Intimate partner violence, its mental health and help seeking implications for young adults in Rwanda

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ABSTRACT

Aim: This thesis aimed to explore the magnitude of Intimate Partner Violence (IPV), its risk factors and resulting mental health effects. A further aim was to explore the barriers to care for people suffering from mental disorders as well as for people exposed to IPV.

Methods: A population-based cross-sectional study was conducted, using the World Health Organization's questionnaire for violence research. It included 477 women and 440 men aged 20-35 years. For mental disorders, we used the Mini International Neuropsychiatric Interview questionnaire. Simple and multivariable logistic regression was used to identify risk factors associated with IPV, mental disorders and barriers to care. In addition, six focus group discussions were conducted with health care professionals regularly meeting people exposed to partner violence.

Results: Women were highly exposed to IPV, with a tremendous impact on women's mental health. In spite of this, women rarely sought professional help for mental problems due to the many barriers experienced. Instead, they preferred to go to someone they knew, partly due to services not being available, accessible, acceptable and of a good quality. Further, a conflict between what the state wants to achieve in terms of gender equality and the existing culture, heavily influenced by masculinity norms, was identified. This situation exposes women to high levels of abuse and poor access to help and support services. For men, there was a different pattern as they were considerably less exposed to IPV. However, men still suffered from mental problems found to be associated with IPV but mainly due to other factors, such as poverty and exposure to traumatic episodes during the genocide.

Further, men sought health care for mental problems to a much lower extent than women, possibly due to gender norms. Health care professionals also confirm that men are not seen in the health care services as victims of IPV.

Conclusions: The findings in this thesis revealed that women were more exposed to IPV, with serious mental health effects compared to men, and women also faced more barriers when seeking care. Gender inequality was an important factor behind women's poor health. Hence, the promotion of gender equality needs to be reinforced at all levels of societal organization. For both men and women, the attainment of higher levels of education, can improve the present situation. Further, interventions to decrease poverty will lower the prevalence of IPV and reduce its mental health effects. Mental health care and IPV support services need to be made available and equipped with health professionals able to handle IPV cases and mental disorders.

Keywords: Intimate Partner Violence, mental disorders, help seeking behaviours, barriers to care

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SAMMANFATTNING PÅ SVENSKA

Bakgrund: partnervåld, PV, är ett allvarligt folkhälsoproblem i de flesta länder och kulturer, oftast i form av mäns våld mot kvinnor men även det motsatta förekommer. PV förekommer i de flesta länder och kulturer men inte i samma utsträckning. I länder där kvinnors rättigheter är begränsade i jämförelse med mäns och där våld accepteras som ett sätt att lösa konflikter, förekommer mäns våld mot kvinnor oftare. Likaså är mäns våld mot kvinnor vanligare i samhällen präglade av fattigdom, arbetslöshet och svaga sociala nätverk.

Detta projekt, som genomförts i Rwanda under åren 2011-15, undersökte mäns och kvinnors utsatthet för PV, vilka psykiska ohälsoeffekter detta fört med sig och vidare undersöktes vårdsökande beteende och vilka barriärer till vård som män och kvinnor erfarit.

Rwanda är ett litet land mitt i Afrika med 10 miljoner invånare. Landet präglas av det folkmord som skedde 1994 då under 3 månaders tid 800.000-1 miljon människor dödades. Alla familjer i Rwanda har på ett eller annat sätt haft traumatiska upplevelser under denna period med långsiktiga fysiska, men framför allt psykiska ohälsoeffekter. Idag är landet i stark ekonomisk tillväxt och hälsan förbättras stadigt, men fortfarande är Rwanda t ett av världens fattigaste länder.

Metod:

En populationsbaserad undersökning genomfördes, med ett slumpmässigt urval av hushåll i landets södra provins. Kortutbildade psykologer genomförde intervjuer med män respektive kvinnor i åldern 20-35 år genom att besöka varje utvalt hushåll; 477 kvinnor och 440 män intervjuades. Olika välkända frågeformulär användes för att uppskatta våldsförekomst från make/maka/partner eller tidigare partner och vilken form av våld som utövats, fysiskt, psykiskt eller sexuellt, samt hur ofta detta skett. Vidare bedömdes det psykiska hälsotillståndet med ett diagnostiskt instrument. Vem man vände sig till vid psykisk ohälsa och hur många som sökte hälso- och vård uppskattades. Deltagarnas utbildning, inkomst, levnadsstandard och flera andra faktorer kartlades. Materialet analyserades med hjälp av epidemiologiska och biostatistiska metoder. Vidare genomfördes fokusgruppsintervjuer med hälsopersonal.

Resultat:

Vi fann att kvinnor var betydligt mer utsatta för PV än män och effekterna på psykisk hälsa var omfattande för kvinnor men betydligt mindre framträdande för män. Kvinnor drabbades av fysiskt våld (18.8%), av sexuellt våld (17.4%) och psykologiskt våld (21.4%); motsvarande siffror för män var 4.3%, 1.5% samt 7.3%. Risken för att de som utsatts för PV skulle lida av depression, suicidtankar, ångest eller post-traumatiskt stressyndrom var 3-6 ggr så hög sm för kvinnor som inte utsatts för PV. För män så fanns statistiskt signifikanta samband endast för depression under de senaste två veckorna och ångest, där riskökningen var 4 ggr så stor jämfört med för dem som inte varit utsatta för partnervåld.

Att söka vård i Rwanda kan vara svårt p.g.a. långa avstånd och begränsade transportmöjligheter för att komma till vård, vidare finns risken att bli dåligt bemött då man söker vård vilket medför att många med psykiska besvär inte alls söker vård utan istället vänder sig till anhöriga eller vänner för att få hjälp och stöd. Vi fann att 38% av kvinnorna och 30% av männen som led av depression och/eller suicidtankar sökte vård, främst på en vårdcentral, medan 66% av kvinnorna och 58% av männen uppgav att de istället sökte hjälp och stöd hos en vän i första hand, sedan hos en släkting eller hos en hälsovårdskunnig person i byn (kvinnor främst). På frågan vilka svårigheterna var att söka vård i hälso-och sjukvården svarade de flesta att de inte visste vart de skulle vända sig, att man inte trodde att man skulle få bra vård eller att hälsoproblemet skulle gå över av sig självt. Lika vanligt var långa avstånd, för dyrt och att det inte fanns någon transport tillgänglig till en vårdenhet.

I den kvalitativa studien som undersökte barriärer till vård för dem som utsatts för partnervåld så framkom att jämställdhet mellan könen hade stor betydelse. Om en kvinna skulle anmäla sin man för misshandel och han sedan skulle få sitt straff så skulle detta påverka inte bara mannen negativt utan även ge kvinnan dåligt rykte p.g.a. hon anmält honom. Man förväntas inte avslöja våldshändelser i familjen för någon utomstående och dessutom skulle kvinnan få svårt att försörja sig då det huvudsakligen är mannen som har en inkomst. Av dessa skäl tar kvinnor ofta tillbaka sina anmälningar om våldsutsatthet.

Konklusioner:

Det finns lagar och regelverk som förbjuder våld i nära relationer i Rwanda men dessa behöver stärkas, främst vad gäller kvinnors situation. Hälso- och sjukvården har små resurser och det finns få kliniker för psykisk ohälsa och

få utbildade psykiatrer i landet. Den psykiatriska vården upprätthålls av mentalsköterskor och sjuksköterskor utan specialistutbildning. Detta måste förbättras och fler med psykiatrisk kompetens finnas i vården och då främst i primärvården som har högsta tillgängligheten. Vidare behöver hälso-och sjukvårdspersonal få bättre utbildning i vad det innebär att vara utsatt för våld och i att kunna ta hand om dessa patienter. Enheter för våldsutsatta där de kan få stöd, skydd och hjälp behöver byggas ut. I grunden är jämställdhet mellan könen en av de viktigaste faktorerna för att minska PV och regeringen har gjort flera satsningar inom detta område som dock inte är tillräckliga.

LIST OF PAPERS

This thesis is based on the following studies, referred to in the text by their Roman numerals.

I. Umubyeyi A, Mogren I, Ntaganira J, Krantz G. Women are considerably more exposed to intimate partner violence than men in Rwanda: results from a population-based, cross-sectional study. *BMC Women's Health* 2014, 14:99

doi: 10.1186/1472-6874-14-99, Open Access

II. Umubyeyi A, Mogren I, Ntaganira J, Krantz G. Intimate Partner Violence and its contribution to mental disorders in men and women in the post genocide Rwanda: findings from a population-based study. *BMC Psychiatry* 2014, 14:315

doi: 10.1186/s12888-014-0315-7, Open access

III. Umubyeyi A, Mogren I, Ntaganira J, Krantz G. Help seeking behaviours, barriers to care and self-efficacy for seeking mental health care, a population based study in Rwanda. Accepted for publication in *Social Psychiatry and Psychiatry Epidemiology*

doi: 10.1007/s00127-015-1130-2, Open access

IV. Umubyeyi A #, Persson M #, Mogren I, Krantz G. Gender inequality prevents abused women from seeking care despite the gender based violence legislation: a qualitative study from Rwanda. Manuscript submitted for publication.

CONTENT

1 INTRODUCTION 1
1.1 Research setting 1
1.2 General Overview 2
1.2.1 Violence definition, typology and forms of violence 3
1.2.2 IPV Prevalences 4
1.2.3 Ecological framework 6
1.2.4 IPV and risk factors 8
1.3 IPV and gender 9
1.4 IPV and mental health effects 11
1.5 Help seeking and barriers to care 12
1.6 Public Health 16
1.7 Selection of research methods 16
2 AIM 19
3 METHODOLOGY 20
3.1 Quantitative studies I-III 23
3.1.1 Study design 23
3.1.2 Study population, sampling procedures and sample size 23
3.1.3 Data collection procedures 25
3.1.4 Survey instruments 25
3.1.5 Data analysis 28
3.2 Qualitative study IV 29
3.2.1 Setting and participants 29
3.2.2 Interview 30
3.2.3 Data analysis 31
3.2.4 Ethical considerations for studies I-IV 32
4 RESULTS 34

4.1 Background characteristics of the study participants 34
4.2 Prevalence of IPV for men and women 34
4.3 IPV and mental health effects 38
4.4 Help seeking behaviours, barriers to care and self-efficacy 41
4.5 Health care seeking of women subjected to IPV 45
4.5.1 Challenges faced by abused women seeking health care 46
4.5.2 Understanding how women's protection is facilitated by community and legal actions 46
5 DISCUSSION 48
5.1 Main findings 48
5.2 Methodological considerations 57
6 CONCLUSION 62
7 FUTURE PERSPECTIVES 63
7.1 Policy implications 63
7.2 Research implications 64
8 ACKNOWLEDGEMENT 65
9 REFERENCES 67

ABBREVIATIONS

IPV	Intimate Partner Violence
WHO	World Health Organization
NISR	National Institute of Statistics of Rwanda
RNEC	Rwanda National Ethics Committee
RDHS	Rwanda Demographic and Health Survey
PAF	Population Attributable Fraction
MINI	Mini International Neuropsychiatric Interview
CA	Content Analysis
AAAQ	Availability, Accessibility, Acceptability and of a good quality
FGD	Focus Group Discussion
RwVMHBC	Rwanda Violence, Mental Health and Barriers to care project
PTSD	Post-Traumatic Stress Disorders
GBV	Gender Based Violence
DALY	Disability Adjusted Life Year

1 INTRODUCTION

1.1 Research setting

Rwanda is located in Central and East Africa. The country has about 10.5 million inhabitants [1]. A large proportion of the population is younger with 43.9 % below the age of 20 [1]. The Rwandan social context is affected by the genocide of 1994. Over a period of 100 days, about one million inhabitants were murdered in the genocide against the Tutsis. The genocide violence affected almost all families. In the period after the genocide, Rwanda has developed into a society where societal structures are stable. The Rwandan economy has grown over recent years, with a rapid improvement in rural poverty linked to a strong investment in agriculture and social protection [2]. Today, Rwanda is among the fastest growing economies in Africa. Between 2000-2001 and 2010-2011, the economy grew at nearly 8% per year, and poverty declined from 59% to 45%.

The health status of the Rwandan population has also critically improved. Although Rwanda still has a high fertility rate of 4.2 children (3.6 children in urban and 4.3 in rural areas) [3], a significant reduction in maternal mortality rate from 476 deaths per 100,000 live births in 2010 to 210 deaths per 100,000 live births in 2015 as well as a reduction in infant mortality rates, has recently been reported [3]. Other achievements include reduction in malaria incidence and TB prevalence rates [2]. However, 9.3% of deliveries are still happening at home without any assistance from a skilled health personnel [3]. In addition, data from the 2014-2015 Rwanda Demographic and Health survey showed that teenage fertility is still an important concern, with seven percent of young women age 15-19 years already beginning the child-bearing: six percent already mothers and two percent pregnant [3]. This is the situation despite the fact that formal unions (marriage) or informal unions (living together) are the

sole socially permissible context for sexual activity [4] and the minimum age for marriage is fixed at twenty-one years [5].

1.2 General Overview

Intimate Partner Violence (IPV), mental disorders and barriers to care represent widespread public health problems [6-13], especially for women [14-17] compared to men [6,8,11]. Acts of violence form a pattern of behaviours which violates the rights of women and girls, limits their participation in society, and damages their health and well-being [9,18,19]. Irrespective of their socio-economic status, educational background or employment status, women face violence as well as its mental health and health seeking consequences. Findings in a study from the United States, including men and women, indicate that women have significantly higher lifetime and 12-month IPV prevalence and are more likely to report IPV-related injury than men [6]. The WHO Multi-Country Study on Women's Health and Domestic Violence, a ten-country study, reports women's exposure to partner violence in the past year to be between 4% and 54% [20]. Moreover, IPV has both short-term and long term negative health effects [12]. Men and women exposed to IPV often have an increased risk of being diagnosed with depression, anxiety, PTSD and suicide attempts [8,11,15] but women to a higher extent than men [10,15,21]. IPV and mental disorders are also more common among young people [17,22,23]. However, young people are less likely to seek help after being abused [24] or when diagnosed with a mental disorder [17], although these are preventable, manageable and treatable public health conditions [25-27].

Earlier studies from low and high income countries show that poor mental health literacy, stigma, embarrassment, ignorance of own illness and financial constraints are key barriers to care for mental problems [17,28,29] but also poor access to mental health services. On the other hand, barriers to seeking help and care for people exposed to partner violence include traditional gender roles, women's lower education, economic dependence on the partner, low self-esteem, and person's

reluctance to discuss IPV [30]. Other barriers include the neglect of women's rights by the police and community leaders, the attribution of blame to women, their perceived sense of powerlessness and a lack of knowledge about the available resources for support [31].

1.2.1 Violence definition, typology and forms of violence

The World Health Organization (WHO) defines violence as “the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development or deprivation” [32]. The 2002 WHO report on violence conceives different types of violence, as presented in figure 1 below [32]. The main types include self-inflicted, inter-personal, and collective violence. Self-inflicted violence refers to violence that an individual uses against him or herself such as self-abuse and suicide, while collective violence is perpetrated by individuals or groups of individuals, such as organized political groups, militia groups, terrorist organizations, and states (e.g. rapes in war). The third main type is the interpersonal violence which comprises community violence and family or intimate partner violence.

Community violence is a type of violence committed by an individual who may be an acquaintance or a stranger, whereas family violence refers to violence from one family member towards another, such as child maltreatment, IPV or also elder abuse [32]. The WHO typology of violence is useful to comprehend as it allows understanding of the contexts in which violence occurs and the interactions between types of violence to which people may be exposed in their lives.

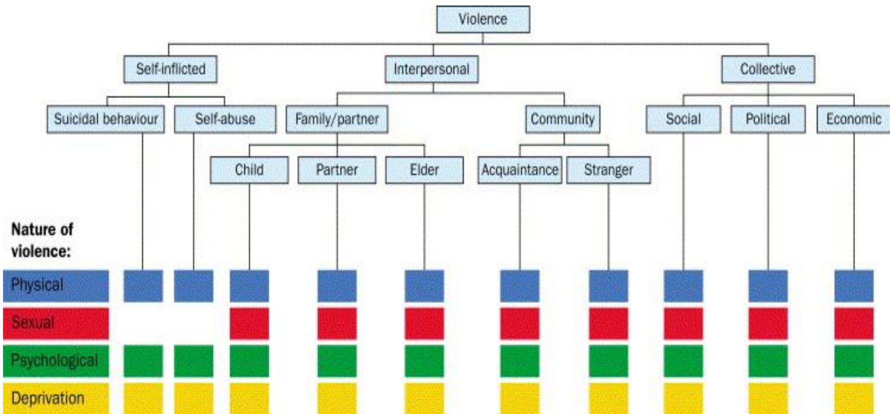

Figure 1. The WHO typology for understanding different forms of violence described in World Report on Violence and Health, WHO, 2002.

It is also suggested that both men and women can be victims of IPV but both can also be perpetrators of violence [33,34]. Men are frequently subjected to community violence (from a stranger or acquaintance) while women are more often subjected to IPV [34,35].

Referring to the above forms of violence, this thesis is concerned with partner violence in the category of inter-personal violence, covering physical, sexual and psychological violence forms directed towards young men and women. IPV is generally categorized into physical, sexual, and psychological abuse within close relationships [32] and these may also occur at the same time [32]. The WHO emphasizes that physical, sexual and psychological violence may happen in conjunction with numerous controlling behaviours committed by an intimate partner. Controlling behaviours denotes aspects such as isolating a partner from their family and friends or preventing them from accessing information or assistance.

1.2.2 IPV Prevalences

IPV represents the form of violence that occurs in all countries, across all ages, all gender, and irrespective of social, cultural or religious groups [20,36-38]. In the past decade, there has been a rapid growth in the body of research evidence trying to document the magnitude of different forms

of violence against women [12,39-41] but there is comparatively less knowledge about men's exposure to IPV, especially in Sub-Saharan Africa countries. Further, when exploring IPV, it is important to remember that there is a clear gradient in the prevalence of IPV among men and women depending on the level of gender equality. The more gender equal a society is, the lower is the violence exposure. Some studies found similar prevalence rates when investigating men's and women's exposures, but these studies were mainly performed in high income countries [33,42] and do not tell about frequency or severity of the violence inflicted or whether the use of violence was mutual. However, other studies including men and women show that women have high exposure rates compared to men [6,8,11,43] and are exposed to more severe forms of IPV [10] and repeated acts of violence [37].

The WHO multi-country study on women's health and domestic violence used a validated questionnaire [44], a standardized population-based household survey, and a standardized methodology to assess IPV exposure [20]. The instrument was then tried in ten different countries and cultures [20] and has since then been used in a number of population-based studies all over the world by the WHO team and independent researchers from various countries.

Findings show that prevalence differs greatly across settings [12,39,45]. For instance, current abuse by a partner varied from less than 4% in Yokohama, Japan, and Belgrade, Serbia to 53·7% in rural Ethiopia and 34·2% in the Peruvian department of Cusco [20]. The lifetime prevalence of physical or sexual violence among ever-partnered women ranges from 15% to 37% for high-income countries [20]. Similar data from sub-Saharan Africa suggest that IPV may be more common, with a range of 36% to 71% [20]. In Uganda, approximately 34% of currently married women aged 15 to 24 had experienced physical violence and 16%, the sexual coercion [40]. In the same study, never-married women reported significantly lower levels of physical and sexual IPV: 10% and 7%, respectively [40].

The Rwanda Demographic and Health Survey (RDHS) module investigating domestic violence addresses only women's exposure to domestic violence [46]. Nevertheless, research on men's and women's exposure to IPV is slowly growing in Sub-Saharan African countries [47,48]. A national population-based study conducted in Uganda (the Uganda Demographic and Health Survey) among men and women reports a high exposure rate of lifetime spousal physical violence for men and women (26% and 37 % respectively) [48].

During the planning phase of this research project, no study from Rwanda explored both men's and women's exposure to IPV in the same study. During the development phase, only one study using a small sample (241 married men and women) explored men's and women's exposure to physical IPV. That study reports that 17% of men and 29.7% of women were victims of physical IPV in the past three months [47]. Other studies on the prevalence of IPV in Rwanda are small scale studies reporting on IPV prevalence and its risk factors focusing on women only [49,50], in which past-year prevalence of IPV is estimated to 35.1% [50]. Both these studies report on acts such as hair pulling, slapping, choking, punching with fists, kicking and burning with a hot liquid [49,50].

1.2.3 Ecological framework

When exploring IPV, it is important to remember that IPV signals inequality [51]. In terms of economic inequality, IPV is disproportionately distributed between poor and rich populations, between gender, women more exposed than men and age groups, young people more exposed than older [12]. Other inequalities include difference in access to care, and costs of treatment which impact on morbidity and mortality.

Many of these disparities are associated with underlying social determinants which are avoidable and unacceptable. IPV is a complex combination of individual, relationship, community and societal factors. To investigate the factors associated with IPV, a relationship ecological framework developed by Heise was used (figure 2). This ecological framework conceptualizes violence as a multifaceted phenomenon

grounded in the interplay among personal, situational, and sociocultural factors [52]. The Heise' framework is a determinants framework which provides a better understanding of determinants of partner abuse from a public health perspective. This ecological framework is composed of four circles that start with the individual level, followed by the relationship or the family level, then the community and the societal level. The four circles indicate the interrelationship between different levels of societal organization. Each level carries its societal determinants and the model further indicates how the levels interact as determinants of IPV.

At the individual level, factors such as witnessing marital violence as a child, being abused oneself as a child, or an absent or rejecting father are emphasized. At the relationship level, male dominance in the family, male control of wealth in the family, the use of alcohol and marital/verbal conflict are given as examples. At community level, risk factors such as low socio-economic status or unemployment, isolation of the woman and family or delinquent peer associations may give rise to IPV. Finally at the societal level, norms and values such as male entitlement or ownership of women, masculinity linked to aggression and dominance, rigid gender roles, and acceptance of interpersonal violence represent factors of major importance which influence all other levels [52]. Some of these factors were investigated in this thesis as risk factors for violence exposure, and its health effects.

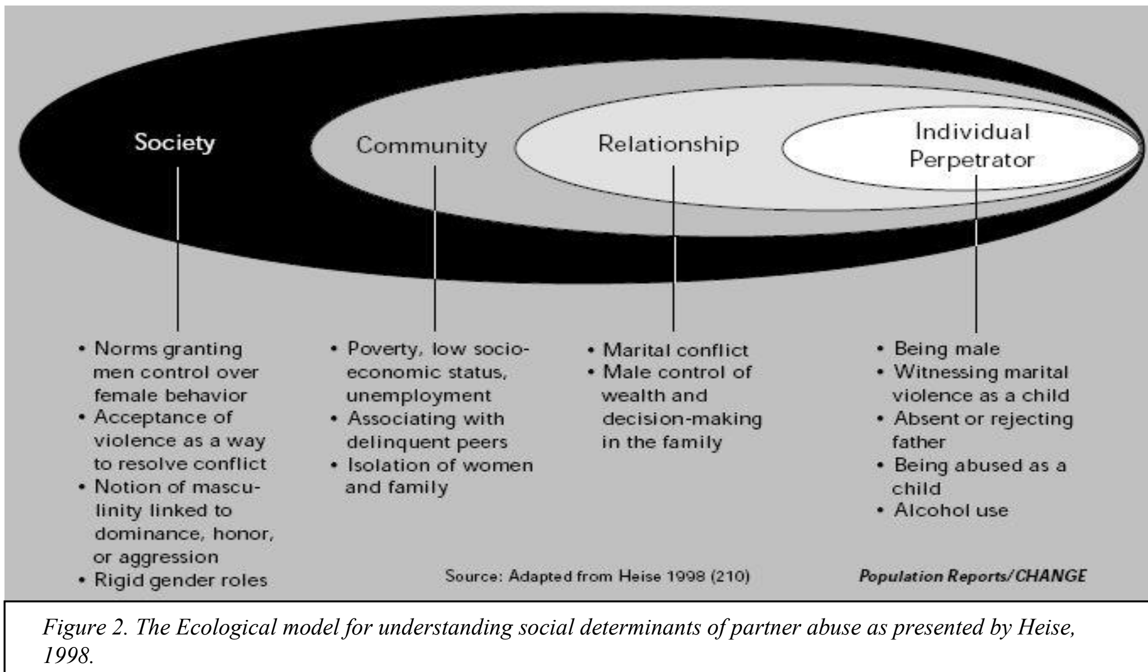

Figure 2. The Ecological model for understanding social determinants of partner abuse as presented by Heise, 1998.

In line with the Heise model (1998), the Dahlgren and Whitehead's framework illustrates the way in which individual, social and community networks, living and working conditions, and societal and socio-economic factors inter-relate [53,54]. It makes it possible to understand why addressing only one part of the picture may fail to have the desired effect and may even increase inequalities given that determinants of violence are multi-factorial and the pathway between determinants is not a straight path from A to B, but rather one which bridges over determinants.

1.2.4 IPV and risk factors

From the literature, multiple social factors contribute to IPV. Studies from low income countries show that men and women report supportive attitudes toward wife-beating [55-57]. In the WHO multi-country study, findings indicated that more than three quarters of women in Brazil, Japan, Namibia, and in Serbia and Montenegro believed no reason justified IPV, while less than a quarter said so in Bangladesh, Ethiopia,

and Peru. In Bangladesh, Ethiopia, Peru, the United Republic of Tanzania and in Samoa, between 10% and 20% of women reported having no right to refuse sex, and that if they did so then, being beaten by their husband was justified [58]. Earlier studies also suggest that having outside sexual partners and being married have been labeled as risk factors for IPV among women [40,59]. Likewise, young age is documented as being associated with higher risk of IPV [60,61]. In a sample of young women aged 15 to 26 from South Africa, approximately 23% had experienced at least one episode of physical or sexual IPV during their lifetime [62]. Other social determinants that increase the risk of IPV include the experience of childhood abuse, growing up with domestic violence [61], having low education, having a low educated partner and having a partner addicted to drugs or alcohol [38,63]. However, high socio-economic status, high education [61] and good social support offered protection [64]. Even though IPV occurs in all socio-economic status groups, it occurs to a lesser extent amongst those who are better off [60,65,66].

1.3 IPV and gender

The most convincing causal explanation for IPV is gender-based power imbalances [67]. In the research which clearly measures relationship power, IPV victimization is more commonly documented among women with low decision-making capacity in their relationships [9,62]. Several hypotheses explain the relationship between power imbalance and IPV against women. These include male dominance, gender roles, and control over economic resources [45,68]. Many societies are aligned to a patrilineal system of inheritance which allows men to dominate household decision-making and to control economic resources. Subsequently, violence may be more likely to happen in male-dominated relationships due to women's submission to the head of the household [68]. Findings from American couples offer empirical support for this theory [69]. While few studies have precisely explored male dominance and IPV in sub-Saharan Africa, findings have consistently established that equal decision-making is associated with lower acceptance of abusive behaviours against women [63,70].

Across the African continent, traditional gender roles predict what men and women can do and how they are expected to behave [32,56,68,70]. Numerous theories have been offered to explain how gender roles relate to partners violence. Firstly, a husband's right to punish his wife or demand sex are often considered socially acceptable [71]. Secondly, the transgression of traditional gender roles. As women gain more power in society, they deviate from traditional gender roles and challenge male privilege, therefore men feel threatened and resort to violence as a form of resistance [71]. The third explanation argues that men who lack resources associated with the breadwinning role use violence against women to express their frustrations [68]. Lastly, women with limited resources are more likely to be economically dependent on their partners, consequently limiting their negotiating power over sex and their ability to alleviate partner violence [24]. In South Africa, women who received financial support through microcredit loans were considerably less likely to report either physical or sexual IPV [72].

In Rwanda, although men and women are part of the same society, women experience poorer living conditions than men [73]. Every day, women are beaten, insulted, humiliated, threatened, and sexually or psychologically abused [73]. Interestingly, among many Sub-Saharan African countries, Rwanda has made great progress in promoting gender equality and women's empowerment. The country has for example the highest number of women in parliament, 56%. Within the educational sector, Rwanda has managed to achieve high enrolment rates in primary education for both boys and girls (girls: 97.5%, boys: 96%). However, some challenges remain when considering both paid and unpaid work (small subsistence farms). Actually, a great proportion of women work without pay, while men are more likely to have wage earning employment. Additionally, men are more likely than women to work in the formal and informal sectors where salaries are relatively high. With the cultural constraint, women put on carrying the reproductive and productive role and as more employment opportunities become available, women's access to such jobs is still not equal to men's. If reduction in fertility is supported, it will hopefully allow women to engage in the labour market and earn higher salaries. Likewise, availability of childcare

or other forms of social protection arrangements would meaningfully assist women to enter paid employment [74] and to fully participate at work.

1.4 IPV and mental health effects

IPV is globally a leading cause of death among people aged 15-44 years, therefore a huge public health issue though there are ways of preventing it [32]. Previous research has found that IPV which involves repeated abuse during a period of time often leads to adverse health effects [21,41,75]. These health effects may be physical (injury, gastro-intestinal disorders, common symptoms etc.) and psychological (depression, PTSD, anxiety, suicidality etc.). However, it has been shown that such adverse consequences may have long-lasting effects and persist long time after the abuse has stopped, resulting in chronic poor health and poor quality of life [21].

Even though both men and women are exposed to IPV, findings show that women display a wide range of adverse health effects compared to men, these are highly associated with IPV for women [8,11]. For example, IPV may have quite severe consequences for women's physical, sexual, reproductive and mental health [20,21,76]. IPV is also associated with HIV infection [77] and other sexually transmitted infections for women [78]. A review study has presented a difference in IPV prevalence across nations. Regardless of the difference in its magnitude, IPV is associated with a variety of mental disorders for women including depression, PTSD, anxiety, self-harm, and sleep-disorders [15] as women experience more chronic and severe exposure to IPV compared to men [10].

While the impact of IPV on health has been investigated mostly in women [15,21,79-83] and in high income countries [84-86], there are relatively few studies on IPV and health effects which have included both sexes. Of studies that included both sexes, findings show that both men and women suffer from increased risk of depression [85], suicide attempts, HIV, PTSD and chronic diseases such as stroke and asthma [6-11]. Another

study on IPV and its health effects from the United States, including men and women report that men exposed to IPV are more likely to experience more disruptive behaviours and substance abuse disorders while women are more likely to experience mood disorders and anxiety [8]. But in one study including men only, IPV was shown to be associated with depressive symptoms [87].Therefore, more studies on men are needed to develop understanding about men's exposure to IPV, its risk factors and health effects, and theories should be developed to improve understanding of partner violence directed at men [85].

1.5 Help seeking and barriers to care

We investigated men's and women's health care utilization and experiences of access barriers to mental health care and to the utilization of help and support services available for victims of IPV. Studies from Sub-Saharan African countries [88-92] indicate that health care seeking behaviour, i.e. whether an individual prefers to seek health care at an established health center, a hospital, clinic, visit a traditional healer, or to seek assistance from family or friends or via self-treatment, depends on the individual's and the household's access to resources in terms of money and educational attainment, and on the structure of the health care services i.e. availability, accessibility, acceptability and quality of care [93]. For mental disorders and exposure to IPV, people tend to turn to family, friends, the church or any other organization for help. Within countries, the poorest people also have less access than those who are somewhat better off [88].

Universal health coverage means that everyone in society should be able to access the health care services they need without risking economic hardship or impoverishment [94]. The approaches mostly used to determine whether universal health coverage has been reached are framed in terms of rights, financial protection through enrolment in health insurance programs, and the utilization of health care services [95]. However, not only costs in terms of money constitute access barriers to health services but also other structural factors in addition to individual

factors. The structural barriers are well described as the four interrelated essential elements, namely "Availability", "Accessibility", "Acceptability of health services" and "Quality of care", often referred to as AAAQ. These four elements constitute "The Right to Health" understood as "The right to the highest attainable standard of health" [93,96,97]. These have been recognized in numerous international human rights documents [97]. Availability implies that health care facilities, goods and services are available in sufficient quantity, including trained medical professionals and essential drugs. It further embraces underlying determinants of health, such as clean water, adequate sanitation, safe food, and access to health-related education. Accessibility means that health facilities, services and medicines should be accessible to everyone without discrimination. Health services, with a waiting time, should be within reach for all population groups and transport should be available, and health services should deliver integrated services. The services and medicines should be affordable for everyone and poorer households should not be disproportionately burdened. Acceptability states that all health facilities, goods and services should respect medical ethics and be culturally appropriate, i.e. sensitive to gender requirements and confidentiality. Quality means that health services should be scientifically and medically appropriate and of good quality, staffed with skilled personnel and able to provide safe and relevant medications [97].

Barriers experienced by the individual may mirror life circumstances, such as low educational attainment and/or low self-esteem [98], existing gender inequalities such as needing permission to seek health care services [99], or even prohibiting women from leaving the home [100], as well as stigma linked to diseases, such as mental problems [26]. Also poor health literacy, i.e. little knowledge and poor experience of when and where to seek health care when ill [101,102], loss of income due to health care seeking and no place to leave the children while visiting health services are additional access barriers commonly experienced. Briefly, there are numerous barriers to accessing health services and especially for the poor or for marginalized groups. The demand-side determinants are factors influencing the individual's ability to use health services, while

supply-side determinants are aspects inherent to the health system which obstruct service uptake by individuals and households [88,98].

In Rwanda, access to care has been tremendously improved [103], demonstrated for example by the increase in babies delivered by a skilled health provider, from 39% in 2005 to 52% in 2007-2008, later to 69% in 2010 [104] and now to 91% in 2014-2015 [105]. Key reasons behind this favorable development include the enrolment of the majority of the population into the community based health insurance scheme (mutual health insurance) [103] and improvement of the quality of care through a performance-based financing initiatives [106].

The 2010 RDHS showed that 78 % of the Rwandan households had a health insurance. Further, nearly all households with at least one member (98%) were insured by community based health insurance scheme so called “Mutual Health Insurance”. Others were insured by the Rwanda Health Insurance Fund (RAMA), by the Military Medical Insurance (MMI) or some other private insurances. However, those in high wealth quintile were generally better insured than those in the lower wealth quintiles and insurances were commonly reported by households in urban areas, in the city of Kigali, and in the highest wealth quintile. Added to this, some access barriers still need to be addressed. A study from Rwanda indicates that part of the Rwandan population does not seek health care when it is needed because they are unable to pay for health care services [103,107], and geographic barriers to access are also experienced for some primary health care facilities [108].

Moreover, mental health services are still scarce, with a shortage of clinic/hospitals and staff trained in mental health care. There is one psychiatric hospital for the country (CARAES Ndera Hospital), one centre in Kigali for outpatients (Centre Psycho-Social) and one centre in Huye district (CARAES Huye). Only 4 out of 30 districts have mental health clinics/hospitals. Some of these are staffed with psychiatrists but the majority is staffed with nurses trained in mental health and with some clinical psychologists. People suffering from mental illness commonly experience poor access and concrete barriers to care. This is a well

acknowledged problem in low-resourced countries [109,110]. There are also a number of individual barriers related to health care seeking, such as stigma [111], and negative beliefs about treatment and about distrust in confidentiality when seeking care [112]. Another barrier to care is the lack of knowledge and understanding of where and when to seek mental health care. In the late 1990's, the concept of mental health literacy was introduced and defined as 'knowledge and beliefs of mental disorders, which aid their recognition, management or prevention' [113]. Many people are not aware of mental disorders as treatable conditions, are not aware of the origins and risk factors of such disorders, and may not know where and when to seek care and support. Mental health literacy is now recognized as an important factor hampering health care seeking in low and high income countries. A study from South Africa establishes that stigma, ignorance of own illness, treatability of such illness and financial constraints are reasons that make young people reluctant to seek help for mental disorders [17]. Knowledge, information and communication on these matters is a societal responsibility because otherwise people with treatable conditions will go unrecognized leading to personal suffering and to reproductive as well as productivity losses in society.

It is also well known that, women exposed to IPV usually do not seek health care [104,114] and when they do, they seek care for unspecified common symptoms (backache, stomachache, headache, hypertension [75,115] which can make IPV difficult to identify within primary health care. Besides, when women seek help, they are more likely to use informal help, including but not limited to neighbors, family, friends, religious people, local leaders [116]. The 2010 RDHS indicates that women victims of partners' violence rarely make recourse to health care institutions [104]. Its findings illustrate that only 42 percent of women who experienced physical or sexual violence sought help from any source. Furthermore, findings specify that 7 % of women sought help from the police while health care services were not mentioned at all. However, most women seek help from informal sources, such as friends or neighbours (53 %), their in-laws (25 %) or their own family (22 %) [104]. Access to services may also be made more difficult due to government policies (i.e. laws around child custody which do not favor women in

most cases) and societal norms [24] but also to the extremely limited formal IPV services in many settings.

1.6 Public Health

This work was done within the framework of Public Health science, which is described by Sir Donald Acheson well-known phrase as: "the science and art of preventing diseases, promoting health and prolonging life through organized efforts of society" [117].

IPV and mental disorders represent global public health problems that interact and contribute to an excessive burden of disease and poor health outcome. By itself, IPV was ranked 23rd in terms of Disability Adjusted Life Years (DALYs) arising in women in the recent update of the Global Burden of Disease, following after other important risk factors such as high total cholesterol, suboptimal breastfeeding, alcohol use, physical inactivity, high blood pressure and dietary risks [118]. Mental and substance use disorders accounted for 21.2% of global years of life lived with disability (driven by major depressive disorder in low-income and high-income countries), and musculoskeletal disorders for 20·8%.[119]. Recognizing its importance on health and production consequences, the prevention of IPV should be a priority in all countries [120]. A reduction in prevalence of IPV can have important impacts on society, including enhanced psychological well-being. At a population level, this improves sexual and reproductive health, general health and productivity, which is especially important among the younger part of the population.

1.7 Selection of research methods

In this research project, a multi-method design, with both quantitative and qualitative study approaches [121,122] was used when exploring the subject under study.

In the quantitative approach, there is an investigation of observable phenomena using statistical, mathematical techniques. The purpose is to use mathematical models based on theories and to test pre-formulated hypotheses. The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships [121]. Qualitative research is the examination, analysis and interpretation of observations for the purpose of discovering underlying meanings and patterns of relationships, including classifications of types of phenomena and entities, in a manner that does not involve mathematical models. For the qualitative approach, researchers use a more evolving design whereby researchers learn from data, and adapt the research plan to the findings that are made on an ongoing basis [122]. New hypotheses may be formulated.

Studies on IPV have been commonly performed as cross-sectional studies by investigating prevalence, risk factors and health effects but there is a lack of longitudinal follow up studies and of intervention studies. In the past 15-20 years, qualitative methods are increasingly used to complement public health science by bringing in new hypotheses which can later be tested in population-based studies. Findings from quantitative studies may also be further used in qualitative explorations to improve knowledge and understanding of certain phenomena.

In this thesis, the first three research questions related to the quantitative part (studies I-III) were: “to what extent young adult men and women are exposed to IPV, what are the various forms of violence at hand and which are the main risk factors?”, “to what extent do young men and women suffer from mental disorders and which are the dominating disorders and main risk factors?”, “what help seeking behaviours do young men and women employ and what are the barriers to mental health care and their risk factors?”. In order to answer to these questions, quantitative research methods were required whereas for the last research question(study IV): “ what are health professionals’ perceptions and experiences of occurrence of violence and the help seeking process?”, the qualitative approach was

suitable to reflect on the views, opinions, perceptions and experiences of health professionals.

2 AIM

The overall aim of this thesis was to investigate in young men and women in Rwanda (20-35 years) the exposure to IPV, its forms, prevalence and risk factors as well as its association with mental disorders and barriers to care. Help seeking challenges and opportunities for victims of IPV were also explored. The specific aims of the included studies were:

Study I:

To investigate the prevalence of, and potential risk factors for physical, sexual and psychological IPV in young men and women in Rwanda

Study II

To investigate the prevalence of mental disorders in young men and women in Rwanda, and their risk factors with the main emphasis on IPV and its contribution to mental disorders, taking the genocide context into account.

Study III

To investigate help seeking behaviours, barriers to care, and self-efficacy for seeking mental health care among young adults with depression and/or suicidality in Rwanda

Study IV

To explore health care professionals' experiences of the health care seeking process of women exposed to intimate partner violence in Rwanda.

3 METHODOLOGY

The studies covered in this thesis assess young adults' exposure to IPV, its predictors, and its health effects as well as the barriers to care for people suffering from mental disorders and for victims of IPV. Both quantitative (studies I-III) and qualitative (study IV) approaches were used. Studies I-III are based on a randomly selected, population-based sample in Rwanda, and the study IV is based on focus group discussions with health professionals from three district hospitals and three mental health hospitals. Table 1 provides an overview of the main aims, the study types and the design, the data collection methods, the study samples and the main analyses for each study.

Table 1. Overview of the quantitative (study I-III) and the qualitative (study IV) studies included in the thesis

	Study I	*Study II*	*Study III*	*Study IV*
Main aim	To investigate the prevalence and potential risk factors of physical, sexual and psychological	To investigate the prevalence of mental disorders in young men and women in Rwanda and their risk factors	To investigate help seeking behaviours, barriers to care and self-efficacy for seeking mental health care among young adults with depression and/suicidality	To explore health care professionals' experience of the health care seeking process of women exposed to intimate partner violence in Rwanda
Type of the study	Quantitative	Quantitative	Quantitative	Qualitative
Design	Cross-sectional population based study	Cross-sectional population based study	Cross-sectional population based study	Focus Group Discussions
Data collection method	Face to face structured interviews	Face to face structured interviews	Face to face structured interviews	Focus Group discussions
Study sample	Random population-based sample of men and women(n=917)	Random population-based sample of men and women(n=917)	Random population-based sample (n=917) with two sub-samples, the first, the sub-population reporting depression/suicidality (n=247) and the second the sub-population not reporting any of the mental disorders investigated (n=502).	Forty three (n=43) health care staff taking care of patients subjected to IPV.

Main analyses	Descriptive statistics, simple and multivariable logistic regression	Descriptive statistics, simple and multivariable logistic regression.	Descriptive statistics and logistic regression but also the Cronbach's alpha for the constructed scale.	Six FGDs analyzed using the content analysis approach.

Details on the quantitative and qualitative studies are provided below:

3.1 Quantitative studies I–III

3.1.1 Study design

A cross-sectional, population-based study was conducted on a random sample of young adults, aged 20 to 35 years in the Southern Province of Rwanda.

3.1.2 Study population, sampling procedures and sample size

A household survey was conducted in the Southern Province of Rwanda. The sampling frame used was a frame prepared and provided by the Rwanda National Institute of Statistics (NISR) a year prior to the start of the quantitative study of this project. It contained a complete list of all natural villages (the smallest administrative entity in Rwanda) and these were 3512 villages with a total population 2.266.110 within the eight districts of the Southern Province.

The sample size was calculated based on an estimated prevalence of 20% of both depression in young adults [123] and physical violence against women in the past 12 months [124] in Rwanda, a desired level of absolute precision of 5% and an estimated design effect of 1.5. Accordingly, the study aimed to include nearly 900 men and women with a provisional 10% non-response included. The final sample comprised 440 men and 477 women, with only two refusals for participation (response rate 99.8%).

For study III, the same study population (n=917) was used but a sub-sample reporting current depression/suicidality (n=247) was used and another sub-sample of individuals not suffering from any of the mental

conditions investigated (n=502) was used for comparison purposes only in the last analysis (Study III).

Based on available resources, the research group decided to work on 35 villages or primary sampling units out of the total of 3512 villages (1% of all Southern Province villages). The 35 villages were randomly picked from the exhaustive list of all villages within the eight districts. Thereafter, the number of households to be included was selected proportionate to the total number of households in each village, and the person to be interviewed was randomly picked among eligible people in the household i.e. men and women aged 20 to 35 years.

The first participant in each village was selected from the closest household to the center of the village and a calculated sampling interval was applied to get the next household. If in the first household a man was picked, the second household aimed to pick a woman and the third a man etc. If there was more than one person between 20-35 years within the randomly selected household in the village, the interviewer randomly picked one person, either a male or a female depending on the applied questionnaire to be used in that household. If no one was at home, the interviewer made an appointment to return for the interview. The interviewer was asked to return a maximum of three times on three different days to attempt to interview a particular person before deciding with his field supervisor to give up. If the person never turned up, this was considered as a missing case. Only two persons were registered as missing cases of which one was suffering from a mental condition. If there was no eligible person living in the household, then the interviewer chose the closest household. The rationale behind choosing a neighbouring household was that living conditions might be similar to the initially selected household. At the end, a total of 917 households were visited with only one interview in each household for ethical and security reasons.

3.1.3 Data collection procedures

Data was collected through face to face structured interviews. A pool of 13 experienced interviewers composed of eight females and five males was recruited to collect data. A two-day training took place followed by a one-day session for the questionnaire piloting. The study questionnaire was tested in Kigali, a field not included in the study sample. The primary objective was to test the flow of questions and the participants' basic understanding. Adjustments to the tool and/or data entry platform were made after the pilot as considered necessary. No significant changes were made.

Given that our team was composed mainly of female interviewers, some male household members were interviewed by female interviewers but female household members were strictly interviewed by female interviewers. However, given that the data collection teams were led by two male supervisors, some male participants were interviewed by the supervisors. Each team supervisor was responsible for overseeing the work of the team, selecting the households to be interviewed, assigning households to interviewers, helping interviewers to locate households, observing interviews and managing questionnaires. Hence, supervisors played a key role in guaranteeing the quality of data throughout the period of fieldwork. The data collection took place between December 2011 and January 2012, and the data entry was performed by four skilled personnel from the Rwanda School of Public Health under the supervision of a data entry manager.

3.1.4 Survey instruments

A questionnaire was developed including several components:

- ❖ For violence experience, the WHO questionnaire titled Women's Health and Life experiences was used [125]. It was originally designed for use on women and men, but has to-date mainly been used on women [39]. It is a well acknowledged instrument, used by the WHO in more than

ten countries [41] and in several other countries including Vietnam [126], Pakistan [37] and in Sweden [42]. It has shown good validity and reliability characteristics when validated in a Swedish context for both men and women [42,127,128]. Lifetime and past year experiences of physical, sexual and psychological violence were investigated in young men and women.

- ❖ For mental disorders, the Mini International Neuropsychiatric Interview (M.I.N.I 5.0.0) was used [129]. The M.I.N.I. was designed as a short but accurate, structured psychiatric interview tool for epidemiological studies to measure major psychiatric disorders in DSM-IV. The M.I.N.I. has high validity and reliability scores as the WHO CIDI (Composite International Diagnostic Interview for ICD-10) instrument [129], but can be administered in a shorter period of time. Modules on major depression, generalized anxiety disorder, suicidality and PTSD were included.
- ❖ Help seeking behaviours and barriers to care items were constructed based on previous studies [110,130-133] because of the existing instruments scrutinized, none seemed to mirror conditions in a low income country. The barriers to mental health care were identified by asking the reasons for not seeking mental health care. These barriers were then grouped into structural (five items), individual (ten items) and stigma-related (five items) barriers to care. For example, the structural barriers were explored by asking if someone did not seek care because of the following reasons: “it was too far to get there”, “there was no transport available”, “I could not afford to pay the transport costs”, “I could not pay the fee at the health care centre”, “I have no health insurance”. A summary measure for each type of barrier (structural, individual and stigma related) was constructed, and finally dichotomised into exposure to any of the barrier items, as opposed to no exposure. The help-seeking

behaviours and barriers to care items are further described in the study III.

- ❖ To assess the study population's confidence level to master various barriers to mental health care, their self-efficacy in seeking mental health care was investigated. A recently constructed scale called " Self-efficacy scale for seeking mental health care" with its two sub-scales constructed by Moore et al [134] was used. The construct of this scale is based on Bandura's recommendations on how to build self-efficacy scales [135]. Bandura's theoretical basis was that items should correctly mirror the construct of self-efficacy, and that a good self-efficacy scale should accurately reflect the domain of functioning that is being assessed. The self-efficacy for the mental health care scale was created based on previous research on barriers to mental health care that investigated access [132,136,137] and mental health literacy [138], mainly knowledge, understanding and ability to implement treatment recommendations, as well as psychological factors, including stigma [139]. The constructed scale was linked first to confidence in knowing how to access mental health care and how to communicate with health care staff, forming the self-efficacy knowledge sub-scale (SE-Knowledge). The second sub-scale on how to successfully cope with social and interpersonal consequences of seeking care, formed the self-efficacy coping sub-scale (SE-Coping) [134]. The internal reliability of the scale was good. These items were used in a parallel study in South Africa [134]. The South-African study used exploratory factor analysis, which clearly indicated the two subscales SE-Knowledge and SE-Coping [134].
- ❖ The questionnaire further contained items on traditional socio-demographic and psychosocial factors, social support and the traumatic experiences items including traumatic experience during the genocide period.

3.1.5 Data analysis

Study I-II

Differences between men and women in terms of descriptive characteristics were assessed by the Pearson's chi square test or the Fisher's exact test for independence for all categorical variables. Prevalence rates of different forms of IPV as well as different forms of mental disorders were calculated (n, %). Risk factors were estimated by use of odds ratios with their 95% confidence intervals (95% CI) using the logistic regression analysis.

For each form of the investigated outcome, the multivariable analyses entered variable that proved statistical significance in the bivariate analyses, one by one in a step-wise fashion to control for possible confounding variables. The collinearity (i.e. non-independence) between predictors was also checked to see if some covariates were highly correlated (i.e. correlation coefficient greater than 0.4). If this was the case, one of them was excluded from being entered into the model. And finally, the Hosmer-Lemeshow test was used to check the goodness of fit of the final model.

In study II, the population attributable fraction (PAF) was calculated to estimate the proportion of mental disorders that were attributable to past year IPV. The population attributable fraction of a given mental disorder is defined as the proportion of that mental disorder in the total study population which is attributable to physical, sexual and/or psychological violence; i.e. the proportion of mental disorder that could be avoided if no physical, sexual or psychological violence were at hand. It was calculated using a modified formula to account for potential confounding [140,141]:

PAF = Pe (AOR-1)/ AOR) With Pe = proportion of the population under study with mental disorders who were physically, sexually or psychologically abused and AOR= Adjusted odds ratio for the association between IPV and a mental disorder of interest.

Study III

Difference between men and women in relation to socio-demographic characteristics, help seeking behaviours and perceived barriers to health care services were assessed by Pearson's chi square test or Fisher's exact test for independence for all categorical variables. Cronbach's alpha was used to assess the internal consistency of the constructed self-efficacy scale and sub-scales (SE-knowledge and SE-coping) for seeking mental health care. In addition, we used the Mann-Whitney U test to compare estimates for men and women in relation to self-efficacy knowledge and coping items for the population with current depression and/or suicidality and for the population without any mental disorder respectively. Odds ratios with their 95 % confidence intervals were also used to estimate the predictors of structural barriers to care and individual barriers related to knowledge and attitudes. IBM SPSS Statistics was used for all statistical analyses.

3.2 Qualitative study IV

3.2.1 Setting and participants

Data was collected in six FGDs, three in district hospitals and three in mental health clinic/hospitals (one clinic and two hospitals) located in the Southern Province and in the main city, Kigali. The district hospitals were chosen to represent the experience of health care professionals meeting a variety of health problems both within the community and in the primary health care system. The mental health hospitals were selected to represent the experience of providing care to complicated cases where IPV victimization may have contributed to mental disorders.

Table 2. Characteristics of the FGD participants: gender, age and profession

Position	Male/female	Age range (years)	Profession
FGD 1 (Mental health clinic)	3/3	26-40	Psychiatrist (1) Mental health nurse (3) Clinical psychologist (2)
FGD 2 (Mental health hospital)	7/3	29-50	Psychiatrist (1), Mental health nurses (7) General nurse (1) Clinical psychologist (1).
FGD 3 (District hospital)	1/6	26-38	Mental health nurse (1) Clinical psychologist (1) General nurses (5)
FGD 4 (District hospital)	4/3	28-59	General nurses (5) Mental health nurse (1) General nurse in charge of GBV (1).
FGD 5 (District hospital)	1/5	27-44	Mental health nurse (1), General nurses (4), Clinical psychologist (1).
FGD 6 (Mental health hospital)	4/3	27-46	Mental health nurses (5), Clinical psychologists (2).

For the focus group discussions, participants were selected because they were regularly in consultations with patients affected by gender based violence (GBV) or mental disorders and were willing to share their experience. The selection was made with support from the Hospital Directors. A total of 43 health care professionals (23 females and 20 males) participated in the six FGDs, with numbers ranging from 6 to 10 participants in each FGD.

3.2.2 Interview

Each FGD was performed in an undisturbed area within the selected facility. The FGDs took place in October 2012. The focus group discussions were facilitated by a moderator (AU) with assistance of a note

taker and an observer. The discussions were digitally recorded and transcribed in Kinyarwanda and thereafter translated into English prior to the analysis. To secure the accuracy of the translation, an independent person, proficient in English, read part of the material from the Kinyarwanda original transcripts and re-translated them into English. The focus group discussions lasted between 65 and 135 minutes, but most FGDs took around 90 minutes.

The FGDs guide was composed of guiding questions of a comprehensive character with some probing sub-questions. Questions posed were:

In your professional experience,

- What are the major physical and psychological health problems that you encounter among young adults?
- What are the possible connections between violence and mental health problems?
- What happens when a young adult has been victim of violence, and what is your professional experience of how they manage their abuse?
- "When young people experience violence, from whom do they seek help? probe: who is usually the first individual to be approached when they seek help and why?"
- What are in your opinion, are the major barriers to seeking professional help or care?
- Can you tell us about the victims, then probing: similarities and differences of victims, related to gender and age".

3.2.3 Data analysis

A qualitative research approach was applied, and the Content Analysis (CA) was used for the analysis. The CA approach has its roots in literary theory and the social sciences [142]. The CA examines the manifest (apparent, observable, tangible content discussed, without interpretation) and latent content (represent the underlying meaning, an interpretative

level) of a body of communicated material [143]. Two of the authors (AU and MP), independently identified the condensed units and formulated the codes. The codes were compared for similarities and differences and were brought together to form sub-categories; then a similar exercise was done with sub-categories until categories were formed; and finally a theme emerged on an interpretative level expressing the underlying meaning of health professionals' experience about help seeking challenges and opportunities for people exposed to IPV. The next step was the research team discussion, aiming to seek agreement about the condensed meaning units, codes, sub-categories, categories and the theme and this was performed by AU and MP in collaboration, and in discussions with GK. The final steps of the analysis were continuously discussed in the research team (AU, MP, IM and GK) until consensus was achieved.

3.2.4 Ethical considerations for studies I-IV

This thesis' four studies were part of a bigger project, the Rwandan Violence, Mental Health and Barriers to care project (RwVMHBC-project), a bilateral collaboration between the School of Public Health/ University of Rwanda and the Department of Public Health and Community Medicine/ Epidemiology and Social Medicine Unit of the University of Gothenburg/Sweden. Before starting the data collection, the two countries' ethical committees (Rwanda National Institute of Statistics of Rwanda and the Regional Ethics committee for the West region, based at the University of Gothenburg/Sweden) were approached in order to get approval for the overall project study. Given that the study had to be conducted on a Rwandan population, the Regional Ethics committee in Gothenburg recommended the approval to be given from Rwanda and an approval was obtained from the Rwanda National Ethics Committee (RNEC). In addition, as one component of the study was a household survey, validation of the methodology and permission to conduct the study were sought and obtained from the National Institute of Statistics of Rwanda.

This project involves sensitive areas of inquiry. The guidelines on Ethical and Safety recommendations for violence research released by the World

Health Organization (WHO) in 1999 [144] as well as the International Guidelines for Ethical review of Epidemiological studies involving subjects in medical sciences (respect for persons i.e. informed consent for the respondents, non-maleficence i.e. minimizing harm, justice etc.) [145] were followed.

Conducting a research on violence implies issues related to disclosure and under-reporting and the need to ensure confidentiality as well as adequate and informed consent. Therefore, safety of respondents and research team in this project was paramount not only for protection purposes but also for ensuring quality of data. Therefore, complete anonymity and confidentiality, as well as the protection of privacy to minimize harm, were secured during the interviews. Participation in the study was voluntary and a signed informed consent was obtained from each participant. Interviews were conducted by trained clinical psychologists extensively experienced in handling sensitive topics. Referrals for care and support were proposed to all in need at the nearest health centre, which was informed beforehand about the study taking place.

All identifiers were removed from the data at the stage of data entry. For study I-III, only one interview per household was conducted for confidentiality and security reasons. For study IV, in addition to written informed consent, permission to digitally record the discussions was asked for and obtained. Questionnaires are kept in a locked secure room within the School of Public Health at University of Rwanda.

4 RESULTS

4.1 Background characteristics of the study participants

Study I- III

The study population comprised 440 men and 477 women aged 20 to 35 years. Participating men and women were largely married or cohabiting but with women being married to a higher extent compared to men. The women commonly responded to the Rwandan norm of the three-child policy (i.e. three or less children per woman) while the majority of men had no children. Further, only about one third of the men and women had completed primary education or any higher educational level. A substantial proportion of men and women (26.6% and 30.6% respectively) had no household assets (used as a proxy for poverty) investigated and were subsistence farmers or unskilled workers with small incomes. In addition, they lived in underprivileged housing conditions, with no electricity, inappropriate latrines and unsafe drinking water.

Study IV

The study participants were almost equally distributed as to gender (20 males and 23 females). The majority of health professionals (34 out of 43) worked as nurses/mental health/GBV nurses, but clinical psychologists and psychiatrists were also represented. The youngest participants were aged 26 years and the oldest, 59 years.

4.2 Prevalence of IPV for men and women

The most commonly occurring form of violence was psychological violence followed by physical violence for both men and women (Tables 3 and 4). The exposure rates during the past year were higher in women

compared to men for all the three forms of violence. For instance, 18.8% (n=78) of women and 4.3% (n=18) of men reported exposure to physical violence. For earlier in life periods, the pattern was similar, for example, physical violence was reported by 21.7% (n=92) of women and 4.0% (n=17) of men. However, for women, earlier in life estimates were greater than the past year estimates for all forms of violence, while for men the past year estimates were greater than the earlier in life estimates mainly for physical and psychological violence. For women, the majority of cases of violence were exercised as repeated acts while for men they were mainly single acts.

Table 3. Prevalence and frequencies of earlier in life and past year physical, sexual and psychological violence experienced by women (N= 477).

	Earlier in life				***Past year***			
	Viol exp, n (%)	Number of events			Viol exp, n (%)	Number of events		
		1	2 to 3	>3		1	2 to 3	>3
Physical violence (N=416)								
Slapped/threw something	84 (17.6)	21 (4.4)	23 (4.8)	40 (8.4)	69 (14.5)	25 (5.2)	16 (3.4)	28 (5.9)
Pushed/showed/pulled your hair	48 (10.1)	9 (1.9)	12 (2.5)	27 (5.7)	41 (8.6)	12 (2.5)	12 (2.5)	17 (3.6)
Hit that could hurt	52 (10.9)	10 (2.1)	13 (2.7)	29 (6.1)	47 (9.9)	13 (2.7)	14 (3.0)	20 (4.2)
Kicked/dragged or beating	48 (10.1)	8 (1.7)	17 (3.6)	23 (4.8)	40 (8.4)	10 (2.1)	13 (2.7)	17 (3.6)
Choked or burnt you on purpose	25 (5.2)	5 (1.0)	8 (1.7)	12 (2.5)	20 (4.2)	6 (1.3)	8 (1.7)	6 (1.3)
Threaten or used a weapon	20 (4.2)	3 (0.6)	8 (1.7)	9 (1.9)	17 (3.6)	5 (1.1)	6 (1.3)	6 (1.3)
Summary measure of Physical violence	*92 (21.7)*	*26 (5.5)*	*24 (5.0)*	*42 (8.8)*	*78 (18.8)*	*30 (6.3)*	*18 (3.8)*	*30 (6.3)*
Sexual violence (N=409)								
Physically forced to have sexual intercourse	47 (9.9)	11 (2.3)	11 (2.3)	25 (5.3)	47 (9.9)	11 (2.3)	14(2.9)	22(4.6)
Did you ever have sexual intercourse that you didn't want to	55 (11.6)	7 (1.5)	15 (3.2)	33 (6.9)	57 (12.0)	12(2.5)	21(4.4)	24(5.0)
Forced to do something sexual that felt humiliating	19 (4.0)	6 (1.3)	5 (1.0)	8 (1.7)	21 (4.4)	5(1.1)	10(1.1)	6(1.3)
Summary measure of Sexual violence	*72 (17.8)*	*15 (3.2)*	*15 (3.1)*	*42 (8.8)*	*71 (17.4)*	*15(3.1)*	*23(4.8)*	*33(6.9)*
Psychological abuse (N=430)								
Insulted or made her feel bad about herself	69 (14.5)	9 (1.9)	16 (3.4)	44 (9.2)	62 (13.0)	11(2.3)	19(4.0)	32(6.7)
Belittled or humiliated her	60 (12.6)	10 (2.1)	17 (3.6)	33 (6.9)	55 (11.5)	11(2.3)	14(2.9)	30(6.3)
Did things to scare or intimidate her on purpose	75 (15.8)	11 (2.3)	13 (2.7)	51 (10.7)	73 (15.3)	15(3.1)	21(4.4)	37(7.8)
Threaten to hurt her or someone she cared about	27 (5.7)	6 (1.3)	6 (1.3)	15 (3.1)	24 (5.0)	5(1.1)	6(1.3)	13(2.7)
Summary measure of Psychological abuse	*98 (22.8)*	*11 (2.3)*	*19 (4.0)*	*68 (14.3)*	*92 (21.4)*	*14(2.9)*	*25(5.2)*	*53(11.1)*

Table 4. Prevalence and frequency of earlier in life and past year violence in men (N= 440)

Forms of violence	***Earlier in life prevalence***	***Past year prevalence***
	n (%)	n (%)
Physical violence (N=422)		
Slapped/threw something	12 (2.7)	10 (2.3)
Pushed/showed/pulled your hair	12 (2.7)	12 (2.7)
Hit that could hurt	13 (3.0)	7 (1.6)
Kicked/dragged or beating	9 (2.1)	4 (0.9)
Choked or burnt you on purpose	6 (1.4)	4 (0.9)
Threaten or used a weapon	6 (1.4)	5 (1.1)
Summary measure of Physical violence	*17 (4.0)*	*18 (4.3)*
Sexual violence (N=410)		
Physically forced to have sexual intercourse	5 (1.1)	4 (0.9)
Did you ever have sexual intercourse that you did not want to	5 (1.1)	5 (1.1)
Forced to do something sexual that felt degrading or humiliating	9 (2.1)	4 (0.9)
Summary measure of Sexual violence	*10 (2.4)*	*6 (1.5)*
Psychological violence (N=436)		
Insulted or made him feel bad about herself	18 (4.1)	17 (3.9)
Belittled or humiliated him	19 (4.3)	20 (4.6)
Did things to scare or intimidate him on purpose	15 (3.4)	17 (3.9)
Threaten to hurt him or someone she cared about	13 (3.0)	13 (3.0)
Summary measure of Psychological violence	*27 (6.2)*	*32 (7.3)*

The associations between socio-demographic and psychosocial factors and physical, sexual and psychological violence for men and women are presented in Tables 5 and 6 of study I.

Factors associated with psychological violence in the simple logistic regression analyses were respondent's low education and partner's low education for both men and women. Moreover, poor social support for women and having more than two children for men were also associated with psychological violence. Furthermore, a high number of children, respondent's low education and absence of assets in the household were associated with physical violence for women but not for men. As few men were exposed to sexual violence, the association between exposure to sexual violence and different socio-demographic and psychosocial characteristics did not display any exposure pattern but for women, having more than two children was associated with sexual violence.

In the adjusted multivariable analysis, the risk pattern for physical violence did not change for women. Having more than two children (OR 2.05; 1.33-5.84), an incomplete primary education (OR 2.79; 1.06-5.41) and having low social support (OR 2.40; 1.06-5.41) remained statistically significant in the final model. For psychological violence, only poor social support for women remained a statistically significant risk factor in the final model, while for men, having more than two children, low education and low partner's education were no longer statistically significant risk factors.

4.3 IPV and mental health effects

The prevalence rate of mental disorders was twice as high among women than men for almost all mental disorders investigated, i.e. major depressive episodes in the past two weeks; major depressive episodes in earlier period of two weeks or more; suicidality and post-traumatic stress disorder. The exception was generalized anxiety disorder, where the prevalence was almost similar for men and women.

Table 5. Prevalence of mental disorders for men and women

	Total population		***Men***		***Women***		
Mental disorders	**N=917**		**n=440**		**n=477**		
	n	**%**	***n***	**%**	***n***	**%**	**p-value**
1. Major depressive episodes in the past two weeks							
No	736	80.4	386	87.9	350	73.5	.000
Yes	179	19.6	53	12.1	126	26.5	
2. Major depressive episodes in earlier periods, of two weeks or more							
No	764	83.9	401	91.6	363	76.7	.000
Yes	147	16.1	37	8.4	110	23.3	
3. Suicide risk							
No	769	84.0	396	90.4	373	78.2	.000
Yes	146	16.0	42	9.6	104	21.8	
4. Post-Traumatic Stress Disorder (PTSD)							
No	789	86.4	407	92.9	382	80.4	.000
Yes	124	13.6	31	7.1	93	19.6	
5. Generalized anxiety Disorder							
No	580	63.5	292	66.5	288	60.8	.074
Yes	333	36.5	147	33.5	186	39.2	

In the simple logistic regression analyses, exposure to physical and psychological violence were associated with a high risk of depression in the last two weeks, depression in earlier periods of two weeks and generalized anxiety disorders for both men and women. For women, exposure to sexual violence increased the risk of the three mental health disorders (depression in the last two weeks, depression in earlier periods of two weeks and generalized anxiety disorders). In addition, physical, sexual and psychological violence were all associated with suicidality and post-traumatic disorders for women but not for men.

For women, after adjusting for partner's low education, absence of household assets and exposure to traumatic experience during the genocide period, all types of IPV were associated with all mental disorders investigated. For men, after adjusting for absence of household assets and exposure to traumatic experience during the genocide period, only physical and psychological violence remained statistically significant risk factors for depression in the past two weeks and for generalized anxiety disorders but not for depression for earlier periods of two weeks when controlling for the same variable. For women exposed to physical violence, partner's low education contributed also to the risk of depression in the last two weeks, depression in earlier periods of two weeks and generalized anxiety disorders while for men exposed either to physical or psychological violence, exposure to traumatic experience during the genocide remained also associated with all mental disorders investigated apart from PTSD (Tables 3 and 4, study II).

For men and women, findings from the computed population attributable fractions (roughly equal to the proportion of mental disorders attributable to IPV) showed that IPV was overall an important contributor to different mental disorders investigated for women. For men, IPV contributed mainly to two of the investigated mental disorders: depression in the past two weeks and generalized anxiety disorders.

4.4 Help seeking behaviours, barriers to care and self-efficacy

Findings show that 60.7% of men and women who suffered from depression and/or suicidality (n=247) felt the need to seek help for emotional problems (n=150). Among those, the majority, i.e. 96 out of the 150, who felt the need to seek help turned to informal help sources and only 54 out of those 150 who felt the need to seek help used the formal health care services. Among those using informal help sources, talking to friends was the first choice for both men and women, followed by the community health worker in the case of women, while a relative was the second choice for men. The third choice was a parent or a partner for women, while for men, that was a religious person. For those using health care services, a health centre or a district hospital was the first option even though not specialized in the management of mental disorders. However, only one man and four women got help and support from health care staff skilled in the management of mental disorders.

Table 6. Help seeking behaviours of men and women with depression or suicidality, N=247, 78 men and 169 women

	Total (N=247)		**Men (n=78)**		**Women (n=169)**		**p-value***
	n	%	n	%	n	%	
1. Help seeking for emotional problems?							
Yes	150	60.7	43	55.1	107	63.3	.262
No	97	39.3	35	44.9	62	36.7	
	Total (N=150)		**Men (n=43)**		**Women (n=107)**		**p-value***
2. Seeking help in a health care unit?							
To a health centre or district hospital	38	25.3	8	18.6	30	28.0	
To a district hospital to see mental health professional	5	3.3	1	2.3	4	3.7	
To a mental health clinic/mental hospital	1	0.6	0	0.0	1	0.9	
To a private clinic	11	7.3	5	11.6	6	5.6	
Visited at least one of the above health care unit)	54	36.0	13	30.2	41	38.3	.236
3. Seeking help from others (other source of support)?							
Wife/Partner	11	7.3	2	4.7	9	8.4	
Parent	12	8.0	3	7.0	9	8.4	
Other relative	13	8.7	5	11.6	8	7.5	
Friend	36	24.0	10	23.3	26	24.3	
Teacher	2	1.3	1	2.3	1	0.9	
Religious person	9	6.0	4	9.3	5	4.7	
Community health worker	14	9.3	1	2.3	13	12.1	
Traditional healer or traditional birth attendant	10	6.7	3	7.0	7	6.5	
Visited at least one of the above sources of support	96	64.0	25	58.1	71	66.4	.477

Men and women with depression and/or suicidality perceived a set of barriers related to health care seeking, and these were classified into structural, individual and stigma-related barriers. The most frequently reported barriers for both men and women were the individual barriers to care while structural barriers to care came in second position. The stigma-related barriers to care were the least likely to be encountered by both men and women, but it should be noted that these stigma-related barriers occurred more for men than for women.

Among the individual barriers to care, the most prevalent barriers for women were "I did not believe I would get proper treatment" and "I did not believe that treatment could help me", while for men, these were "I thought that my problem was one I should be able to cope with myself" and "I thought that the problem would disappear by itself". Amongst structural barriers, the transport, payment of the fee and health insurance issues were the most important barriers for both men and women while for stigma related barriers, "I was afraid that the health care staff would have negative attitudes towards me" and "I was afraid to bring a bad name to my family if I disclosed to health staff that I felt emotionally troubled" were the most frequent barriers to care.

Table 7. Barriers to care as perceived by men and women with depression and suicidality, N= 247, 78 men and 169 women

Variables	Total		Men		Women		p-value
1. Structural barriers	**n**	**%**	**n**	**%**	**n**	**%**	
It was too far away to get there	14	5.7	1	1.3	13	7.7	.071
There was no transport available	35	14.2	6	7.7	29	17.2	.051
I could not afford to pay the transport costs	39	15.8	9	11.5	30	17.8	.262
I could not pay the fee at the health care centre	42	17.0	10	12.8	32	18.9	.277
I have no insurance	43	17.4	10	12.8	33	19.5	.212
Summary measure (at least exposed to one of the barriers)	52	21.1	10	12.8	42	24.9	.043
2. Individual barriers related to knowledge and attitudes							
I did not know where to go for treatment	29	11.7	4	5.1	25	14.8	.033
I was too embarrassed to discuss my problems with anyone	28	11.3	7	9.0	21	12.4	.520
I did not believe that I would get proper treatment	37	15.0	6	7.7	31	18.3	.034
I did not believe that treatment could help me	34	13.8	5	6.4	29	17.2	.028
I thought my problem was one I should be able to cope with myself	34	13.8	12	15.4	22	13.0	.692
I thought that the problem would disappear by itself	28	11.3	14	17.9	14	8.3	.032
I was afraid of the consequences of seeking care	15	6.1	4	5.1	11	6.5	.781
I did not want any help	12	4.9	2	2.6	10	5.9	.349
I got help from another source	26	10.5	7	9.0	19	11.2	.662
Other responsibility such as taking care of children/ family members.	17	6.9	3	3.8	14	8.4	.282
Summary measure (at least exposed to one of the barriers)	67	27.1	17	21.8	50	29.6	.221
3.Stigma-related barriers							
I was afraid that somebody I knew would see me at the health care clinic	6	2.4	4	5.1	2	1.2	.081
I was ashamed to show others how emotionally troubled I was	9	3.6	4	5.1	5	3.0	.469
I was afraid that the health care staff would have negative attitudes towards me	11	4.5	5	6.4	6	3.6	.331
I was afraid to bring bad name to my family if I disclosed to health staff	11	4.5	5	6.4	6	3.6	.331
I did not trust that health staff will keep my problem confidential	7	2.8	4	5.1	3	1.8	.212
Summary measure (at least exposed to one of the barriers)	14	5.7	6	7.7	8	4.7	.381

When exploring the self-efficacy for seeking mental health care, almost similar patterns evolved for men and women suffering from current depression and/or suicidality and for men and women not suffering from any mental disorder (n=502). Among those suffering from current depression and/or suicidality, for the first four items (a-d items) of the Knowledge scale, we found that both men and women had a low confidence in finding a place to get mental treatment, getting transportation, paying for transportation and paying for services. However, women to a higher extent than men exhibited low confidence for all items but not for the item “to get transportation (p-value .053).

The pattern for those not suffering from a mental disorder was almost similar for the first four items of the Knowledge scale but with no statistically significant difference between men and women. For the last three items on personal behaviour (knowledge sub-scale, e-g items), both men and women suffering from depression and/or suicidality displayed a high confidence, however more women than men, in their abilities to tell staff what is troubling them, to understand information given to them by staff, and to follow treatment recommendations. For the population not suffering from any mental disorder, the patterns were not evident and no difference was found between men and women for the three items.

When comparing men and women suffering from current depression and/or suicidality (the coping sub-scale, h-k items), more women than men displayed high confidence. For those not suffering for mental disorders, the coping ability was similar for men and women (Table 5, study III).

4.5 Health care seeking of women subjected to IPV

The emerging theme expressing the overarching experience was entitled “*Gendered norms and values defeat the gender based violence legislation in women’s health care seeking when abused*” and summarized the findings of challenges and facilitating factors in health care seeking in

women when exposed to partner violence as perceived by health care professionals. This theme was formed from two categories and their sub-categories (Table 2 of study IV).

Findings showed that despite the ongoing and appreciated legislative initiatives to protect women, such as having more women who are knowledgeable about their legal rights, the formulation of a gender based violence law and having created support services (One stop centres), women were abused and the majority was perceived not to benefit from available health and support services. Abused women had to overcome a number of obstacles that negatively affected their health and ability to seek appropriate care.

4.5.1 Challenges faced by abused women seeking health care

In this category, "Challenges faced by abused women seeking health care", all four sub-categories stress gender inequalities as a common factor but pronounced in different ways, such as women being financially dependent, ignorant, and with less power over decision-making than men. This situation contribute to women's poor health care seeking when abused, as health care seeking would in many cases worsen their life circumstances even though not seeking care most often means having to endure the violence.

4.5.2 Understanding how women's protection is facilitated by community and legal actions

Findings in this category "Understanding how women's protection is facilitated by community and legal actions", indicated that the Government was aware of the traditional gender inequality and the gender based violence and had instituted policy and legislation to protect women although it becomes evident that the challenges are stronger than the facilitating factors. There are still legislative measures to take, and attitudinal change is necessary to reach a higher level of gender equality

that will secure protection against violence and safeguard women's health and rights.

5 DISCUSSION

In this thesis, IPV and its mental health and help seeking implications are investigated using both quantitative and qualitative research methods. The main findings are first presented in the section 5.1 and findings are discussed in the light of other studies in the section 5.2. Thereafter, the methodological considerations follow.

5.1 Main findings

Our findings show that women are highly exposed to all forms of IPV, usually perpetrated as repetitive acts of violence. Likewise, IPV has a tremendous impact on women's mental health; IPV was highly associated with all forms of mental disorders investigated. However, we have also found that women rarely seek professional help for mental problems, due to many factors including mainly knowledge-related and attitudes-related as well as structural barriers to care. Instead, they prefer to go to someone they know, due to services not being available, accessible, acceptable and of a good quality. In addition, health care professionals also give an important picture of women's health care seeking due to IPV, namely that there is a conflict between what the state wants to achieve in terms of gender equality and the culture, which is heavily influenced by masculinity norms and not supporting gender equality measures. Therefore, this conflicting situation exposes women to more abuse and to poor access to help and support services. The same pattern is also seen in other parts of the world [146].

For men, there is a different pattern as they are only occasionally exposed to IPV. No risk factor was found for physical and sexual violence but having more than two children, incomplete primary education, partner's low education, and poor socio-economic status (no assets in the household were risk factors for psychological IPV. We further found that men suffered from mental health problems, but these were primarily related to traumatic experience during the genocide or to poverty, although to a

certain extent also to IPV. Further, men were more reluctant than women to seek health care for mental problems possibly due to masculinity norms [147]. Also, health care professionals confirmed that men are not seen in health care services as care seekers for mental disorders following IPV exposure.

IPV Prevalence

Study I provide important findings on the prevalence of different forms of IPV among young men and women. As found in a study from Canada, women are more exposed to all forms of IPV compared to men within the earlier-in-life time frame [43]. Not only are women found to be more exposed to IPV than men [6,8,11] but they are also exposed to IPV in the form of repeated, systematic acts of violence [37] while men are most often exposed to single acts of violence. Furthermore, a previous study indicates that earlier-in-life IPV was higher in women compared to men [33] as found in our study, but, for women, it was surprising to find that earlier in life estimates were only slightly higher than the past year IPV estimates. It may be that women forget old acts of violence from partners. However, earlier studies have shown that women are generally exposed to more severe forms of IPV, with higher levels of physical injury, coercive control and fear, which they may be more likely to remember and report as violence [148]. Further, given the strong masculinity norms at hand, there is a possibility of IPV underreporting among both men and women. For women, underreporting may be associated with the consideration of IPV as a private matter [24] supposed to be kept as secret to protect reputation of self, husband and family [24] but underreporting may also be due to the fear of revenge from the partner [149], financial dependency of the husband [24,150] or the fear of humiliation, the shame of being a victim of IPV and the wish to stay in the relationship [151]. While for men, IPV may be considered less threatening, they may not consider it particularly relevant to remember [152] or omit reporting as this would be in sharp contrast to accepted gender norms [153], but also women's physical disadvantage may make any act of violence less threatening for a physically stronger male person and thereby subject to denial over time [154,155]. These assumptions do need to be further investigated.

However, given that precautions were taken to minimize under-reporting among both men and women in our study, the exposure rates among men and women may reflect the actual situation where men are to a considerably lesser extent exposed to IPV compared to women. Our exposure rates for psychological violence are higher than the other forms of IPV, which is in line with previous studies [156-158]. Health professionals confirmed that strong cultural norms supporting men's superiority and women's subordination were still present to the extent that laws trying to protect women from abuse were considered as threatening to male power and domination over women and therefore abuse towards women was still going on. This was previously documented in Rwanda [150].

IPV risk factors

In study II, we found that for men and women, both respondent's and partner's low educational level increased the likelihood of reporting exposure to psychological violence, which is in line with previous literature from other countries [63,159]. A low level of education has been described to be associated with a higher degree of acceptance of traditional gender roles than would be the case for higher educated men and women [160]. These findings emphasize the importance of education for both men and women. Moreover, higher education has been shown to decrease the risk for physical IPV in a sample of women from seven African countries [60] as well as in a study from South Africa [65] and another from Uganda [66]. However, some studies have shown that higher education exposes women to an increased risk of experiencing violence [161-163], but this may be only a temporary resistance to the transgression of traditional gender norms and when women become even more independent (through higher education and earning a salary), the violence usually decreases.

For women, large family sizes as well as poverty (i.e. absence of assets in the household) were also acknowledged as risk factors for physical and sexual violence. This can be explained by the fact that poverty and big family size creates financial stress in the household that may result in

miscommunication and violence towards the spouse [161,164]. Poverty has also been documented to be a risk factor for IPV for women in Rwanda [24,47].

Similar to other studies, poor social support was also found to be a risk factor for exposure to violence [33,64]. For women, good social support is found to be a protective factor against IPV [64]. Social support from close relatives makes women feel more secure and therefore empowers women [71].

IPV adverse health effects

The study II results revealed that the prevalence of major depressive episodes in the past two weeks and earlier, suicidality and post-traumatic stress disorder was twice as high in women compared to men. However, for generalized anxiety disorders, the prevalence was almost similar for men and women. This high prevalence rates of mental disorders in women may be explained by women's everyday life being characterized by numerous stressors, therefore causing additional stress leading to depression and other mental disorders as found in other studies [15,165]. In study IV, health care professionals clearly expressed that in addition to the physical health consequences of IPV (injuries), they encountered among exposed women various acute psychosomatic symptoms such as depression symptoms, chronic headaches, stomachache, high blood pressure, insomnia or mutism, to cite just a few, but also serious mental conditions. Further, suicide attempts, bipolar disorders as well as repetitive depressive episodes were mentioned by participants, which is in line with the findings from study II.

Additionally, the Population Attributable Fraction also highlighted that IPV highly contributed to all mental disorders in women but also in men. For example, if physical violence could be eliminated, depression in the past two weeks would be reduced by 40% for women and 23 % for men while for suicidality, the reduction would be 33% and 4 % for women and men respectively. The study IV also stressed that the women's abuse had negative mental health effects for children. They emphasized that children

from families where mothers were abused, were received in health care services with signs of poor mental health.

When exploring the association between IPV and its adverse mental health effects in a post genocide country, it is equally important to remember that the genocide in many cases cause long-standing mental health effects [166]. From Rwanda, high rates of mental disorders including depression, suicidality, generalized anxiety disorders and PTSD are reported to be associated with traumatic episodes during the genocide [123,166,167]. Other studies from post-conflict settings indicate that exposure to war-related violence has well established associations with mental disorders including depression and PTSD [168-170]. Our study findings highlighted that all forms of IPV made a considerable contribution to all forms of mental disorders for women. This finding was also established in several other studies [41,85,126,171,172]. However, for men, in our study, other factors, such as exposure to traumatic episodes during the genocide period and poverty were important risk factors for most mental disorders. Poverty has been documented as contributing to increase stress, powerlessness and social isolation among exposed women [173]. Partner’s poor educational attainment also contributed to mental disorders in women.

Most existing population-based and longitudinal studies, exploring the association between IPV and mental disorders have mainly been conducted on women [7,12,15,21,39,41] but very few explored this association in men [8,11]. Therefore, longitudinal studies exploring IPV and adverse mental health effects on a male population are needed. Mental disorders explored in this thesis, depression, PTSD, suicide and anxiety are documented to be highly prevalent among people exposed to IPV [15,21,79,80].

Help seeking behaviours, barriers to mental health care

Our study findings suggested that many young men and women have unmet needs for mental health services possibly linked to the fact that treatment services are scarce and few support services are available.

When young people feel the need to seek help for mental disorders, many young people choose to turn to friends, parents or other people instead of using professional health care services. This is consistent with studies suggesting that the majority of young adults often do not seek help for mental disorders [174,175] but prefer to go to other people in their acquaintance network [133].

Further, as suggested in an earlier study, we also found that poor utilization of mental health services among young men and women is related to poor access to mental health services (e.g. too far to get there, no transport available, could not afford the fee for the transport and health care, no insurance) [176], however, women were to a higher extent in such a situation than men as documented before [177].

The most important barriers to mental health care were knowledge and attitudes related barriers. Among these, we also noticed a gender pattern. Men gave reasons such as "I thought my problem was one I should be able to cope with myself" or "I thought the problem would disappear by itself". These reasons may express a possible avoidance behavior leading to poor health care seeking as seen in other studies [17,136,178] or the stigma associated with such conditions as earlier documented [111]. This may express also the masculinity traits overemphasizing real men as those who should be physically fit, careless of their health and self-sufficient [147].

While for women, reasons for not accessing mental health care included "I did not believe that I would get proper treatment", or "I did not believe that treatment could help", suggesting mental health illiteracy and distrust in the primary health care services, and pointing at the same time to the poor quality of mental health care in primary health care. As found in our study, earlier studies noted that poor mental health literacy related to when and where to go for professional care for mental problems [28,29], constituted a barrier to the utilisation of mental health services. This may be related to primary health care not successfully reaching out to the population with information detailing where to get assistance for mental health problems.

Further, when exploring self-efficacy for seeking mental health care, we discovered that men and women with current depression and/or suicidality, displayed low confidence about overcoming structural barriers to care such as finding a place to get mental treatment, getting transportation, paying for transportation and paying for the services. More women than men experienced such barriers, as was also observed when exploring access barriers to care. However, a previous study also found that men and women with low self-efficacy were more likely to experience barriers to care [179].

Poor self-efficacy may have several causes, including a history of failures, poor social support, and a tendency to consider circumstances and demands as frightening which results in dysfunctional coping strategies [180]. Therefore, on the patient's side, demand may increase through support and attempts at altering negative attributional styles, through increased ability to cope with challenging situations and complex demands, and through other interventions such as increasing the mental health literacy. While for the health system, the supply side needs to be improved to increase access to mental health services.

Abused women health care seeking

It was mainly women whom health care professionals encountered as medical assistance seekers due to continuous violence and abuse perpetrated by partners. Initiatives tackling gender inequality and power imbalance can reduce violence against women in low and middle-income countries [45]. We found that supportive interventions to protect women (such as policy making and legislation against gender based violence, free of charge police telephone line and intervention when called, and Non-Governmental Organizations interventions in supporting women's rights and empowering women) were at hand and were appreciated. Despite the fact that efforts to protect women were at hand and limited resources allocated to addressing IPV were in place, women exposed to IPV still face barriers to accessing care. This aligns with IPV literature suggesting that battered women face several challenges to getting appropriate help and care [114,116]. Our findings suggest that a fundamental conflict

exists between the traditional gender norms still present in the society, and the laws and policies created, to protect women from any kind of abuse. The implementation of gender equality policies in the presence of strong cultural norms has already been documented in Rwanda as negatively affecting stability in the family and leading to more violence [150] as men's power is perceived to be threatened. As a result of male domination, women are expected to keep family reputation and hide problems, which they do as they are financially dependent on their husbands. Therefore, women choose not to seek help or care [24,150].

Financial dependency on husbands not only creates women's poor help seeking but also sustains women's exposure to IPV because battered women often withdraw their legal complaints when husbands are arrested. To have the husband in jail negatively affects a woman's reputation and damage her chances of caring well for her children. This was previously reported from Rwanda [150].

Another important problem that women had to face when seeking care after being abused was the poor collaboration between sectors which are supposed to provide care and support to abused women and to make preventive initiatives more effective. However, as suggested earlier, collaboration between all societal levels would reduce violence against women [181]. Further, health care professionals usually lack the skills to deal with the universal problem of IPV, and women's health and wellbeing will subsequently deteriorate because of this lack of training. The health sector has been pointed out as an important partner in the work of preventing IPV [181]. When battered women visit health facilities to get treatment for repeated injuries from violence, this opens an opportunity for professionals to ask questions about violence, to provide care, and in some cases to refer the women to other services. However, in many locations, healthcare providers' training does not include IPV as a health concern [182]. Identification and prevention of violence against women can play a significant part in improving the health of mothers and children.

Women's response to IPV

The interview with health care professionals (study IV) made clear the cultural issue of keeping IPV as a family and private matter. Our results suggest that in Rwanda, many women chose to remain silent about IPV experiences. This mirrors global findings, in which more than half of battered women have never told anyone before about the violence [183-185]. This resistance to report family violence is supported by other Rwandan studies [24,150]. Remaining silent is one common way of managing IPV among women, other ways of acting are to "behave differently", "do not shoot back", "get a job", "threaten the husband with calling the police", "get informal emotional support from friends, neighbours, prayer and religious beliefs as described in another study [24]. The study IV results highlights that women keep IPV as a secret to protect the reputation of their husband and family, but also to keep the violence as a secret to protect her own reputation. Further, "reporting IPV" is believed to be an ideal but unfeasible response to IPV [24].

According to studies conducted in the United States, women who remain with their abusers are more likely to be financially dependent on their partners [186] but have suffered less severe abuse [187]. It was also noticed that many women in rural Kenya choose to "remain silent" when suffering from IPV, in order to protect the family and preserve their dignity in the community [116]. In rural Indonesia, abused women adopt a long-term strategy of moving between opposite options, being an obedient wife or actively fighting the violence, with the hoped-for aim of leaving the abusive marriage in the end. This strategy is adopted despite the fact that these women are educated and financially independent of their abusive husbands [188].

Leaving an abusive relationship is a process. A recent study with South African women presents several vital aspects needed in order to be able to leave [189]. First, supportive environments such as family members and friends who can help to support escape and provide information on where to go. Further, access to shelter is important; and in this regard many women do not know of available options. Having an opportunity to escape is another vital aspect in leaving the abusive relationship; such

opportunities can be enabled by family and friends as well as the police [189].

5.2 Methodological considerations

Study I-III

The strengths of the current thesis include the use of both quantitative and qualitative research methods with two main objectives: initially to ensure that the limitations of one type of data are balanced by the strengths of another, and subsequently to investigate whether the findings point in the same direction although different methodologies were used.

Strengths also include the inclusion of a representative population-based sample, randomly selected in the Southern province of Rwanda. Face to face interviews were performed with young men and women. Further, strengths include the use of a validated diagnostic tool for mental disorders and a well acknowledged, validated instrument for IPV. The interviewers were clinical psychologists experienced in dealing with studies on sensitive topics but also with good experience of scientific interviewing. The interviewers and the participants were about the same age and sex that has shown to improve the accuracy of the reporting in interviews [190]. The response rate was high (99.8%) as also seen in other national surveys in Rwanda [4,191]. And we were able to include exposure to traumatic episodes during the genocide period as an independent risk factor in the multivariable analyses. This was important as several articles in the field from post conflict areas evidence the long term impact of such exposure on mental health status in men and women [166,168-170]. For women, we hereby were able to show that partner violence was a strong independent risk factor even when the variable "traumatic episodes during the genocide period" was added to the analyses. Furthermore, to measure the study population's confidence in overcoming a variety of difficulties in seeking mental health care services, we used a recently constructed scale, the self-efficacy for seeking mental health care [134]. The internal reliability scale was good and these items

were used in a parallel study in South Africa [134]. The South-African study used exploratory factor analysis, which clearly indicated the two subscales SE-Knowledge and SE-Coping [134].

This was a cross-sectional study, which limits interpretation of findings in relation to the direction of the association between socio-demographics variables and IPV as well as between IPV and mental disorders. However, for the association between IPV and mental disorders, a review article based on longitudinal studies provides considerable evidence to support the theory that a history of intimate partner violence precedes poor mental health outcome [15].

The variable 'assets in the household' was used as a proxy for socio-economic status as incomes were extremely small and the majority of the households had no regular income. We believe this reflects the actual poverty level quite well and such estimates have been used similarly in the demographic health surveys undertaken in 2005 and in 2010 in Rwanda. Confidentiality was assured and discussed as part of the informed consent process and a private place was secured to conduct interviews.

In this thesis, past year violence estimates were used in the analyses as they are frequently assumed to be more precise measures of IPV than earlier-in-life estimates due to lower recall bias [126,171,192]. For mental disorders, time periods of different mental disorders were kept as designed in the tool so as to respect the construct of the MINI instrument, with the advantage that the data collection team was experienced in how to use the MINI tool.

There is always the potential for recall bias. Under-reporting of intimate partner violence and mental disorders may be at play due to their delicate nature. Fear of disclosing such experiences may be a factor, because people believe that family matters and particularly violence exposure should not be disclosed to others. Social desirability bias, fear of disclosure and stigma may cause study participants to either over or under-report acts of violence, of which under-reporting is most probable.

Nevertheless, the data collection procedure in this study was performed with great care, by experienced data collectors who were able to establish a good discussion climate in Kinyarwanda with the individual participants. The data is hereby considered to be of high internal and external validity with possibly some under-reporting but with high precision and objectivity in the interview situation. We conclude that our results are most probably not overestimated.

In addition, the comparison of our findings to other studies needs to be done with care given the narrow age span (20-35 years) of the current study sample. Similarly, given that the findings of this thesis are from one province in Rwanda, generalization of the findings to the whole country should be done with caution. Findings may be generalizable only if there is small or non-existent variability in young adult's life circumstances across Rwandan provinces.

Study IV

For the qualitative component of this thesis (study IV) all authors (AU, MP, IM, GK) were experienced in qualitative research. That factor has been an asset for this study and has contributed to the credibility of the findings. In addition, the research team consisted of professionals with differing scientific backgrounds, which contributed to a multifaceted discussion through the entire research process. A thick description of help seeking process for women exposed to IPV is well provided in study IV.

However, qualitative methods are usually subject to many criticisms because some researchers are reluctant to acknowledge the trustworthiness of qualitative studies by interrogating the internal validity, the external validity, the reliability, and the objectivity in the interpretation of findings. In addition, researchers are usually equipped with a pre-understanding of the subject under investigation. Therefore, in the pursuit of ensuring validity and reliability in qualitative studies, qualitative researchers have proposed four criteria (credibility, transferability, dependability and confirmability) to be considered when

conducting such studies [193] and these have been followed throughout the whole process in this research.

First, the *trustworthiness* (or credibility in preference to internal validity) deals with how congruent the findings are with reality. This includes how well the study participants were selected, and how well data and the process of analysis and the interpretation of findings addressed the intended focus [143]. The credibility of findings arises when making decision about the focus of the study, selection of content, participants and approaches to gathering data.

In this study, we used FGDs, and brought together health professionals with various experiences to bring in a deeper understanding of the issues as formulated in the interview guide. We applied a purposive selection of participants working in mental health facilities and district hospitals where abused women sought help. The health care professionals were men and women of different age groups, with differing professional backgrounds working in general care (district hospitals) and in mental health services. They were selected due to their broad understanding of the factors affecting abused women's help seeking, gained through in-service trainings and work experience. A clear picture was given of abused women's problems in health care seeking, and a comprehensive description of the data collection and analysis is presented with citations from the FGDs to strengthen the trustworthiness of our findings. Furthermore, our findings through FGDs with health professionals on constraints that women exposed to IPV face when seeking care are supported by a recent study from Rwanda using semi-structured interviews with women experiencing violence [24].

Second, the *dependability* (in preference to reliability) addresses the issue of reliability, which deals with techniques (research design planning, implementation and operational detail on data gathering) to show that, if the work was repeated in the same context, with the same methods and with the same participants, similar results would be obtained. In our study IV, dependability was enhanced by conducting FGD in Kinyarwanda, moderated by a local researcher well familiar with the context, transcribed

into Kinyarwanda then back-translated into English. The quality of the translation was controlled by back-translation of parts of the material by an independent person, proficient in English, to confirm the accuracy of the linguistic translations. Verifications of the transcriptions were done by the first author who listened to the digital recordings twice. In addition, during data collection, frequent debriefing sessions between the researchers were carried out until a common understanding was reached.

Third, the *confirmability* (in preference to objectivity) was achieved through separate coding by the first and the second authors. Two of the authors (AU, MP) in collaboration with the last author (GK) performed the analysis. From the condensed meaning units, codes were formed and continuously compared for similarities and differences. Later, categories emerged, along with sub-categories and after the theme. To seek agreement and to validate the findings and context, the final steps of the analysis were discussed in the research group until consensus was achieved.

Lastly, the *transferability* (in preference to external validity or generalizability) refers to the extent to which the findings of one study can be applied to other situations, other settings or other groups. As presented in our qualitative findings, it has been suggested that good presentation of the findings together with appropriate quotations will enhance the transferability [143]. Further, we believe that the perceptions and experiences of the health care professionals in this study might be transferable to health care professionals meeting abused women in similar health facilities in Rwanda. However, taking into account that this thesis included a limited number of participants, we believe that the findings represent only the views of those who participated in the FGDS.

Furthermore, interviewing health care professionals about victims of partner violence may be regarded as secondary data as they are retelling others' stories. However, our intention was to capture the broad experience of health professionals who had considerable experience, and an aggregated and comprehensive knowledge in their field gained from repeated encounters with several women exposed to IPV.

6 CONCLUSION

As women are considerably more exposed to IPV and its mental health effects, and face more challenges when seeking care than men, it is important to protect women in the first case. There are laws and a policy in place which criminalize gender-based violence, but compared to cultural norms, these are not strong enough to protect women. However, behind the numbers, there is a gender power imbalance between men and women which is reinforced by strong cultural norms. Therefore, the prevention of IPV needs to be reinforced at all societal levels taking into account gender-specific risk factors.

Further, there are few mental clinics in the country and few psychiatrists. Added to this, there are few centres with a complete package of services for people exposed to IPV (i.e. one stop centres). Mental health services and services for men and women exposed to IPV should be staffed by well trained professionals and based at health centre level so that stigma can be reduced for those seeking care and comorbidity can be treated. Further, a closer collaboration between health care services, the legal system and the police need to be reinforced. Likewise, mental health literacy in the population needs to be reinforced, and guidelines on how to find cases of violence exposure and how to treat them need to be made available in health facilities. Educating men and women and similarly creating more access to paid employment may pull families out of poverty. This may as a result decrease violence and its mental health effects, and also contribute to facilitating help seeking for the poor.

7 FUTURE PERSPECTIVES

7.1 Policy implications

Findings from this thesis highlighted gender-specific patterns on the prevalence of IPV, its risk factors, its mental health effects and help seeking behaviours which need recommendations at all levels of societal organization. These recommendations include:

❖ **<u>At society level:</u>**

- Improve the population's awareness and knowledge on about gender equality and human rights.
- Involve the media in the production of public debates on rigid but negative cultural norms which grant power to men over women with huge public health impact.
- Boost strategies to change or shift beliefs and behaviours. For example, role models can be involved to advocate for egalitarian masculinity and utilized in these efforts as promoters of gender equality.
- Set up a surveillance system to identify the population exposed to partner violence.
- Produce guidelines to be used by health care providers in the counselling and the management of cases of abuse by partners,
- Increase the availability, accessibility, acceptability and the quality of mental health care and support services for the population in general and mainly for women exposed to partner violence.

❖ **<u>At community level</u>**

- Conduct campaigns against intimate partner violence in all its forms, involve the population in actively participate to report violence in the community and have zero tolerance for any form of violence. But also increasing availability of public messages and information that

challenge existing gender norms through public discussions, brochures and public posters as well as using egalitarian men as role models for gender equality as earlier mentioned.

- Create more income generating activities as well as access to financial credits to increase financial empowerment mainly of women but also of men.
- Alert, educate and train health care professionals in order to improve their ability to identify cases of violence and mental disorders, in order to enable them to respond appropriately.
- Improve access to first line psychological support and other support services in the nearest health facilities

❖ **At family and individual levels**

- Promoting equality for boys and girls at home represents one of the most strategic opportunities.
- Increase the educational awareness of gender equality and human rights at family and at individual level
- Promote education for both genders up to the highest level possible.

7.2 Research implications

Qualitative studies are needed to improve knowledge and understanding about men's and women's exposure to IPV, but also to understand the motives behind IPV perpetration. This could complete the picture obtained from this thesis in order to produce guiding principles for sex-specific strategies for IPV prevention and intervention on IPV. More knowledge of health professionals' abilities in case-finding and supporting victims of violence is needed. Such studies could be designed as observational studies in health care services taking care of people exposed to intimate partner violence. Also intervention studies on how to improve the collaboration between different sectors could add valuable strategies for reducing IPV directed at women and for offering an integrated service to women and children. Studies on how to treat men who use violence within the family also need to be investigated and tested.

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