Women's exposure to intimate partner violence and health effects

Master thesis in medicine

Emma Jonasson

Supervisor Professor Gunilla Krantz, MD.

Unit of Social Medicine, Institute of Medicine, Sahlgrenska Academy.

Women's exposure to intimate partner violence and health effects

Master thesis in Medicine

Emma Jonasson

Supervisors: Gunilla Krantz MD, Professor

and Joseph Ntaganira MD, Professor

Department of Public Health and Community Medicine

Institute of Medicine, The Sahlgrenska Academy

UNIVERSITY OF GOTHENBURG

Programme in Medicine
Gothenburg, Sweden 2015

Table of Contents

Abstract

Background

Intimate partner violence (IPV) directed at women is a violation of the human rights and its consequences affect women's health profoundly. It exists in every country but can vary in prevalence and frequency.

Aim

The purpose of this study was to investigate associations between women's exposure to IPV and somatic symptoms and gynaecological disease in Rwanda.

Methods

This cross-sectional, population-based study included young women aged 20-35 years from the Sothern Province of Rwanda (n=477). Face-to-face interviews were performed, using a questionnaire based on items from the World Health Organization (WHO) questionnaire for research on IPV. Bivariate and multivariate statistical analyses have been executed calculating adjusted odds ratios (OR) with 95% confidence interval (Cl).

Results

The odds for associations between physical and psychological IPV and all our symptoms including gynaecological disease indicated statistical significance. Associations between sexual IPV directed at women and having chest pain (OR 3.15; 1.70-5.81), heart palpitations (OR 2.29; 1.08-4.86) and stomach pain (OR 1.89; 1.03-3.49) were found statistically significant. The association between psychological IPV and chest pain showed the highest odds with OR 4.10 (2.31-7.31). All forms of violence were

associated with stomach pain, chest pain and health palpitations.

Conclusion

In this setting, women who have been exposed to IPV during the past year were more likely to suffer from various common symptoms, such as headache, fatigue, stomach pain, and gynaecological disease. The prevalence of common symptoms is interpreted as a sign of distress caused by IPV exposure.

Keywords: *Intimate partner violence, Women, Health effects, Symptoms, Rwanda*

Introduction

Intimate partner violence (IPV) directed at women is a public health problem. It is daily occurring and a violation of women's human rights (1). This is not a new phenomenon; it has existed for a long time but it is still a neglected topic that is not much discussed in policy development in population health. It occurs in every country, regardless from different cultures and socio-economic status, but can vary in prevalence and frequency. The World Health Organization (WHO) estimates that 35% of women worldwide have experienced either physical and/or sexual IPV or non-partner sexual violence. (2)

IPV refers to any behaviour within an intimate relationship that causes physical, sexual or psychological harm to those in the relationship. That includes physical aggression such as hitting, kicking and slapping, to be forced into sexual intercourse or other form of sexual coercion and psychological abuse such as intimidation, constant belittling and humiliating and various controlling behaviours, in many cases acknowledged as most serious form of violence. (3) Previous studies have shown that these different forms of violence often coexist (3, 4).

The impact of IPV in women's health is profound (3) and previous research has shown that exposure to IPV is associated with a higher risk of suffering from common symptoms in women (5). Violence exposure could lead to stress responses that could be linked to somatic symptoms and diseases. Health care services form an important entry point for detecting such violence. (6) Therefor it is important that health care personnel are trained in handling these kinds of cases. A study from the Solomon Islands investigated physical injuries caused by IPV. The study emphasizes the important role

of the health care services in detecting IPV. It advocates a multi disciplinary approach to IPV, e.g. doctors, nurses and other health care professions working together, so that all professionals are able to identify cases of IPV. (7)

The adverse consequences of IPV in women's health are profound and well known (2, 3, 6, 8, 9). The poor health status includes both acute injury and long-term health consequences, such as physical and mental common symptoms (5, 8, 10). WHO indicates that the violence against women most commonly are performed by a partner or a former partner of the woman (3) and that it is often severe and frequent (11). This is a very serious matter since 38% of all murders of women globally are committed by an intimate partner (2).

The physical impact of IPV is not always fatal. For physical non-fatal injuries, the head and neck are the most commonly occurring location of injury (2). A frequently used mechanism of injury is manual strangulation (12). Being a victim of IPV could also lead to risk behaviour and substance abuse e.g. use of alcohol, prescriptive medicines, tobacco or other drugs (3).

Women exposed to sexual IPV have an increased vulnerability to sexual transmitted infections (STI) and HIV caused by a limited control over circumstances of sexual intercourse or the ability to negotiate condom use (2, 13). These women also suffer from poor reproductive health with unwanted pregnancies and gynaecological diseases (3). A study made in Rwanda show that pregnant HIV positive women were at a considerably higher risk of exposure to all forms of IPV than HIV negative pregnant women (14).

The linkage between IPV exposure and various mental conditions such as posttraumatic stress disorder (PTSD) has been investigated before (10). A study from Rwanda confirm the association between IPV exposure and mental disorder in both men and women (15). Depression, PTSD, anxiety and suicide attempts are commonly occurring in women who have been exposed to IPV (3, 8, 16).

Rwanda is a low-income country located in central Africa and has a population of 11.5 million people (17). During three months in 1994, at least, 800,000 people were killed in the Rwandan genocide (18). Gender-based violence (GBV) and rape of women and girls were used as methods of violence in the genocide and many children witnessed violence against their families (19). These events do still have a great impact and affect the society in Rwanda twenty years later in that many people still suffer from mental conditions that are strongly associated with what happened during the genocide. GBV is forbidden in Rwanda and the intolerance against it is reflected according to current legislation (20).

Since 1980's, governmental initiatives have improved the public health in Rwanda with a series of modifications. Health care services have become streamlined and more effective. Public health insurance has been introduced and the fee is based on assets in the household. Seventy-eight percent of households in Rwanda report that they have health insurance. No one is therefor forced into poverty due to illness. In this part of Africa this health insurance solution is remarkable rare and effective. (21)

Maternal mortality rate (MMR) in Rwanda is high. According to Rwanda Demographic

and Health Survey (DHS) there were 476 maternal deaths per 100,000 live births in 2010. Only 69% of all births were assisted by a skilled provider e.g. doctor, nurse, midwife or clinical officer. The median age for first birth is 22.4 years and the median number of household's members is 4.4. The fertility rate has declined over the past two decades from 6.1 to 4.6 children and varies in urban and rural settings and to the mother's educational and economical status is a factor. (21)

Rwanda DHS uses two sets as women's empowerment indicators, participation in decision-making and attitudes towards wife beating. Economical independence is of importance to a women's autonomy. Only 18% of current married women were in charge over the decision-making about spending their own earnings and 25% of current married women report that their husbands made decisions regarding their health care. Of the participating women, 28% report that their husband makes the decisions on major household purchases. (21)

According to the Rwanda DHS, 41% of participating women had experienced physical IPV and 21% have experienced sexual IPV since they were 15 years old. In addition, the report also shows that rural women in Rwanda are more likely to experience IPV than urban women. Less than half of all women who have experienced IPV have sought help in public health care services (21).

In some settings women do justify the violence. For example if a woman goes out without telling her husband, refusing sexual intercourse or burn the food, then women in different settings are inclined to justify the use of violence. A study made in six African countries show that when the spouse carried positive attitudes towards

violence, the likelihood of IPV was higher (22). Of the women participating in Rwandan DHS, 56% think wife beating is justified in some different reasons such as burn the food, arguing with the husband, goes out without telling, neglect children or refuses to have sex with the husband (21).

Umubyeyi show in her study that low educational attainment and low living standard were risk factors associated with IPV directed at women. The study also shows that women are more exposed to IPV than men in Rwanda. (4) Men are also exposed to IPV and there is cases of IPV in same-sex relationships (3, 4). This paper will though only include women's exposure to IPV.

There have been previous studies made of IPV and mental disorders in Rwanda (15). This thesis is a complement, to previous studies about women's exposure to IPV, and extending the understanding of health consequences of IPV directed at women with focus on somatic symptoms and gynaecological disease.

Aim

The purpose of this study was to investigate associations between women's exposure to IPV and somatic symptoms and gynaecological disease in Rwanda.

Method

WHO has stated the definition of IPV as:

"Behaviour by an intimate partner that causes physical, sexual or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse and controlling behaviours. This definition covers violence by both current and former spouses and other intimate partners." (23)

Other terms that are used to refer to this phenomenon include domestic violence, wife or spouse abuse, wife/spouse battering. Dating violence is usually used to refer to intimate relationships among young people, which may be of varying duration and intensity and do not involve cohabiting (23). It is of great importance to use the right terminology when talking about this issue. Domestic violence does not tell in what direction the violence is directed and could be an incoherent description. That is why the term IPV directed at women is to prefer.

Study design, study population and sample size

A cross-sectional study was conducted. The sample size was calculated on an expected proportion of physical intimate partner violence against women in the past 12 months as 20% (21), a desired level of absolute precision of 5% and an estimated design effect of 1.5, to get a representative sample of young adults aged 20 to 35 years. To fulfil that premise, the study was aimed to include 443 men and 443 women. The final sample size was 440 men and 477 women with only two refusals for participation, which gave a response rate of 99.8%. This thesis only includes women (n = 477).

The data collection was performed in the Southern province of Rwanda. It consists of eight districts and have a total population of 2.2 million, equivalent to approximately 19% of the total population in Rwanda (21).

The study population was randomly selected. To select the number of households to be included, a multi-stage random sampling was done in three steps. Firstly, out of the total number of 3512 existing villages, 35 were randomly selected by using Epi-Info random function (10%). Secondly, the number of households in each village was selected proportionate to the total number of households in each village. Lastly, the person to be interviewed was randomly selected among eligible people in each household.

Data collection procedures

The first participant in each village was selected from the household closest to the center of the village. The sampling interval in each village was calculated and indicated the next household to be included. If there were no eligible person living in the selected household the closest household was approached. The reasoning behind this was that the living standard in the closest household most probably would be similar to the one initially selected.

The questionnaire

A questionnaire was developed based on items from the Women's health and life experiences questionnaire developed by WHO for research on IPV experiences (24). Previous studies have shown that this is a valid instrument for detecting IPV in both men and women (25, 26). It has been used worldwide in different populations and settings and in many WHO initiated studies (11).

The questionnaire used in this study included questions about socio-demographic and psychosocial factors (cohabiting status, number of children, educational attainment, income, household characters, social support), physical and mental health and experience of violence. The questionnaire was translated into Kinyarwanda, the national language in Rwanda.

The University of Rwanda, College of Medicine and Health Sciences, School of Public Health (SPH) was the lead implementer of the survey. A group of 13 experienced interviewers, clinical psychologists by training (composed of eight females and five males) and two male supervisors were recruited. Two days of training was carried out followed by one day of questionnaire piloting.

The data collection took place in the period December 2011 - January 2012. The data entry was performed by four skilled personnel from the SPH under the supervision of a data entry manager.

Measures

Dependent variables

Five symptoms, considered to be common stressors in women, were used as dependent variables: stomach pain, heart palpitation, headache, fatigue and chest pain. The participants indicated the frequency of the symptoms as 'almost daily', 'weekly' or 'never/almost never'. The symptoms were dichotomized into 'almost daily' and 'weekly' combined with the reference category being 'never/almost never'.

Gynaecological disease was also used as a dependent variable. Previous studies have shown associations between sexual IPV and gynaecological disease (13, 27) and it could also be interpreted as a symptom. The participants indicated if they suffered from any gynaecological disease today. The occurrence of gynaecological disease was responded to with either 'yes' or 'no'.

Independent variables

Violence exposure was measured in the past 12 months. *Physical violence* was indicated by a positive answer to any of these questions: Have your current husband/partner or any other partner ever slapped or thrown things at you, pushed or shoved you, hit you, kicked you, choked or burnt you or threatened you with a weapon?

The indication of *sexual violence* was by a positive answer to any of these questions: Has your current husband/partner or any other partner ever physically forced you to have sexual intercourse, were afraid of what your partner would do if you refused to have sexual intercourse or forced you to do something sexual that you did not want to do?

Psychological violence by a current husband/partner or any earlier partner were indicated by a positive answer to any of the following questions: insulted you or made you feel bad about yourself, belittled or humiliated you in front of other people, scared or intimidated you on purpose or threatened to hurt you or someone you cared about?

The participant had to indicate the frequency of the violence as either 'once' or '2-3' times or 'more than 3 times' the past year.

Summary measures were constructed for each of the forms of violence, i.e. physical, sexual and psychological violence and finally dichotomised into any event of violence as the exposure category, as opposed to no violence exposure as the reference.

Socio-demographic and psycho-social variables were dichotomised and controlled in a binary regression. Those variables that were statistical significant were used as covariates in the multivariable statistical analysis. *Age* was grouped into 2 categories (20-29 years and 30-35 years). *Number of children* was constructed with having no children as the reference category and having children as the exposure category. *Educational level* was grouped into incomplete primary as the exposure category and higher education (comprising of complete primary education and above or vocational training) as the reference.

Social support was defined as having friend or family member that would assist in case of illness, or would share food, share housing, lend money, assist with guidance when problem arise and offer support when in personal problem. The items were summarised into a social support scale and dichotomised into assistance always, often or sometimes as opposed to family will never assist as the exposure category.

A *living standard* variable was constructed from the type of house, water source, electricity, cooking fuel and availability of a toilet facility. The various living standard items were merged and dichotomised into either improved living standard (having at least one of the living standard items) or poor living standard (having none of the living standard items) as the exposure category. The *Living standard variable* was used as a

proxy for socio-economic status.

Statistical analysis

Socio-demographic and psycho-social characteristics and living standard were presented as *n* and *%.* Differences between women who have been exposed to any form of IPV the past year and those who have not been exposed to any form of IPV the past year were presented as *n* and evaluated by the Pearson's Chi-squared test for independence for all categorical variables and presented as p-value.

The exposure to violence was presented both as prevalence (n, %) and frequency, the last mentioned was calculated as the number of times in the past year there was a violence incident. The frequency was presented as *n* and *%*. A summary variable was created for each form of violence.

The frequency of symptoms was presented as *n* and *%*. A calculation was made to estimate the overlapping of symptoms and gynaecological disease, indicating the number of women suffering from several symptoms at the same time.

By controlling for socio-demographic and psycho-social variables, we created separate models for each of our dependent variables, i.e. symptoms and gynaecological disease. Those socio-demographic and psycho-social variables that proved statistically significance in the binary regression were used as covariates in the multivariable statistical analysis for calculating adjusted OR. 'Headache' was adjusted for *age, social support, educational level* and *living standard*. 'Chest pain' was adjusted for *age, social support, educational level* and *number of children.* 'Fatigue' was adjusted for *age, social*

support, educational level, number of children and *living standard*. The remaining dependent variables, i.e. 'stomach pain', 'heart palpitation' and 'gynaecological disease', were adjusted for *age, social support* and *educational level*.

Associations between our dependent variables, symptoms and gynaecological disease and exposure to different forms of IPV, i.e. physical, sexual and psychological violence were calculated in multivariable statistical analyses. These associations were presented as adjusted OR with their 95% confidence interval (Cl).

IBM SPSS Statistics vs. 22 was used for all statistical analyses.

Ethical considerations

The research protocol and study tools were approved for scientific and ethical integrity by the Rwanda National Ethics Committee (Review Approval Notice No 165/RNEC/2011) and the National Institute of Statistics of Rwanda (No 1043/ 2011/10/NISR). The study strictly followed WHO guidelines on ethical issues related to violence research (28). All participants were informed about their free choice to participate and to withdraw at whatever time they wanted during the study. Respondents were informed that the questions could be sensitive and were reassured regarding the confidentiality of their responses. As IPV is a sensitive issue, participants were informed that those in need of any kind of assistance could receive this at a nearby health center. This information was presented before the interview. Interviewers secured written consent from all respondents before the interview. To maintain confidentiality, the interview was conducted in privacy and with only one interview in each household. The interviewers were of same sex and close in age to the participants.

Results

Socio-demographic and psycho-social characteristics

The study participants were all women, aged 20 to 35 years. The majority of the participants had children (77.7%) and most often 1-3 children. Educational attainment was low, only 14.2% had completed secondary school or university education (Table 1).

Table 1 Socio-demographic and psycho-social characteristics of the women. N=477.

	n	%	Unexposed to IPV (n)	Exposed to IPV (n)	p-value*
Age groups (n = 470)					0,551
20-24	127	26.6	99	28	
25-29	156	32.7	105	51	
30-35	187	39.2	138	49	
Marital status (n = 473)					0.000
Married or cohabiting	342	71.7	229	113	
Divorced or widowed	33	6.9	21	12	
Single	98	20.5	96	2	
Number of children (n = 476)					0.000
No children	96	20.1	91	5	
1-3 children	275	57.7	188	87	
> 3 children	105	22.0	69	36	
Level of education (n = 471)					0.077
Secondary school or university	67	14.2	53	14	
Complete primary or vocational training	73	15.5	58	15	
Incomplete primary school	331	69.4	234	97	
Occupation (n = 473)					0.404
Civil servants	9	1.9	8	1	
Skilled workers or students	35	7.3	30	5	
Unskilled workers	282	59.1	204	78	
No formal occupation (subsist. farmer)	146	30.6	103	43	
Personal income per month (n = 475)					0.071
More than 35,000 Rwf	11	2.2	11	0	
17,500 - 35,000 Rwf	19	4.0	14	5	
Less than 17,500 Rwf	445	93.3	323	122	

Source of income (n = 464)					0.471
Salary	9	1.9	7	2	
Pension, disability grant or other	34	7.3	23	11	
No income	421	90.7	311	110	
Social support (n = 476)					0.540
Improved	223	46.8	166	57	
Poor	253	53.0	182	71	
Household monthly income (n = 464)					0.611
17,500 Rwf or more	103	21.6	73	30	
< 17,500 Rwf	361	75.7	265	96	

* Chi square test for independence of Fisher's exact probability test for difference between women who have been exposed to any form of IPV the past year compared to unexposure to any form of IPV the past year.

Living standards

Due to 90.7% of the participants answered that they had no income, living standards in the household were used as a proxy for the socio-economic status. The majority had a poor living standard; living in shacks or traditional dwellings with no electricity and/or inappropriate latrines. More than half used unsafe drinking water. Even though the possession of only one of these items was used as a definition of an improved living standard, 36.1% were still in the poor living standard category, illustrating an even but low standard of living (Table 2).

Table 2 Living standards and assets in the household. N=477.

	n	%	Unexposed to IPV (n)	Exposed to IPV (n)	p-value*
Type of house (n = 476)					0.645
Combination of buildings, flat, maisonette, modern house	173	36.3	127	46	
Shack, traditional dwelling	303	63.5	222	81	
Water source (n = 473)					0.839
Piped water, public tap, well/borehole	208	43.6	152	54	
Surface water, tanker truck	265	55.6	196	71	
Electricity (n = 475)					0.697
Yes	68	14.3	33	8	
No	407	85.3	314	119	
Cocking fuel (n = 474)					0.272
Kerosene, paraffin and other fuels	41	8.6	33	8	
Firewood and dung	433	90.8	314	119	
Toilet facility (n = 474)					0.231
Flushed, improved latrine, other	10	2.1	9	1	
Latrine, no toilet	464	97.3	339	125	
Summary measure living standards (n = 477)					0.804
Improved living standard (at least 1 item in the reference category of the living standard items)	305	63.9	222	83	
Low level of living standard (0 item in the reference category of the living standard items)	172	36.1	127	45	

* Chi square test for independence of Fisher's exact probability test for difference between women who have been exposed to any form of IPV the past year compared to unexposure to any form of IPV the past year.

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

		Number of events n (%)		
	Violence exp. n (%)	**1**	**2 to 3**	**>3**
Physical violence (n = 416)				
Slapped/threw something	69 (14.5)	25 (5.2)	16 (3.4)	28 (5.9)
Pushed/showed/pulled your hair	41 (8.6)	12 (2.5)	12 (2.5)	17 (3.6)
Hit that could hurt	47 (8.6)	13 (2.7)	14 (3.0)	20 (4.2)
Kicked/dragged or beating	40 (8.4)	10 (2.1)	13 (2.7)	17 (3.6)
Chocked or burnt you on purose	20 (4.2)	6 (1.3)	8 (1.7)	6 (1.3)
Threaten or use a weapon	17 (3.6)	5 (1.1)	6 (1.3)	6 (1.3)
Summary measure of Physical violence	***78 (18.8)***	***30 (6.3)***	***18 (3.8)***	***30 (6.3)***
Sexual violence (n = 409)				
Did not want to have sexual intercourse	57 (12.0)	12 (2.5)	21 (4.4)	24 (5.0)
Physically forced to have sexual intercourse	47 (9.9)	11 (2.3)	14 (2.9)	22 (4.6)
Forced to do something sexual that felt degrading or humiliating	21 (4.4)	5 (1.1)	10 (1.1)	6 (1.3)
Summary measure of Sexual violence	***71 (17.4)***	***15 (3.1)***	***23 (4.8)***	***33 (6.9)***
Psychological abuse (n = 430)				
Did things to scare or intimidate her on purpose	73 (15.3)	15 (3.1)	21 (4.4)	37 (7.8)
Insulted or made her feel bad about herself	62 (13.0)	11 (2.3)	19 (4.0)	32 (6.7)
Belitted or humiliated her	55 (11.5)	11 (2.3)	14 (2.9)	30 (6.3)
Threaten to hurt her or someone she cared about	24 (5.0)	5 (1.1)	6 (1.3)	13 (2.7)
Summary measure of Psychological abuse	***92 (21.4)***	***14 (2.9)***	***25 (5.2)***	***53 (11.1)***

Exposure to different forms of IPV

Of the participants, 18.8% had been subjected to *physical violence* in the past year. Moderate violence, such as experiencing a partner who had slapped or threw something at the woman, were acts of physical violence that had the highest prevalence and the highest frequency (more than 3 times). *Sexual violence* was the least common form of IPV, still 17.4% of the participants had been exposed to sexual IPV during the past year. The most commonly occurring act and performed at highest frequency was sexual IPV due to the women did not want to have sexual intercourse. *Psychological violence* was

the most commonly occurring form of IPV with a prevalence of 21.4% the past year. The psychological abuse was also the most repetitive form of IPV with 11.1% responding that they had experienced more than 3 events the past year. Of the participating women, 15.3% hade been exposed to psychological violence in terms of being scared or intimidate by the partner and 7.8% responded that it had happened more than 3 times the past year. This act of psychological violence had both the highest prevalence and frequency of the all asked items of violence (Table 3).

The different forms of violence could coexist. A combination of exposure to all three forms of violence was occurring in 29.1% of the participating women the past year. (4)

Symptoms and disease

The prevalence of symptoms are displayed in Table 4a. Headache, stomach pain and fatigue were the most common symptoms both on a daily basis and per week. Suffering from heart palpitations almost daily was least common, 9.0% (n=43).

Of the participants, 9.2% (n=44) answered that they currently suffered from a gynaecological disease.

Table 4b show a summary of coexisting symptoms and gynaecological disease. Overlapping symptoms, i.e. suffering from 2 and 3 symptoms and gynaecological disease simultaneously, was seen in 9.2% of the participating women (n=44).

Table 4a Frequency of symptoms. N=477.

	Almost daily		Weekly		Never, almost never	
	n	%	n	%	n	%
Headache	130	27.3	162	34.0	182	38.2
Fatigue	98	20.5	175	36.7	200	41.9
Stomach pain	85	17.8	140	29.4	248	52.0
Chest pain	69	14.5	135	28.3	268	56.2
Heart palpitations	43	9.0	111	23.3	316	66.2

Table 4b Number of symptoms and disease at the same time. N=463

Number of symptoms and disease	n	%
0	253	53.0
1	89	18.7
2	44	9.2
3	44	9.2
4	18	3.8
5	14	2.9
6	1	0.2

Associations with IPV and symptoms and disease

By controlling for socio-demographic and psycho-social variables in the bivariate statistical analysis we created separate models for each symptom and gynaecological disease. 'Headache' was statistically significant in relation to *age, social support, educational level* and *living standard*. 'Chest pain' was statistically significant in relation to *age, social support, educational level* and *number of children.* 'Fatigue' was statistically significant in relation to *age, social support, educational level, number of children* and *living standard*. The remaining dependent variables, i.e. 'stomach pain', 'heart palpitation' and 'gynaecological disease', were statistically significant in relation to *age, social support* and *educational level*. (Table 4c)

Table 4c Socio-demographic variables that were used as covariates in the adjusted logistic regression.

Dependent variables	Covariates
Headache	Age Social support Educational level Living standard
Chest pain	Age Social support Educational level Number of children
Fatigue	Age Social support Educational level Number of children Living standard
Stomach pain, heart palpitations, gynaecological disease	Age Social support Educational level

These statically significant socio-demographic and psycho-social variables were used as covariates in a multivariable statistical analyse with 95% Cl. Adjusted odds ratios were

calculated and showed associations between our dependent variables, symptoms gynaecological disease, and physical, sexual and psychological IPV.

The odds for the associations between physical IPV and all out symptoms including gynaecological disease indicated statistical significance. Associations between sexual IPV directed at women and having chest pain (OR 3.15; 1.70-5.81), heart palpitations (OR 2.29; 1.08-4.86) and stomach pain (OR 1.89; 1.03-3.49) were found statistically significant. Psychological IPV showed statistically significant odds ratios for all our symptoms and gynaecological disease. The association between psychological IPV and chest pain showed the highest odds with OR 4.10 (2.31-7.31). All forms of violence were associated with stomach pain, chest pain and health palpitations (Table 5).

Table 5 Association between exposure to IPV and symptoms, past year. Adjusted odds ratio (OR) with their 95% confidence interval (CI). N=477.

	Physical violence	Sexual violence	Psychological violence
Headache** (n = 474)			
OR (95% CI)	2.31 (1.36 - 3.92)	*1.65 (0.95 - 2.89)*	2.96 (1.79 - 4.91)
Fatigue**** (n = 473)			
OR (95% CI)	2.53 (1.44 - 4.26)	*1.81 (0.99 - 3.29)*	3.37 (1.97 - 5.76)
Stomach pain* (n = 473)			
OR (95% CI)	2.19 (1.23 - 3.88)	1.89 (1.03 - 3.49)	2.18 (1.25 - 3.76)
Chest pain*** (n = 472)			
OR (95% CI)	2.67 (1.64 - 4.86)	3.15 (1.70 - 5.81)	4.10 (2.31 - 7.31)
Heart palpitations* (n = 470)			
OR (95% CI)	2.30 (1.12 - 4.71)	2.29 (1.08 - 4.86)	2.64 (1.32 - 5.26)
Gynaecological disease* (n = 475)			
OR (95% CI)	2.80 (1.35 - 5.78)	*1.97 (0.91 - 4.24)*	3.03 (1.51 - 6.08)

*Model adjusted for age, social support and educational attainment.

**Model adjusted for age, social support, educational attainment and living standard.

***Model adjusted for age social support, educational attainment and number of children.

****Model adjusted for age, social support, educational attainment, number of children and living standard.

Discussion

In this study from the Southern Province of Rwanda, we found that women who have been exposed to IPV the past year were at a higher extent associated with suffering from somatic symptoms and gynaecological disease. These findings highlight the importance of acknowledging women seeking care for common symptoms and secure that health care staff are well aware about this and able to treat women exposed to IPV in a professional way.

Common symptoms

The common symptoms we analysed are usually occurring in women who have been exposed to IPV and signal ill health (5). As our study shows, coexistence of several symptoms was frequently appearing. There could be a comorbidity that could explain these symptoms but it could also be interpreted as an indicator of distress in women caused by the exposure to violence as previous studies have shown (9, 10, 29, 30).

We decided to investigate gynaecological disease, in this case not further defined, because it has been shown in other studies that gynaecological infections and also gynaecological pain related conditions have a connection to IPV (31). The correlation between exposure to sexual IPV and HIV has previously been documented in other studies (13, 27).

Gender equality

Rwanda is a country in rapid development with an increasing gross domestic product (GDP). Since the genocide in 1994, a number of gender equality steps have been taken

and there is now a law in place criminalising GBV (19, 20). This could be interpreted as striving towards a gender equal society. Other improvements are the inclusion of more women in the Parliament (63.8%) (32), increased educational attainment among all children and decreased maternal- and infant mortality thanks to a better health care and improved health insurance policies (21). This progress started after the Rwandan genocide that destroyed infrastructure and trust that vigorously deteriorated the public health in Rwanda.

There are many different theories of the origin of IPV (33). As our findings show, many of the participating women had no income and low educational attainment. The majority of the participating women in our study were economically dependent. Umubyeyi show in her study how these are two important risk factors for violence exposure (4).

The traditional ideals in Rwanda are heteronormative. Great differences between men's and women's expected gender roles could increase power imbalance between the sexes. This power imbalance could be an explanation for the perpetrators to justifying the violence (33).

A gender equal society is not equivalent to a total lack of IPV (33), however, the more gender equal a society is, the lower is the prevalence of IPV. Even though gender equality is an important factor it could not be held as the only explanation for existence of IPV. Sweden has a higher level of gender equality as compared to Rwanda, still IPV occurs in Sweden as well (34). This could be interpret as the existence of IPV directed at women is multifactorial.

Other studies

Our results are concordant with previous studies that show the association between IPV and poor health in women (9). Many earlier studies have investigated the relationship between IPV and somatic symptoms and diseases (5, 6, 9, 10, 16, 35, 36). Where these studies examine associations between physical- and sexual IPV and somatic symptoms and diseases, our study also includes psychological IPV. This former violence classification of IPV as either physical or sexual, is disputable by WHO.

In our findings we could see that all our symptoms and gynaecological disease were associated with physical violence and that stomach pain, heart palpitation and chest pain were statistically significant for all forms of IPV. Our result of suffering from more than one coexisting symptom is consistent with previous studies (9).

It is previously know that IPV directed at women does not only concern acute medical attention. The pattern of both short term and long term symptoms are the reason why it is important to follow up women that have been exposed to IPV (36). In a longitudinal study, the women who at both time point reported IPV, had a deteriorated health status over time (5).

IPV is a global problem in the sense that it also included high-income countries. As previous studies about IPV and health effects performed in United States of America show, IPV directed at women also is frequent in high-income countries but the health care seeking pattern could differ from high-income settings to low-income settings. Women from a high-income setting can present a long-term poor health status. Injury,

fear and stress are linked to IPV and can result in future chronic health consequences. (6) In WHO's global and regional estimates of health effects due to violence against women only a selection of symptoms and diseases were included. Nonetheless they emphasise the resulting health effects of IPV could be communicable as well as non-communicable diseases (2).

Methodological considerations

Collecting data about IPV directed at women could be difficult due to cultural differences, such as different definitions of what constitute violence, or women's reluctance to disclose violence exposure due to IPV being a family matter or due to the risk of the violence to increase if a woman tell about her situation. It is an extremely sensitive topic to discuss with anyone in many cultures and countries, also in Rwanda. (21) Health care workers in Tanzania share the impression that silence and shame make the women see IPV as a family matter and do not talk about it (37). However, even if the prevalence differs between countries there is a degree of underreporting in most studies, also in this one (3).

To minimise the risk of recall bias we used figures from the participant's violence experiences during the past year. The interviewers were of the same sex and close in age to the participants. This contributed to creating a good climate for discussion in Kinyarwanda with each of the participants and as well to a high response rate and truthful answers.

The data is herby considered to be of high internal and external validity with possibly some underreporting but with high precision and objectivity in the interview situation.

As this was a cross-sectional study, only statistically significant associations with physical, sexual and psychological violence are given, and no casual relationship can be established.

The strength of our study lies in that the study design with a study population that is sufficiently big to make general consumption about our study objectives for the whole Southern Province of Rwanda. Due to that Rwanda is a small country, this study could also be used to get a general picture of IPV directed at women in the whole country.

Possible weaknesses are that the study was made for more than three years ago. Some of the answers could be different today but we assume that this difference is not that great. Also, none of the symptoms nor gynaecological disease were confirmed by a medical record. This study only used self-reported answers from the participants. The instruction for the interviewers was to strictly follow the questionnaire without specify or clarify any of the questions with a personal declaration to it. This may lead to the consequence of different personal interpretations of the questionnaire, which is a possible bias to the study.

More studies about IPV directed at women are needed. Suggestions about future studies could include a longitudinal study about health consequences and IPV in Rwanda with a five-year follow-up.

Conclusion

IPV directed at women is a violation against women's human rights (1) and a serious

matter influencing women's health (2, 3, 6, 8, 38).

It is obvious that IPV directed at women affect women's health and our findings of common symptoms being prevalent in women exposed to IPV should be interpreted as a sign of distress. Approximately one fifth of the participating women had been exposed to IPV the past year and the most common form was psychological IPV. The association between psychological violence and chest pain showed the highest odds. IPV affect all areas of woman's life, her autonomy and productivity, but also the children in the family.

In Rwanda there is a general intolerance against GBV reflected in the legislation. This law needs to be preserved and protected, communicated and followed up upon. Women who have been exposed to IPV should be given protection and support. Already existing One stop centers around Rwanda is an excellent initiative but more centers should be established. It is important that these centers are equipped with personnel with expertise in GBV. Other needed measures are the striving to a gender equal environment and that no child should ever witness IPV. It is also important to create a good climate for discussion about IPV that hopefully could reduce its stigma of the subject.

The existence of IPV cannot be explained by one single factor, more research in this field is needed. Therefor it is important to make changes in different levels of the societal structure in order to eradicate IPV directed at women.

Populärvetenskaplig sammanfattning

Kvinnor utsätts för våld i nära relationer dagligen i hela världen, oavsett kultur och socioekonomisk status. Det är en grov kränkning av de mänskliga rättigheterna och tidigare studier har visat att det inte bara påverkar kvinnors hälsa utan även barn som växer upp i en sådan miljö. Trots att det både är ett stort hälso- och socialt problem anses det vara ett känsligt ämne att prata om.

Våld är varje handling som genom att den skrämmer, smärtar, skadar får denna person att göra något mot sin vilja, eller avstå från att göra något den vill. Våldet kan ta olika uttryck såsom fysiskt-, sexuellt- och psykiskt våld och ekonomiskt förtryck.

I den här uppsatsen har vi undersökt det här fenomenet i det östafrikanska landet Rwanda. Med dess befolkning på drygt 11,5 miljoner och en storlek som Västernorrlands län är det ett utav Afrikas mest tätbefolkade länder.

I denna tvärsnittsstudie deltog 477 kvinnor från den södra provinsen i Rwanda. Med hjälp av ett frågeformulär, baserat på Världshälsoorganisationens (WHO) rekommendationer för forskning om våld i nära relationer, intervjuades kvinnorna enskilt under perioden december 2011 till januari 2012. Frågeformuläret översattes till kinyarwanda som är det nationella språket i Rwanda. De medverkande kvinnorna i studien var randomiserat utvalda. I vår studie undersökte vi samband mellan våld i nära relationer och fem olika symptom och gynekologiska problem.

Slutsatsen av denna studie är att kvinnor som blivit utsatta för våld i nära relationer

under det senaste året har en signifikant ökad risk att lida av vanliga symptom och gynekologiska problem. Som studien är designad kan det inte avgöras vilket som orsakar vad. Det starkaste sambandet fann vi mellan psykologiskt våld och bröstsmärta.

Vår studie kan bidra till att öka förståelsen för att kvinnor som utsatts för våld i nära relationer är ett vanligt globalt förekommande fenomen. De drabbade kvinnorna kanske inte alltid presenterar uppenbara symptom som yttre skador och frakturer.

Eftersom detta är något som i hög grad påverkar kvinnors hälsa överallt i hela världen är det angeläget att diskutera vilka åtgärder som måste till för att stoppa detta våld från make/partner eller tidigare partner. Tänkbara åtgärder bör omfatta olika samhällsnivåer såsom ändrad lagstiftning, bättre stöd och hjälp till drabbade kvinnor samt bättre kunskap bland hälso- och sjukvårdspersonal. Detta kan leda till att i ett tidigare skede finna dessa fall och erbjuda adekvat hjälp.

Acknowledgement

I would like to express my thankfulness to my supervisor Gunilla Krantz for all help, endless patient and guidance during this process.

I would also like to thank Jospeh Ntaganira for your help and kindness during my staying in Rwanda.

Most importantly, I would like to thank Henrik for all the endless support and love.

References

1. United nation. The Universal Decleration of Human Rights 1948 [cited 2015 8 May]. Available from: http://www.un.org/en/documents/udhr/.
2. World health organisation. Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence 2013 [cited 2015 24 january]. Available from: http://apps.who.int/iris/bitstream/10665/85239/1/9789241564625_eng.pdf?ua=1.
3. Krug EG et al. e. World report on violence and health: World health organizartion; 2002 [cited 2015 24 january]. Available from: http://whqlibdoc.who.int/publications/2002/9241545615_eng.pdf?ua=1.
4. Umubyeyi A, Mogren I, Ntaganira J, Krantz G, Sahlgrenska a, Institute of Medicine DoPH, et al. 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(1):99.
5. Gerber MR, Wittenberg E, Ganz ML, Williams CM, McCloskey LA. Intimate partner violence exposure and change in women's physical symptoms over time. Journal of general internal medicine. 2008;23(1):64-9.
6. Campbell JC. Health consequences of intimate partner violence. Lancet. 2002;359(9314):1331-6.
7. Farrell PC, Negin J, Houasia P, Munamua AB, Leon DP, Rimon M, et al. Hospital visits due to domestic violence from 1994 to 2011 in the Solomon Islands: a descriptive case series. Hawai'i journal of medicine & public health : a journal of Asia Pacific Medicine & Public Health. 2014;73(9):276-82.
8. Dillon G, Hussain R, Loxton D, Rahman S. Mental and Physical Health and Intimate Partner Violence against Women: A Review of the Literature. Int J Family Med. 2013;2013:313909.
9. Lown EA, Vega WA. Intimate partner violence and health: self-assessed health, chronic health, and somatic symptoms among Mexican American women. Psychosomatic medicine. 2001;63(3):352-60.
10. Woods SJ, Hall RJ, Campbell JC, Angott DM. Physical health and posttraumatic stress disorder symptoms in women experiencing intimate partner violence. Journal of midwifery & women's health. 2008;53(6):538-46.
11. Garcia-Moreno C, Jansen HAFM, Ellsberg M, Heise L, Watts CH, Health WHOM-cSoWs, et al. Prevalence of intimate partner violence: findings from the WHO multi-country study on women's health and domestic violence. The Lancet. 2006;368(9543):1260-9.
12. Sheridan DJ, Nash KR. Acute injury patterns of intimate partner violence victims. Trauma, violence & abuse. 2007;8(3):281-9.
13. Wagman JA, Gray RH, Campbell JC, Thoma M, Ndyanabo A, Ssekasanvu J, et al. Effectiveness of an integrated intimate partner violence and HIV prevention intervention in Rakai, Uganda: analysis of an intervention in an existing cluster randomised cohort. The Lancet Global health. 2015;3(1):e23-33.
14. Ntaganira J, Muula AS, Masaisa F, Dusabeyezu F, Siziya S, Rudatsikira E. Intimate partner violence among pregnant women in Rwanda. BMC Womens Health. 2008;8:17.
15. 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(1):315.
16. Coker AL, Davis KE, Arias I, Desai S, Sanderson M, Brandt HM, et al. Physical and mental health effects of intimate partner violence for men and women. American journal of preventive medicine. 2002;23(4):260-8.
17. World health organisation. Rwanda: health profile 2014 [cited 2015 24 January]. Available from: http://www.who.int/gho/countries/rwa.pdf?ua=1.
18. United nation. On 20th anniversary, Security Council honours role of Rwandan genocide Tribunal 2014 [cited 2015 24 January]. Available from: http://www.un.org/apps/news/story.asp?NewsID=49286 - .VMUmPyg95gZ.
19. Ministry of gender and family promotion. Gender based violence training module 2011 [cited 2015 7 May]. Available from: http://www.migeprof.gov.rw/IMG/pdf/GBV_Training_MODULE_English_Version.pdf.
20. National Legislative Bodies / National Authorities. Rwanda: Law No. 59/2008 of 2008 on Prevention and Punishment of Gender-Based Violence 2008 [cited 2015 9 May]. Available from: http://www.refworld.org/docid/4a3f88812.html
21. National Institute of Statistics of Rwanda (NISR) [Rwanda] MoHMR, and ICF International. Rwanda Demographic and Health Survey 2010 2012 [cited 2015 3 mars]. Available from: http://www.dhsprogram.com/pubs/pdf/FR259/FR259.pdf.
22. Alio AP, Clayton HB, Garba M, Mbah AK, Daley E, Salihu HM. Spousal concordance in attitudes toward violence and reported physical abuse in African couples. Journal of interpersonal violence. 2011;26(14):2790-810.
23. World health organisation. Responding to intimate partner violence and sexual violence against women WHO clinical and policy guidelines 2013 [cited 2015 24 January]. Available from: http://apps.who.int/iris/bitstream/10665/85240/1/9789241548595_eng.pdf.
24. WHO. WHO Multi-country Study on Women's Health and Life Experiences 2003 [cited 2015 2 Mars]. Available from: http://www.svri.org/Questionnaire.pdf.
25. Nybergh L, Taft C, Krantz G. Psychometric properties of the WHO Violence Against Women instrument in a female population-based sample in Sweden: a cross-sectional survey. BMJ open. 2013;3(5).
26. Saddki N, Sulaiman Z, Ali SH, Tengku Hassan TN, Abdullah S, Ab Rahman A, et al. Validity and reliability of the Malay version of WHO Women's Health and Life Experiences Questionnaire. Journal of interpersonal violence. 2013;28(12):2557-80.
27. Mathew A, Smith LS, Marsh B, Houry D. Relationship of intimate partner violence to health status, chronic disease, and screening behaviors. Journal of interpersonal violence. 2013;28(12):2581-92.
28. Ellsberg M, Heise L, Pena R, Agurto S, Winkvist A. Researching domestic violence against women: methodological and ethical considerations. Studies in family planning. 2001;32(1):1-16.
29. Krantz G, Ostergren PO. Women's health: do common symptoms in women mirror general distress or specific disease entities? Scand J Public Health. 1999;27(4):311-7.
30. Johnson MP. Conflict and control: gender symmetry and asymmetry in domestic violence. Violence against women. 2006;12(11):1003-18.

31. Kayibanda JF, Bitera R, Demers E, Moisan J, Alary M. Sexual risk factors associated with intimate partner violence against women in Rwanda: a couples-based analysis. Women & health. 2014;54(4):301-16.
32. United nation. Få kvinnliga parlamentariker i världen 2015 [cited 2015 27 April]. Available from: http://www.millenniemalen.nu/oka-jamstalldheten-mellan-kvinnor-och-man/2415-2/.
33. Heise LL. Violence against women: an integrated, ecological framework. Violence against women. 1998;4(3):262-90.
34. Nybergh L, Taft C, Enander V, Krantz G. Self-reported exposure to intimate partner violence among women and men in Sweden: results from a population-based survey. BMC public health. 2013;13:845.
35. Krantz G, Ostergren PO. The association between violence victimisation and common symptoms in Swedish women. J Epidemiol Community Health. 2000;54(11):815-21.
36. Wuest J, Ford-Gilboe M, Merritt-Gray M, Varcoe C, Lent B, Wilk P, et al. Abuse-related injury and symptoms of posttraumatic stress disorder as mechanisms of chronic pain in survivors of intimate partner violence. Pain medicine (Malden, Mass). 2009;10(4):739-47.
37. Laisser RM, Lugina HI, Lindmark G, Nystrom L, Emmelin M. Striving to make a difference: health care worker experiences with intimate partner violence clients in Tanzania. Health care for women international. 2009;30(1-2):64-78.
38. Krantz G, Garcia-Moreno C. Violence against women. J Epidemiol Community Health. 2005;59(10):818-21.

Appendix

Logo GU **Logo NUR**

Traumatic experiences, mental disorders and barriers to care among young men and women in Rwanda

Women's Questionnaire

Final version 110827

University of Gothenburg, Sweden **National University of Rwanda**

The Sahlgrenska Academy **Dept of Epidemiology and Biostatistics**

Institute of Medicine **School of Public Health**

Unit of Social Medicine

INDIVIDUAL CONSENT FORM

Hello, my name is ----------. I work for the National University of Rwanda, School of Public Health. We are conducting a survey in the Southern Province to learn about people's mental health, their access to health care and to understand more about why it is sometimes difficult to get treatment for emotional problems and mental illnesses. This household has been chosen by chance and we would like to interview a woman in this household that is between 18-35 years of age for this study.

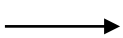
The questions cover general household information, but also questions on health matters and on experience of difficult situations in life that you may have met in the past or at present.

I want to assure you that all of your answers will be kept strictly confidential. You have the right to stop the interview at any time, or to skip any questions that you don't want to answer. There are no right or wrong answers. Some of the topics may be difficult to discuss, but many people find it useful to get the opportunity to talk. Your participation is completely voluntary but your experiences could be very helpful to other people. The research supervisor may visit you one more time to check that the interview was conducted correctly.

Do you have any questions?

Do you agree to be interviewed?

NOTE WHETHER RESPONDENT AGREES TO INTERVIEW OR NOT



[ ] NO, DOES NOT AGREE TO BE INTERVIEWED THANK PARTICIPANT FOR HIS/HER TIME AND END.

[ ] YES, AGREES TO BE INTERVIEWED

…….

Signature of the respondent + address

Is now a good time to talk?

It's very important that we talk in private. Is this a good place to hold the interview, or is there somewhere else that you would like to go?

If someone feels bad about being interviewed, she should be advised to a clinic for assistance. Also, if a mentally ill person is identified during interviewing, she should also be referred to this clinic. Transportation will be provided. The clinic is Butare Teaching hospital, Kabgayie hospital, Cyangugu, Gikongoro hospitals.

If you have further questions or comments about the study, please contact:
Joseph Ntaganira, MD, Assoc Professor, survey supervisor
School of Public Health, National University of Rwanda
E-mail: jntaganira@yahoo.com
Cell Phone: (250) (0)78 886 47 20
Administration form

Identification

LOCATION (CAPITAL/TOWN = 1, PROVINCE = 2): ……..

WARD/VILLAGE .....

CLUSTER NUMBER .....

HOUSEHOLD NUMBER .....

NAME OF HOUSEHOLD HEAD: ……

Date:……..

Interviewers name:……

If not able to perform the interview, why:

¤ Refused (specify why): _____
¤ Dwelling vacant or address not a dwelling
¤ Dwelling destroyed
¤ Dwelling not found, not accessible
¤ Entire household absent for extended period
¤ No household member at home at time of visit
¤ Household respondent postponed interview

QESTIONNAIRE COMPLETED
DATE:……..

LOCATION: ……..

¤ Urban or

¤ Rural

INTERVIEW CONDUCTED IN LANGUAGE:……..

QUALITY CONTROL PROCEDURE CONDUCTED:…….. (1 = yes, 2 = no)

_____

Field supervisor Questionnaire checked by

Name:…… Name:……..

Date:…….. Date:……..

Content

This page can be deleted when translating and printing

START THE INTERVIEW!

A. SOCIO-DEMOGRAPHIC BACKGROUND

Participant characteristics – here follows questions on yourself and your living conditions and reproductive health matters

A 1. What is your sex? **This is the woman questionnaire so only women should be interviewed by use of this version! Please tick box anyway**

☐ Man
☐ Woman

A 2. What is your age (in years)?……

A 3. Place of living
☐ Sector (UMURENGE)
☐ Cell (AKAGARI)
☐ Village (UMUDUGUDU)

A 4. What is your marital status?
☐ Married
☐ Cohabiting
☐ Separated/widowed
☐ Divorced
☐ Not married, single

A 5. How many children do you have?.....

A 6. How many miscarriages have you experienced?
☐ 0
☐ 1-2
☐ 3-4
☐ 5-6
☐ > 6

A 7. Have you with your partner <u>TRIED</u> to become pregnant during the last 12 months?
☐ Yes
☐ No

A 8. Have you become pregnant during the past 12 months?
☐ Yes
☐ No

A 9. Are you currently pregnant?
☐ Yes
☐ No

A 10. Have you with your partner had difficulties to become pregnant in the time before the past 12 months?

 Yes
 No

A 11. Have any of your children died (after birth) ?

 Yes
If yes, how many:……..
If yes, what was the reason:……
 No

A 12. Have you experienced that your baby died in your womb?

 Yes
 No

A 13. How many people live in your household? ……

A 14. Have you ever attended school?

□ Yes

□ No

A 15. What level of education did you reach?

□ Primary level but not complete (less than 6 years)

□ Primary level complete (6-7 years)

□ Post-primary, Vocational training

□ Secondary school, Senior 1-4

□ Secondary School, Senior 5-6

□ Tertiary, University level

□ Don't know

Highest level of education achieved (record # of years of class).....

A 16. Are you employed and earn an income?

Yes, Full time paid employment
Yes, Irregular work, i.e. once in a while
- If so, how many hours per week ……..
 Yes, Seasonal work/part of the year
 No, I do not earn an income

A 17. What kind of work do you do?

 I am a student
 I work as a non-skilled worker (examples: shop-keeper, farmer, agriculture, guard…)
 I work as a skilled worker (examples: clerk, dressmaker, hairdresser, pharmacist, carpenter, plumber, bus driver, assistant nurse….)

 I work as a civil servant (teacher, nurse, medical doctor, law, company/business sector, banking….
 I am not employed (housewife)

A 18. How high is your monthly income on average?
□ Less than 17,500 RWF
□ 17,500-35,000 RWF
□ 36,000-99,000 RWF
□ 100,000-199,000 RWF
□ 200,000-499,000 RWF
□ More than 499,000 RWF

A 19. What is your personal main source of income?
 None
 Salary
 Pension
 Maintenance grant
 Disability grant
 Other

Partners' characteristics – here follows some questions related to your husband/partner

A 20. Are you currently involved in a relationship with someone?
 Yes
 No

A 21. Age of your husband/partner (in years):_____

A 22. Has your husband/partner ever attended school?
 Yes
 No
□ I am not married

A 23. What level of education did your husband/partner reach?
□ Primary level but not complete (less than 6 years)
□ Primary level complete (6-7 years)
□ Post- primary, Vocational training
□ Secondary school, Senior 1-4
□ Secondary school, Senior 5-6
□ Tertiary, University level
□ Don't know

□ I am not married

Highest level of education achieved by husband/partner (record # of years of class).....

A 24. Is your husband/partner employed and earn an income?
Yes, Full time paid employment
Yes, Irregular work, i.e. once in a while, but he does earn a salary
- If so, how many hours per week ……..
 Yes, Seasonal work/part of the year
 No, He does not earn an income
 I am not married

A 25. What is your husband/partner's occupation?
 He is a student
 He works as a non-skilled worker (shop-keeper, farmer, agriculture…)
 He works as a skilled worker (clerk, carpenter, plumber, bus driver….)
 He works as a civil servant (teacher, nurse, medical doctor, law, company/business, banking….)
 He is not employed
 I am not married

A26. What is your husband/partner's income per month?
 Less than 17,500 RWF
 17,500-35,000 RWF
 36,000-99,000 RWF
 100,000-199,000 RWF
 200,000-499,000 RWF
 More than 499,000 RWF
 I am not married

Household characteristics

A 27. What type of house do you live in?
 Shack
 Traditional dwelling, (hostel, outbuilding)
 Combination of buildings
 Flat, maisonette
 Modern house

A 28. What is the main source of drinking water for members of your household?
 Piped water into the house

 Piped water into yard/plot
 Public tap
 Water from well or borehole
 Surface water: Spring/ River/ Stream/Pond/Lake/ Dam/ Rainwater
 Tanker truck

A 29. What kind of toilet facility does your household have?
 Flush toilet inside
 Improved latrine, chemical toilet, flush toilet outside
 Latrine
 No toilet

A 30. What type of fuel does your household mainly use for cooking?
 Dung
 Firewood
 Charcoal
 Paraffin, kerosene
 Gas from bottle, LPG
 Electricity from grid, town gas

A 31. Does your household have?

 Electricity
 A radio
 A television
 A telephone
 A refrigerator
 Nothing of these

A 32. Does any member/s of your household have:

 A bicycle
 A motorcycle
 A car
 A mobile phone
 A computer

A33. What is the total household income per month? (this is the sum of what all household members bring in taken together)
 Less than 17,500 RWF
 17,500-35,000 RWF
 36,000-99,000 RWF
 100,000-199,000 RWF
 200,000-499,000 RWF
 More than 499,000 RWF

B. SOCIAL SUPPORT
Now I will ask you questions on the help and support that you might need in some situations in life from a close friend or relative.

B 1. Do you have a friend or family member that will assist you if you become ill?
 Always
 Often
 Sometimes
 Never

B 2. Do you have any friend or a family member who would do any of the following if you suddenly need it:
a. Share food with you?
 Always
 Often
 Sometimes
 Never
b. Share housing with you?
 Always
 Often
 Sometimes
 Never
c. Lend you money?
 Always
 Often
 Sometimes
 Never
d. Help you with guidance to improve your situation when you have problems?
 Always
 Often
 Sometimes
 Never

B 3. Do you have any friend or a family member who will offer support to you if you run into personal problems?
 Always
 Often
 Sometimes
 Never

B 4. Do you belong to any association?
 Yes - such as a cooperative, church group, women's group, youth group, sports organization…
 No

C. PHYSICAL HEALTH
Here follows some questions on your general health

C 1. Would you say your overall health is:

□ Excellent
□ Good
□ Moderate
□ Poor
□ Very poor

C 2. Do you suffer from any of the following symptoms and if so how often?

	Almost daily	Weekly	Never/almost never
a. Stomach pain	□	□	□
b. Heart palpitations	□	□	□
c. Breathing problems	□	□	□
d. Irritability	□	□	□
e. Restlessness	□	□	□
f. Anxiety	□	□	□
g. Depression	□	□	□
h. Headache	□	□	□
i. Fatigue	□	□	□
j. Chest pain	□	□	□
k. Low back pain	□	□	□
l. Pain in the joints	□	□	□
m. Muscular problems	□	□	□

C 3. Do you suffer from any of the following diseases <u>today</u>?

			Yes	No
a. Tuberculosis	□	□		
b. HIV/AIDS	□	□		
c. Malaria	□	□		
d. Sexually transmitted infection		□	□	
e. Blindness	□	□		
f. Joint disease	□	□		
g. Cancer	□	□		
h. Heart disease	□	□		
i. Accident with injury		□	□	
j. Respiratory disease		□	□	
k. Diarrhoea	□	□		
l. Intestinal worms	□	□		
m. Alcohol-related disease		□	□	
n. Skin disease		□	□	
o. Diabetes mellitus	□	□		
p. Dental problems	□	□		
q. Gynaecological disease		□	□	

Any other disease, please specify:_____

Now follows a few questions on alcohol intake

C 4. How often do you drink alcohol? Would you say it is:

- □ Every day or nearly every day
- □ Once or twice a week
- □ 1 – 3 times a month
- □ Occasionally, less than once a month
- □ Never

C 5. On the days that you drank in the past 4 weeks, about how many alcoholic drinks did you usually have per day? ……

C 6. In the past 12 months, have you experienced any of the following problems, related to your drinking?

		YES	NO
a)	money problems	□	□
b)	health problems	□	□
c)	conflict with family or friends	□	□
d)	problems with authorities (bar owner/police, etc)	□	□
x)	other, specify……		

……

……

D. GENERAL WELL-BEING

Now follows some questions on your emotional well-being.

D 1. How have you felt during the past week?

Place an 'x' in the box that agrees best with each statement.

	All the time		Often		Sometimes		Never
a. I have felt sad and down	□	□	□	□			
b. I have felt calm and relaxed	□	□	□	□			
c. I have felt energetic, active and go ahead			□	□	□	□	
d. When I woke up, I felt alert, rested and full of enterprise	□	□	□	□			
e. I have felt happy or pleased and satisfied with my personal life	□	□	□	□			
f. I felt satisfied with my life situation		□	□	□	□		
g. I felt I live the kind of life I want to live	□		□	□	□		
h. I have been happy to deal with the day's							

work or to make new decisions ☐ ☐ ☐ ☐
i. I have felt that I can cope with serious problems or changes in my life ☐ ☐ ☐ ☐
j. I have felt that life is full of interesting things ☐ ☐ ☐ ☐

E. TRAUMATIC EVENTS

Now I would like to ask you questions about traumatic events that might have happened to you. I know that some of these questions are very personal. However, your answers are crucial for helping to understand the conditions in Rwanda. Let me assure you that your answers are completely confidential and will not be told to anyone. You are the only person in this household to whom these questions will be asked. If someone arrives during the discussion then we will change the subject.

E 1. Have you <u>ever in your life</u> experienced any of the following events? *(if YES, ask at what <u>age</u> this happened.)*

	Yes	**No**	**At what age**
1. Have you been imprisoned, kidnapped, held captive	☐	☐	----------
2. Have you been a refugee, forced to flee from your home to escape danger or persecution	☐	☐	----------
3. Have you experienced forced separation from family members	☐	☐	----------
4. Have you experienced a life-threatening injury	☐	☐	----------
5. Have you experienced a murder or unnatural death of a family member or a friend	☐	☐	----------
6. Have you been robbed, mugged, threatened with a weapon	☐	☐	----------
7.Have you experienced imprisonment of close family member	☐	☐	----------
8. Have you witnessed a traumatic event to a loved one	☐	☐	----------
9.Have you as a child, been badly been beaten by parents or those who raised you	☐	☐	----------
10. Have you ever been raped by a stranger	☐	☐	----------
11. Have you ever felt forced to have sex in exchange of money or other benefits?	☐	☐	----------
12. Have you witnessed repeated violence between family members	☐	☐	----------
13. Have you witnessed physical or sexual violence against a family member, by someone outside of the family	☐	☐	----------
14. Have you witnessed someone being badly injured or killed	☐	☐	----------
15. Have you witnessed atrocities, e.g. mass killings mutilated bodies	☐	☐	----------
16. Have you been in a combat situation	☐	☐	----------
17. Any other life threatening or very disturbing event	☐	☐	----------

.....

F. EXPERIENCES OF VIOLENCE

Now I would like to ask you some more questions, these are about your experience of different forms of violence and I know that some of these questions are very personal. Let me assure you that your answers are completely confidential and will not be told to anyone. You are the only person in this household to whom these questions will be asked. If someone arrives during the discussion then we will change subject. If there are certain questions that you feel are very sensitive or difficult, you do not have to answer them.

CONTROLLING BEHAVIOUR

F1. I am now going to ask you about some situations that are true for many women. Thinking about your <u>current or most recent</u> husband/partner, would you say it is generally true that:

	YES	NO	Don't know
a) He tries to keep you from seeing your friends	☐	☐	☐
b) He tries to restrict contact with your family of birth	☐	☐	☐
c) He insists on knowing where you are at all times	☐	☐	☐
d) He ignores you and treats you indifferently	☐	☐	☐
e) He gets angry if you speak with another man	☐	☐	☐
f) He is often suspicious that you are unfaithful	☐	☐	☐
g) He expects you to ask his permission before seeking health care for yourself	☐	☐	☐
h) He controls how you spend your money	☐	☐	☐

The next questions are about things that happen to many women, and that your current partner, or any earlier partner may have done to you.

PSYCHOLOGICAL VIOLENCE

F 2. Has your current husband/partneror any other partner ever….	A)		B) Has this happened <u>in the past 12 months</u>?		C) <u>In the past 12 months</u> would you say that this has happened once, 2-3 times or >3 times? If not at all, tick No.				D) <u>Before the past 12 months</u> would you say that this has happened once, 2-3 times or >3 times? If not at all, tick No.			
	Yes	No	Yes	No	No	One	2-3	>3	No	One	2-3	>3
a. Insulted you or made you feel bad about												

yourself												
b. Belittled or humiliated you in front of other people?												
c. Done things to scare or intimidate you on purpose (e.g. by the way he looked at you, by yelling and smashing things)?												
d. Threatened to hurt you or someone you care about?												

PHYSICAL VIOLENCE

F 3. Has your current husband/partner or any other partner ever…….	A) Life time		B) Has this happened <u>in the past 12 months</u>?		C) <u>In the past 12 months</u> would you say that this has happened once, 2-3 times or more than 3 times. If not at all, tick No.				D) <u>Before the past 12 months</u> would you say that this has happened once, 2-3 times or more than 3 times? If not at all, tick No.			
	Yes	No	Yes	No	No	One	2-3	> 3	No	One	2-3	>3
a. Slapped you or thrown something at you that could hurt you?												
b. Pushed you or shoved you or pulled your hair?												
c. Hit you with his fist or with something else that could hurt you?												

d. Kicked you, dragged you or beaten you up?												
e. Choked or burnt you on purpose?												
f. Threatened to use or actually used a gun, knife or other weapon against you?												

SEXUAL VIOLENCE

F 4. Did your current or former husband/partner ever…	A)		B) Has this happened <u>in the past 12 months</u>?		C) <u>In the past 12 months</u> would you say that this has happened once, 2-3 times or more than 3 times. If not at all, tick No.				D) <u>Before the past 12 months</u> would you say that this has happened once, 2-3 times or more than 3 times? If not at all, tick No			
	Yes	No	Yes	No	No	One	2-3	>3	No	One	2-3	>3
a. Did your current or former husband/partner ever physically force you to have sexual inter-course when you did not want to?												
b. Did you ever have sexual intercourse you did not want to because you were afraid of what your current or former husband/partn												

er might do?												
c. Did your current or former husband/partner ever force you to do something sexual that you found degrading or humiliating?												

F 5. Has any <u>other person than your husband</u> used physical or sexual violence towards you?

 YES
 NO

F 6. If 'YES' to this question, who was this person?
 Father
 Mother
 Sisters
Brothers
 Any other member of your family
 Father-in-law
 Mother-in-law
 Brother-in-law
 Any other member of your husband's family
 A friend
 A neighbor
 A teacher
 Your employer
 A colleague at work
 A stranger
 Any other person……..

G. PERCIVED NEED FOR MENTAL HEALTH CARE
Now I will ask you questions about your emotional health and help seeking behavior.

G 1. Have you ever been so emotionally troubled that you felt a need to seek help? (To the interviewer: If difficult to understand explain as: Depression, anxiety, exhausted, felt bad about myself, sleeping problems…etc)
 No
 Yes

G 2. Who did you seek help and support from? *If more than one person, please state your first, second and third choice with a number beside the statement*

 Partner
 Parent
 Other relative
 Friend
 Teacher
 Religious person
 Community health worker
 Traditional healer
 Traditional birth attendant
 Other……..
 Have not been emotionally troubled to seek care

G 3. Did you seek care from any health care staff/health unit?

 No
 Yes
 Have not been emotionally troubled to seek care

G 4. Where did you go for help? *If to more than one place indicate, please indicate the first, second and third place with a number beside the statement*

 To a health centre or district hospital (nurse, midwife, assistant medical doctor, medical doctor)
 To a district hospital to see mental health professional (mental health nurse, clinic psychologist, or a psychiatrist)
 To a mental health clinic/mental hospital
 To a traditional healer/birth attendant
 To a private clinic
 Other:
……
……
……
……
 Have not been emotionally troubled to seek care

H. HELP SEEKING AND BARRIERS TO CARE
Now follows some question related to why you did not seek care at any health clinic.

H 1 . If you did not seek care from any health staff at a health clinic, what were the reasons? (*several options can be ticked, but rank the three most important in each section)*

	YES	NO
It was too far away 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 center ☐ ☐
I have no health insurance ☐ ☐
Other reasons, please specify:
……
……
……
……
☐ Have not been emotionally troubled to seek care

H 2. Did any of the following reasons stop you from seeking health care?
More than one reason can be indicated

	YES	NO
I did not know where to go for treatment	☐	☐
I was too embarrassed to discuss my problems with anyone	☐	☐
I did not believe that I would get proper treatment	☐	☐
I did not believe that treatment could help me	☐	☐
I thought my problem was one I should be able to cope with myself	☐	☐
I thought that the problem would disappear by itself	☐	☐
I was afraid of the consequences of seeking care (treatment, tests, hospitalization, operations…)	☐	☐
I did not want any help	☐	☐
I got help from another source	☐	☐
Other responsibilities such as taking care of children/family members	☐	☐

Other reasons, please specify:
……
……
……
……
☐ Have not been emotionally troubled to seek care

H 3. Did any of these factors stop you from seeking health care?
More than one reason can be indicated

	YES	NO
I was afraid that somebody I knew would see me at the at the health care clinic	☐	☐
I was ashamed to show others how emotionally troubled I was	☐	☐
I was afraid that the health care staff would have negative attitudes towards me	☐	☐
I was afraid to bring bad name to my family if I disclosed to health staff that I felt emotionally troubled	☐	☐
I do not trust that health staff will keep my problem confidential	☐	☐

Other reasons - please specify:
……
……
……
……
☐ Have not been emotionally troubled to seek care

Now follows some general questions on help-seeking behaviour and barriers to care to be answered by everyone

H 4. If <u>anyone close to you</u> would feel emotionally troubled, would you advise that person to seek health care?

☐ Yes - go to question J 1
☐ No – continue with next question

H 5. If you would NOT advice a person to seek health care due to emotional problems, is it due to any of the following reasons?

(several options can be ticked, but rank the three most important ones in each section)

	YES	NO
It is too far away to get there	☐	☐
There is no transport available	☐	☐
He/she can not afford to pay the transport costs	☐	☐
He/she can not pay the fee at the health care center	☐	☐
He/she might not have health insurance	☐	☐

H 6. Or is it due to any of the following ?

More than one reason can be indicate	YES	NO
I did not know where to advice them to go for treatment	☐	☐
He/she might be embarrassed to discuss such problems with me	☐	☐
I do not think they will get proper treatment at the facility	☐	☐
I did not believe that treatment could help him/her	☐	☐
I think he/she should be able to cope with the problem	☐	☐
I think that the emotional problem will disappear by itself	☐	☐
I am afraid of the consequences for him/her of seeking care (treatment, tests, hospitalization, operations…)	☐	☐
I do not think they want any help	☐	☐
I advice him/her to seek help from another source	☐	☐

H 7. Did any of these factors stop you from advising someone to seek health care for emotional troubles?

More than one reason can be indicated

	YES	NO
-I would be ashamed if others saw him/her emotionally troubled	☐	☐
- I am afraid the health care staff would have a negative attitude towards him/her	☐	☐
- I am afraid it would bring a bad name to our family if he/she disclosed feeling emotionally troubled	☐	☐
-If he/she went for treatment, people would know about his/her problems	☐	☐
-I do not trust that staff keeping his/her problem confidential	☐	☐

H 8. To whom would a person with emotional troubles go for help?

……
……
……

J. PERSONAL EXPERIENCES OF VISITS TO HEALTH CARE CLINICS

J 1. Are you satisfied with the care you received when you sought care for emotional problems at the health care clinic?

 Yes
 No
 If 'No', why not?.....
……
……
……
……
 Have not been emotionally troubled to seek care

J 2. Did you feel that the health staff listened to you and answered your questions?

 Yes
 No
 Have not been emotionally troubled to seek care

J 3. When you were at the health care clinic, did the health staff inform you what kind of treatment you were to receive for your emotional problems?

 Yes
 No
 Have not been emotionally troubled to seek care

J 4. Do you think that the Ministry of Health is doing anything for those suffering from emotional problems?

 Yes
 No

J 5. Have you ever used traditional medicine to cure emotional problems?

 Yes
 No

J 6. If yes, how satisfied were you with the traditional medicine treatment?

 Very satisfied
 Satisfied
 Dissatisfied
 Very dissatisfied
 No opinion

K. ADMISSION TO HOSPITAL

Here follows some question on hospital care, the first ones refer to hospital admission due to any emotional health problem (K1 to K 2.) Then follows some questions on hospital admission due to any other health problem than emotional troubles (K 3).

K 1. Within the past 12 months, have you been admitted to a district hospital overnight for <u>emotional/mental problems</u>?

□ No
□ Yes
If 'YES', Total number of nights: _____

K 2. Within the past 12 months, have you been admitted overnight or longer to a psychiatric hospital?

□ No
□ Yes
If 'Yes', what was the name of the hospital?_____
Total number of nights: _____

K3. Within the past 12 months, have you been admitted to a district hospital overnight for <u>any health problem other than emotional problems</u>?

□ No
□ Yes
If 'YES', Total number of nights: _____

L. SELF-EFFICACY FOR SEEKING CARE FOR MENTAL ILLNESS

Below are several statements about your confidence in your ability to seek mental health care if you ever needed it. For each statement, rate how confident you are
<u>from 1=no confidence, to 10=complete confidence</u> in your ability to do each behavior. There are no right or wrong answers. We are interested in your viewpoints on this (To the Interviewer: make a circle around the number indicated)

L 1. If you need mental health care, I feel confident in my ability to:

a. **Find a place to get mental health treatment**

No confidence = 1 2 3 4 5 6 7 8 9 10 = Complete confidence

b. **Get transportation to a mental health care service**

No confidence = 1 2 3 4 5 6 7 8 9 10 = Complete confidence

c. **Pay for the transportation to mental health care service**

No confidence = 1 2 3 4 5 6 7 8 9 10 = Complete confidence

d. **Pay the fee for the mental health care service, if there is one**

No confidence = 1 2 3 4 5 6 7 8 9 10 = Complete confidence

e. **Clearly tell the staff what is troubling me**

No confidence = 1 2 3 4 5 6 7 8 9 10 = Complete confidence

f. **Understand the information given to you by the staff**

No confidence = 1 2 3 4 5 6 7 8 9 10 = Complete confidence

g. **Be able to follow the treatment recommendations made by the staff**

No confidence = 1 2 3 4 5 6 7 8 9 10 = Complete confidence

h. Cope well with the consequences of seeking care (for example, treatments, tests, hospitalizations, sanctions)

No confidence = 1 2 3 4 5 6 7 8 9 10 = Complete confidence

i. Cope well with family or friend's reactions to me seeking mental health treatment

No confidence = 1 2 3 4 5 6 7 8 9 10 = Complete confidence

j. Cope well with the attitudes that the staff may have towards me

No confidence = 1 2 3 4 5 6 7 8 9 10 = Complete confidence

k. Overcome any embarrassment I may have about seeking mental health treatment

No confidence = 1 2 3 4 5 6 7 8 9 10 = Complete confidence

M. PSYCHIATRIC DISORDERS

MINI and the following modules:

A. Major depressive episode
B. Suicidality
H. Post-traumatic stress disorder
N. Generalised anxiety disorders