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Women’s view on sexual intercourse and physical abuse. Results from a cross-sectional survey in villages surrounding Bobo-Dioulasso, Burkina Faso

1. INTRODUCTION

Intimate partner violence (IPV) against women defined as “the range of sexually, psychologically and physically coercive acts used against adult and adolescent women by her current or former male intimate partners” (WHO, 1997) has been recognized not only as an important human right issue but also as a public health challenge, due to its great consequences on mental and physical health (Uthman *et al.*, 2009). At the worldwide scale, it is estimated that the physical consequences of rape and sexual violence are responsible for about 5% of diseases among women (WHO, 2006 cited by Kaboré *et al.*, 2008). These practices rest upon several grounds. One of them is partners’ sexual intercourse and related perceptions. This research analyzes female attitudes towards intimate partner violence (IPV) and coerced sex in the context of a stable relationship. Our objective is to examine how women in a stable union negotiate their sexual life with their regular partner. More precisely, we try to understand what do verbal and physical interactions within the couple as declared by women tell us about their related autonomy regarding sexual intercourse with their regular partner. Acknowledging the legitimacy of violence does not inevitably involve being victim of abuses. However it means being more at risk of being abused and less able to resist it (Rani *et al.*, 2004).

This research is realized in Burkina Faso, considered as one of the less developed countries (183rd rank among 186 countries in 2012) (HDRO, 2012). Most of the population lives in rural areas (83%), despite the development of urbanization these last decades (INSD, 2004). Agriculture includes a large part of the active population (Thiombiano, 2009). Marriage is wide-

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spread. At 35, almost all the women are married (INSD, 2004). The total fertility rate reaches an average of 6 children per woman (CIA, 2013). According to the 2006 national population census, the largest part of the population is Muslim (60.5%), the main other group being Catholic (19%) (INSD, 2009).

The country holds the 131st position (of 148) on the gender inequality index (HDRO, 2013). Beyond important regional disparities (Thiombiano, 2009), 80% of women have no education and 84% are illiterate (INSD, 2004). In 2011, their school life expectancy (primary to tertiary education) is only 6 years (CIA, 2013). Most of Burkina Faso society is patrilineal and virilocal (Thiombiano, 2009). Burkinabe women are estimated to produce more than 60% of the agricultural goods (INSD, 2004). Although perceived as having an important economic role, they are relegated to the background in the political and social area (Conseil national de la prospective et de la planification stratégique, 2005). A strong attachment to traditions, religion and customs makes it difficult for women to obtain information and take decisions. An international analysis using Demographic and Health Survey (DHS) data (UNICEF, 2006 cited by Kaboré *et al.*, 2008) shows that Burkina Faso is one of the countries where women have little autonomy in decision-making in the household. Globally, only 10% of women declare having the final say regarding some household decisions and around one third (31%) have no final say whatever the aspect. Furthermore, only 19% and 22% of women respectively declare having the final say (alone or jointly) on their own health care and on making large purchases (INSD, 2004). Besides, only 9% of household heads are female (INSD, 2004). Another source of gender inequalities lies in some so-called traditional practices. Among them, female genital cutting has been recognized as a “violation of basic rights and a major lifelong risk to women’s health” (United Nations, 1995). It remains widespread in Burkina Faso, especially in some regions (Ordioni, 2005) despite its prohibition since 1996 (INSD, 2004). A total of 77% of women interviewed in the DHS dated 2003 declared to be circumcised and 37% of their daughters are or will be circumcised (INSD, 2004). This practice concerns mostly the rural areas and almost all ethnic groups.

Our study took place in Hauts-Bassins region which is estimated by law statistics to be one with many conjugal rapes (Kaboré *et al.*, 2008). It includes 8 villages with contrasted access to health care and contraception use, with population size from 642 to 2,237 inhabitants¹. The distance from Bobo-Dioulasso city varies from an immediate proximity to 20 kilometers. Generally speaking, the environment is characterized by a low level of education, difficult working and living conditions, strong dependence on lineage, the reproduction of gender division of labor and an ideology of man’s superiority (Rani *et al.*, 2004, Uthman *et al.*, 2009). In Hauts-Bassins region, the prevalence of female genital cutting is estimated at 55% (Kaboré *et al.*, 2008).

¹ These figures do not include farming hamlets surrounding the villages.

This occurs in a context where women's lack of decision and negotiation power makes them vulnerable (Ouattara *et al.*, 2009).

In this paper, we will first provide an overview of perceptions regarding female sexual autonomy in Burkina Faso, its correlates and potential factors with a special attention to rural areas. The methodology and data used will then be presented. The subsequent part of the paper displays results from our survey in 8 villages surrounding Bobo-Dioulasso city in the South-west part of the country. It deals mainly with two indicators of female autonomy: woman's possibility of refusing sex with her regular sexual partner and male physical violence perceived as an illegitimate reaction to wife's refusal. Finally, we discuss the links between these two indicators as well as the influence of their determinants in a broader perspective.

2. FEMALE SEXUAL AUTONOMY AND ITS CORRELATES

In this first part, we will explore perceptions of sexual intercourse, male physical abuse and female sexual autonomy drawn from previous studies performed in Burkina Faso. Among phenomena which may influence women's views, we will make a distinction between practices regarding marriage and other social, demographic or economic characteristics.

2.1 *Social versus sexual control: contrasted perceptions of gendered roles*

Perceptions regarding men and women are contrasted, regarding both sexual and social activities.

The "Code for Persons and the Family" (Ministère de la Justice du Burkina Faso, 1989) makes sexual intercourse an interplay duty between spouses. Men are considered to be sexually active under any circumstances whereas women are perceived as moral subjects who control their desires (Mason, 1994). Women are expected to meet their partner's sexual needs and to give priority to men's wishes (Rani *et al.*, 2004). These practices, attitudes and beliefs rest upon a sexual double standard which consists in women submitted to more restrictions regarding social and sexual activity than men (Mason, 1994). Indeed, girl's education consists in encouraging docility, affability, verbal continence, domestic capacities, diligence in work, self-abnegation, virtue (Fainzang and Journet, 1991; Thiombiano, 2009), whereas boy's education focuses more on how to become a household head (Thiombiano, 2009). Meanwhile, women have a lot of difficulties to talk openly about sexuality (desires, needs, condom use) with their partner, because they fear being seen as easy or promiscuous (Balmer *et al.*, 1995 cited by Wolff *et al.*, 2000).

According to the traditional sex division of labor, women stay at home, do the housework and care for children while men work outside, support and pro-

vide financial means to the family. This translates into the fact that most women have little access to resources (Kaboré *et al.*, 2008) and remain dependent on their male partner. Despite increasing enrollment in paid jobs, female work does not always involve their economic independence in Burkina Faso (Kaboré *et al.*, 2008). Among working women in union, 44% are not paid for their work versus only 27% of men. Most women (91%) estimate that they earn less money than their partner. The proportion of people owning a house alone is much higher among men than among women (54% versus 5%) (INSD, 2012). Few people in Burkina Faso recognize women's right to property, which constitutes a problem mostly in rural areas. Overall, 51% of men declare owning lands against 31% of women (INSD, 2012). Conversely, reproduction is traditionally under the control of woman. Therefore, single women using contraception are often considered as easy, in control of their sexuality and thereby living a "man's life". (Ouattara *et al.*, 2009).

Acceptance of wife beating rests upon the myth of male superiority (Rani *et al.*, 2004). Domestic violence in Burkina Faso is considered as a male prerogative (Uthman *et al.*, 2009). An important factor of sexual violence is man thinking that his authority has been questioned (Watts and Mayhew, 2004). Transgressing traditional gender role is seen as a trigger for domestic violence against women. It is shown as a culturally admitted way to correct unsettled, erring women, not conforming to the women's social norm (Rani *et al.*, 2004; Uthman *et al.*, 2009). Wife beating is socially admitted not only by men but also by women (WHO, 2002). Researches show that women are consistently more likely to justify domestic violence than men as is the case in many countries of Sub-Saharan Africa (Rani *et al.*, 2004; Uthman *et al.*, 2009). To avoid violence, women have to behave well and fulfill the social expectations. The fear of domestic violence leads them to have difficulties to refuse sexual intercourse and more generally, to dictate the terms of their sexual relations, especially condom use (Rani *et al.*, 2004; Watts and Mayhew, 2004; Uthman *et al.*, 2009). Many women are not aware of their rights and access to legal services is uneasy. More generally, Burkinabe population has a weak perception of worldly actions categorized as violence against women (Conseil national de la prospective et de la planification stratégique 2005). All these factors lead women to barely file a complaint against violence (Kaboré *et al.*, 2008), making this phenomenon difficult to study.

2.2 *Potential influence of marriage and sexual partnership*

Marriage is a major source of gender inequality. It is linked to strong social norms detrimental to women. The major norm is the high value given to reproduction which is associated to marriage (Ouattara *et al.*, 2009, Thiombiano,

2009) and perceived as depending mostly on women. Consequently, women who do not have children tend to be neglected or stigmatized, and infertility of the woman is a common source of divorce in rural area (Thiombiano, 2009). Divorce is not frequent compared to other Sub-Saharan countries (10% of first female unions) despite a current rise (Thiombiano, 2009). However, it has a detrimental effect on women's situation. Studies have shown worsening women's life conditions after couple separation (*ibidem*). The "Code for Persons and the Family" (Ministère de la Justice du Burkina Faso, 1989) states that in case of disagreement between spouses on the residence of family, the last say goes to the husband.

This occurs in a context of competition between potential female partners. As in many societies men are allowed to have several wives or partners when women should have only one (Mason, 1994). Although monogamous union is defined as the marriage common law (Ministère de la Justice du Burkina Faso, 1989), half of women aged 15 to 49 live in a polygamous union (INSD, 2004). Women are afraid of refusing or negotiating sexual relationships in fear of the chance that their husband would have sexual relations with extramarital partners. As an example, in the capital city Ouagadougou, some health care workers advise women to reduce the breastfeeding period to avoid being responsible for the man's infidelity, justifying this behavior by man's nature, as strong and imperious (Ouattara *et al.*, 2009).

However, we should draw a too bleak picture of the situation. The country has ratified the UN Declaration on the Elimination of Violence Against Women (CEDAW) in 1987. The Burkinabe law appears by some aspects more favorable to women in comparison with other countries of Sub-Saharan Africa. For example, the "Code for Persons and the Family" forbids bride wealth, forced and early marriage as well as levirate marriage (Kaboré *et al.*, 2008, Attané, 2009). Yet, a gap remains between law and reality, the latter being more controlled by customs, religious rules and social relations, often to the detriment of women. Laws are restricted and often perceived by the population as non-legitimate (Ordioni, 2005). For example, the prohibition of early and forced marriage deals only with civil marriage which is less widespread than customary and religious marriage (Kaboré *et al.*, 2008). Therefore, women's rights regarding property and inheritance are poorly applied. This results in women's lack of power when they want to denounce violence or to divorce (Ordioni, 2005; Kaboré *et al.*, 2008; Thiombiano, 2009). Early marriage is a common practice and a serious issue (Population Council, 2009). Female median age at first sex and at first union is roughly the same (respectively 17.5 and 17.7 years old) while the legal age at marriage is 17 (or 15 under specific circumstances) for women and 20 (or 18) for men (Ministère de la Justice du Burkina Faso, 1989). Forced marriage is widespread, especially in rural areas, and related to early marriage but poorly documented

(Guiella, 2004). A national qualitative study about violence shows strong forced marriage practices in some regions such as Hauts-Bassins region (Kaboré *et al.*, 2008).

Some changes have occurred in the last decade. Female age at first marriage has increased and the age gap between partners has reduced (Hertrich and Pilon, 1997). There has also been a rise in the number of free unions, and marriage breakdowns (Thiombiano, 2009). However, the overall situation of women has worsened due to the consequences of the economic crisis. From the early 1990s, changes made by structural adjustment plans resulted in household impoverishment, deteriorating life conditions and rising unemployment rate, especially among young people and women (Thiombiano, 2009). Many women do not access nor participate in the control of their household income. They also have no power on their own resources, even when they work (Kaboré *et al.*, 2008). These problems are acute in rural areas where women are more likely to accept domestic violence (INSD, 2004; INSD, 2008; Uthman *et al.*, 2009; INSD, 2012).

Consequently, in this study, we expect sexual autonomy to decrease with male multipartnership. Among the different types of union, we hypothesize that polygamy is linked to a lower level of female sexual autonomy. It may reduce women's ability to negotiate sex. We will make a distinction between the effects of polygamy and those of multipartnership. This should allow us to take into account formal versus informal sexual relationships. Our study of correlates of women's sexual autonomy has also to take into account cohabitation practices. Separate housing of the partners may be due to family norms before marriage or migration for work, especially in rural areas. It is expected that this will induce a higher degree of female autonomy and will weaken male authority. It may increase women's empowerment and make them less incline to accept violence and coerced sex.

2.3 *Other sociodemographic and economic indicators*

Besides union status and cohabitation practices of the spouses, other sociodemographic and economic phenomena may influence intimate partner violence and female sexual autonomy. Among them, age, education and religion play a major role as well as economic autonomy and employment.

First, we hypothesize that woman's sexual autonomy increases with age. Young women may not feel able to refuse or negotiate safe sex, especially with an older partner (UNAIDS and WHO, 2004). Several studies have analyzed young age as a risk factor for IPV (UNIFEM, 2011). In contrast, older women who already fulfilled their reproductive role have more decision autonomy and social power (Antoine and Nanitelamio, 1990). They are more

likely to be grandmother, which “allows” them to abstain from sexual intercourse. Furthermore, studies have shown that older women are less likely to justify wife beating (Rani *et al.*, 2004; Uthman *et al.*, 2009). Second, we assume that a higher level of education will raise women’s positive attitudes towards female autonomy. Studies have shown that education reduces the likelihood of accepting wife beating (Rani *et al.*, 2004, Uthman *et al.*, 2009). This includes violence in the scenario of women’s refusal of sexual relations (INSD, 2004; INSD, 2008; INSD, 2012). Third, the relationship between religion and female autonomy appears to be inconsistent. A study in 7 Sub-Saharan African countries showed contradictory results regarding the relationship between being either Catholic or Muslim and attitudes toward wife beating (Rani *et al.*, 2004). However, due to the fact that in Burkina Faso, catholic women belong to more privileged classes as is the case of emerging upper middle class (Attané, 2009), we hypothesize that catholic women have a higher level of autonomy.

The last group of potential factors influencing female sexual autonomy relates to women’s economic situation. We assume that financial or economic autonomy increases female sexual autonomy. In Burkina Faso, women’s access to resources is an essential factor of their decision power (Attané, 2009). Women without economical support from their partner may feel less constrained. They may refuse to have sex or negotiate condom use more easily. On the contrary, studies show that women without paid job, financially dependent on their partner, with few resources and/or little decision power over their household’s resources have more difficulty to control their sexuality and especially to refuse unwanted intercourse (Ankrah, 1991). Moreover, in Sub-Saharan Africa men’s threat or effective withdrawal of economic support compels many women to obey in the sexual area (Watts and Mayhew, 2004). Fear of violence or abandon could dissuade women financially dependent on their partner to negotiate safe sexual practices (Larkin, 2000). Poverty and economic dependence raise the risk of sexual abuse and IPV (UNAIDS and WHO, 2004). Women out of work in Burkina Faso are modestly more likely to tolerate domestic violence (Uthman *et al.*, 2009). For the same reason as for having one’s own resources, we hypothesize that being employed is linked to a higher level of autonomy.

Previous studies examined in the above paragraphs suggest complex nexus of relations between age, education, and religion. For example the effect of age may be counterbalanced by education as is the case for older women with a lower level of education. Therefore in the following analyses, the various potential factors of female sexual autonomy will be taken into account simultaneously, in order to measure the specific impact of each of them on women’s view regarding sexual intercourse and male physical abuse.

3. METHODOLOGY

Our analysis uses data from a cross-sectional survey, which belongs to a more complex research design for the evaluation of the impact in the population of the International Program “Sexual Risk Reduction among women” (SRR). This program has been conducted by the French Movement for Family Planning (FMFP) in three countries: Burkina Faso, Cameroon and Madagascar. It focuses on reproductive health, sexuality, violence against women, women rights and gender equality. The survey uses a Knowledge, Attitudes, Beliefs and Practices (KABP) approach (Tou *et al.*, 2010; Rahanivoson *et al.*, 2012). The present work focuses on women’s perceptions regarding sexual relationships between them and their regular partner. It uses data from the baseline survey in Burkina Faso. The evaluation of the impact of the program is not dealt with in this paper.

3.1 *Data collection*

The fieldwork has been performed around Bobo-Dioulasso in Hauts-Bassins region during 3 weeks between January and February 2008. Two geographical areas, intervention and control, were chosen. The delimitation of the intervention area results from 2 components. The first one is the pre-defined action strategy of the local associations working with the FMFP. The second one is a search for a moderately populated area to prevent the dilution effect of the SRR program. The control area was selected for its similarity with the intervention area regarding socio-demographic indicators, HIV/AIDS level of risks, and distance from the intervention area, to prevent contamination phenomenon. The survey includes 8 villages: 4 in the intervention area and 4 in the control area. It is estimated that approximately 1,550 women of childbearing age were living in the intervention area versus 1,370 in the control area at the time of the fieldwork. A two-level random sampling design was performed. Anonymity and confidentiality were guaranteed. Data have been collected after the approval by the ethic comity of Muraz Center.

A total of 749 women were included. The response rate was 89.2%, which can be considered as relatively high. Only 3.2% of women selected for the survey refused to participate and 5.2% were absent at the moment of the survey. Hence 668 women of childbearing age participated in the survey (349 women from the intervention group and 319 from the control group) (see Appendix for more details). Women living in a stable union represent the major part of the respondents (88.4%, data not shown). Therefore a total of 591 women living in a stable union are included in this analysis².

² Among women living in a stable union, a low proportion (2%) has been eliminated due to missing data, which has no significant influence on the results.

3.2 *Data analysis*

Two outcome variables were chosen to measure women's attitudes regarding female sexual autonomy.

- The first one deals with the answer to the following question: "Do you think it is justified for a woman to refuse to have sex with her husband/partner if: she believes that her husband/partner has a sexually transmitted infection; she believes that her husband/partner has sex with another woman; she has recently given birth; she is tired or not in the mood?". An affirmative answer to the 4 questions is interpreted in the following analysis as an attitude in favor of female sexual autonomy.
- The second variable relates to the following question: "In your opinion, is it justified for a man to hit or beat his wife/partner if she refuses to have sex with him?" A negative answer to the question is considered as an attitude in favor of female sexual autonomy.

These two questions are combined so that the level of sexual autonomy is the highest when the respondent declares that a woman can refuse sex with her partner whatever the reason, and when she declares that there is no justification for a man to beat his partner/wife if she refuses to have sex with him.

Bivariate analyses were made using design-based corrected Pearson chi square test. Multivariate logistic regression models were performed with each outcome as a dependent variable, controlling for all the determinants simultaneously including the area as a dummy variable (see Appendix for more details). In the results below, odds ratio (OR) value over 1 refers to determinants increasing sexual autonomy whereas a value lower than 1 refers to the adverse effect. The significance level was set to 5%. All results presented (percentage, OR) are design-based. Stata 10.0 software was used for the statistical analysis. The individual questionnaire includes open-ended questions whose results highlight respondent's perceptions.

4. RESULTS

We explore in this part answers from the 591 women in union interviewed regarding female sexual autonomy as well as the link between their perceptions and potential factors mentioned above regarding marriage, other sociodemographic and economic characteristics.

4.1 *Profile of the population*

The main characteristics of women interviewed are displayed in Table 1.

Table 1 – *Socio-demographic profile of interviewed women (n = 591)*

		n	%
Marriage and union	<i>Type of union</i>		
	Monogamous	370	57.5
	Polygamous	221	42.5
	<i>Couple cohabitation</i>		
	Yes	323	51.3
	No	268	48.7
	<i>Partner's multiple partnerships</i>		
	No	288	49.7
	Yes or do not know	303	50.3
Other socio-demographic characteristics	<i>Age (years)</i>		
	15-19	34	6.4
	20-29	237	40.7
	30-39	213	35.5
	40-49	107	17.5
	<i>Religion</i>		
	No religion or other	119	20.8
	Catholic	292	48.4
	Muslim	180	30.8
	<i>Education</i>		
None	449	76.7	
Primary or secondary	142	23.3	
Socio-economic characteristics	<i>Employment status</i>		
	Unemployed	95	16.6
	Employed	496	83.4
	<i>Having one's own resources</i>		
	No	251	45.3
	Yes	340	54.7
Geography	<i>Area</i>		
	Control	291	52.4
	Intervention	300	47.6

Source: KABP cross-sectional survey in villages surrounding Bobo-Dioulasso (Burkina Faso, 2008).

The proportion of women in polygamous union is high (42.5%) as expected. Only half women (51.3%) live with their husband/partner. Many women do not know whether their husband or partner has multiple sexual

partners (41.8%, data not shown). Together with women who think that their partner has another partner (8.4%, data not shown), they represent more than half of the respondents (50.3%). The data also indicate that the population is relatively young, with the highest proportion aged 20 to 29 (40.7%) or 30 to 39 (35.5%) and a mean age of 30.7 years. Almost half of the women are Catholic (48.4%), the other categories being Muslim (30.8%) or with another or no religion (20.8%). The level of education is low. More than three fourths of our respondents have not attended school (76.7%). A relatively small percentage reached the primary education level (20.5%, data not shown) and only a small part reached the secondary level (2.8%, data not shown). None entered the tertiary level. Most women are economically active (83.4%), mostly in the informal sector (75.5% of respondents, data not shown). More than half of respondents (54.7%) have their own resources. Intervention and control groups have similar socio-demographic characteristics. Only religion and the proportion of women in a polygamous union are significantly different (data not shown).

4.2 *Woman's possibility of refusing sex with her regular sexual partner*

Most of women living in union have a mixed opinion regarding the possibility for a woman to refuse sexual relations with her regular partner or husband. They state that a woman may refuse in some circumstances but cannot do so in other situations.

Results displayed in Table 2 show that only a small group of women declare that a woman can refuse sexual relations with her husband or regular partner whatever the reason (18.2%) whereas a smaller minority declares that no refusal is possible (8.3%, data not shown). The most accepted reason for this refusal is the recent birth of a child (84.9%, data not shown). Indeed, the tradition of postpartum sexual abstinence remains influential, mainly during the breastfeeding period. Some answers to open-ended questions express this norm as excerpts illustrate: "*I wait until my child walks*", "*I breastfed, so I did not have sexual intercourse*". The second reason, stated by more than half of women (57.4%, data not shown) is the belief that the partner has a sexually transmitted infection (STI). Besides these main reasons, others are less frequently expressed. They refer to woman's tiredness or not in the mood (45.3%, data not shown) and the belief that the husband or partner has sexual intercourse with another partner (33.1%, data not shown).

Table 2 – Attitudes of interviewed women (n = 591) regarding:
 1) a woman refusing sex with her partner; 2) a man beating his wife
 if she refuses to have sex, according to respondent's profile (%)

		Woman justified in refusing sex		Man justified in beating his wife if she refuses	
		No	Yes	No	Yes
OVERALL		81.8	18.2	77.3	22.7
Marriage and union	<i>Type of union</i>				
	Monogamous	83.4	16.6	79.5	20.5
	Polygamous	79.5	20.5	74.4	25.6
	<i>Couple cohabitation</i>				
	Yes	80.0	20.0	76.6	23.4
	No	83.7	16.3	78.1	21.9
	<i>Partner's multiple partnerships</i>				
No	82.0	18.0	70.3***	29.7***	
Yes or do not know	81.6	18.5	84.3***	15.7***	
Other socio-demographic characteristics	<i>Age (years)</i>				
	15-19	78.8	21.2	76.0	24.0
	20-29	84.2	15.8	74.2	25.8
	30-39	78.1	21.9	76.9	23.1
	40-49	84.6	15.4	85.9	14.1
	<i>Religion</i>				
	No religion or other	88.6*	11.4*	75.0	25.0
	Catholic	77.5*	22.5*	79.2	20.8
	Muslim	83.8*	16.2*	76.0	24.0
	<i>Education</i>				
None	83.4	16.6	75.9	24.1	
Primary or secondary	76.4	23.6	82.0	18.1	
Socio-economic characteristics	<i>Employment status</i>				
	Unemployed	79.3	20.7	70.5	29.5
	Employed	82.3	17.8	78.7	21.3
	<i>Having one's own resources</i>				
No	86.2*	13.8*	81.0	19.0	

...Cont'd...

Table 2 – *Cont'd*

		Woman justified in refusing sex		Man justified in beating his wife if she refuses	
		No	Yes	No	Yes
Geography	Yes	78.1*	21.9*	74.3	25.7
	<i>Area</i>				
	Control	84.0	16.1	77.9	22.1
	Intervention	79.4	20.6	76.7	23.3

Source: KABP cross-sectional survey in villages surrounding Bobo-Dioulasso (Burkina Faso, 2008). The level of significance is equal to 0.05 (*), 0.01 (**) and 0.001 (***).

e.g. 83.4% of women in monogamous union declare that a woman is not justified in refusing sex with her regular partner.

A large part of women still consider sex as a marital duty, within the representation of the union as mostly based on reproduction. Indeed, most of the women in union associate sexual intercourse with childbearing (83.9%, data not shown). One respondent thinks it is unacceptable for a woman to buy a condom because “*It is shameful. People can think you refuse to give birth*”. Another one explains: “*I stopped giving birth and ever since, I do not have sexual intercourse anymore*”. Almost two thirds of respondents (64.3%, data not shown) associate sexual relationships with love but less than half (47.5%, data not shown) perceive sexual relationships as a source of pleasure. Another recurrent idea is the man’s leadership in sexual relations. Men are supposed to initiate sexual relations: “*Women cannot approach men*”. Buying condoms is their role. This is justified by their interest in sexual intercourse: “*It is the man who needs the woman so he is the one who has to buy it*”. In contrast, only half of respondents think that buying a condom is acceptable for a woman (50.6%, data not shown).

Declaring that a woman can refuse sex with her husband or partner whatever the reason is associated with religion (Table 2). Catholic women are more likely to agree with this statement than Muslim women (22.5% versus 16.2%) and the gap is greater with those belonging to another group (11.4%). This confirms the hypothesis stated above. Another confirmatory result is the relationship between this attitude and having one’s own resources. The proportion of respondents who think that a woman can refuse to have sex with her husband/partner is higher among those having one’s own resources (21.9%) than those who have none (13.8%). The other characteristics do not have a significant link with this attitude.

Controlling for all the factors under study slightly changes the trends as shown in Table 3. First, the role of having one’s own resources is confirmed.

The odds ratio of stating that a wife is justified in refusing sex with her husband or partner is close to 2 (odds ratio 1.97). In contrast, religion does not have influence anymore. Conversely and surprisingly, living in a polygamous union which was not significant in the bilateral analysis is linked to a higher level of sexual autonomy at the multivariate level. The likelihood of stating that a wife can refuse sexual intercourse with husband/partner is significantly higher among women in a polygamous union (odds ratio 1.86). This is contrary to the hypothesis stated above. It emphasizes another aspect of polygamy: women do not feel compelled to have sex with their husband since they are not alone in fulfilling their husband’s sexual needs. Among the discourses collected in the open-ended questions, the declaration of a woman illustrates this idea: “*I stopped sexual relationships. We have reached an agreement, now he does it [having sexual relations] with his second wife*”.

Table 3 – Odds ratios associated with justifying a woman refusing sex with her regular partner (logistic regression model, n = 591)

		Raw			Adjusted		
		OR	95%	CI	OR	95%	CI
Marriage and union	<i>Type of union</i>						
	Monogamous (ref.)	1.00			1.00		
	Polygamous	1.50	0.90	2.50	1.86*	1.05	3.30
	<i>Couple cohabitation</i>						
	Yes (ref.)	1.00			1.00		
	No	0.75	0.46	1.24	0.70	0.39	1.24
	<i>Partner’s multiple partnerships</i>						
	No (ref.)	1.00			1.00		
	Yes or do not know	1.16	0.74	1.81	1.10	0.67	1.81
Other socio-demographic characteristics	<i>Age</i>						
	(per 1 year increase)	1.01	0.99	1.04	1.01	0.98	1.04
	<i>Religion</i>						
	No or other rel. (ref.)	1.00			1.00		
	Catholic	1.61	0.86	3.03	1.98	0.98	3.98
	Muslim	1.03	0.50	2.10	1.37	0.63	2.98
	<i>Education</i>						
None (ref.)	1.00			1.00			
	Primary or second.	1.35	0.83	2.21	1.52	0.90	2.58

...Cont’d...

Table 3 – *Cont'd*

		Raw			Adjusted		
		OR	95%	CI	OR	95%	CI
Socio-economic characteristics	<i>Employment status</i>						
	Unemployed (ref.)	1.00			1.00		
	Employed	0.56	0.29	1.08	0.58	0.28	1.21
	<i>Having one's own resources</i>						
	No (ref.)	1.00			1.00		
	Yes	1.74*	1.05	2.90	1.97*	1.09	3.57
Geography	<i>Area</i>						
	Control (ref.)	1.00			1.00		
	Intervention	1.08	0.68	1.71	1.29	0.77	2.16

Source: KABP cross-sectional survey in villages surrounding Bobo-Dioulasso (Burkina Faso, 2008).
CI = confidence interval, ref. = reference category.

The level of significance is equal to 0.05 (*), 0.01 (**) and 0.001 (***)

As shown in the table, the other characteristics such as cohabitation with one's partner, age, education and employment status have no significant influence on the attitudes regarding women refusing sex with their regular partner.

4.3 *Male physical violence as an illegitimate reaction to wife's refusal*

More than three quarters of women in union believe that it is not justified for a man to hit or beat his wife/partner if she refuses to have sex with him (77.3%, Table 2). Conversely, an interviewee explains that to avoid domestic violence, a woman should "*always accept [her partner's] invitation in bed*". Contrasting with our hypothesis stated above, bivariate analysis shows that women who believe that their husband or regular partner has another partner or who do not know whether he has one, are more likely to think that a man is not justified in beating his wife if she refuses to have sex (84.3% versus 70.3%). Other social and demographic characteristics are not significantly associated with this opinion.

Once the other factors controlled, the odds of disagreeing with hitting one's wife when she refuses to have sex remains linked to the husband's multiple partnership (Table 4). Women who think that their husband or sexual partner has another partner or do not know, are most likely not to justify domestic violence (odds ratio 2.24).

This result is similar to the positive effect of polygamy on the possibility of women to refuse sex. This could also be explained by women feeling less obligated to have sex if they think their regular partner has other sexual partners.

Table 4 – Odds ratios associated with refusing that a man beat his partner if she refuses to have sex (logistic regression model, n = 591)

		Raw			Adjusted		
		OR	95% CI		OR	95% CI	
Marriage and union	<i>Type of union</i>						
	Monogamous (ref.)	1.00			1.00		
	Polygamous	0.53	0.33 0.87		0.55	0.29 1.03	
	<i>Couple cohabitation</i>						
	Yes (ref.)	1.00			1.00		
	No	1.07	0.67 1.72		1.11	0.59 2.10	
	<i>Partner's multiple partnerships</i>						
	No (ref.)	1.00			1.00		
	Yes or do not know	2.13***	1.40 3.26		2.24***	1.39 3.61	
Other socio-demographic characteristics	<i>Age</i>						
	(per 1 year increase)	1.04*	1.01 1.06		1.03*	1.00 1.07	
	<i>Religion</i>						
	No or other rel. (ref.)	1.00			1.00		
	Catholic	1.33	0.77 2.27		1.23	0.69 2.21	
	Muslim	0.99	0.56 1.78		1.11	0.58 2.13	
	<i>Education</i>						
	None (ref.)	1.00			1.00		
	Primary or second.	1.65	0.99 2.74		1.58	0.89 2.79	
Socio-economic characteristics	<i>Employment status</i>						
	Unemployed (ref.)	1.00			1.00		
	Employed	1.48	0.82 2.66		1.70	0.86 3.35	
	<i>Having one's own resources</i>						
	No (ref.)	1.00			1.00		
	Yes	0.73	0.46 1.15		0.60*	0.36 0.99	
Geography	<i>Area</i>						
	Control (ref.)	1.00			1.00		
	Intervention	0.87	0.56 1.34		0.81	0.50 1.32	

Source: KABP cross-sectional survey in villages surrounding Bobo-Dioulasso (Burkina Faso, 2008).
 CI = confidence interval, ref. = reference category.
 The level of significance is equal to 0.05 (*), 0.01 (**) and 0.001 (***).

Other characteristics are also linked to this indicator of female sexual autonomy. It is the case of age (odds ratio 1.03 per year). Refusal of male violence increases with age. Surprisingly, contrary to the results regarding the refusal of sexual relations, women who have their own resources are less likely to think that hitting one's wife if she refuses to have sex is reprehensible (0.60). This is partly explained by a specific situation in one of the villages: most women do not have their own resources but they all answered that it is unjustified that a man beats his wife if she refuses to have sex with her partner. The same logistic regression excluding this village shows that having one's own resources appears no more significant as a determinant of this behavior (data not shown).

4.4 *Negotiating sexual relations in a stable relationship: crosscutting analysis*

Two crosscutting analyses highlight the situation of women regarding our two indicators of sexual autonomy. First, the level of acceptance of wife beating when a woman refuses to have sex with her partner is the same among respondents who agree that a woman can refuse to have sex, and among those who think that she cannot refuse it (22.4% versus 23.9%, data not shown). This lack of association between the two indicators shows that fulfilling marital duties is fully legitimated.

Second, women whose attitude is in favor of a complete female autonomy, in other words those who both approve the possibility that a woman refuses sex whatever the reason and state that a man cannot beat his wife if she refuses represent only 14.2% of our sample (data not shown). The only variable associated with this complete sexual autonomy indicator is having one's own resources. At the bivariate level, women who have their own resources are more likely to have this opinion (17.1% versus 10.6%, data not shown). While controlling for other determinants, the corresponding odds of expressing this opinion are also high (odds ratio 1.99, data not shown). These results suggest that the effect of having one's own resources is in favor of female sexual autonomy.

5. DISCUSSION

We reflect here on the meaning of our outcome variables as a measure of female sexual autonomy. We also discuss the effects of the determinants studied above on women's perception of sexual intercourse and physical abuse, as well as the interplay between them.

5.1 *A twofold indicator of female sexual autonomy*

The level of women mentioning the possibility to refuse sexual relations with one's husband is lower in our sample (18.2%, Table 2) than in the whole

Hauts-Bassins region (27.4% in 2003) (ICF International 2012). Although the two studies have been performed at different periods (2008 for our study, 2003 for DHS), the comparison remains relevant as these attitudes change very slowly. Furthermore, both levels are much lower than the national level (44.7% in 2003) (ICF International, 2012). This confirms the strong perception of sexual relations as a wife's duty in Hauts-Bassins region and in rural areas. In contrast, respondents in our sample are strongly opposed to wife beating as a reaction to women's refusal of sexual relations (77.3%, Table 2). This level of refusal is similar to 2010 results in Hauts-Bassins region (83.0%) (ICF International, 2012). It is much higher than previous levels estimated in the region and at the national level in 2003 (*ibidem*). This suggests that the last decade has witnessed a decrease in a form of male domination legitimacy.

This takes into account the fact that in our study, the level of female autonomy may be slightly overestimated. It may be due to the fact that during data collection, when the selected woman was not the oldest wife in the household, she was more reluctant to participate. Co-wives also tried to discourage the selected woman to participate. Indeed, many people did not understand why we interviewed only one woman per household. However, this potential bias is low as witnessed by the composition of the participants. In our sample, the proportion of women in polygamous unions who are not first wives reaches 47.1% (data not shown). Moreover, many of the women who were absent from their household may benefit from a higher degree of female autonomy. For example, in a village, women were staying in the farming hamlets for loading trucks of cotton. Elsewhere, they were involved in celebrations (See Appendix for details about refusals and absent women).

Finally, the weakness of the links between the two outcomes and the differences in their respective determinants highlight the necessity to make a distinction between them. Each of them emphasizes a specific aspect of sexual autonomy. The first one refers to women's initiative whereas the second one focuses on the male partner's reaction.

5.2 *Significant versus non-significant determinants*

Our study has highlighted specific determinants of female sexual autonomy. Among them, having one's own resources plays a specific and unexpected role. Complex and adverse effects are consistent with results from a previous study performed in Uganda. In one district (Masaka), cash work and women's control over their income enhance women's ability to negotiate sex whereas in the other district (Lira), work in general has a positive effect on sexual bargaining, while work for cash and control over income has a negative effect (Wolff *et al.*, 2000). Likewise, evidence from rural Bangladesh has shown the ambiguity and the adverse effects of micro-credit programs on domestic violence. It depends strongly on the context (Bates *et al.*, 2004). In a more indirect way,

women working or contributing to the household income may develop a greater willingness of freedom and gender equality. These changes, while empowering women, may in the short term exacerbate violence (Bates *et al.*, 2004; Rani *et al.*, 2004). A study in 7 sub-Saharan Africa countries shows that in 6 of them, women receiving money for their work accept wife beating more easily. In 3 countries, women who participated in more than 50% of the household expenditures were more likely to justify wife beating. The trend was reversed in only one country. Moreover, in some countries, men who contributed to less than half of the expenses were more likely to justify wife beating (Rani *et al.*, 2004). Some studies show that frustration of men unable to answer their family financial needs sometimes leads to tensions and violence (Bates *et al.*, 2004; Rani *et al.*, 2004; Thiombiano, 2009). In rural areas of Burkina Faso, men who cannot provide cereals for the daily meal preparation feel ashamed (Ouattara *et al.*, 2009).

The strong acceptance of wife beating among young generations reveals gender norms transmission among generations despite modernization, higher education levels and urbanization (Rani *et al.*, 2004). It contrasts with results from previous surveys. Evidence from Burkina Faso DHS and Multiple Indicator Cluster Surveys (MICS) shows a higher level of domestic violence acceptance among older women (INSD, 2004; INSD, 2008; INSD, 2012). Women from younger generations may be more open to change and equality between partners as opposed to traditional and patriarchal views (INSD, 2008). They may expect harmony within the union, especially in urban areas. A study about union breakdowns in Burkina Faso shows that women from younger generations are more likely to divorce (Thiombiano, 2009). The various ways of confronting the gap between wishes, aspirations and real constraints regarding gender roles may explain these discrepancies. These aspects suggest a complex relationship between age and female sexual autonomy.

The fact that education has no influence on female sexual autonomy is surprising. Schooling can be considered as an emancipation and empowerment factor, bringing openness to the world, and changing ideas about gender roles (Thiombiano, 2009). Moreover, education has an indirect effect on women's status, allowing educated women to access more easily to paid jobs (Bates *et al.*, 2004). Our result is partly due to the low level of education. Most of women who went to school did not go further than primary school. Yet, primary school may reproduce inequalities, discriminations and stereotypes against women. The positive influence of education is patent mainly from the secondary level (Rani *et al.*, 2004; Oyediran and Isiugo-Abanihe, 2005; Uthman *et al.*, 2009). A study in Zimbabwe showed that the acceptance of wife beating if the wife refuses to have sex with her husband, also decreases significantly from secondary education (Hindin, 2003). A study in Uganda shows that women with secondary or higher level are more able to negotiate sexual activities (Wolff *et al.*, 2000). Completing secondary education raises

women's social power, job opportunities and economic independence (UNAIDS and WHO, 2004). More generally, a higher level of education is associated with a decrease in the prevalence of violent behavior. It increases husbands' respectful attitudes towards their wife and improves equality of partners' relationships (Oyediran and Isiugo-Abanihe, 2005). Conversely, some studies showed that education may have in the short run a detrimental effect, especially when men do not accept new ideas of female emancipation promoted at school. Women calling into question the traditional domination relations and gender roles would therefore be more exposed to domestic violence (Rani *et al.*, 2004; Kaboré *et al.*, 2008).

The absence of effect of religion in the multivariate analysis may be due to other socio-demographic determinants such as education as shown by other studies (Oyediran and Isiugo-Abanihe, 2005). Religion is often used to justify some practices, such as early marriage (Population Council, 2009) or polygamy (Attané, 2009). We have to take into account the fact that we asked about belonging to a group rather than individual practice. In Burkina Faso, catholic people do not respect all the precepts (Thiombiano, 2009). Yet, more religious women are more likely to have traditional ideas, which may be correlated to domestic violence acceptance, as most religions contain principles about men superiority and women submission to their husbands (Oyediran and Isiugo-Abanihe, 2005).

The link between polygamy and sexual autonomy contrasts with the fact that this kind of union is considered as an indicator of male domination through a patriarchal system characterized by age gap between spouses (Pison, 1986; Antoine and Nanitelamio, 1990; Fainzang and Journet, 1991). Polygamous union induces sexual competition, jealousy, rivalry, and distrust between the co-wives. Studies have shown that women in polygamous union are more likely to accept domestic violence (Rani *et al.*, 2004; Oyediran and Isiugo-Abanihe, 2005). A study in Burkina Faso argues that the fights between co-wives involve a risk of divorce, mainly in urban area (Thiombiano, 2009). However, this kind of union promotes female freedom since co-wives take turns. It seems that even if a lot of women do not accept the principle of polygamy, they do not condemn it because of its advantages, namely the decrease of domestic work (especially if they have a paid job) and more freedom (Mondain *et al.* 2004). In the 1980s, some Burkinabe women were opposed to the idea of making polygamy illegal because they considered that this system provides women with autonomy by sharing the daily tasks and by limiting the husband's adulterous temperament (Attané 2009). Therefore, polygamy appears as a factor of female sexual autonomy despite contrasting effects regarding other aspects of female autonomy. Other results from our study show that in contrast with the hypothesis that the first wife would feel less compelled to have sex with her partner (Wolff *et al.*, 2000), there is no significant difference between co-wives regarding sexual autonomy (data not shown).

Likewise, the possibility of an unfaithful partner appears as an explanatory factor increasing female sexual autonomy or, more precisely, a factor reducing the acceptance of wife-beating in case of sex refusal.

5.3 *Local insight*

This study is a contribution to local studies. The need for this kind of approach has been emphasized by both qualitative and quantitative research. Evidence from anthropological studies has shown the importance of culture and contextual factors at the community level in studying domestic violence, health outcomes and behavior. However, few quantitative studies have included such variables (Koenig *et al.*, 2006). Studies have shown important differences regarding acceptance of domestic violence. For example, in Nigeria, justification of wife beating among women is higher in northern region than in southern region (Oyediran and Isiugo-Abanihe, 2005). A study in Uganda shows strong contrasts between the 2 districts regarding determinants of sexual negotiation (especially marriage and work) (Wolff *et al.*, 2000). In our study, more detailed data show that the village most distant from the main city of Bobo-Dioulasso has the lowest level of sexual autonomy. Conversely, the village next to Bobo-Dioulasso has a higher level of education. Its situation is more similar to urban areas.

6. CONCLUSION

In our study, the female perspective on women's sexual autonomy is evaluated through two outcomes. The first one consists in women's acknowledging female legitimacy to refuse sexual relations with their regular sexual partner. The second one lies in women's contest of wife beating when this refusal occurs. Results show that female sexual autonomy depends mostly on having one's own economic resources, age and the kind of sexual partnership or union. They also suggest that issues related to intimate partner violence are difficult to grasp and raise complex issues.

Education, improving women's financial opportunity is a first and necessary step but it cannot by itself change these attitudes. In the short term and at restricted scale, empowerment of women can have adverse consequences on IPV and negotiation within the couple. Therefore social gender norms have to be called into question. The decreasing tolerance level of wife beating with age shows that gender norms transmission remains strong between generations and that there is still a long way to change IPV attitudes (Hindin, 2003). This suggests that programs should work on changing the social norms for both men and women (Rani *et al.*, 2004).

Further investigations may help to achieve such a goal. Questions relating to sexual autonomy may include additional aspects such as negotiation for safe sex, discussion about the kind of intercourse, perception of sexual pleasure, attitudes towards the exchange of gifts between partners, opinion about rape and coerced sex. Most studies about female sexual autonomy, including ours, focus on women and few have included the male perspective, which is now needed (Wolff *et al.*, 2000; Uthman *et al.*, 2009). International perspectives would also be worth developing.

This issue is crucial as intimate partner violence including coerced sex poses a strong challenge to society. In addition to many mental and physical consequences, it involves important challenges regarding sexual and reproductive health (Bates *et al.*, 2004; Watts and Mayhew, 2004). It increases risks of STIs transmission including HIV (Larkin, 2000; Wolff *et al.*, 2000). Moreover, violence and fear of it have a negative impact on fertility control, especially on unintended pregnancy and abortion (Pallitto and O'Campo, 2004).

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References

- ANKRAH E.M. (1991), "AIDS and the social side of health", *Social Science and Medicine*, 32(9): 967-980.
- ANTOINE P., NANITELAMIO J. (1990), "Nouveaux statuts féminins et urbanisation en Afrique": *Genus*, XLVI(3-4): 17-30.
- ATTANE A. (2009), "Quand la circulation de l'argent façonne les relations conjugales. L'exemple de milieux urbains au Burkina Faso", *Autrepart*, 49(1): 155-171.
- BATES L.M., SCHULER S.R., ISLAM F., ISLAM Md.K. (2004), "Socioeconomic Factors and Processes Associated With Domestic Violence in Rural Bangladesh", *International Family Planning Perspectives*, 30(4): 190-199.
- CIA (CENTRAL INTELLIGENCE AGENCY) (2013), The World Factbook, Burkina Faso, <https://www.cia.gov/library/publications/the-world-factbook/geos/uv.html>, (accessed Oct 24, 2013)
- CONSEIL NATIONAL DE LA PROSPECTIVE ET DE LA PLANIFICATION STRATEGIQUE (2005), Etude Nationale Prospective « Burkina 2025 » : Rapport Général], Direction générale de l'économie et de la planification, Ouagadougou, 141 p.
- FAINZANG S., JOURNET O. (1991), "L'institution polygamique comme lieu de construction sociale de la féminité", in HURTIG M-C., KAIL M., ROUCH H. (eds), *Sexe et genre: de la hiérarchie entre les sexes*, Centre National de la Recherche Scientifique (CNRS), Paris, 217-225.
- GUIELLA G. (2004), "Santé sexuelle et de la reproduction des jeunes au Burkina Faso : un état des lieux", Occasional report No 12, New-York Washington: The Alan Guttmacher Institute, 40 p.
- HDRO (HUMAN DEVELOPMENT REPORT OFFICE) (2012), Human Development Index (HDI) value, <http://hdrstats.undp.org/en/indicators/103106.html>, (accessed Oct 28, 2013).
- HDRO (HUMAN DEVELOPMENT REPORT OFFICE) (2013), Gender Inequality Index value, <https://data.undp.org/dataset/Table-4-Gender-Inequality-Index/pq34-nwq7>, (accessed Apr 15, 2014).
- HERTRICH V., PILON M. (1997), "Transitions de la nuptialité en Afrique", in: *European population: variations on common themes*, CEPED, Paris, 27 p.
- HINDIN M.J. (2003), "Understanding women's attitudes towards wife beating in Zimbabwe", *Bulletin of the World Health Organization*, 81(7): 501-508.
- ICF INTERNATIONAL (2012), Measure DHS STATcompiler, <http://www.statcompiler.com/>, (accessed Oct 11, 2013).
- INSD (INSTITUT NATIONAL DE LA STATISTIQUE ET DE LA DEMOGRAPHIE), ORC MACRO (2004), Enquête Démographique et de Santé du Burkina Faso 2003, Calverton, Maryland, USA: INSD et ORC Macro.

- INSD (INSTITUT NATIONAL DE LA STATISTIQUE ET DE LA DEMOGRAPHIE), UNICEF (2008), Enquête par Grappes à Indicateurs Multiples du Burkina Faso 2006.
- INSD (INSTITUT NATIONAL DE LA STATISTIQUE ET DE LA DEMOGRAPHIE), ICF INTERNATIONAL (2012), Enquête Démographique et de Santé et à Indicateurs Multiples du Burkina Faso 2010, Calverton, Maryland, USA, INSD et ICF International.
- INSD (INSTITUT NATIONAL DE LA STATISTIQUE ET DE LA DÉMOGRAPHIE), MINISTÈRE DE L'ÉCONOMIE ET DES FINANCES, Secrétariat Général (2009), Recensement général de la population et de l'habitation (rgph) de 2006, analyse des résultats définitifs, thème 2: état et structure de la population .
- KABORE W., YARO Y., DAN-KOMA M.I. (2008), Etude de base du programme conjoint «Violences à l'égard des femmes au Burkina Faso», réseau inter agences sur les femmes et l'égalité de genre, groupe de travail sur les violences faites aux femmes, 66 p.
- KOENIG M.A., STEPHENSON R., AHMED S., JEJEEBHOY S.J., CAMPBELL J. (2006), "Individual and Contextual Determinants of Domestic Violence in North India", *American Journal of Public Health*, 96(1): 132-138.
- LARKIN J. (2000), "Women, Poverty and HIV Infection", *Canadian Woman Studies*, 20(3): 137-141.
- MASON K.O. (1994), "HIV transmission and the balance of power between men and women: a global view", *Health Transition Review*, 4(Supp.): 217-240.
- MINISTÈRE DE LA JUSTICE DU BURKINA FASO (1989), Code des personnes et de la famille, Ouagadougou, 224 p.
- MONDAIN N., LEGRAND T., DELAUNAY V. (2004), "L'évolution de la polygamie en milieu rural sénégalais: institution en crise ou en mutation ? ", *Cahiers québécois de démographie*, 33(2): 273-308.
- ORDIONI N. (2005), "Pauvreté et inégalités de droits en Afrique: une perspective genre", *Mondes en développement*, 129(1): 93-106.
- OUATTARA F., BATIONO B.F., GRUÉNAIS M-E. (2009), "Pas de mère sans un «mari ». La nécessité du mariage dans les structures de soins à Ouagadougou (Burkina Faso)", *Autrepart*, 52(4): 81-94.
- OYEDIRAN K.A., ISIUGO-ABANIHE U. (2005), "Perceptions of Nigerian women on domestic violence: evidence from 2003 Nigeria Demographic and Health Survey", *African Journal of Reproductive Health*, 9(2): 38-53.
- PALLITTO C.C., O'CAMPO P. (2004), "The Relationship Between Intimate Partner Violence And Unintended Pregnancy: Analysis of a National Sample From Colombia", *International Family Planning Perspectives*, 30(4): 165-173.
- PISON G. (1986), "La démographie de la polygamie", *Population*, 41(1): 93-122.

- POPULATION COUNCIL (2009), Etude qualitative sur le mariage précoce des adolescentes : leurs vécus, leurs besoins en matière d'éducation, de santé de la reproduction et d'opportunités socio-économiques, 52 p.
- RAHANIVOSON R., TOU F., MAUGET C., O. ROLLOT O., DIALLO A., LENCLUME V., RALAMBOSON B., RAVONIHARIMALALA R., DALBAN C., BOUSSAID K., AUDOUZE D., NATY N., BERTHE A., FIANU A., FAVIER F. (2012), *RRS: recherche-action pour la réduction des risques sexuels en direction des femmes au Burkina Faso et à Madagascar*. AFRAVIH, Genève. 219/40S. <http://afraviih.net/geneve2012/?cat=&s=RAHANIVOSON>
- RANI M., BONU S., DIOP-SIDIBÉ N. (2004), "An Empirical Investigation of Attitudes towards Wife-Beating among Men and Women in Seven Sub-Saharan African Countries", *African Journal of Reproductive Health*, 8(3): 116-136.
- THIOMBIANO B. (2009), Ruptures d'unions conjugales au Burkina Faso: causes et effets sur les femmes et leurs enfants, Thèse de démographie, Université de Montréal, 222 p.
- TOU F., BERTHE A., FAVIER F. (2010), Etude de l'impact en population du programme de «Réduction des Risques Sexuels» (RRS) du MFPPF et ses Associations partenaires au Burkina Faso, Cameroun et Madagascar, Journée Scientifique Site ANRS, Bobo Dioulasso, Burkina Faso.
- UNAIDS (JOINT UNITED NATIONS PROGRAMME ON HIV/AIDS), WHO (WORLD HEALTH ORGANIZATION) (2004), Women and AIDS, An extract from the AIDS: Epidemic Update, 20 p.
- UNIFEM (2011), Violence Against Women—Facts and Figures, www.unifem.org/gender_issues/violence_against_women/facts_figures.php (accessed Oct 25, 2013).
- UNITED NATIONS (1995), Report of the International Conference on Population and Development, Cairo, 5-13 September 1994, United Nations, New York, 193 p.
- UTHMAN O.A., LAWOKO S., MORADI T. (2009), "Factors associated with attitudes towards intimate partner violence against women: a comparative analysis of 17 sub-Saharan countries", *BioMed Central International Health and Human Rights*, 9(14).
- WATTS C., MAYHEW S. (2004), "Reproductive Health Services and Intimate Partner Violence: Shaping a Pragmatic Response in Sub-Saharan Africa", *International Family Planning Perspectives*, 30(4), 207-213.
- WHO (WORLD HEALTH ORGANIZATION) (1997), Violence Against Women: A Priority Health Issue, Geneva: WHO, 28 p.
- WHO (WORLD HEALTH ORGANIZATION) (2002), World report on violence and health, Geneva: WHO, 372 p.
- WOLFF B., BLANC A.K., GAGE A.J. (2000), "Who Decides? Women's Status and Negotiation of Sex in Uganda", *Culture, Health and Sexuality*, 2(3): 303-322.

Appendix: Data and sources

Table A – *Number of participants and response rates according to the type of area*

		Control		Intervention		Total	
		n	%	n	%	n	%
Households	Selected	383	100.0	449	100.0	832	100.0
	No women	23	6.0	60	13.4	83	10.0
	Surveyed	360	94.0	389	86.6	749	90.0
Women	In surveyed HH	360	100.0	389	100.0	749	100.0
	<i>Refusals</i>	9	2.5	15	3.9	24	3.2
	<i>Absent</i>	26	7.2	13	3.3	39	5.2
	<i>Other reason</i>	6	1.7	12	3.1	18	2.4
	Total no participation	41	11.4	40	10.3	81	10.8
	Participated	319	88.6	349	89.7	668	89.2

Source: KABP cross-sectional survey in villages surrounding Bobo-Dioulasso (Burkina Faso, 2008).

Note: among 383 selected households in the control area, 23 were not surveyed due to the absence of women of childbearing age (6%), 360 were surveyed (94%). One woman has been interviewed per household. HH = Households.

In the analysis, determinants taken into account are as follows:

- Type of union (Monogamous/Polygamous),
- Couple cohabitation (Yes/No),
- Partner's multiple partnerships: thinking one's husband/partner has at least another partner (No/Yes or do not know). For this variable, we grouped "Yes" and "Do not know" because very few women said "Yes" and a lot answered "Do not know". Furthermore, previous analysis showed that they answered in a similar way.
- Age: we divided our population into four age groups in the bivariate analysis (15-19; 20-29; 30-39; 40-49). In the multivariate models, age was considered as a continuous variable, after testing the linearity of the association with the dependent variables.
- Religion (No religion or other/Catholic/Muslim),
- Education (None/Primary or secondary),
- Employment status (Unemployed/Employed),
- Having one's own resources (No/Yes).

Pooling the data of intervention and control areas has allowed us to make analysis on the whole population surveyed. This was done because the objec-

tive of our analysis is not to evaluate the impact of the intervention. This decision proved not to influence the results. In particular, multivariate analyses show that the type of area (control versus intervention) has no significant effect on the results.

The calculation of percentages is design-based, as well as all results of regression analysis models.

The level of significance is equal to 0.05 (*), 0.01 (**) and 0.001 (***)).

Odds ratio (OR) value over 1 refers to determinants increasing sexual autonomy whereas a value lower than 1 refers to the adverse effect.