentration problems, disturbances in sexual feelings and perceptions, fear of intimacy, loss of self-esteem and self-respect [14]. By the same token, the typical direct consequences of physical violence include bruises, abrasions, burns, fractures, head injuries and damage to the spinal cord [10, 15]. Consequently, this necessitates the need for healthcare providers to be aware of signs and symptoms of psychological violence when treating women, rather than limit their observations to only injuries that follow physical violence. Hence, complaints of worries, anxiety, depression, sadness, irritability, confused thinking, feeling of extreme high and low, dramatic changes in eating or sleeping habits and anger should be flagged as possible indicators of spousal abuse (1). Also, frequent psychosomatic complaints such as pain in the head, back, breast, abdomen, gastrointestinal disorders and disturbances in menstruation and reproductive health were found to be suggestive of abuse and should be investigated [17,18]. Hence as regards clinical practice, more effective care of victims and possibly perpetrators is envisaged.

The identification of vulnerable groups of women is especially important for practitioners who work in resource constraint settings, including limited time, personnel and referral options. These constitute the perceived barriers to the health belief model that may prevent healthcare providers from screening women. However, before screening is advocated in healthcare settings, clinicians need to have the knowledge, skills and resources to respond appropriately to oppressed women [3].

Table 7.2 Ways Medical Doctors and other Healthcare Providers can Help Victims

Within the health facility
•Case management •Referral •Advocacy •Couselling •Support group •Mental health care
Outside the health facility
•Legal •Research •Documentation •Media awareness •Training •Guide GOs and NGO response

A noteworthy implication of our findings was the recommendation for information obtained from victims to be used both within and outside the healthcare setting (Table 8.2). Thus, it is apparent that preventing VAW requires a multi-sectoral approach, in which the health sector plays a central role. This role includes the early identification of abuse, providing victims with the necessary treatment, and referring women for appropriate and informed care [(25)]. Apart from prescribing medication, recommendations for the management of the IPV victims included referral, advocacy, counseling sessions and joining support groups which should be available in the health facility. These interventions were considered as beneficial to the victim, their partners and members of the public.

As advocated by the victimised participants, the multi-sectoral approach to ending abuse should involve governmental and non-governmental organisations, research institutes, the media, and educational organisations. All these stakeholders were identified previously as having an important role in providing comprehensive care to the oppressed [(17)]. Regarding other resource persons that should help victims apart from medical practitioners, the women's responses confirmed the multidisciplinary approach as a plausible way to stopping violence against women. Recognised interdisciplinary (medical) groups who have been effective in interventions on IPV care and response to victims included obstetrician and gynaecologist, internal and emergency medicine physicians, psychiatrist, family and community physicians [(3)]. Others within the health discipline are psychologists, social workers, and nurses, while trans-disciplinary groups included the police and legal practitioners.

These groups have been reported to be effective in interventions aimed to prevent GBV [17] which could be extended to medical students.

Figure 7.2: Strategies for Training Medical Students on GBV

Most of the victims acceded to the training of medical students on IPV, consequentially, that the strategies (Figure 8.3) on training to be conducted confirmed the use of an inter-professional approach as reported in the publications among medical students [16] and training stakeholders [17].

7.4 Theoretical and Philosophical Analysis

Three theories informed the conceptual framework in order to understand the relationships between the constructs on preparing medical students to recognize and respond to GBV. Basically, the complex interplay of contextual factors surrounding the students' socio-demographic characteristics was found to have influenced their knowledge, attitudes, confidence and skills on GBV. Likewise, prior exposure to some training on GBV was another important contextual factor. It thus became necessary to integrate the ideas in relation to the adopted frameworks. In this newly developed conceptual model the factors surrounding provision of information to guide a GBV medical training curriculum are discussed. This model takes into consideration, the inadequate knowledge and skills of the medical students including victims' perceptions to inform 'the content and methods of a GBV curriculum' for it is obvious that the students that will address victims' needs must be socially accountable. As a result this research informed a more feasible and relevant information to practically guide the medics' 'response to victims' where aspects of students teaching and learning were clearly designated to retort to the Nigerian context (Figure 8.4). In point of fact, the interface of GBV response to victims was viewed

from contextual factors around the students, faculty/ departmental heads and victims. Additionally, it recognised that responses are most likely to be effective if students training is addressed by an interdisciplinary team, as the consequences of GBV can be varied and require interventions for different sectors. Also, it is crucial to take cognisance of trans-disciplinary collaborations in order to ensure that students are adequately prepared for their future role as doctors. Aspects of the health belief model (Table 8.3) were drawn on to show the linkages of the students and victims beliefs on their attitudes and skills to respond to victims.

Also, the ecological model was drawn on to explain victims' vulnerability and importance of screening. Contextual factors of non-inclusion of GBV in the curriculum was a barrier to students' teaching and learning on the subject and if addressed will act as an important enabler to improve students response to victims. Student's knowledge and skills, faculty opinion on GBV training, victims' perceptions were all important constructs. All these, along with the training experts' consensus are viewed as integrated processes within students' training.

Table 7.3: The Health Belief Model as it Relates to the Study Findings

Study group	Modifying factors	Perceived seriousness	Perceived Susceptibility	Perceived Benefit vs. Barriers	Perceived threats	Self efficacy	Cues to action
Medical student	Age, sex, marital status, school, prior training	Recognised complications of GBV	Some had been victims.	Benefit of screening > barriers	Poor knowledge and skills	Willing to assist especially after training	Inclusion in curriculum
Departmental heads		Gave recommendation on how to include GBV in curriculum		Benefit of screening > barriers	Consultants and residents not knowledgeable on the topic		Include topic in curriculum
Training stakeholders		Gave good reasons why students should be trained		Benefits to students, victims, community	Curriculum overload, education resources	Good, they are experts	Formation of curriculum committee
Victims		Very good	Yes, as an issue affecting all married women	Benefit > Barriers holistic care, avoid incorrect treatment, stop the abuse	Emotional breakdown, more abuse from partner or to health provider	Good, assist within and outside the health facility	Training Inclusion in curriculum

The utility of the model lies in its ability to frame the positioning of the multiple contextual factors with regard to the students' response to GBV and screening for victims of abuse. By positioning these contextual factors it helps to increase our understanding of the interplay of these factors as well as producing information on- why?, how?, and what to review in the current training programme?. This model thus lends itself to information which can be used in developing a GBV curriculum for medical students and other health personnel in other low-income countries. An additional utility of the model is that it recognises the importance of including experts from other sectors in the students' teaching and involving these sectors even after victims have been identified to ensure they receive holistic care. This elevates the importance of the role these various disciplines and sectors plays in medical training. Thus NGOs, governmental ministries, including the legal, police, nursing and social work professions are recognised as important as they provide the foundation of the GBV training and influence the future roles of the students as regards care of GBV victims.

The conceptual model this study (Figure 8.3) proposes for GBV teaching for medical students in a resource challenged and high GBV prevalence context provides a framework for addressing GBV in medical schools. This model addresses health professions educators, faculty, clinicians, and health administrators as well as students themselves and helps them to appreciate and be prepared for their future role in improving the health and well-being of women. GBV curriculum will help students appreciate that it is a public health problem, appreciate their important roles, and then develop the skills to handle such cases. The medical students, faculty, victims and departmental heads at the three medical institutions did not fully understand how to go about this change. In order for this to change, it however, requires the consideration of a number of recommendations that is based on the newly developed conceptual model.

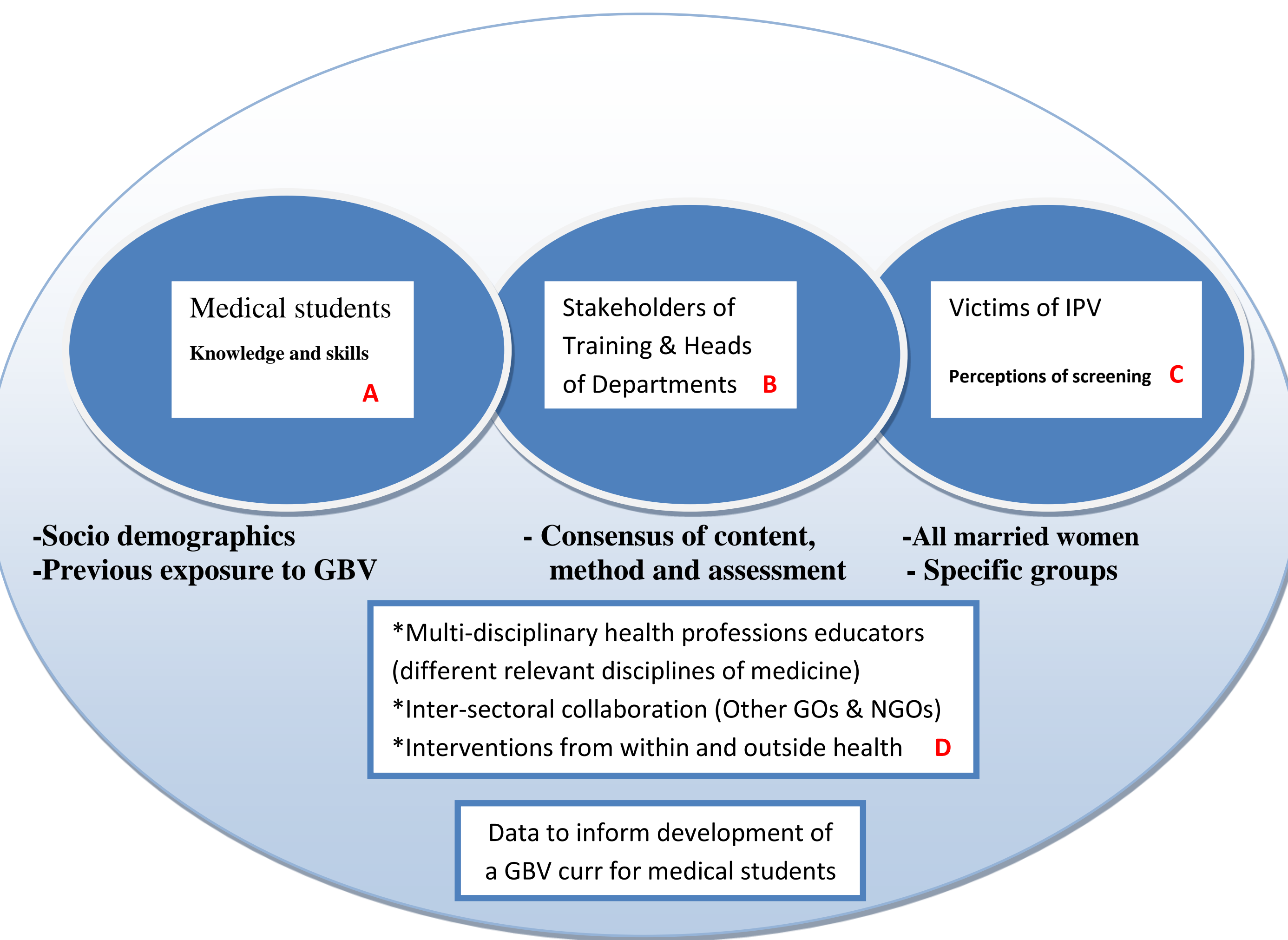

Figure 7.3: Conceptual model of the influence of enabling medical students recognise and respond to GBV

7.5 Implications of the Study

A broad range of implications emanated from various aspects of the study and these are presented for their relevance to policy, education, research and practice.

7.5.1 Policy

It is highly important and germane for a policy to ensure that medical educators review the students' training curriculum periodically. Following this, the process of curriculum review should certify that the medical curriculum is socially accountable and competency based. Also, the medical schools should be mandated to establish a clinical and health professions unit to support the review. Secondly, it is crucial that there is a policy that improves awareness and ensures public education. This may be done by placing posters and other IEC material in the health facilities, including encouraging media involvement. There is no doubt that awareness and education programmes will assuredly help to address poor societal perceptions to victims and support victims to seek help and succour.

Given that policies are operational at international, national and institutional levels [28, 34, 102], then it is apropos that these policies be translated into practical tools such as protocols for clinics and hospitals. Equally, these policies will function as a utilitarian protocol to guide healthcare providers to implement standard practice when they manage victims is necessary. Essentially, the protocols needs to be culture-specific with special attention paid to respecting the rights of women. In addition, it should include procedures for documentation for legal, medical and statistical purposes; legal, ethical and privacy issues; and up-to-date information on local referral services.

7.5.2 Education

Education on GBV to improve students' knowledge and skills on GBV is imperative. Medical training is life-long therefore continuing professional development programmes on GBV should be developed for doctors already in service. Findings from Chapter 3 identified the need for **s**tudents to be knowledgeable and skilled. A multidisciplinary and trans-disciplinary team is recommended for students' training. Evidence to guide the curriculum review to make sure it addresses GBV is provided in this study. The curriculum committee/ health professions unit need to translate the consensus document on training content, methods and assessments into specific learning objectives and competencies that focus on these themes in medical schools in the region. Representatives of the different disciplines and sectors need to discuss and negotiate the competencies the students need to acquire. It is important to ensure that the curriculum is not overloaded as this will be counterproductive and make learning arduous.

Competencies to identify signs and symptoms of GBV and to manage victims appropriately, including the chosen educational methods should be tailored to the student's academic level. Furthermore, the content of the curriculum should include the basic information on GBV, which will help them perform their professional role. The review of the curriculum design should be led by medical doctors in the Public Health, Family Medicine or Obstetrics and Gynaecology disciplines. The educators should start with exposure of preclinical students to the basic information on GBV and its consequences. Later they should proceed to how to manage victims, in the clinical years. For students in the later years of clinical training, the emphasis should be on improving their knowledge and skills, therefore lectures and bedside/clinic teaching may be more appropriate. Even among these group of students, it is important to maintain a balance between the didactic and competency based learning (visuals, demo, counselling), to ensure the students acquire both knowledge and skills on GBV. It is also crucial to train students on how to counsel/ communicate with victims and perpetrators [118]. Also, the training programme should empower students to perform the role of a communicator, collaborator, advocate and leader. In the same vein, the culture and traditions relating to GBV and women's status should be taken into consideration in the development of the programme content.

As regards training methods, using visuals such as documentaries, video clips and IEC materials to reinforce learning will be necessary. Case studies developed from the experiences of victims/perpetrators who participated in this study can be used in the teaching of students in the first to third years of schooling. Case studies and case scenarios have been reported to be effective to teach the skills required for students to successfully screen and respond to survivors of violence in the health facility [111]. They can be used to create awareness on the situations some women endure and the perceptions of male perpetrators. The advantage of early exposure of the students to these trainings is that it will encourage professional reasoning and ultimately early identification of victims and perpetrators. Thereby, the negative effects//consequences of GBV on women's health will be reduced. Secondly, it will improve the awareness of GBV as a public health problem, and reduce its prevalence in the community. Hence, it will promote social accountability. Finally, training will improve the protection and care for victims. In the long term, the prevalence of GBV and other forms of interpersonal violence in the community will decrease.

Multi-disciplinary training and cross institutional collaborations are important to ensure the training is comprehensive. Assessments should be linked to teaching and objectives of the GBV programme taking into consideration the regulations of each medical school. The format of the assessment should combine written and practical tests to ensure that they are not only knowledgeable medical experts but also, good communicators and health advocate amongst others.

7.5.3 Practice

In the immediate term agreeable faculty particularly those who gave were part of the consensus building should be encouraged to start to teach students about GBV. They should also upskill resident doctors and faculty about why, where and what to teach students about GBV. A number of practical changes to resource provision and resource management will be required to enable medical students have knowledge and skills on GBV. These changes will include improving faculties from the different disciplines knowledge and skills on GBV so that they can impact correct information to the students. Hence, there may be need for a training workshop to update the faculty on GBV. Also, each medical institution has to constitute a curriculum development committee if it does not exist or getting the existing committee to address the issue. This committee should be multi-, inter- and trans- disciplinary. It should include faculty from the different professions who may be involved in the care of victim's injuries or health problems. Cross institutional collaboration should be done to promote quality training of the students by sharing resources, hence input from experts in governmental organisations (the Ministry of Women Affairs and Ministry of Health) and NGOs are important to equip the students with the competencies to function efficiently as medical doctors and respond to victims. This is important to ensure that the curriculum addresses societal needs, national policies and not just remain an academic exercise.

It is also necessitous to progressively work on students' confidence so that they are able to cope and make appropriate decisions by the time they complete their medical training. They should also be able to communicate effectively with their patients and with other members of the health team. As medical professionals, they should be prepared to intervene both in the health facility and community on behalf of victims to check perpetrators. Medical students will therefore, need training on communication, leadership and advocacy skills. In addition, optimal facilities for teaching and learning will be required in these medical schools. Many of the required teaching and learning changes are also essential for the general health system improvement required in Nigeria. This study advocates for a well-resourced medical school to be able to facilitate the development of an inter-professional curriculum in the medical schools.

7.5.3 Research

Research on GBV as it relates to medical student training in the medical schools is crucial. These studies will need to be targeted at faculty, victims including perpetrators. This study should be replicated in other public medical schools in the country and private medical schools. Students should also be encouraged to conduct their research projects on GBV to improve their knowledge and exposure to the topic. This is discussed in more detail in 8.10.

7.6 Implication for Future Role as Medical Doctor

Medical students come from different backgrounds, but predominantly are influenced by cultural norms despite exposures to western-based education and lifestyle. Hence, they may not realise the impact of their personal views on global GBV practice, unless they are prompted to do so [81]. The study with stakeholders on training and victims, suggested the approach to acquire the competencies required for the GBV curriculum to ensure that students' learning is rooted in practice. The approach aligns with literature indicating that development of competency–based curricula should be guided by the healthcare needs identified by the local population, government healthcare policies and the requirements of the professional accreditation bodies [20]. The curriculum review would aid students' to fulfil their future roles as doctors. The implementation of a competency-based curriculum will require medical graduates to play multiple roles namely those of medical expert, communicator, collaborator, leader and manager and advocate and therefore it will help if they are also trained by a multi/inter disciplinary team [19].

The findings described in Chapters 4 and 5, outlined the c*ompetencies for the medical practitioner s*ome of which included history taking, physical examination, treatment and ability to refer victims for appropriate care. Young medical doctors need to be trained in professional reasoning required for the variety of GBV conditions that may be presented at health facilities in the future. This requires that faculty and stakeholders think broadly about the content and of the teaching to ensure the curriculum meet needs of their patients and the community. Hence, the training strategy may necessitate a shift from an individual approach to patient care to working in a team [81].

The need for medical students to perform an *advocacy role* was obvious from our results. To function as good advocates requires understanding the health consequences of GBV, including health and human rights policies on GBV, and then knowing how to use these to advocate for victims. Understanding cultural norms that promote perpetration of violence and hinder the rights of women is also crucial. Effective function will require students to learn how to manage challenging situations especially when advocating for the rights of victims in traditional settings. Students who were victims of GBV themselves or who are not confident may find this challenging and so may require special support.

Likewise, it is very crucial that medical graduates should be competent *communicators*. The communicator role may include crisis intervention, counselling victims and perpetrators, discussing safety plans and coping strategies with victims. Some of these competencies will include using culturally sensitive communication, and communicating with managers and other health professions in the health facility. It entails the ability being able to recognise power dynamics when communicating with victims, perpetrators, community members and adapting their communication

strategy accordingly. Students also need to learn to be *culturally sensitive* when communicating with the public (Lindgren 2011). Medical students' training may initiate addressing these competencies; however they will develop this further with time.

As a *collaborator,* medical students should be trained to work in a multidisciplinary team, network with GOs and NGOs and facilitate inter-sectoral collaboration for the benefit of their victim-patient. The ability to communicate and negotiate shared goals is an essential skill that young medical graduates need to ensure more coordinated care of patients. Young graduate doctors will end up working in the community (and with policy makers) therefore they need to understand how to negotiate to implement GBV prevention programmes and request for resources. The students as well as the faculty recognised the importance of working with social services, law enforcers (police officers and legal practitioners) to achieve success in their work. The involvement of these other professionals in classroom or clinical training could provide students with the opportunity to understand each profession's role in the team. Medical graduates, in particular those who end up as the only physician in the health facility, need to have the competencies required of *managers and leaders*. In the course of their work, they may have to approach hospital management to negotiate for the security of staff and/ or victims in the health facility. Postings at the Ministry of Health and Local Government Health Departments may provide the opportunity to observe how seniors doctors and role models go about this. They should be able to educate other health workers [80, 81].

Medical educators need to appreciate the importance of these competencies to guide the structure of GBV programme. More practical trainings than are the norm today are recommended. Sustained periods of learning with high-quality trainers from the different specialties, including with victims, will improve students' confidence and skills.

7.7 Study Contributions

This thesis emphasised the important role of the medical schools in the education and training of victims, and ultimately promote public health and human rights. It provided information on the current level of knowledge, confidence, attitude and skills of medical students in south west Nigeria. It has also contributed to the body of literature on GBV by providing baseline information that can guide the development of a curriculum for medical schools in Nigeria. Evidence based data to guide the design and content for a curriculum for medical schools in South West Nigeria has been documented. The recommendations will include inter-professional training on GBV topics, but would also include training which will empower students in competencies relating to communication, advocacy, leadership and managerial skills for effective healthcare delivery. Students should be prepared as lifelong learners, while the faculties need to learn how to discuss the topic in the curriculum.

It is essential to register the fact that even the experts all agreed that the current curriculum did not adequately address the topic and that there was a need to review it so as to enable medical graduates function more effectively in the health facility and society. A variety of stakeholders themselves suggested content, strategies, methods and possible disciplines to involve. Apropos, training methods that use visual aids, particularly those that involve patients or narrate experiences of victims were highly recommended. There is the opportunity to develop case studies for teaching, from some of the experiences of our victims. Early exposure of the students to such cases is desirable, which can be followed by more didactic and clinical learning later on. Phase 2 of the study, has provided evidence for future collaboration in students training. The stakeholders agreed to the need for an inter-disciplinary, multi-disciplinary and trans-disciplinary team to impact these competencies on the medical students. Germanely, this is a novel input as hitherto stakeholders had demonstrated territorial tendencies and had not been open to such collaborative teaching and learning.

In contrast to Phase 2 study, but still in line with the realisations of the objectives of the study, the Phase 3 study provided evidence from the victim's perspective. It provided the needed evidence that they welcomed screening for abused persons in the health settings. For example, it identified vulnerable groups of women whom medical personnel should target for screening, which is critically important in low-income countries where resources are limited. This phase succeeded in identifying the signs and symptoms which healthcare providers should watch out for. It enriched information on how to improve health workers practices within and outside healthcare settings to ensure women receive holistic care. It confirmed multi-sectoral approach to prevention of GBV. This multi-sectoral approach advocated by the victimised women involved collaborations with governmental and non-governmental organisations, research institutes, the media, and educational organisations. This phase confirmed the multidisciplinary approach to stopping VAW earlier recommended in Phase 1 and 2.

Recognised interdisciplinary (medical) groups suggested in the preliminary phase included obstetrician and gynaecologist, internal and emergency medicine physicians, psychiatrist, family and community physicians. Other disciplines recommended were psychologists, and nurses, while trans-disciplinary groups included the social workers, police and legal practitioners.

7.8 Strength of the Study

The strength of this study lies in the fact that it is one of the first studies to provide evidence based data to inform the development of a GBV curriculum relevant to healthcare providers in Africa. The methodological strengths were:-

a) Three medical schools in three states of the Nigerian federation were involved in Phases 1-3, hence the results more generalisable across the area and possibly to other medical schools in the country.

b) The use of a mixed method of data collection. Mixed method collects rich, comprehensive data that provides a complete story than either method would collect in isolation [87]. These included cross-sectional surveys, in-depth interviews, review of curriculum documentation and the use of the Delphi technique to gain clearer insight into how medical students can recognise and respond to GBV victims. In the Preliminary phase, both qualitative (desk review and key informant interview) and quantitative (cross-sectional survey) data were collected hence rich data was provided to guide implementation of the subsequent phases.

c) Phase 1improves on previous studies in that students' attitude and personal comfort to perpetrators were assessed, and the GBV experience and perpetration of the medical students were documented. Students in the study were found to be both perpetrators and victims of physical IPV. Training on non-violent conflict resolution for students in a relationship is imperative as personal experience may also affect their future professional work.

d) In Phase 2, the Delphi technique allowed for repeated interaction with experts and thereby the collection of quality data. Also, loss to follow up between rounds (3) was minimal (<10%) as responses had been received from most of the experts. The stakeholders were from diverse background and included the academia, experts from both GOs and NGOs. Also, a consensus was reached with regards to the content, methods and assessment to be used in the GBV curriculum.

e) Phase 3was unique in that it considers victims (patients) perceptions as important to the training of healthcare providers and therefore obtained insight on issues to consider in ensuring students acquire the knowledge and skills for their future role as medical doctors. Secondly, not only were the women from different study locations and attending different clinics in the training hospitals but as victims, they had experienced different types of abuse which ranged over varying periods. Hence, the participants' diversity in background and experiences added insights into their perspectives across settings, and offers increased confidence in the results.

7.9 Study Limitations

There are a number of limitations to the studies. In Phase 1, the cross-sesctional survey did not obtain information on the students who chose not to participate in the survey, therefore we are unable to compare if they were similar or different from the rest of the group. Secondly, there may have been major differences in students'prior knowledge on GBV between the three medical schools, hence differences observed in school location may not be due training received in the school alone. The personal experiences of students on violence may also have confounded some of the observed associations. Similarly, the academic abilities and expertise of the students might have influenced results. However, these may only impact on students' knowledge and not on their perceived skills and attitudes. In addition, students' experience and perpetration of GBV was self-reported hence subject to information bias. Skills were self-reported and may have been over or under estimated by the students. Some qualitative analysis including an observation component will have enriched the study. In spite of these limitations, the results still showed a need to improve students education and training on GBV.

The main limitation relating to the use of the Delphi technique (Phase 2) was the background of the experts, as they were mostly from academia. Persons with expertise on the topic working in government and non-governmental organizations were far fewer in proportion. Despite attempts to reach these few, it was difficult because of industrial action in two of the participating states. Secondly, there were no responses on the summarized ranking to some of the themes listed in the RD3 and it is unclear whether "no response" indicated satisfaction or lack of interest in the theme. In spite of these shortcomings, the results provide useful information to guide the development of a curriculum on GBV in these medical schools and in other medical schools in Nigeria.

The main limitation of Phase 3 of the study was that the victims were selected from teaching hospitals and therefore may be more accepting of screening for IPV and training of medical students, than if the victims were selected from the community. These groups of participants may also be more familiar with the procedures and challenges in the tertiary health facility. We therefore, made up for this limitation by interviewing victimised women attending primary healthcare facilities and outreach clinics attached to these hospitals to have women from more diverse backgrounds.

Despite these limitations, the studies have contributed to the understanding of final year medical students for identification and response to GBV and also to their future multiple roles to the society as medical doctors. It will stimulate discussions and guide the review and development of GBV programmes in other schools in Africa. It contributes to primary and secondary prevention of GBV and thereby will reduce morbidity and mortality in women when implemented. This is in line with the sustainable development goal (SDG) 5 which aims to promote gender equality and SDG 3 which promotes good health and well-being [(34)].

Take-home messages

- The traditional role of the doctor is changing and this has implication for higher education institutions.
- As future doctors, medical students should be trained to acquire the **professionalism** to manage victims and use their skills for the good of society.
- **Communicate** accurately to convey information to patients and families, colleagues and other professionals.
- **Collaborate** effectively work with other health professionals and sectors to respond to GBV.
- **Manage** their practice and career effectively to be able to care for victims.
- **Advocate** to promote the health of GBV victims.
- As **scholars**, demonstrate a lifelong commitment to reflective learning.
- Demonstrate a **professional** commitment to their victim-patients, profession, and society through ethical practice.

7.10 Future Research Directions

The following are recommended for future research:-

1. Review of the medical curriculum of public and private universities, to ascertain the extent to which GBV is taught and students capabilities to address GBV in the future.
2. Assessment of the knowledge and skills of medical students in other regions of the country would help to obtain a national picture regarding how and what to train students on GBV. This will guide the development of a national consensus on the role of medical doctors which can inform training in other medicals schools in Nigeria.
3. Observations of medical students' competencies rather than their self-reported skill will be useful.
4. Assessment of the knowledge, attitudes and case management practices of faculty and other stakeholders on GBV to ensure they can impact knowledge to medical students.
5. Development and evaluation of a training programme that will promote students learning and enable their professional and personal development on GBV. Also, implement continuing professional development programmes for practising healthcare providers.
6. Assessment of experiences of social service linkages after victims disclose experiences of violence in a healthcare setting.

7.11 Conclusion

This study affirmed the need for students to become knowledgeable and skilled on issues relating to GBV response, as this improved their confidence, attitude and self-reported skills to screen and manage patients and perpetrators. Processes to review the curriculum and improve students' knowledge, skills and attitudes on this important topic need to be initiated promptly. The review is necessary for these medical schools, and perhaps at many other medical schools, to ensure students receive socially relevant training on GBV. This study has provided information to guide a GBV curriculum for medical students. A review of the existing curriculum using the findings will improve student's skills and will promote social accountability by enhancing student's preparation to respond to victims. The need for regular review of the curriculum of medical schools to ensure they continue to remain relevant is highlighted. This knowledge generated has many implications for medical students training and opens new research opportunities which are needed in the context of Nigeria and many other resource-challenged countries where women grapple with similar experience of abuse.

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APPENDICES

Appendix 1: Preliminary Study: Training on Prevention of Violence against Women in the Medical Curriculum at the University of Ibadan, Nigeria

Research

Training on prevention of violence against women in the medical curriculum at the University of Ibadan, Nigeria

O I Fawole,[1] MB BS, MSc (Epid and Bio), FNMC (PH); **J van Wyk**,[2] BSc (Ed), PhD; **A Adejimi**,[3] MB BS, MPH (Comm Med), FWACP

[1] *Department of Epidemiology and Medical Statistics, Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria*

[2] *Department of Clinical Cognition, Nelson R Mandela School of Medicine, University of KwaZulu-Natal, Durban, South Africa*

[3] *Department of Community Medicine, College of Medicine, University of Ibadan*

Corresponding author: *O I Fawole (fawoleo@ymail.com)*

Objectives. To determine the knowledge and skills of final-year medical students in managing victims of violence against women (VAW), and to describe the extent to which VAW is included in the undergraduate curriculum of the College of Medicine, University of Ibadan.

Method. A mixed-method study design was used that collected qualitative data through a review of curriculum documents and interviews of departmental heads (or their representatives) of 6 departments in the college. A semi-structured, self-administered questionnaire was used to collect quantitative data from 109 final-year students.

Results. The response rate was 85.1% and respondents' mean age was 25.2±3.1 years. Physical, sexual, psychological and economic abuse was found by 73.8%, 72.6%, 54.8% and 44.0% respectively, of the students. Most students (77.4%) felt it was part of their duty to ask patients about abuse. Students with previous training about violence were more likely to be knowledgeable (odds ratio (OR) 1.64; 95% confidence interval (CI) 0.61 - 4.42) and skilled (OR 1.27; 95% CI 0.53 - 3.05). Men had better knowledge and skills than women. VAW was not included as a topic in the curriculum.

Conclusion. Most students were willing to ask patients about abuse but lacked the fundamental knowledge and skills to do so. Faculty at the college agreed to review the curriculum to improve students' knowledge and management skills regarding VAW.

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Violence against women (VAW) has become a major public health and human rights issue. This social evil occurs in all countries, irrespective of social, economic, religious and cultural traditions. Notably, the increasing incidence of battering, rape, domestic violence, honour killings, human trafficking, prostitution, forced and early marriages, female genital mutilation and sexual slavery was noted by the Secretary-General of the United Nations, at the 4th World Conference on Women.[1]

Deeply rooted African tradition and culture have been blamed for most of the physical and psychological customs that perpetuate VAW.[2] To illustrate, wife-beating is perceived as normal in African marital relationships,[3,4] and the custom of inheriting a woman as part of her deceased husband's estate has left many women poor, homeless and vulnerable to abuse. While most African countries have amended or passed gender-sensitive laws to stem the tide of violence and prejudice against women, concern remains over the lack of enforcement of such legislation[5] in a region characterised by widespread armed conflict, poverty and social inequality, which result in continued exploitation and abuse of vulnerable groups.[2,6]

Results of the Demographic and Health Survey in Nigeria of 2008 indicated that 28% of women aged 15 - 49 years had experienced physical violence since the age of 15, and that 15% had experienced physical violence in the 12 months prior to the survey.[7] Epidemiological evidence suggests that VAW affects the health and wellbeing of women in many ways, resulting in fatal (homicide, suicide and AIDS-related deaths) and non-fatal (physical injury, chronic pain syndromes and gastro-intestinal disorders) outcomes.[8] Physical and sexual violence further affects the mental health of victims, and has resulted in behavioral outcomes such as alcohol and/or drug abuse and high sexual risk-taking behavior.[8]

Evidence suggests that women are likely to disclose intimate partner violence to healthcare practitioners,[7] but the latter's inadequate training may leave them unable to recognise or, where disclosed, unable to respond to victims of abuse. Concern has also been raised about reports[9] of women suffering abuse or neglect at the hands of healthcare practitioners and the perceived reluctance of health personnel to discuss physical and sexual violence with patients who disclose being in violent relationships.[8]

Medical schools with gender-based violence curricula have played an important part in the promotion of good maternal and child health outcomes. Research indicates that physicians trained in VAW are significantly more likely to screen for signs of abuse.[10] There is also increasing debate about the efficacy of curricular approaches and the most effective educational techniques to be used for training.[11]

Realising the central role of medical schools in preparing a future generation of practitioners and citizens, there is consequently a need to educate medical students about the treatment, referral system and impact of VAW when managing victims. However, little research is done in the African context about the prior experiences of medical students of VAW and their attitudes to treating victims of abuse. The present study was therefore conducted to determine perceptions and the level of competence (knowledge, skills) to manage victims of VAW among the final-year student cohort and the extent to which the topic is taught in the College of Medicine at the University of Ibadan, Nigeria.

Method

The College of Medicine trains medical and dental students. It includes a 950-bed tertiary health facility – the University College Hospital. Medical students rotate through the Faculty of Public Health in their 3rd, 4th and 5th years of study. Students similarly rotate for periods of approximately 6 - 8 weeks through each of the 6 clinical blocks in their final year.

A mixed methods approach was used in this descriptive, analytical cross-sectional study. Quantitative data was collected through a self-administered questionnaire that collected data on students' knowledge of

VAW, factors influencing their acquisition of knowledge and skills, and the extent to which they had prior training on the topic. The final part of the questionnaire explored students' perceptions and attitudes towards abusers and victims, their levels of empathy for those in abusive relationships, and their skills in managing abused patients.

Final-year medical students (N=128) in their 5th year of study constituted the primary respondents, while faculty members were the secondary respondents. Faculty members included staff responsible for bedside teaching and lecturing from Family Medicine, Paediatrics, Obstetrics and Gynaecology, Accidents and Trauma, Dentistry and Public Health.

A qualitative data analysis of curriculum documents including module and course information on the Bachelor of Medicine and Bachelor of Surgery (MB BS) course were undertaken. In-depth interviews were also conducted with key faculty informants from each of the 6 departments to verify the extent of coverage of VAW in the curriculum. The questions explored included the availability of a programme on VAW, content covered, teaching methods, competencies of trainers, and suggestions to improve students' competence concerning VAW.

The questionnaire was adapted from previous studies.[12,13] A pilot study was conducted with 20 students enrolled in their 4th year of study at the school. Each questionnaire took about 20 minutes to complete. The questionnaire was amended to improve clarity and reduce ambiguity. A copy can be obtained from the corresponding author.

The qualitative data were transcribed, cleaned and coded, and themes identified. Descriptive analysis, frequencies, means and standard deviations were performed on the data, using statistical software STATA 11.0. Bivariate analysis using the chi-squared (χ^2) test was used to determine the associations between variables. Significant variables in the bivariate analysis were entered into a logistic regression model to determine the strength of the associations. P-values <0.05 were considered significant.

Ethical clearance for the study was obtained from the Joint University of Ibadan/University College Hospital Institutional Review Board (UI/EC/11/0103).

Results

Demographic data

A hundred-and-nine students (N=128; 85.1%) participated in the study. The mean age of the primary respondents ranged from 16 to 39 years with a median age of 24 years. Most students were male (59.6%), and 73.4% were from the Yoruba ethnic group.

Awareness of VAW

Seventy-seven per cent of the respondents indicated an awareness of VAW. Their descriptions of the term varied, e.g. the maltreatment of either sex, violence to women, physical assault, beating and/or battery, and forms of physical, sexual and psychological (mental) violence.

Knowledge of VAW

Physical violence. Most respondents (73.8%) could give at least one correct example of a physically violent act. Physical violence was described as beating (46.4%) and slaps (15.5%).

Sexual violence. About three-quarters (72.6%) of the respondents gave at least one correct example of a sexually violent act, while 11.9% gave 2 or more examples. Sexual violence was mostly (67.8%) described as rape.

Psychological violence. Slightly more than half (54.8%) gave an example of a psychologically violent act, while 6% mentioned 2 correct examples. Psychological violence was described as verbal abuse and insults (32.1% and 7.1% respectively).

Economic violence. Economic violence was described as financial deprivation (17.9%), not allowing a woman to work (14.3%), and lack of care (5.9%). Respondents' knowledge of what an act of economic violence comprised was stated by 44%; 5% could mention 2 such acts.

Signs and symptoms suggestive of VAW. Complaints of aches and pains were made by 90.4%. Students also mentioned other symptoms including abortions (86.9%), fractures (78.6%), sexually transmitted infections (66.7%) and headache (66.7%).

Perceptions of VAW

Magnitude of VAW. Regarding the attitudes of students as indicated in Table 1, most of the student respondents perceived VAW to be a common problem in their environment. Fifty-two respondents (61.9%) thought it was *common* (experienced by 10% of the population) while 26.2% thought it was *very common* (experienced by 15% of the population). Only 11.9% believed it was *rare* (experienced by <5% of the population).

Asking patients about VAW. Most (77.4%) students regarded it as part of their duty as physicians to enquire about violence, and many (67.9%) were willing to do so. Those who were not willing to engage with patients thought that it would intrude on the private life of their patients (57.1%), and some students (42.9%) believed it would be demeaning to enquire about VAW.

Students' confidence about discussing the topic with patients. Student responses varied on the extent to which they were confident about asking patients about VAW. Eighty-one per cent were *very confident* to ask about depression, 73.8% were *very confident* to ask about beatings, and 54.8% were *very confident* to ask about rape. Thirty-six per cent reported *little confidence* to ask about rape, while 9% were *not confident at all* to enquire about any aspect of the topic.

Table 1. Student respondents' attitude to screening and care of victims

Statement	Agree *n* (%)	Not sure *n* (%)	Disagree *n* (%)
It is an intrusion into the patient's private life	17 (20.2)	19 (22.7)	48 (57.1)
It will be part of my role as a physician	65 (77.4)	16 (19.1)	3 (3.6)
I do not think it will offend the patient	47 (56.0)	27 (32.1)	10 (11.9)
I think it will offend the patient	21 (25.0)	27 (32.2)	36 (42.9)
I am willing to do so	57 (67.9)	21 (25.0)	6 (7.1)

Table 2. Knowledge, attitude, confidence and skills scores of student respondents

Scores	Mean±SD	Maximum	Median
Knowledge	2.44±0.92	5	3.0
Attitude	4.0±1.6	7	4.0
Confidence	4.9±1.5	6	5.0
Skills	12.2±3.2	21	12.0

Table 3. Student respondents' perceived skills to manage VAW victims

Activity	Very skilled *n* (%)	Some skill *n* (%)	Not skilled/ Don't know *n* (%)
Recognising/detecting VAW (e.g. picking up warning signs and symptoms and/or screening techniques for patients suspected to be at risk)	12 (14.3)	45 (53.6)	27 (32.1)
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)	11 (13.1)	54 (64.3)	19 (22.7)
Examining VAW victim (laboratory or side-room investigations, microbiology swabs etc.)	7 (8.4)	37 (44.0)	44 (47.6)
Treatment of and medical care for victims	8 (9.5)	46 (54.9)	30 (28.6)
Counselling 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, admission to hospital as temporary place of safety)	14 (16.7)	48 (57.1)	22 (26.2)
Managing/counselling the perpetrator if he/she is in the setting together with the victim	9 (10.7)	40 (47.6)	35 (41.7)
Discussing coping skills for victims of family violence or those in abusive relationships	6 (7.1)	46 (54.8)	32 (38.1)

Table 4. Logistic regression analysis of factors associated with good knowledge, attitude and competence scores

Profile	Adequate (*n*=84) OR (95% CI) *p*-value	Positive (*n*=84) OR (95% CI) *p*-value	Skills (*n*=84) OR (95% CI) *p*-value
Age			
<25 years	1	1	1
>25 years	4.89 (1.69 - 14.12) 0.003	4.55 (1.48 - 13.99) 0.008	1.00 (0.42 - 2.39) 1.00
Sex			
Female	1	1	1
Male	2.44 (0.89 - 6.65) 0.82	0.64 (0.23 - 1.74) 0.38	1.27 (0.53 - 3.05) 0.59
Training			
No	1	1	1
Yes	1.64 (0.61 - 4.42) 0.33	1.38 (0.51 - 3.70) 0.53	1.26 (0.54 - 3.04) 0.59

Table 5. Student respondents' suggestions for improving their knowledge

Suggestion (*N*=39)	*n* (%)
Include in curriculum	13 (33.3)
Clinical teaching and case studies	3 (7.7)
Publicise in media	3 (7.7)
Short courses and workshop	3 (7.7)
Group discussion	1 (2.6)
No response	9 (23.1)

Attitude towards victims. Less than half (44.0%) of respondents indicated that they would be sympathetic towards a woman who chose to remain in a violent relationship, while 48.8% felt that the abused victim did not deserve the experience and that violence was wrong.

Skills and competencies

Most respondents indicated not being *very skilled* to treat victims of violence. For instance, only 14.3% stated that they were *very skilled* and could detect the warning signs and symptoms of VAW. Less than 10% (9.5%) of the respondents reported being *very skilled* at treating and providing medical care to victims, and 57% admitted to having *some skill* to do so.

Knowledge, attitude, confidence and competence scores

Knowledge, attitude, confidence and competence scores were awarded by giving one mark for every correct statement. Tables 2 - 4 indicate the questions posed to students to ascertain their knowledge, skills and attitude towards victims of violence. A mean knowledge score of 2.44±0.92 was obtained from 5 knowledge statements. A mean attitude score of 4.0±1.6 was obtained from a maximum of 7 statements, while a mean confidence score of 4.9±1.5 was recorded from 6. The maximum obtainable competence (skills) score was 21, and a mean attitude score of 12.2±3.2 was obtained.

Using the 75th percentile as the cut-off for respondent scores, 60.7% (51) were knowledgeable on VAW, 47.6% (40) were very confident, 25% (21) had a positive attitude to managing victims of VAW, and 40.5% (34) were skilled in the management of victims.

Older students were 5 times more likely to be knowledgeable (aOR 4.89; p=0.003) and to have better attitudes (aOR 4.55; p=0.008) towards victims of violence. Male students had more knowledge of VAW, and female students had better attitudes to victims. Students who reported prior training on violence were more likely to have adequate knowledge (aOR1.64; p=0.33), and better attitudes (aOR 1.38; p=0.53) and skills to manage victims (aOR 1.26; p=0.59).

Suggestion to improve knowledge and skills

Student opinions were sought on how to improve their knowledge and skills on case management relating to VAW. Their responses included that the

Table 6. Summary of faculty respondents on teaching about VAW

Final-year departments	Is there a curriculum to teach students about VAW?	Reasons for not teaching VAW	How prepared are faculty from your department to teach about VAW?	How can VAW be included in the curriculum?
1	'Presently there is no programme in place, but when we see such cases and if there are medical students around, we use that avenue to talk to them'. 'When we see cases of VAW, we call the student around, even in our normal clinical sessions; topics that have to do with physical assault can be assigned to any doctor to present to them to discuss.'	'It can be attributed to two reasons: Our institution and National University Commission do not have it in the curriculum'.	'Most of our consultants and residents have never had formal training on VAW but they appreciate its importance'.	'The programme should cut across primary school, secondary schools and tertiary education; everybody should be involved. Public enlightenment is needed so that people can be adequately informed'.
2	'It is when we see a patient that we tend to teach, either in the clinic or on the bedside. If we see such cases, some of our residents will work on it but we have no structured lectures'.	'I don't think we should let them push teaching it to us. VAW should be tailored not only towards the health sector, others should do the teaching too'.	'Consultants and residents should get more training.'	'VAW is a topic that is getting a lot of importance. There should be more training on how to help women, in particular, who need help, and also how to get them to where they can get this help'.
3	'I don't think there is anything in … [name of department] on that except in forensic medicine where signs of battering are mentioned'.			'If the gynaecologist could be convinced, it is good to have at least a topic on it. Also, in departments that deal with social aspects of life such as preventive medicine and health promotion, a topic of a seminar can be dedicated to VAW'.
4	'We have no direct lectures on gender and violence, none whatsoever. But we have seminars on social … [name of department] which we conduct weekly, so if they see a child, they follow the child home, and talk about the surrounding circumstances, home and family issues, e.g. if the mother or child has battering issues or any issues relating to gender. For the clinical aspect of the practice, we see children who have been assaulted and most of them are females, and if the students happen to be in the clinic at the time, they also get to learn about it'.			'If the gynaecologist could be convinced, it is good to have at least a topic on it. Also in departments that deal with social aspects of life such as preventive medicine and health promotion, a topic of a seminar can be dedicated to VAW'.
5	'We do not have VAW in our undergraduate curriculum; most of the teaching on VAW is in the postgraduate module'.	'The curriculum that we have has been there for a long time, and if you look at the trendy things about reproductive rights, VAW and other issues only became topical in the last one or two decades'.	'I have no formal training. I am just interested in the topic because I worked on sexual violence as part of my postgraduate work'.	'It should be incorporated into the curriculum; that will stimulate doctors to know that VAW exists and to look out for it'.
6	'We don't go into the in-depth aspect of it, we just talk to them about domestic violence under rehabilitative medicine or family health'.		'As part of a workshop and when I was doing my MPH, part of some courses and occasionally in seminars, I have learnt about VAW'.	

topic should be taught or included in the curriculum (25.7%); dealt with in teaching practice (17.9%) and addressed through case demonstrations (11%). A summary of the student suggestions is provided in Table 5.

Training/teaching received on VAW

Thirty-nine student respondents (46.4%) received some formal training in VAW. Nearly 31% (12) received their teaching at medical school. Other sources were the church, parents and electronic media. Most (58.3%) teaching was in the final year of medical school, and was primarily offered by teachers from the Departments of Public Health; Obstetrics and Gynaecology; and Psychiatry. Teaching was mostly delivered as didactic lectures (83.3%) by doctors (66.7%) and social workers (16.7%). Interviews with faculty members (see Table 6) revealed an absence of teaching about VAW in their formal programme.

Of the 39 respondents who received formal training on VAW, 20.5% had training on how to detect warning signs and symptoms, 25.6% could take history on VAW incidents, 25.6% could examine victims, 33.3% could provide treatment or medical care to victims, and 28.2% could provide counselling to perpetrators. Most (51.2 - 64.1%) respondents stated that they would like these issues addressed in their teaching curriculum. Reasons for the non-inclusion of VAW in the curriculum and faculty's view on their expertise in training on the topic were captured in interviews with the departmental representatives and indicated in Table 6. Most of the interviewees admitted to not having had previous formal training on VAW.

Discussion

Although students demonstrated satisfactory knowledge of signs and symptoms, they lacked knowledge of the types of VAW. Their knowledge was best on physical and sexual violence, with psychological and economic aspects less known. Knowledge levels of the cohort might have been lower, as non-participation by some might have been due to a perceived lack of knowledge. Previous studies that assessed knowledge and perceptions of medical students were conducted predominantly in developed contexts[10] and highlighted the value of exposing and training students on a VAW programme. Studies have also expressed concern over inadequate training on intimate partner violence.[14]

In the present study, men surprisingly demonstrated better knowledge of VAW which might have been due to their increased exposure or that some might have been perpetrators of VAW. Older respondents, probably owing to their more extensive life experiences, and those who had been trained, also demonstrated better knowledge. This improved knowledge should ultimately translate into improved attitudes, screening procedures and case management during clinical practice.

Many students had an accurate estimation of the magnitude of VAW in society and correctly perceived it their duty to ask patients about violence. Some were, however, not sympathetic towards women who chose to remain in violent relationships, and even expressed the view that such an abused victim then deserved the experience. This perception is similar to that of nurses in a study in rural South Africa.[15] Research has indicated that some of these incorrect perceptions could still be challenged and changed during training.[10] Females empathised better with victims, possibly owing to knowledge of friends, family, neighbours or themselves being in similar situations. This aspect was, however, not explored in this study.

Most students admitted to having limited skills in managing victims of violence, which we suggest probably reflects the lack of training in this issue. The results suggest the need for an integrated institutional curriculum on VAW. This need was confirmed in the interviews with faculty who reiterated a commitment to include education about VAW; some reported sporadic teaching even in the absence of a formal curriculum. Some departments were aware of the need to review their curricula. Most faculty members interviewed further acknowledged a need for personal training on VAW, and agreed to institute training for students. It was felt that an effective training programme would promote student learning and expedite professional and personal development.

Two limitations to the study need noting. Firstly, students might have gained prior knowedge on VAW from sources outside the school; and secondly, the expertise of tutors and students on women's issues in public health might have confounded some of the observed associations. Similarly, the academic abilities of the students might have influenced the results. However, these are likely to affect knowledge and not skills. Nevertheless, the results still show the need to improve current teaching on the topic.

Conclusion

While most students were willing and considered it their duty to ask patients about abuse, they lacked the fundamental knowledge and skills to do so effectively. This study affirmed the need for both faculty and students to be trained on issues relating to VAW, and to receive skills and awareness training on how to screen patients, which may include an institutional plan or protocols for routine screening and dealing with emergencies. There is also a need for a faculty policy to integrate these efforts. The results from this study serve as a basis for reviewing the curriculum and enlisting currently committed members of faculty to enhance and improve students' knowledge, skills and attitudes on this important topic.

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Appendix 2: Medical Students Questionnaire

Preparing medical students to recognize and respond to Gender Based Violence

Dear Final Year Medical Student,
The purpose of this questionnaire is to determine how much you know about gender based violence, / domestic violence/ intimate partner violence) and to develop a curriculum for the training of medical students. The ultimate goal is to ensure that patients who have been violated receive adequate care. Your name is not required on the questionnaire and your responses will not affect your work in any way. Please fill the questionnaire alone and write only what is true. Your responses are highly valuable, so write how you feel and what you know. Thank you.

Informed Consent: Please tick if you agree to participate.
You may return the questionnaire if you do not feel free to participate.

Demographic Information

1. Age (at last birthday): ________years.
2. Sex: 1. Female 2. Male
3. Ethnic group: 1. Yoruba 2.Ibo 3. Hausa 4. Others Specify ________________
4. Marital Status 1. Single never married 2. Married 3. Separated 4. Divorced

Knowledge of Violence to Women

5. Have you ever heard of or gender based violence (domestic violence/intimate partner violence)?
   1. Yes ☐ 2. No ☐
6. If Yes, what is it?
   ____
   If No, go to Q7
7. Please list in the box below at least one example of behaviours that constitutes each category of violence?

S/N	Physical Violence	Sexual Violence	Psychological Violence	Economic Violence
A				
B				

8. Tick and rank the **3 MAJOR** complaints of women who have been abused? (please rank them)

	Complaints	Tick	rank		**Complaints**	Tick	Rank
1	Headache			9	Palpitation		
2	Abdominal pain/stomach problems			10	High blood pressure		
3	Back pain			11	Stress, anxiety		
4	Dizziness			12	Injuries and abrasions		
5	Accidents			13	Fractures		
6	Reproductive tract infections			14	Difficulty with sleeping		
7	Miscarriage			15	Joint pains		
8	Sexual problems			16	Loss of weight		

9. **General Knowledge, Personal Comfort and Attitudes**

Please tick the one appropriate in the box
SA= Strongly agree, A=Agree, NS= Not sure, D=Disagree, SD = Strongly disagree
NB: GBV (gender based violence) or IPV (intimate partner violence) or DV (domestic violence)

	Knowledge	SA	A	NS	D	SD
a.	Intimate partner violence tends to become more frequent and severe over time.					
b.	Some patients personalities cause them to be abused					
	Perceptions/Attitudes					
c.	Treatment programs for batterers just aren't effective to get them to stop physical abuse.					
d.	The role of the healthcare provider is limited in being able to help victims of gender based violence.					
e.	A victim must be getting something out of the abusive relationship, or else he/she would leave					
f.	It is not the physician's role to interfere with how a couple chooses to resolve conflicts.					
g.	There is nothing a healthcare provider can do to help the victim because he/she is unlikely to leave the situation/relationship.					
h.	Asking patients about GBV is an invasion of their privacy.					
i.	Patients who think that healthcare providers should not interfere in their private lives will not reveal abuse					
j.	It is demeaning to patients to be questioned about abuse.					
k.	People are only victims if they choose to be.					
l.	When it comes to domestic violence, the victim is just as guilty					
m.	Women who choose to step out of traditional roles are a major cause of GBV/ domestic violence.					
n.	The victim's passive-dependent personality often leads to abuse.					
o.	The victim has often done something to bring about violence in the relationship.					
	Personal Comfort					
p.	A non-abused patient will get very angry if I ask them about domestic violence or abuse					
q.	I don't know how to ask about the possibility of GBV.					
r.	I think that investigating the underlying cause of a patient's injury is not part of medical care					
s.	I don't think I will have time to ask about IPV in my intended practice					
t.	I am (or would be) afraid of offending the patient if I ask about GBV.					
u.	If during my intended practice I find a patient who is a victim, I would not know what to do.					
v.	I am willing to ask patients about intimate partner violence					

10. **General Knowledge, Personal Comfort and Attitudes with Respect to Perpetrators**
Please tick the one appropriate in the box
SA= Strongly agree, A=Agree, NS= Not sure, D=Disagree, SD = Strongly disagree

	General Knowledge	SA	A	NS	D	DS
a.	There are strategies to encourage perpetrators to seek help.					
b.	There are ways healthcare providers can ask perpetrators about their behaviour to minimize risk to the potential victim.					
	Attitude					
c.	Asking the perpetrators about their behaviours will put the victim in more danger					
d.	When challenged, perpetrators frequently direct their anger toward healthcare providers					
e.	In many cases, the battering would stop if the perpetrator would quit abusing alcohol					
	Personal Comfort					
f.	I feel there are ways of asking about battering behaviour without placing myself at risk.					
g.	I feel I can effectively discuss issues of battering and abuse with a battering patient.					
h.	I am afraid that talking to the perpetrator will increase risk for the victim					
i.	I am (or would be) reluctant to ask batterers about their abusive behaviour out of concern for my personal safety					
j.	I am (or would be) afraid of offending patients if I ask about their abusive behaviour.					
k.	I am willing to ask perpetrators about intimate partner violence					

11. How would you rate the extent of the problem of domestic violence in this environment?
    1. Very rare (0.1% of population) □
    2. Rare (<5% of population) □
    3. Common (10% of population) □
    4. Very common (>15% of population) □

12. What do you perceive as the major barrier to domestic violence assessment in patients(Please select only ONE option)
    1. Lack of time
    2. Lack of knowledge of what to ask
    3. Lack of knowledge of what to do if a patient is abused
    4. Personal discomfort
    5. Lack of training

Skills

13. How well skilled (or competent) are you to deal with the following?

		YES, I am very skilled	Yes, I have some skill	No, I am not skilled	Don't know
a	Recognising/ detecting of gender based violence (such as picking up warning signs and symptoms and /or screening techniques of all patients suspected to be at risk				
b	Taking history on gender based 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				
c	Examining domestic violence victim (such as the relevant laboratory or side room investigations to perform e.g. taking of microbiology swabs)				
d	Treating and providing medical care for victims (treatment will depend on part of the body injured/diseased, varies for each department)				
e	Counseling and facilitating the development of a safety plan with the victim (such as establishing when 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)				
i	Managing / counseling the abusive partner or handling of the "perpetrator' if he/she is in the setting together with the victim				
j	Discussing coping skills for victims of family violence background or in abusive relationships				
l	Any other (please specify				

14. Are you currently in a relationship or have you been in one in the last one year 1. Yes 2. No

Couple Conflicts

If you are currently in a relationship or has been in one in the last one year kindly answer questions 15 to 19 below. If you did not have a partner in that interval kindly proceed to Q 20. This is a list of things that might happen when you have differences, which are normal no matter how well a couple gets along. Please mark how many times you did each of these things in the past year, and how many times your partner did them in the past year.

How often did this happen?

1 = Once in the past year
2 =Twice in the past year
3 = 3-5 limes in the past year
4 = 6-10 times in the past year
5 = 11-20 times in the past year
6 =More than 20 times in the past year
7 =Not in the past year, but it did happen before
8 = This has never happened

(Circle just one)

15. I suggested a compromise for a disagreement with my partner 1 2 3 4 5 6 7 8
16. I pushed, shoved, or slapped my partner 1 2 3 4 5 6 7 8
17. My partner pushed, shoved, or slapped me 1 2 3 4 5 6 7 8
18. I punched or kicked or beat-up my partner 1 2 3 4 5 6 7 8
19. My partner punched or kicked or beat-me-up 1 2 3 4 5 6 7 8

Experience of Gender Based Violence

20. Have you ever done volunteer work at health centres/ places for the abused? 1. Yes 2. No
21. Have you had friend(s) who have been victim(s) in the last five years? (*If No go to Q23)* 1. Yes 2. No
22. Where? 1. Home 2. School 3. Neighbourhood 4. Others
23. Have you been a victim of GBV/intimate partner violence? 1. Yes 2. No

If Yes to Q 23go to Q24 , If No go to Q26

24. Who was the perpetrator? 1. Current partner 2.Former partner 3. Strangers 4. Relatives 5. In the neighbourhood 6. Others Specify_______
25. Type of IPV? 1. Physical 2. Sexual 3.Emotional

E**xposure to GBV training**

26. Have you ever received any formal training on violence to women or women's rights?
    1. Yes 2. No
27. If Yes, what type? If No go to Q33 the last question.
    1. Medical school 2. Workshop/ Seminar 3. Lecture 4. Others ___________

If medical school? Answer Questions 28-31. If not, proceed to Q 32 and 33.

28. Which year or level were you taught? 1. 100 2. 200 3. 300 4. 400 5. 500
29. By which department(s) _________________________
30. Where? 1. Lecture room (big) 2. Tutorial 3. Bedside teachings 4. Small group teachings
31. By whom? 1. Doctor 2. Nurse 3. Social worker 4. Others specify________

Content of Teaching Curriculum on Gender Based Violence

32. What were you taught in the teaching or curriculum?

Tick one appropriate box to each statement

	Topics	YES, it is covered	NO, it is NOT covered	NOT covered BUT should	Don't know
a	Recognising/ 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				
b	History taking about 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				
c	Examination of the IPV victim (such as the relevant laboratory or side room investigations to perform e.g. taking of microbiology swabs)				
d	Treatment and medical care for victims (treatment will depend on part of the body injured/diseased, varies for each department)				
e	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 discussing the options, referral for help, admission to hospital as Temporary place of safety				
f	Teaching of crisis intervention and counselling skills (such as trauma counselling and/or debriefing/defusing of the victim)				
g	Medico-legal documentation & recording either in the patient file and/or forensic documentation for the purpose of possible testimony in court				
h	Support services and options available to victims (such as obtaining of protection orders, accessibility to shelters, legal services, including verbal referrals to community counseling services				
i	Managing / counseling the so-called abusive partner or handling of the "perpetrator' if he/she is in the setting together with the victim				
j	Discussing coping skills for students who themselves are from family violence background or in abusive relationships at the time of teaching (such as making known campus health services and support groups for students				
k	Court appearance as expert witness (such as giving testimony in court, prepare for the appearance, professionalism etc).				
l	Any other (please specify				

33. What is your **one** major suggestion to improve student's <u>knowledge</u> and <u>skills</u> on gender based violence?

Thank you for your time

Appendix 2: Stakeholders Information Sheet (RD 1)

Preparing medical students to recognize and respond to gender based violence

I write to invite you to take part in a Delphi consensus study on gender based violence. Before you decide whether or not you would like to take part, it is important we explain why the research is being carried out and what it entails.

The title of the research is, 'Preparing medical students to recognize and respond to gender based violence in Nigeria'. Gender based violence is sometimes referred to as violence against women, domestic abuse or intimate partner violence.

What is a Delphi study?

The Delphi technique seeks to obtain consensus on the opinions of experts, termed panel members, through a series of structured questionnaires. As part of the process, we propose three rounds of questions. Only the first round is open ended, the next two rounds are simpler and structured. The responses from each round will be fed back in summarised form to all participants who will again be given an opportunity to respond again to the emerging data in the subsequent rounds. The Delphi is therefore an iterative multi-stage process that combines opinions into group consensus.

What is the purpose of the study?

The purpose of this study is to obtain consensus opinion among stakeholders on content and methods of training relating to a gender based violence curriculum in medical schools in south west Nigeria. We hope to establish a consensus amongst inter professional faculty on who should be part of the training team, where training should occur and competencies (knowledge, attitude, skills) to be acquired in the curriculum. This study will also identify those areas (knowledge gaps) with insufficient content or where training might be required. We would therefore like to obtain your opinion on this as it relates to your department. If there is no existing teaching we will also like to know why. We plan to use the information obtained to develop a training programme for the students to ensure victims of violence receive adequate care. To find answers to some of these questions, we humbly invite you to participate in an interview.

Why have I been invited to take part?

As an established expert in this field we are keen to gain your views about how we should structure a curriculum for medical students on gender based violence. Specifically, we would like to ask your views on the training content for medical students on gender based violence.

What will I be asked to do if I take part?

We are inviting you to participate as a Delphi panel member. This would involve answering a brief questionnaire related to gender based violence. It is envisaged that this should take approximately 20 minutes to complete. In future rounds you would subsequently receive a summary of the group's responses, provisional. A further brief questionnaire will be used to assess your agreement with contents of the training. This process would continue until a group consensus is achieved or three Delphi rounds have been completed. In order to allow timely conclusion of the study we would respectfully request a response time of 2 weeks for completion of each round.

Who is organizing the research?

The principal researcher is Prof Olufunmilayo I. Fawole of the Department of Epidemiology and Medical Statistics, College of Medicine, UCH, Ibadan.

The sponsor of research of the research is myself.

Confidentiality

No personal information will be collected and survey responses will be collated anonymously. All responses received in the study will be strictly confidential, and your identity will not be divulged. Direct quotes to free-text answers may be used as part of the study report or later Delphi iterations, but these will be not be traceable back to you.

What do I do now?

Thank you for reading this information sheet and for considering taking part in this research. If you are happy to proceed please indicate you have given consent and complete the following survey. If you have any questions or concerns, please do not hesitate to contact me.

Thank you for your time.

Olufunmilayo I. Fawole

fawoleo@ymail.com

08032180302; 08121046840

Appendix 3: Stakeholders Information Sheet (RD 2)

Preparing medical students to recognize and respond to gender based violence

I write to invite you to take part in the Round 2 of the Delphi consensus study on gender based violence. When you filled in the Round 1 questionnaire we explained why the research is being carried out and what it entails.

The title of the research is, 'Preparing medical students to recognize and respond to gender based violence in Nigeria'. Gender based violence is sometimes referred to as violence against women, domestic abuse or intimate partner violence.

What is a Delphi study?

The Delphi technique seeks to obtain consensus on the opinions of experts, termed panel members, through a series of structured questionnaires. As part of the process, we propose three rounds of questions. Round 1 was open ended, Rounds 2 and 3 will be structured. The responses from each round will be fed back in summarised form to all participants who will again be given an opportunity to respond again to the emerging data in the subsequent rounds (Table 1). The Delphi is therefore an iterative multi-stage process that combines opinions into group consensus.

What is the purpose of the study?

We hope to establish a consensus amongst inter professional faculty on who should be part of the training team, where training should occur and competencies (knowledge, attitude, skills) to be acquired in the curriculum. This study will also identify those areas (knowledge gaps) with insufficient content or where training might be required. We plan to use the information obtained to develop a training programme for the students to ensure victims of violence receive adequate care. To find answers to some of these questions, we humbly invite you to participate in Round 2 of the interview.

What was the result of Round 1?

From the Round 1 questionnaire 12 themes were identified namely: - Reasons why GBV should be taught; Content of GBV training; Year of schooling to be taught; Strategies, Tools, Format teaching; Contact hours; Department in the best position to teach; Other professionals who can teach GBV; Reasons why other professionals should teach GBV; Venue to teach GBV and How training be assessed. The comments received on each of these themes have been summarised in table for Round 2.

Why the Round 2?

The purpose of the Round 2 questionnaire is to validate the lists of factors obtained from the round one questionnaire. We have summarized the responses of the first questionnaire. Now, this second questionnaire will be used to verify that we have correctly interpreted responses we received in Round 1 and help them ranked them appropriately; it will also verify and refine the responses earlier received. Without this round there is no basis to claim that a valid, consolidated list has been produced. Also, you can suggest additional items that they might

not have considered initially. Based on your response, we will further refined responses received.

What follows after this?

In Round 3 you would receive a summary of the group's responses to this round. A further brief questionnaire will be used to assess your agreement with contents of the training developed from this Round. In order to allow timely conclusion of the study we would respectfully request a response time of 3 weeks for completion of each round.

What do I do now?

Thank you for reading this information sheet and for considering taking part in this round. If you are happy to proceed please indicate you have given consent and complete the questionnaire. It is envisaged that this should take approximately 15 minutes to complete. If you have any questions or concerns, please do not hesitate to contact me.

Thank you for your time.

Olufunmilayo I. Fawole

fawoleo@ymail.com

08032180302; 08121046840

Appendix 4: Stakeholders Information Sheet (RD 3)

Preparing medical students to recognize and respond to gender based violence

I write to invite you to take part in the Round 3 of the Delphi consensus study on gender based violence. When you filled in the Round 1 questionnaire we explained why the research is being carried out and what it entails. The title of the research is, 'Preparing medical students to recognize and respond to gender based violence in Nigeria'.

What is a Delphi study?

The Delphi technique seeks to obtain consensus on the opinions of experts, through a series of structured questionnaires. The Delphi is an iterative multi-stage process that combines opinions into group consensus. As part of the process, we proposed three rounds of questions.

What is the purpose of the study?

We hope to establish a consensus amongst inter professional faculty on who should be part of the training team, where training should occur and competencies (knowledge, attitude, skills) to be acquired in the curriculum. We plan to use the information obtained to develop a training programme for the students to ensure victims of violence receive adequate care. To find answers to some of these questions, we humbly invite you to participate in Round 3 of the interview.

What was the result of Round 2?

From the Round 2, the response from the 12 themes were ranked using means (and standard deviation) which is now included in this questionnaire**.**

Why the Round 3?

The purpose of the Round 3 questionnaire is to feed you back the results received on the various themes of the Round 2 questionnaire, and to ask whether there are some aspects which should be considered that is might have been omitted but, which you consider important. Without this round there is no basis to claim that a valid, consolidated list has been produced. You can suggest additional items that they might not have considered initially or make changes on earlier responses.

What follows after this?

We shall share with you the results we receive, but will not ask you to fill any questionnaire again.

What do I do now?

Thank you for reading this information sheet and for considering taking part in this round. If you are happy to proceed please indicate you have given consent and complete the questionnaire. We would be grateful if we can have it back after latest 25th November, 2016.

Thank you for your time.

Olufunmilayo I. Fawole

fawoleo@ymail.com, 08032180302; 08121046840

Appendix 5: Interview Schedule of Stakeholders (RD 1)

Preparing medical students to recognize and respond to gender based violence (GBV)

N.B. Interviewees may be more familiar with the terms- intimate partner violence, domestic violence and violence against women rather than gender based violence.

1. Do you think medical students should be taught GBV? -----------------------------
2. If yes, list at least 4 main reasons why this topic should be taught at medical school? *Please go to Q4-11*.

   a---

   b---

   c---

   d---

3. If No, why not? *then go to the end*

   ----

4. If yes to Q2, what should be the content (topics) of the training programme?

   a.--

   b.--

   c.--

   d.--

   e.--

5. If yes to Q2, at what stage or in which years should students be taught? ------------------------------

----

6. If yes to Q2, can you suggest possible strategies for the teaching? ---------------------------------------

----

6.1 What tools can be used for teaching? ---

6.2 How many contact hours of teaching would you recommend? (per year, when they are in your unit) ------------------------------

6.3 How should it be taught? (Duration) Once, periodic or longitudinally how?-----------------
----

6.4 What format should be used for teaching? – didactic lectures, true cases, case study, skills training? ---
----

7. Which medical department (s) are in the best position to do the teaching?------------------------------
----

8. 1 .Do you think other professionals apart from medical practitioners can teach the topic? ------------

8.2. If yes, whom? --

8.3. Why do you think other professionals apart from medical practitioners can teach the topic?

9. Where should teaching on GBV take place? --
----

10. Have you ever taught medical students about managing patients/victims of GBV? -----------------
----

11. If yes, would you like to share your materials? --

WE THANK YOU FOR YOUR TIME

We shall share the results of this round with you soon, and then ask you another round of questions.

Appendix 6: Interview Schedule of Stakeholders (RD 2)

Preparing medical students to recognize and respond to gender based violence (GBV)

N.B. Interviewees may be more familiar with the terms- intimate partner violence, domestic violence and violence against women rather than gender based violence.

Ranking- Rank (with a tick) on a scale of 1 to 5, with 1 being the least and 5 the most important.
N.B. The responses are listed randomly and not in order of importance.

Themes	Responses Received	Rank				
Reasons why GBV should be taught		1	2	3	4	5
	Awareness on GBV					
	Preparedness to treat GBV cases					
	Identify/ Screen GBV cases					
	Support victims, where to seek help Prevention and control					
Content of GBV training for the students						
	Gender equality					
	Definition of GBV					
	Prevalence/ epidemiology					
	Causes of GBV					
	Signs and Symptoms					
	Identification of victims					
	Types of GBV					
	Risk factors of GBV					
	Complications					
	Prevention and Safety					
	Management of victims					
	Medical legal aspect of violence					
	Ethical issues e.g. confidentiality etc					
	Role of physicians in GBV control					
Level /year GBV should be taught						
	100					
	200					
	300					
	400					
	500					
	600					
Strategies for teaching GBV						
	Didactic lectures					
	Discussion /Group discussion					
	Case based learning					
	Students Research/projects					
	Role play					
	Term paper/ essay					
	Clinical observation					
	Skills training					
	Home visit					
	Manual/ text book					
	Web based / internet learning					

Themes	Responses	Rank				
		1	2	3	4	5
Tools for teaching GBV						
	Power point presentation					

	Role play					
	IEC materials-posters, flyers, charts					
	Video-documentaries, clips					
Contact hours						
	2 hour					
	4 hours					
	>4 hours					
Duration of GBV training						
	Once					
	Periodic					
	Longitudinal					
Format for teaching						
	Case study/ presentation/report					
	Didactic lecture					
	Discussion with victims					
	Beside teaching					
Department in the best position to teach						
	Community Medicine					
	Family Medicine					
	Obstetrics & Gynaecology					
	Community/ Public Health					
	Dentistry					
	Psychiatry					
	Accidents and emergency					
Other professionals who can teach GBV						
	Social worker					
	Psychologist					
	Lawyer					
	Counsellor					
	Paediatrician					
	Sociologist					
	Nurses					
Reasons other professionals should teach						
	Multi dimensional/disciplinary					
	Intersectoral					
	Social problem					
Venue to teach GBV						
	Class room					
	Hospital					
	Community					
How should training be assessed						
	Written examination					
	Oral examination					
	Clinical examination					
	Term paper					

THANK YOU, we shall share the results of this round with you soon, and then ask you the last round of questions.

Appendix 7: Interview Schedule of Stakeholders (RD 3)

Preparing medical students to recognize and respond to gender based violence (GBV)

Instruction: please make your comments on the reported results for each theme, the mean and standard deviation provided in the last column are the results of RD2

S/no	Themes	Responses Received (n=51)	Mean and SD
1.	**Reasons why GBV should be taught**		
		Awareness/knowledge on GBV	4.56 ± 0.63
		Preparedness to treat GBV cases	4.13 + 1.09
		Identify/Screen GBV cases	4.19 ± 1.05
		Support victims, refer for help	4.44 ± 0.81
		Prevent and control GBV	4.13 ± 0.78
		Teach others	4.07 ± 1.23
	Comments:		
2.	**Content of GBV training for students**		
		Gender equality	4.19 ± 1.17
		Definition of GBV	4.13 ± 0.89
		Prevalence/epidemiology	4.13± 0.19
		Causes of GBV	4.31 ± 0.79
		Signs and symptoms	4.38 ± 0.72
		Identification of victims	4.13 ± 1.03
		Types of GBV	4.31 ± 0.95
		Risk factors of GBV	4.31 ± 0.70
		Complications	4.44 ± 0.63
		Prevention and safety	4.44 ± 0.51
		Management of victims	4.19 ± 0.66
		Medical/legal aspect of violence	4.38 ± 0.60
		Ethical issues e.g confidentiality etc	4.25 ± 0.93
		Role of physicians in GBV control	4.38 ± 0.80
	Comments:		
3.	**Level/year GBV should be taught**		
		100	2.69 ± 1.54
		200	2.69 ± 1.35
		300	3.13 ± 1.26
		400	3.44 ± 1.03
		500	3.88 ± 1.09
		600	4.25 ± 1.13
	Comments:		
4	**Strategies for teaching GBV**		
		Didactic lectures	3.75 ± 1.54
		Discussion/group discussion	2.69 ± 1.35
		Case based learning	3.94 ± 1.06

		Student Research/projects	3.63 ± 1.09
		Role play	3.38 ± 1.26
		Term paper/essay	3.44 ± 1.37
		Clinical observation	3.56 ± 1.03
		Skills training	3.94 ± 0.93
		Home visit	3.13 ± 1.20
		Manual/text book	3.56 ± 0.96
		Web based/internet	4.06 ± 0.85
		Power point presentation	4.19 ± 0.98
		Role play	3.75 ± 1.13
		IEC materials-posters, flyers, charts	4.50 ± 0.82
		Video - documentaries, clips	4.63 ± 0.89
	Comments:		
5.	**Contact hours**		
		2 hour	3.19 ± 1.8
		4 hours	3.25 ± 1.4
		>4hours	2.94 ± 1.6
	Comments:		
	Duration of GBV training		
		Once	2.19 ± 1.22
		Periodic	3.81 ± 1.17
		Longitudinal	3.88 ± 1.26
	Comments:		
6.	**Format for teaching**		
		Case study/presentation report	3.88 ± 1.26
		Didactic lectures	4.00 ± 0.89
		Discussion with victims	4.06 ± 0.93
		Beside teaching	3.69 ± 1.49
	Comments:		
7.	**Department in the best position to teach**		
		Community medicine	4.19 ± 0.91
		Family medicine	3.81 ± 1.05
		Obstetrics and gynaecology	3.81 ± 0.89
		Community/public health	4.06 ± 0.93
		Dentistry	3.19 ± 1.42
		Psychiatry	3.56 ± 1.21
		Accidents and emergency	4.06 ± 0.85
	Comments:		
8.	**Other professionals who can teach GBV**		
		Social worker	4.13 ± 1.02
		Psychologist	4.19 ± 0.98
		Lawyer	3.81 ± 0.83

		Counsellor	3.81 ± 1.11
		Sociologist	3.81 ± 1.11
		Nurses	3.94 ± 0.99
	Comments:		
9.	**Reasons why other professionals should teach GBV**		
		Multi disciplinary	4.38 ± 0.81
		Intersectoral	4.31 ± 0.79
		Social problem	4.23 ± 0.86
	Comments:		
10	**Venue to teach GBV**		
		Class room	4.31 ± 0.79
		Hospital	4.38 ± 0.96
		Community	4.38 ± 0.96
	Comments:		
11.	**How training should be assessed**	Written examination	4.06 ± 0.85
		Oral examination	3.63 ± 1.03
		Clinical examination	3.56 ± 0.89
		Term paper	3.75 ± 1.07
	Comments:		

12. Do have any additional suggestions on any of the issues listed above? -------------------------------

----

WE THANK YOU FOR YOUR TIME

This is the last round we shall share the results with you soon.

Appendix 8: Screening Questions to Assess Patient's Eligibility to Participate in a Study on How Medical Students can Recognize and Respond to Intimate Partner Violence

Universal Violence Prevention Screening Protocol
Introduction:
1. These days many people are exposed to violence in some form.
2. It is our routine procedure to ask adult patients about their exposure to violence.
3. If you are a violence victim, we can better help you if we know it.

	Sceening questions	Lifetime		Last 12 months		Last 1 month	
S/N	Has anyone	Yes	No	Yes	No	Yes	No
1	**...threatened** you with or **actually used** a knife or gun to **scare or hurt you**?						
2	...**choked, kicked, bit, or punched** you?						
3	...**slapped, pushed, grabbed, or shoved** you?						
4	...**forced or coerced** you to have sex?						
5	...**ever prevented you** from leaving the house, seeing friends, getting a job, or continuing your education?						
6	...**have you been afraid** that a current or former intimate partner would hurt you physically?						

6. What is your relationship with the person who has hurt you?
___ Current or former intimate partner
___ Other family member
___ Acquaintance or friend
___ Co-worker
___ Stranger
___ Other (specify) ______________________

Appendix 9: Interview Guide and Form for Victims of Intimate Partner Violence

Date of interview…………………

Serial number……………………..

SOCIODEMOGRAPHIC DATA

S/N	Questions	Options	Response
1.	How old are you?(as at last birthday)		
2	Have you ever attended school?	1.Yes 2.No	
3	Highest level of education	1. No formal 2. Primary 3.Secondary 4. Tertiary 5. Other (specify)	
4	What is your current occupation		
5	What is your religion	1. Christianity 2. Islam 3. Traditional 4. Other (specify	
6	What is your ethnic group	1. Yoruba 2. Hausa 3. Igbo 4. Other (specify)	
7	What is your marital status	1.Single, never married 2. Cohabiting 3. Married 4. Separated 5. Divorced 6. Widowed	
8	How many live births have you had?		

Preparing medical students to recognize and respond to intimate partner violence

Interviewees may be more familiar with terms- gender based violence and violence against women - these are acceptable.

1. What do you understand by the term – Intimate partner violence? (Probe- what is violence? Is it a common problem, what are the different forms, who can experience it in terms of sex and age?)

2. What do you think causes intimate partner violence? In what circumstance can it happen?

3. Name or list some of the violent-behaviours affecting women that you know? (Probe - sexual, physical and psychological violence; what about culturally promoted violence?)

4. What do you think is the cause of each of this problem (s) you have identified?

5. What are some of the health consequences of each of the behaviours on the lives of the affected woman? (Probe- probe short and long term consequences)

6. Do you think that medical practitioners (doctors) should ask all women who come to health facilities for care if they are experiencing intimate partner violence? (Probe- if yes why? if no why? If no go to Q---)

facility for care if they are experiencing intimate partner violence? (Probe- if yes, which groups of women?)

8. What should medical practitioners do with this information? (Probe- using the health facility or the medical practitioner)

9. How should the information be used? (Probe-under what circumstances can the information be used?; How would you like physicians to help? What sort of help would you require?)

10. Who else (stakeholders) do you think can assist victims of partner violence? (Probe: teachers, nurses, social workers etc)

11. Do you think medical students should be trained to ask and assist victims of intimate partner violence?

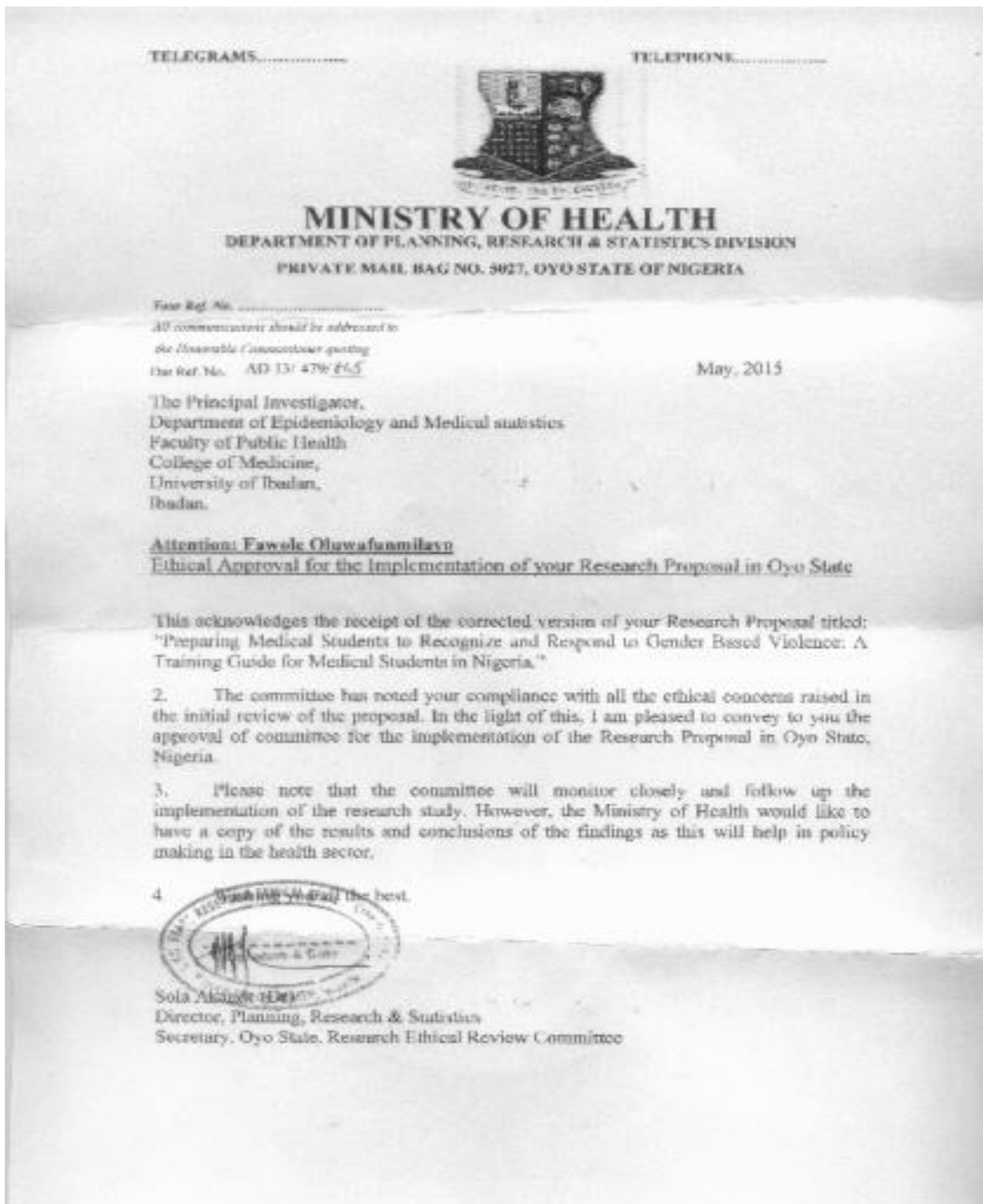
12. If yes, how can medical students be trained for these tasks? (Probe- what kind of help would be required?; Who else (stakeholders) can help medical students assist victims?)

13. Have you ever had to seek police protection? Or have you ever sought legal protection because of your experience of intimate partner violence? Have you ever sought for shelter? What were your experiences?

14. Any other comment or recommendation on how medical should respond to GBV or IP?

We thank you for participating in this discussion

Appendix 10: Ethical Approval Certificate_UI



TELEGRAMS............... TELEPHONE...............

MINISTRY OF HEALTH

DEPARTMENT OF PLANNING, RESEARCH & STATISTICS DIVISION

PRIVATE MAIL BAG NO. 5027, OYO STATE OF NIGERIA

Your Ref. No. ....

All communications should be addressed to the Honourable Commissioner quoting

Our Ref. No. AD 13/ 479/

May, 2015

The Principal Investigator,
Department of Epidemiology and Medical statistics
Faculty of Public Health
College of Medicine,
University of Ibadan,
Ibadan.

Attention: Fawole Oluwafunmilayo

Ethical Approval for the Implementation of your Research Proposal in Oyo State

This acknowledges the receipt of the corrected version of your Research Proposal titled: "Preparing Medical Students to Recognize and Respond to Gender Based Violence: A Training Guide for Medical Students in Nigeria."

2. The committee has noted your compliance with all the ethical concerns raised in the initial review of the proposal. In the light of this, I am pleased to convey to you the approval of committee for the implementation of the Research Proposal in Oyo State, Nigeria.

3. Please note that the committee will monitor closely and follow up the implementation of the research study. However, the Ministry of Health would like to have a copy of the results and conclusions of the findings as this will help in policy making in the health sector.

4. Wishing you all the best.

Sola Akinde (Dr)
Director, Planning, Research & Statistics
Secretary, Oyo State, Research Ethical Review Committee

Appendix 12: Ethical Approval Certificate - UKZN

12 February 2016

Dr Olufunmilayo Fawole 213558030
School of Clinical Medicine
Medical School Campus

Dear Dr Fawole

Protocol reference number: HSS/1447/015D
Project Title: Preparing medical students to recognize and respond to Gender Based Violence: Developing a training guide for Medical Students in Nigeria

Full Approval – Expedited Application

In response to your application received 6 October 2015, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

....

Dr Shenuka Singh (Chair)
Humanitities & Social Scinces Research Ethics Committee

/pm

Cc Supervisor: Dr Jacqueline Van Wyk
Cc Academic Leader Research: Dr C Aldous
Cc School Administrator: Ms Veronica Jantjies

Humanities & Social Sciences Research Ethics Committee
Dr Shenuka Singh (Chair)
Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Telephone: +27 (0) 31 260 3587/8350/4557 Facsimile: +27 (0) 31 260 4609 Email: [illegible] / [illegible] / [illegible]
Website: www.ukzn.ac.za

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100 YEARS OF ACADEMIC EXCELLENCE

Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville

Appendix 13: Gatekeepers Assent from University of Ibadan, Oyo State

College of Medicine
University of Ibadan
Ibadan, Nigeria.
PMB 5017, GPO, Ibadan.
e-mail: provost@comui.edu.ng
Website: www.comui.edu.ng

Phone: 022914130
Cable & Telegram UNIVERSITY OF IBADAN

Provost:
Professor B. L. Salako
MB; BS, (Ibadan), FWACP, MNIM
Secretary to the College:
Olubunmi O. Faluyi (Mrs)
B.Ed, M.Ed (Ibadan)

Our Ref:
Your Ref:

2 June, 2015

The Admission Officer
University of KwaZulu-Natal
Durban, South Africa

Dear Sir/Madam,

RE: PREPARING MEDICAL STUDENTS TO RECOGNIZE AND RESPOND TO GENDER BASED VIOLENCE: A TRAINING GUIDE FOR MEDICAL STUDENTS IN NIGERIA

I write to confirm the willingness of the College of Medicine University of Ibadan, Nigeria to support the proposed research titled, "Preparing medical students to recognize and respond to Gender Based Violence: A training Guide for Medical Students in Nigeria ".

The research is appropriate for the nation's need and the College will be prepared to support its implementation. Dr Fawole will be allowed to interview the final year medical students. I welcome any opportunity to improve students training.

Thank you.

Yours faithfully,

Professor B.L Salako,
Provost

COLLEGE OF MEDICINE
UNIVERSITY OF IBADAN, IBADAN NIGERIA

Our Vision
To be a world-class institution for academic excellence geared towards meeting societal needs

Our Mission
To expand the frontiers of knowledge through provision of excellent conditions for learning and research.
To produce graduates who are worthy in character and sound judgement.
To contribute to the transformation of society through creativity and innovation.
To serve as a dynamic custodian of society's salutary values and thus sustain its integrity.

Appendix 14: Gatekeepers Consent from University of Lagos, Lagos State

COLLEGE OF MEDICINE
UNIVERSITY OF LAGOS
P.M.B. 12003, LAGOS, NIGERIA

Provost: **PROF. F. E. A. LESI,** *MB.BS (LAGOS) M.Sc (LONDON), FWACP (PAED), FRCP (LOND.)*

Deputy Provost: **PROF. S. R. A. AKINBO,** *B.Sc. (Hons), PGD, M.Sc., Ph.D, FWSPC,FPC*

College Secretary: **ỌLADẸJỌ AZEEZ, Esq.** *B.Sc. M.Sc. LLB (Lagos), LLM (Wits), B.L, MNIM, MNIPR.*

Telephone: 012955786
E-mail: collegeofmedicine@unilag.edu.ng
cmulinfo@unilag.edu.ng

12th June, 2015

The Admission Officer,
University of Kwazutu Nazal,
Durban, South Africa.

Dear Sir,

RE: PREPARING MEDICAL STUDENTS TO RECOGNIZE AND RESPOND TO GENDER BASED VIOLENCE. A TRAINING GUIDE FOR MEDICAL STUDENTS IN NIGERIA.

I write to confirm the willingness of the College of Medicine, University of Lagos, Nigeria to support the proposed research titled, "*Preparing Medical students to recognize and respond to Gender Based Violence. A training Guide for Medical students in Nigeria*".

The research is appropriate and timely for the College. In addition, it meets societal needs. We are prepared to support its implementation. Dr. Fawole is allowed to interview final year students and faculty of the College of Medicine.

I am open to suggestions on how to improve medical students training of this important issue.

Thank you.

Yours sincerely,

Prof. F.E.A. Lesi

Appendix 15: Gatekeepers Consent from Ladoke Akintola University of Technology, Osun State

LADOKE AKINTOLA UNIVERSITY OF TECHNOLOGY TEACHING HOSPITAL

OSOGBO, OSUN STATE, NIGERIA.

CHAIRMAN
Professor Wole Atoyebi
MBBS, FMCS, FWACS, FICS, FACS
CHIEF MEDICAL DIRECTOR
Professor Akeem Olawale Lasisi
MBCh B, M.D(Ib) FWACS, FMCORL, Cert Hum. Genomics
CHAIRMAN MEDICAL ADVISORY COMMITTEE
Dr. D. A. Adekanle MBBS, Msc, FWACS
DIRECTOR OF ADMINISTRATION
Mr. A. J. Fabule B.Ed. (G&C), MPA, AMNIM, AHAN

ADDRESS:
P. M. B. 5000
OSOGBO
035-240985
241170
Fax: 240110

E-mail: lautechteachinghospital@yahoo.com
Website: www.lautechteachinghospital.org

Our Ref:

Date:

12th July, 2015

The Admission Officer,
University of Kwazutu Nazal,
Durban, South Africa.

Dear Sir,

RE: PREPARING MEDICAL STUDENTS TO RECOGNIZE AND RESPOND TO GENDER BASED VIOLENCE. A TRAINING GUIDE FOR MEDICAL STUDENTS IN NIGERIA.

I write to confirm the willingness of the Ladoke Akintola University of Technology Teaching Hospital, Osogbo, Osun State, Nigeria to support the proposed research titled. "*Preparing Medical students to recognize and respond to Gender Based Violence. A training Guide for Medical students in Nigeria*".

The research addresses one of the major public health problem of our society, hence it will be beneficial to medical students. Dr. Fawole is allowed to proceed with her research and discuss with final year students. On completion, she should share the results of her study and how she suggests we improve students training in this regard.

Thank you.

Yours sincerely,

Lasisi AO

Prof. Akeem Olawale Lasisi

Appendix 16: Consent Form for Medical Students

Greetings;

My name is ___________________________ and I work with the University College Hospital, Ibadan. I am part of a team doing a project to evaluate student's knowledge of signs and symptoms of Gender based Violence and their skills to manage victims. Based on the findings of this evaluation we plan to develop a curriculum to ensure students receive comprehensive training on this issue.

IRB Research approval number:

This approval will lapse on: dd/mm/yyyy

Title of Research: Preparing medical students to recognize and respond to Gender Based Violence in south west Nigeria.

Name and affiliation of researcher of Applicant: Olufunmilayo I. Fawole

Name of Organization: College of Medicine, UCH, *I*badan

Sponsor of research: Self

Purpose of the research:

The purpose of this study is to determine the content and methods used in the current training programme of medical students on gender based violence. This study will also identify those areas (knowledge gaps) which are not sufficiently being taught and/ or areas where additional raining might be required. Most of us know of friends and or family who may be better served or supported. We would therefore like to find out how much you know about GBV the information that we obtain will be used to develop a medical training programme to ensure that victims of violence receive adequate support and care. To find answers to some of these questions, we invite you to participate in an interview.

Procedures:

You have been purposefully selected to participate in this interview because you are a final year student at this institution. If you accept, you will be asked some questions on the Gender based violence. If you don't know we shall like to have your suggestions to ensure other medical students learn the essentials about violence to enable them manage victims well when they graduate as medical doctors.

Although it is important for the research that you answer all the questions, if you do not wish to answer any of the questions included in the survey, you may move on to the next question. The information you fill in will be confidential, and no one else except the study investigators will see your responses.

Expected duration of research and participants involvement: In total we expect to be involved in this research for nine months. However, the expected duration of the filling in the questionnaire is about 20 minutes.

Risks and Discomforts: There is a no risk associated with answering these questions. It would not affect you in any way. However, you may refuse to answer any question or not take part in a portion of the survey if you feel the question(s) makes you uncomfortable.

Cost to participants: Your participation in this research will not cost you anything.

Benefits: There will be no direct benefit to you, but the information obtained from this study will help to provide suggestions that will enable us develop a comprehensive curriculum for medical students in this university. The curriculum developed will also be shared with other medical schools in the country. The ultimate goal is to ensure abused women receive adequate care.

Confidentiality: We have taken the following steps to ensure that you are safe and that the information you provide is confidential.

1. The interview will take place in a private place, where no one else will hear what you discuss with the interviewer.
2. The information that we collect from this research project will be kept confidential.
3. Information collected from you will be stored in a file that will not have your name on it, but a number assigned to it instead.
4. The name associated with the number assigned to each file will be kept under lock and key and will not be disclosed to anyone except the investigators.
5. You may talk to the project investigators in case you have any concern or questions.
6. The interview guide will be destroyed after the research is completed.

Voluntariness: Your participation in this research is entirely voluntary.

Alternatives to Participation: If you choose not to participate this will not affect you in any way.

Incentives: You will not be provided any incentive to take part in the research

Right to refuse or withdraw: You do not have to take part in this research if you do not wish to do so, or refuse to participate this will not affect you in any way. You may stop participating answering the questions at any time that you wish, and there will be no negative consequences for you in any way. Please note that some of the information that has been obtained about you before you chose to withdraw may have been modified or used in reports and publications. These cannot be removed anymore. However the researchers promise to make good faith effort to comply with your wishes as much as is practicable.

Modality of providing treatments and actions to be taken in case of injury or adverse effect: Not applicable.

Research participants and Community when research is over: The researchers will inform the participating department the outcome of the research through a fact sheet.

Sharing benefits among researchers and inclusion or exclusion of participants: Medical students will benefit from the new curriculum developed.

Conflict of Interest: The researchers declare no conflict of interest.

Statement of person obtaining informed consent: I have fully explained this research to --------- ------------------------------------ and have sufficient information, including about the risk and benefits, to make an informed decision.

DATE: ___________________________ SIGNATURE: _____________________

NAME: __________________________

Statement of person giving consent:

I have read the description of the research. I have also talked it over with others to my satisfaction. I understand that my participation is voluntary. I know enough of the purpose, methods, risks and benefit s of the research study to judge that I want to take part in it. I understand that I may freely stop being part of this study at any time. I have received a copy of this consent form and additional information sheet to keep for myself.

DATE: ___________________________SIGNATURE: _____________________

NAME: __________________________

WITNESS SIGNATURE (IF APPLICABLE): ________________________________

WITNESS NAME (IF APPLICABLE): ____________________________________

This proposal has been approved by the Oyo state Ministry of Health Ethical Review Committee, College of Medicine, University of Ibadan which is a committee whose task it is to make sure that research participants are protected from harm. If you wish to find about more about the Ethics Committee, or have questions about your participation in the research contact you can contact:-

Olufunmilayo I. Fawole
Address: Department of Epidemiology and Medical statistics, Faculty of Public Health, College of Medicine, University of Ibadan
Telephone: 08032180302 or 08052207113
Email: fawoleo@ymail.com.

Appendix 17: Consent Form for Interview of Delphi Experts

Greetings;

My name is ___________________________ and I work with the University College Hospital, Ibadan. I am part of a team doing a project to evaluate medical student's knowledge on Gender based Violence and their skills to manage victims. Based on the findings of this project we plan to provide information to enable the development a training curriculum that ensures that students receive comprehensive training on this issue.

IRB Research approval number:

This approval will lapse on: dd/mm/yyyy

Title of Research: Preparing medical students to recognize and respond to Gender Based Violence in south west Nigeria.

Name and affiliation of researcher of Applicant: Olufunmilayo I. Fawole

Name of Organization: College of Medicine, UCH, *I*badan

Sponsor of research: Self

Purpose of the research:

The purpose of this study is to obtain consensus among stakeholders on content, faculty and methods of training relating to GBV curriculum in three medical schools in south west Nigeria This study will also explores why training experts think the teaching is necessary; the stage in the curriculum best suited to teach the topic and how to assess the effectiveness of training. We plan to use the information obtained to guide the development of a training programme for medical students that will ensure victims of violence receive adequate care when they are treated by physicians. To find answers to some of these questions, we invite you to participate in an interview.

Procedures:

You have been purposefully selected as an expert and potential trainer to participate in this interview. If you accept, you will be asked some questions about the gender based violence training for medical students. If you have never be part of one you will also be asked the reason why and what could be in future trainings.

I will record your answers to these questions on a tape recorder and unto this form (interview guide). This is done so that I may remember everything that you have told me. Although it is important for the research that you answer all the questions, if you do not wish to answer any of the questions included in the survey, you may ask to move on to the next question.

The information recorded will be confidential, and no one else except the study investigators will see your responses.

Expected duration of research and participants involvement: In total we expect to be involved in this research for nine months. However, the expected duration of the interview is about 50 minutes.

Risks and Discomforts: There is a no risk associated with answering these questions. It would not affect your work or promotion. However, you may refuse to answer any question or not take part in a portion of the survey if you feel the question(s) makes you uncomfortable.

Cost to participants: Your participation in this research will not cost you anything.

Benefits: There will be no direct benefit to you, but the information obtained from this study will help to provide suggestions that will provide direction enable us develop a comprehensive curriculum for medical students in this university. The curriculum developed will also be shared with other medical schools in the country. The ultimate goal is to ensure abused women receive adequate care.

Confidentiality: We have taken the following steps to ensure that you are safe and that the information you provide is confidential.

1. The interview will take place in a private place, where no one else will hear what you discuss with the interviewer.
2. The information that we collect from this research project will be kept confidential.
3. Information collected from you will be stored in a file that will not have your name on it, but a number assigned to it instead.
4. The name associated with the number assigned to each file will be kept under lock and key and will not be disclosed to anyone except the investigators.
5. You may talk to the project investigators in case you have any concern or questions.
6. The interview guide will be destroyed after the research is completed.

Voluntariness: Your participation in this research is entirely voluntary.

Alternatives to Participation: If you choose not to participate this will not affect you in any way.

Incentives: You will not be provided any incentive to take part in the research

Right to refuse or withdraw: You do not have to take part in this research if you do not wish to do so, or refuse to participate this will not affect you in any way. You may stop participating in the interview at any time that you wish, and there will be no negative consequences for you in any way. Please note that some of the information that has been obtained about you before you chose to withdraw may have been modified or used in reports and publications. These cannot be removed anymore. However the researchers promise to make good faith effort to comply with your wishes as much as is practicable.

Modality of providing treatments and actions to be taken in case of injury or adverse effect: Not applicable.

Research participants and Community when research is over: The researchers will inform the participating departments the outcome of the research through a news bulletin.

Sharing benefits among researchers and inclusion or exclusion of participants: Medical students will benefit from the new curriculum developed.

Conflict of Interest: The researchers declare no conflict of interest.

Statement of person obtaining informed consent: I have fully explained this research to ---------------- ----------------------------- and have sufficient information, including about the risk and benefits, to make an informed decision.

DATE: ___________________________ SIGNATURE: _____________________

NAME: __________________________

Statement of person giving consent:

I have read the description of the research. I have also talked it over with others to my satisfaction. I understand that my participation is voluntary. I know enough of the purpose, methods, risks and benefit s of the research study to judge that I want to take part in it. I understand that I may freely stop being part of this study at any time. I have received a copy of this consent form and additional information sheet to keep for myself.

DATE: ___________________________SIGNATURE: _____________________

NAME: __________________________

WITNESS SIGNATURE (IF APPLICABLE): ________________________________

WITNESS NAME (IF APPLICABLE): ____________________________________

This proposal has been approved by the Oyo State Ministry of Health Ethics Review Committee whose task it is to make sure that research participants are protected from harm. If you wish to find about more about the Ethics Committee, or have questions about your participation in the research contact you can contact:-

Olufunmilayo I. Fawole
Address: Department of Epidemiology and Medical statistics, Faculty of Public Health, College of Medicine, University of Ibadan
Telephone: 08032180302 or 08052207113
Email: fawoleo@ymail.com.

Appendix 18: Consent Form for Victims of Intimate Partner Violence

Greetings;

My name is ___________________________ and I work with the University College Hospital, Ibadan. I am part of a team doing a project to identify what are your perceptions on screening for intimate partner violence by physicians and other health professionals and identify types of the support that they could received from healthcare facilities. We will also like to have your suggestions on how medical students should be trained to address issues relating to domestic violence in their future profession Based on the findings of this evaluation we plan to develop provide information to guide a curriculum to ensure medical students receive comprehensive training on this issue.

IRB Research approval number:

This approval will lapse on: dd/mm/yyyy

Title of Research: Victims Perceptions on Screening Women for Intimate Partner Violence in Healthcare Settings and Training Medical Students to Respond on Violence.

Name and affiliation of researcher of Applicant: Olufunmilayo I. Fawole

Name of Organization: College of Medicine, UCH, *I*badan

Sponsor of research: Self

Approximately 20% to 40% of Nigerian women experience IPV per year, which include forms of physical or sexual violence [29]. However, only 31 percent of the women who had experienced these forms of IPV, have deemed it healthy and crucial to seek for help [29]. Consequently, the perceptions of Nigerian women on screening for IPV in medical settings health facilities are unknown. Given this, understanding women's perceptions become apropos so as to ensure that victims receive the needed support for their safety and well-being [119-121]. To this end, this study provides evidence to address this gap in knowledge. Therefore, the study was conducted to gather the perceptions from victims on IPV on practices in order to enable and sensitise physicians to the relevance of screening for violence at healthcare facilities. In addition, the research sought to determine specific categories of women who should be targeted for inquiry by medical personnel. Finally, it explored the suggestions of victims on the possible use of gathered information and their recommendations on whether and how medical students should be trained to address issues relating to IPV

Purpose of the research:

The purpose of this study is to gather the perceptions from victims on IPV on practices in order to enable and sensitise physicians to the relevance of screening for violence at healthcare facilities. In addition, we will determine specific categories of women who should be targeted for inquiry by medical personnel. Your suggestions on the possible use of gathered information and their recommendations on whether and how medical students should be trained to address issues relating to IPV are important. This will be used to develop a medical training programme to ensure that students are trained to assist victims of violence receive adequate support and care. To find answers to some of these questions, we invite you to participate in an interview.

Procedures:

You have been purposefully selected to participate in this interview because you have experienced some abuse from your partner in the past. If you accept, you will be asked some questions on your perceptions of intimate partner violence. As someone who has had this unfortunate experience, we shall like to have your suggestions to ensure medical students learn the essentials about violence to enable them manage victims well when they graduate as medical doctors.

Although it is important for the research that you answer all the questions, if you do not wish to answer any of the questions included in the schedule, you may move on to the next question. The information you fill in will be confidential, and no one else except the study investigators will see your responses.

Expected duration of research and participants involvement: In total we expect to be involved in this research for six months. However, the expected duration of the answering the questionnaire is about 50 minutes.

Risks and Discomforts: There is a no risk associated with answering these questions. It would not affect you in any way. However, you may refuse to answer any question or not take part in a portion of the survey if you feel the question(s) makes you uncomfortable.

Cost to participants: Your participation in this research will not cost you anything.

Benefits: There will be no direct benefit to you, but the information obtained from this study will help to provide suggestions that will guide the development of a comprehensive curriculum for medical students in this university. The curriculum developed will also be shared with other medical schools in the country. The ultimate goal is to ensure abused women are identified and receive adequate care when they come to the health facility.

Confidentiality: We have taken the following steps to ensure that you are safe and that the information you provide is confidential.

1. The interview will take place in a private place, where no one else will hear what you discuss with the interviewer.
2. The information that we collect from this research project will be kept confidential.
3. Information collected from you will be stored in a file that will not have your name on it, but a number assigned to it instead.
4. The name associated with the number assigned to each file will be kept under lock and key and will not be disclosed to anyone except the investigators.

5. You may talk to the project investigators in case you have any concern or questions.
6. The interview guide will be destroyed after the research is completed.

Voluntariness:_ Your participation in this research is entirely voluntary.

Alternatives to Participation:_ If you choose not to participate this will not affect you in any way.

Incentives: You will not be provided any incentive to take part in the research

Right to refuse or withdraw:_ You do not have to take part in this research if you do not wish to do so, or refuse to participate this will not affect you in any way. You may stop participating answering the questions at any time that you wish, and there will be no negative consequences for you in any way. Please note that some of the information that has been obtained about you before you chose to withdraw may have been modified or used in reports and publications. These cannot be removed anymore. However the researchers promise to make good faith effort to comply with your wishes as much as is practicable.

Modality of providing treatments and actions to be taken in case of injury or adverse effect: Not applicable.

Research participants and Community when research is over: The researchers will inform the participating institutions the outcome of the research through a fact sheet.

Sharing benefits among researchers and inclusion or exclusion of participants:_ Medical students will benefit when the new curriculum is developed.

Conflict of Interest: The researchers declare no conflict of interest.

Statement of person obtaining informed consent: I have fully explained this research to -- and have sufficient information, including about the risk and benefits, to make an informed decision.

DATE: ___________________________ SIGNATURE: _____________________

NAME: __________________________

Statement of person giving consent:

I have read the description of the research. I have also talked it over with others to my satisfaction. I understand that my participation is voluntary. I know enough of the purpose, methods, risks and benefit s of the research study to judge that I want to take part in it. I understand that I may freely stop being part of this study at any time. I have received a copy of this consent form and additional information sheet to keep for myself.

DATE: ___________________________SIGNATURE: _____________________

NAME: __________________________

WITNESS SIGNATURE (IF APPLICABLE): ________________________________

WITNESS NAME (IF APPLICABLE): ____________________________________

This proposal has been approved by the Oyo state Ministry of Health Ethical Review Committee, College of Medicine, University of Ibadan which is a committee whose task it is to make sure that research participants are protected from harm. If you wish to find about more about the Ethics Committee, or have questions about your participation in the research contact you can contact:-

Olufunmilayo I. Fawole
Address: Department of Epidemiology and Medical statistics, Faculty of Public Health, College of Medicine, University of Ibadan
Telephone: 08032180302 or 08052207113
Email: fawoleo@ymail.com.

Appendix 19: Accepted Journal Article, African Health Sciences

27-Sep-2017

Dear Professor Fawole:

Your manuscript entitled "PREPARING MEDICAL STUDENTS TO RECOGNIZE AND RESPOND TO GENDER BASED VIOLENCE IN NIGERIA" has been successfully submitted online and is presently being given full consideration for publication in the African Health Sciences.

Your manuscript ID is WKR0-2017-06-0530.R2.

Please mention the above manuscript ID in all future correspondence or when calling the office for questions. If there are any changes in your street address or e-mail address, please log in to Manuscript Central at https://mc.manuscriptcentral.com/mums-ahs and edit your user information as appropriate.

You can also view the status of your manuscript at any time by checking your Author Center after logging in to https://mc.manuscriptcentral.com/mums-ahs.

Thank you for submitting your manuscript to the African Health Sciences.

Sincerely,
African Health Sciences Editorial Office

15-October
Prof. James Tumwine <kabaleimc@gmail.com>
To:Gloria Kaudha,fawoleo@ymail.com
Oct 15 at 11:08 AM

When will this paper be published.

WKR0-2017-06-0530.R2

--

James K Tumwine
Professor, Paediatrics and Child Health
School of Medicine, College of Health Sciences, Makerere University, at Mulago Hospital, Kampala, Uganda
Phone: +256 414 531875
Mobile: +256 772 494120
Email: kabaleimc@gmail.com

Appendix 20: Accepted Journal Article, African Journal of Health Professions Education

From: em.ajhpe.0.587aa5.d3cba41c@editorialmanager.com
[mailto:em.ajhpe.0.587aa5.d3cba41c@editorialmanager.com] **On Behalf Of** AJHPE
Sent: Wednesday, January 10, 2018 11:15 AM
To: Jacqueline Van Wyk <Vanwykj2@ukzn.ac.za>
Subject: Your Submission

You are being carbon copied ("cc:'d") on an e-mail "To" "olufunmilayo ibitola Fawole" fawoleo@ymail.com
CC: vanwykj2@ukzn.ac.za, adebolaadejimi@yahoo.com, ojakinsola@cmul.edu.ng, oobalogun1@gmail.com

Ref.: AJHPE988R1
Establishing Consensus among Inter Professional Faculty on a Gender Based Violence Curriculum in Medical Schools in Nigeria: A Delphi Study
African Journal of Health Professions Education

Dear Prof Fawole,

We are pleased to tell you that your work has now been accepted for publication in African Journal of Health Professions Education.

Thank you for submitting your work to the journal.

Best wishes

Elizabeth Wolvaardt, PhD
Associate Editor
African Journal of Health Professions Education

Appendix 21: Submitted Journal Article, BMC Medical Education

On Sunday, October 21, 2018, 4:38:50 PM GMT-12, BMC Medical Education Editorial Office <em@editorialmanager.com> wrote:

MEED-D-18-00117R2

Training Medical students: Victims Perceptions on Screening Women for Intimate Partner Violence in Healthcare Settings.

Olufunmilayo Ibitola Fawole, MBBS, PhD; Jacqueline Van Wyk, PhD; Adebola A Adejimi, MBBS, MPH, FWACP (PH); Tosin Akinsola, PhD; Busola O Balogun, MBBS, MPH

BMC Medical Education

Dear Prof. Fawole,

I have further assessed your manuscript "Training Medical students: Victims Perceptions on Screening Women for Intimate Partner Violence in Healthcare Settings." (MEED-D-18-00117R2). Based on my own assessment as Editor, I am pleased to inform you that **it is potentially acceptable for publication in BMC Medical Education**, once you have carried out some final essential minor revisions.

My comments, are below. Please also take a moment to check our website at

https://meed.editorialmanager.com/ for my additional comments that were saved as an attachment.

Once you have made the necessary corrections, please submit a revised manuscript online at:

https://meed.editorialmanager.com/

If you have forgotten your password, please use the 'Send Login Details' link on the login page at https://meed.editorialmanager.com/. For security reasons, your password will be reset.

We request that a point-by-point response letter accompanies your revised manuscript. This letter must provide a detailed response to each reviewer/editorial point raised, describing what amendments have been made to the manuscript text and where these can be found (e.g. Methods section, line 12, page 5). If you disagree with any comments raised, please provide a detailed rebuttal to help explain and justify your decision.

Please also ensure that your revised manuscript conforms to the journal style, which can be found at the Submission Guidelines on the journal homepage.

A decision will be made once we have received your revised manuscript, which we expect by 05 Nov 2018.

Please note that you will not be able to add, remove, or change the order of authors once the editor has accepted your manuscript for publication. Any proposed changes to the authorship must be requested during peer-review, and adhere to our criteria for authorship as outlined in BioMed Central's policies. To request a change in authorship, please download the 'Request for change in authorship form' which can be found here -

http://www.biomedcentral.com/about/editorialpolicies#authorship. Please note that incomplete forms will be rejected. Your request will be taken into consideration by the editor, and you will be advised whether any changes will be permitted. Please be aware that we may investigate, or ask your institute to investigate, any unauthorized attempts to change authorship or discrepancies in authorship between the submitted and revised versions of your manuscript.

We look forward to receiving your revised manuscript and please do not hesitate to contact us if you have any questions.

Best wishes,

Malissa Shaw

BMC Medical Education

https://bmcmededuc.biomedcentral.com/

BMC Medical Education Editorial Office <em@editorialmanager.com>

To:olufunmilayo ibitola Fawole

Oct 31 at 12:38 PM

MEED-D-18-00117R3

Training Medical students: Victims Perceptions of Selectively Screening Women for Intimate Partner Violence in Healthcare Settings.

Olufunmilayo Ibitola Fawole, MBBS, PhD; Busola O Balogun, MBBS, MPH; Adebola A Adejimi, MBBS, MPH, FWACP (PH); Tosin Akinsola, PhD; Jacqueline Van Wyk, PhD

BMC Medical Education

Dear Prof. Fawole,

Thank you for the revised version of your manuscript 'Training Medical students: Victims Perceptions of Selectively Screening Women for Intimate Partner Violence in Healthcare Settings.' submitted to BMC Medical Education.

You may check the status of your manuscript at any time by accessing the following website:

https://meed.editorialmanager.com/

If you have forgotten your password, please use the 'Send Login Details' link on the login page at https://meed.editorialmanager.com/. For security reasons, your password will be reset.

We will inform you of the Editor's decision as soon as possible.

Best wishes,

Editorial Office

BMC Medical Education

https://bmcmededuc.biomedcentral.com/

Recipients of this email are registered users within the Editorial Manager database for this journal. We will keep your information on file to use in the process of submitting, evaluating and publishing a manuscript. For more information on how we use your personal details please see our privacy policy at https://www.springernature.com/production-privacy-policy or email dataprotection@springernature.com. If you no longer wish to receive messages from this journal or you have questions regarding the Editorial Manager database and the publishing process, please email our publication office, stating the journal name(s) and your email address(es):

PublicationOfficeSPI@springernature.com

In compliance with data protection regulations, please contact the publication office if you would like to have your personal information removed from the database.

Appendix 22: Approved CHS Guidelines for Presentation of Thesis

GUIDELINES FOR PRESENTATION OF MASTERS AND PHD DISSERTATIONS/THESES BY RESEARCH

1. Purpose
The purpose of this document is to provide guidance to students and supervisors on how to prepare a dissertation/thesis for Masters by Research and PhD degrees using the manuscript or publication format..

2. Introduction
These guidelines must be read together with the College of Health Sciences (CHS) Handbook as well as the Jacobs documents on examination policies and procedures for PhD degrees. The rules on thesis format are based on modification of point 1 of the definition of terms section in the Jacobs document. In this section a thesis is defined as *"the supervised research component of all PhD degrees, whether by supervised research only, or coursework and research, or by papers that are either published or in manuscript form (the supervised research component of the PhD degree by paper(s) comprises the introduction, literature review, account of the methodology, selection of manuscripts, and conclusion)."* A dissertation is defined as "*the supervised research component of all Masters degrees, whether by supervised research only, or coursework and research, or by papers that are either published or in manuscript form (the supervised research component of the Masters degree by paper(s) comprises the introduction, literature review, account of the methodology, selection of manuscripts, and conclusion*)."

2.1 PhD thesis
In the CHS Handbook the rules for a PhD thesis are not in one place; they are stated in DR8 a i & ii, DR9 c and CHS 16. DR8 a i & ii and direct that a thesis be presented in the standard format together with one published paper or an unpublished manuscript that has been submitted to an accredited journal, arising from the doctoral research. CHS16 (thesis by publications states that the thesis may comprise of at least three published papers or in press in accredited journals; such papers must have the student as the prime author. The same CHS16 provides for a thesis by manuscripts that may have at least 3 papers with the student as the prime author that have not yet been published but are in the form of manuscripts; at least two of such papers must constitute original research. In both cases (thesis by publications and manuscripts), there must be introductory and concluding integrative material sections.

The standard type thesis is being phased out in many African countries in favour of the other options that originate from the Scandinavian countries. While this format ensures that all details of the work done for the doctoral degree are captured and thoroughly interrogated, they often remain as grey literature which is mainly useful to other students, usually within the same university, although with digitization of theses, such work may become more accessible beyond the source university. Apart from the risk of losing good work because of it not being on the public domain, as students rarely publish such work after graduating, this approach denies the college additional productivity units (PUs) emanating from publications.

The thesis by publication encourages students to publish key aspects of their doctoral research as they will not graduate if the papers are not published or in press. This approach ensures that the work of the student enters the public domain before the thesis is examined, providing the examiner with some assurance of prior peer review. The thesis must constitute a full study of the magnitude expected of a PhD with the papers providing a sound thread or storyline. Furthermore, the college maximizes the students' work as PUs are awarded for the papers as well as for graduating. However, this approach may negatively affect throughput and frustrate students as

they cannot graduate unless all the papers are published or in press, in addition to the synthesis chapter demonstrating the story line of the thesis.

The option of a thesis by manuscripts ensures that students make efforts to start publishing. The risk of not passing because of failure to publish all papers (as in the thesis by publication) does not exist under this option. However, the PUs emanating from publications from the doctoral work are not guaranteed as the submitted papers may eventually be rejected. Thus there is a possibility of the doctoral work remaining on the university library shelves as is the case for the standard thesis format. The standard thesis does have the advantage that more details of the doctoral work are usually included.

In view of the above, the best option for the college is that of a thesis by publication. However, in the interim, the attractive option is that of thesis by manuscripts, as it provides the possibility of publication without putting the student at risk of delayed graduation when some of the manuscripts are not published/accepted, which also disadvantages the college in terms of PU earnings. The standard thesis option should ultimately be phased out for the stated reasons and students are not encouraged to present their theses in that format. Consequently this document does not describe the standard thesis.

2.2 MSc dissertation

The rules on presentation of MSc dissertations are presented in CR13 (course work), CHS 14 (course work) and MR9 (research) in the CHS Handbook. CR13 c and MR9 c direct that a dissertation "may comprise one or more papers of which the student is the prime author, published or in press in peer-reviewed journals approved by the relevant college academic affairs board or in manuscripts written in a paper format, accompanied by introductory and concluding integrative material." Such a dissertation should include a detailed description of the student's own distinct contribution to the papers. Both CHS14 and CR13 specify that reviews and other types of papers in addition to original research paper/s may be included, provided they are on the same topic.

3 Length of thesis and dissertation by word count

Table 1 provides a guide of the length of a thesis or dissertation by word count excluding preliminary pages and annexes.

Table 1: Thesis length by word count

Sections				
	Minimum	Maximum	Minimum	Maximum
Introduction	2700	2700	2000	2000
Chapters	10000	25000	6000	11000
synthesis	2000	2000	1700	1700
bridging	300	300	300	300
Total	15000	30000	10000	15000

4. *Intention to submit*

A written intention to submit a thesis or dissertation should be submitted to the appropriate postgraduate office with endorsement of the supervisor at least three months before the actual date of submission which should be before November if the student intends to graduate in the following year. The actual submission will under normal circumstances require approval of the supervisor.

5. Format for theses/dissertation

There is little variation in the actual format of the PhD thesis and Masters dissertation for the various types described above. The box below summarise the outline of a thesis/dissertation for the thesis by manuscripts and thesis by publications.

Box 1: Outline of thesis

Preliminary pages

i. Title page
ii. Preface and Declaration
iii. Dedication
iv. Acknowledgements
v. Table of contents
vi. List of figures, tables and acronyms (separately presented)
vii. Abstract

Main Text

1. Chapter 1: Introduction
   Introduction including literature review
   Research questions and/or objectives
   Brief overview of general methodology including study design
2. Chapter 2
   First manuscript/publication
3. Chapter 3
   Second manuscript/publication
4. Chapter n
   Final manuscript/publication
5. Chapter n+1: Synthesis
   Synthesis
   Conclusions
   Recommendations
6. References Appendices

NB. Between the manuscripts or publications there must be a 1 page (maximum) bridging text to demonstrate the link between them

6. Details for thesis/dissertation subheadings

This section summarizes what is expected under each subheading shown in Boxes 1 and indicates where there might be variations between a Masters Dissertation and PhD Thesis.

6.1 Title Page

The officially approved title that is concise (Fewest words that adequately describe the contents of the thesis/dissertation – usually 15 or fewer words) is presented at the top. This should be followed by the candidate's name in a new line. At the bottom the thesis statement should be presented. The thesis statement may be stated as "*Submitted in fulfillment of the requirements for the degree of ____ in the School of _______, University of KwaZulu-Natal*" for a PhD/Masters by Research thesis. In the case of a Masters Dissertation it should be stated as "Submitted as the dissertation component in partial fulfilment (% stated) for the degree of ______ in the School of ______, University of KwaZulu-Natal". For both Masters and PhD the date of submission must be stated.

6.2 Preface (Optional)

The preface merely states the reason (motivating factors) why the study was conducted without getting into details of what was investigated.

6.3 Declaration

This must be structured as follows:

I, Dr/Mr _________, declare as follows:

1. That the work described in this thesis has not been submitted to UKZN or other tertiary institution for purposes of obtaining an academic qualification, whether by myself or any other party.

   Where a colleague has indeed prepared a thesis based on related work essentially derived from the same project, this must be stated here, accompanied by the name, the degree for which submitted, the University, the year submitted (or in preparation) and a concise description of the work covered by that thesis such that the examiner can be assured that a single body of work is not being used to justify more than one degree.
2. That my contribution to the project was as follows:

   This is followed by a concise description of the candidate's personal involvement in and contribution to the project, in sufficient detail that the examiner is in no doubt as to the extent of their contribution.
3. That the contributions of others to the project were as follows:

   This is followed by a list of all others who contributed intellectually to the project, each accompanied by a concise description of their contribution. This does not include people who ordinarily would be "acknowledged" as opposed to considered for authorship.

4. Signed _____________________ Date________________

6.4 Dedication

This is an optional section. Should it be included it must be very brief merely indicating to whom the work is dedicated. Avoid anything too flowery

6.5 Acknowledgements

This section acknowledges all individuals, groups of people or institutions that the candidate feels indebted to for the support they rendered. The funding source for the work should also be acknowledged.

6.6 Table of contents

Table of contents must be inserted after the preliminary sections and must capture all major sections of the thesis at the various levels (primary, secondary, tertiary subheadings). It should be electronically generated and should be able to take the reader to specific headings in the thesis.

6.7 Lists of figures, tables and acronyms

These lists must be presented separately. All titles of figures presented in the thesis/dissertation must be listed indicating on what page they appear. Similarly for tables the titles must be presented indicating on what page they appear. In the case of acronyms, the acronym is stated and all the words describing the acronym are presented. Only key acronyms should be stated. In some cases they may not be listed as long as full text is presented whenever the acronym is used for the first time.

6.8 Abstract

The abstract should summarize the thesis mainly stating the purpose of the study, highlights of chapters and the new knowledge contributed by the thesis. The abstract must be approved by the supervisor of the thesis and should not be more than 350 words in length.

6.9 Introduction

The introductory chapter for both types of thesis is similar. The section should include literature review and have the following information. Headings are used as appropriate and need not correspond exactly to the following.

i. Background and the context of the study
ii. Description of the core research problem and its significance
iii. A comprehensive, critical, coherent overview of the relevant literature leading to clearly defined knowledge gaps
iv. A coherent problem statement highlighting the nature and magnitude of the problem, the discrepancy, knowledge gaps therein and possible factors influencing the problem.
v. Clear and SMART research questions, objectives and hypothesis and/or theoretical framework
vi. A conceptual framework (optional)
vii. Description of the study area and general methodology *(in a standard thesis this should be a stand-alone section)*
viii. Layout of the thesis (thesis structure) indicating what chapters are presented in the thesis and how they address the objectives.

6.10 Literature review

This section is subsumed in the introduction within the stipulated word count for a thesis or dissertation.

6.11 Methodology

A standalone section is not needed as the methods are adequately described in each manuscript/publication.

6.12 Data chapters/manuscripts/publications

The full published paper or manuscript submitted for publication should be presented as published or submitted to the journal. The actual published paper should be scanned and inserted

in the chapter. There should be a separator page between chapters that has text linking the previous chapter to the next and providing details of the next manuscript/publication indicating publication status.

6.13 General discussion/Synthesis chapter
This is a general discussion that demonstrates the logical thread that runs across the various manuscripts/publications (synthesis). There should be no doubt that the manuscripts/publications complement each other and address the original objectives stated in the general introduction of the thesis. The general discussion/synthesis chapter should end with a conclusion and recommendations where necessary.

6.14 References
Only references cited in the introduction and synthesis chapters should be listed as all other references should be within the manuscripts presented under data chapters.

6.15 Annexes
All information (questionnaires, diagrams, ethics certificates, etc) considered important but not essential for inclusion in the actual thesis is put in this section as reference material. In addition papers that emanated from the work but not directly contributing to the thesis may be included.

7. Thesis formatting
For standardisation of thesis the following formatting specifications should be followed.

7.1 Font
Times New Roman 11pt should be used throughout the thesis. However, major headings may be made bigger (12pt) but using the same font type

7.2 Paper size and margins
A4 (297 x 210 mm) should be used and in the final thesis both sides of the paper should be used. However, the loose bound copy submitted for examination should be printed on only one side. The recommended margins are 30mm for all the left, right, top and bottom margins.

7.3 Line spacing
The copy submitted for examination should have 1.5 line spacing but the final copy should have single line spacing. Paragraphs should be separated by a blank line. Published or submitted manuscripts should remain in their original format in all aspects as they are inserted in their published format in appropriate places.

7.4 Headings
A consistent numbering system and captions should be maintained with first level being in CAPS and centred, second level being **normal bold** font and third level being ***italics bold***. If there is need for 4th level it should be *normal italics.*

7.7 Pagination
Page numbers should be centred at the bottom of the page. All preliminary pages should be numbered in lower case Roman numerals and subsequent pages should be numbered as indicated in the Box The title page should not be numbered.

The body of the thesis (chapter 1 onwards) should be numbered consecutively with Arabic numerals. The numbers should continue consecutively from the introduction through the through the publications or submitted manuscripts and subsequent sections. The published papers will therefore bear two numbers: a set specific to the manuscript (it is recommended to place these in the upper right hand corner) or published paper, as well as the consecutive numbers belonging to the thesis as a whole. Care must be taken to distinguish these in terms of position and font.

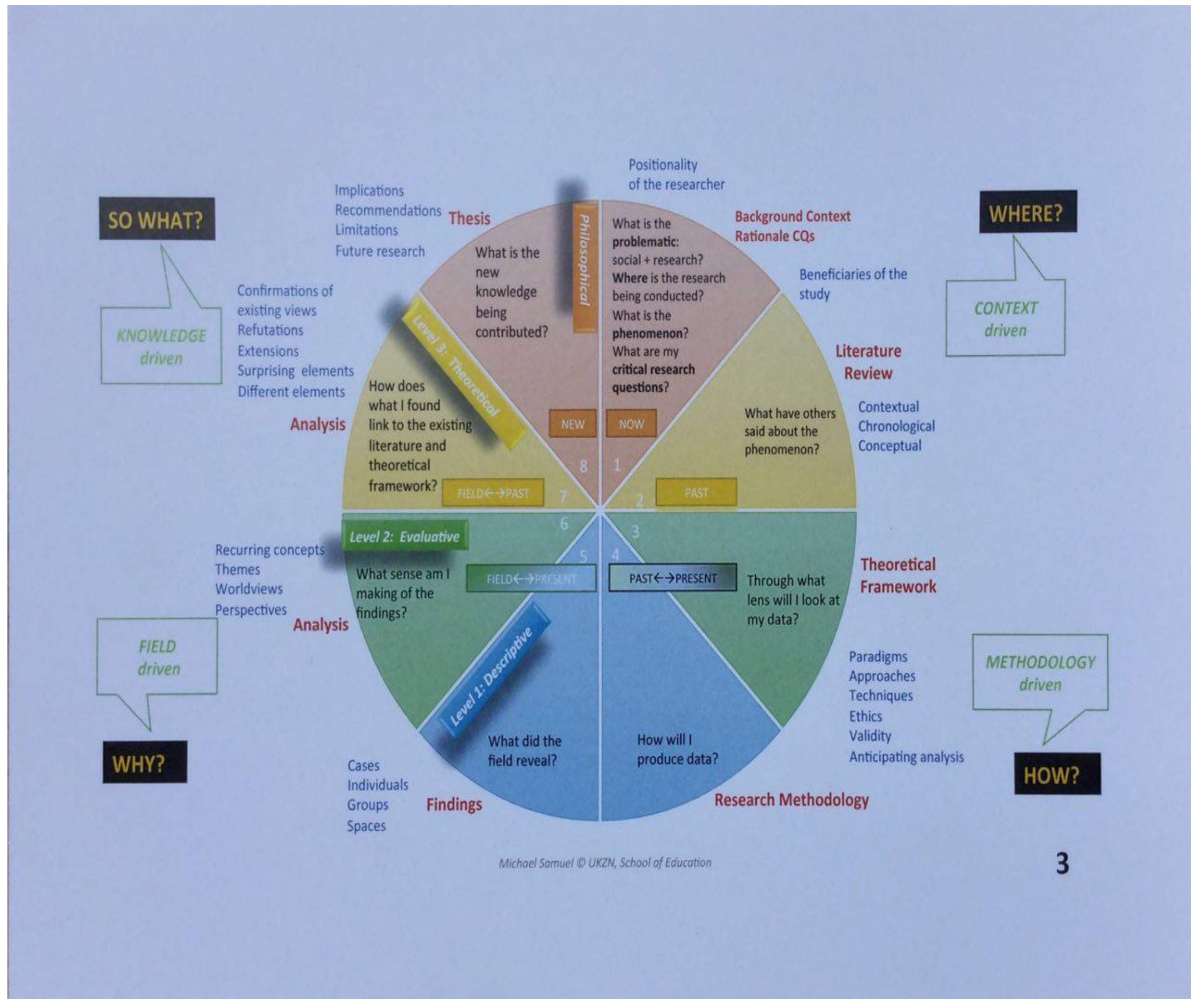
7.8 Referencing

Supervisors have the freedom to decide the type of citation of references but there must be consistency. This is mainly applicable to the standard type of thesis. In the case of thesis by manuscripts or publications, individual papers will maintain the reference system of the journal but the supervisor can decide on the type of referencing for the introductory and synthesis chapters.

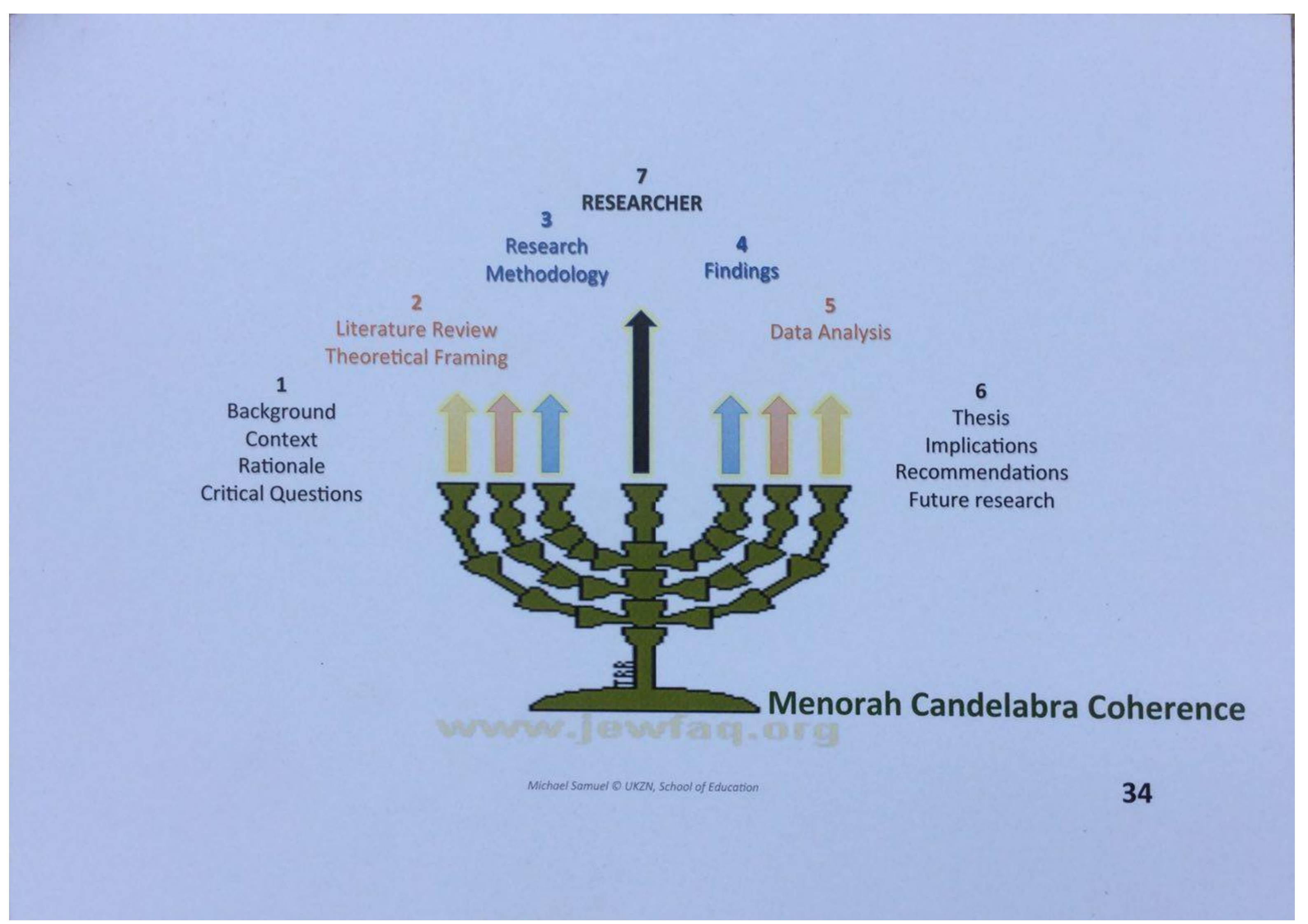
8. Final thesis submission

The thesis should be submitted for examination in a loose bound form accompanied by a PDF copy. After the examination process the final version PDF copy of the thesis must be submitted to PG office for onward submission to the library. It is not a requirement to submit a copy fully bound in leather cloth or similar material.

Appendix 23: The PhD Research Process



Appendix 24: The Menorah Candelabra Coherence



7
RESEARCHER
3
Research
Methodology
4
Findings
2
Literature Review
Theoretical Framing
5
Data Analysis
1
Background
Context
Rationale
Critical Questions
6
Thesis
Implications
Recommendations
Future research
Menorah Candelabra Coherence
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