

Women to Women Marriages (*Nyumba Nthobhu*): Violence among Infertile Women in Mara Region, Tanzania

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Abstract

This paper examines women to women marriages (*nyumba nthobhu*) and its relation with gender-based violence (GBV) in Serengeti District of Mara Region. It also explores types of gender-based violence and consequences of women to women marriages among women, girls and children in the society. Both quantitative and qualitative data were collected. Questionnaire was used as a tool for quantitative data collection, while focus groups discussion and in-depth interviews were used as the main tools for qualitative data gathering. The study findings revealed that there are various forms of GBV practiced in Serengeti district such as wife batter, early marriage and women to women marriages involving the old infertile women and young girls. This type of marriage is practiced for continuity of the old women clan. The young girl is also the care giver of the old woman. Marriage between the two women is justified by the bride price paid before marriage; hence there is no intimate relationship between the two women. The man is selected from the clan of the old woman for reproduction purposes with the young woman. Gender-based violence are practiced before and after marriage to all individuals (old women, young girls, invisible husbands and children) involved. Consequences of women to woman marriage include the risk for contracting STIs, and poverty among women raising their children as single parents. It is recommended that lobbying and advocacy by traditional leaders would reduce some of cultural norms exacerbating gender-based violence.

Keywords: GBV, women to women marriage, infertile women, bride price

1. Background Information

Infertility among couples is as old as the history of human kind. Infertility is defined not conceiving for couples within the reproductive age, while regularly engaging unprotected sexual intercourse and presented for medical check up with no success two years (Pasi et al., 2011). However, Larsen (1997) defines infertility as the lack live birth in five years of exposure to risk of pregnancy. It is estimated that about 12% of married couple are suffering from infertility worldwide (WHO, 1992). It is estimated that globally, 60–80million couples suffers from infertility every year (Hass et al., 2011). Although men are equally affected by infertility, women are usually blamed as being the cause for infertility. In view of this, the effect of infertility discussed in this paper will focus on women as the direct victims. Women have been consistently blamed for couple infertility in Africa, including Tanzania. It is evident that infertility among women is becoming both health and social problem, which necessitated woman to woman marriage in some of the communities in Tanzania.

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Woman to woman marriage, as explained from a functionalist perspective, was used by patriarchy society to fill the gap interrupted by infertility. It was a means for an old woman who had already passed the child-bearing age without having a child, or a woman with girl children only to have a male child to continue her line and pass on the wealth for her clan. The old woman marries a younger one who will bear children for the former and her clan, and will complete the ongoing circle of reproduction (Strace, 2009). The local name defining women to women marriages among the Kurya is *nyumba ntobhu*, which literally means 'a house without a man'. This does not mean that relationship with men is not there; women involved in this type of marriage avoid an official and formal relationship with men, and remain with the informal and invisible relationship (Sikira, 2010).

An infertile woman, or a woman who gave birth to girl children only, believe that their family continuity will be interrupted since they do not have male children who would inherit their wealth and ensure continuity of their clan (Strace, 2009). Continuity has been considered to be the main reason for women to women marriage. The Kurya society believes that girl children once married would belong to another clan, and are not supposed to inherit any wealth from their biological parents. It is also believed that a male child is responsible for taking care of the mother in her old age. In view of this, women to women marriage is seen as a solution for future problems for infertile/women with girl children only. Apart from the need for continuity and social protection of the old woman, *nyumba ntobhu* marriage is also used by some women as sources of labour in order to accumulate wealth (Strace, 2009).

The woman proposing marriage must have wealth in the form of cattle for paying bride price. This means that a woman to woman marriage is justified by the payment of bride wealth. Based on this fact there is no marriage without the exchange of bride wealth among the Kurya, therefore, women to women marriage is not only confined to infertile or women with girl children only.

In addition to the functionalist perspective, the cultural based theory explains women to women marriages as a function of power relationship within a given cultural setting. The cultural based theory asserts that there is power of tradition and norms within African culture perpetuating GBV (Sokoloff & Pratt, 2005). Infertile women and women with girl children only suffer from psychological violence as they are seen as outcast in the society. As such, GBV is practiced by the husband, co-wives, in-laws and the community at large. Similarly, women having girl children suffer from psychological violence due to the premium placed on male children (son preference) (Nkya, 2003).

The cultural based theory explains consequences of women to women marriage as being a cause for gender-based violence as indicated in Fig. 1. Although women to women marriage were seen as solution to future wellbeing of the woman, it causes violence to individuals (Sikira, 2009). Based on the power of tradition and culture, infertile/woman with female children only is forced by the culture to marry a young girl who will reproduce sons for the continuity of their clan. The main focus of this paper is to explore the consequences and gender-based violence practiced in women to women marriage in Serengeti District. The paper, therefore, answers the following

questions: What are the causes for women to women marriages among the Kurya? Is gender-based violence practiced within the *nyumba ntobhu* type of marriage? What are the consequences of women to women marriages?

Fig. 1 explains, conceptually, how infertile women are culturally allowed to marry young girls for the purpose of having children and sons who will take care of them in their old ages.

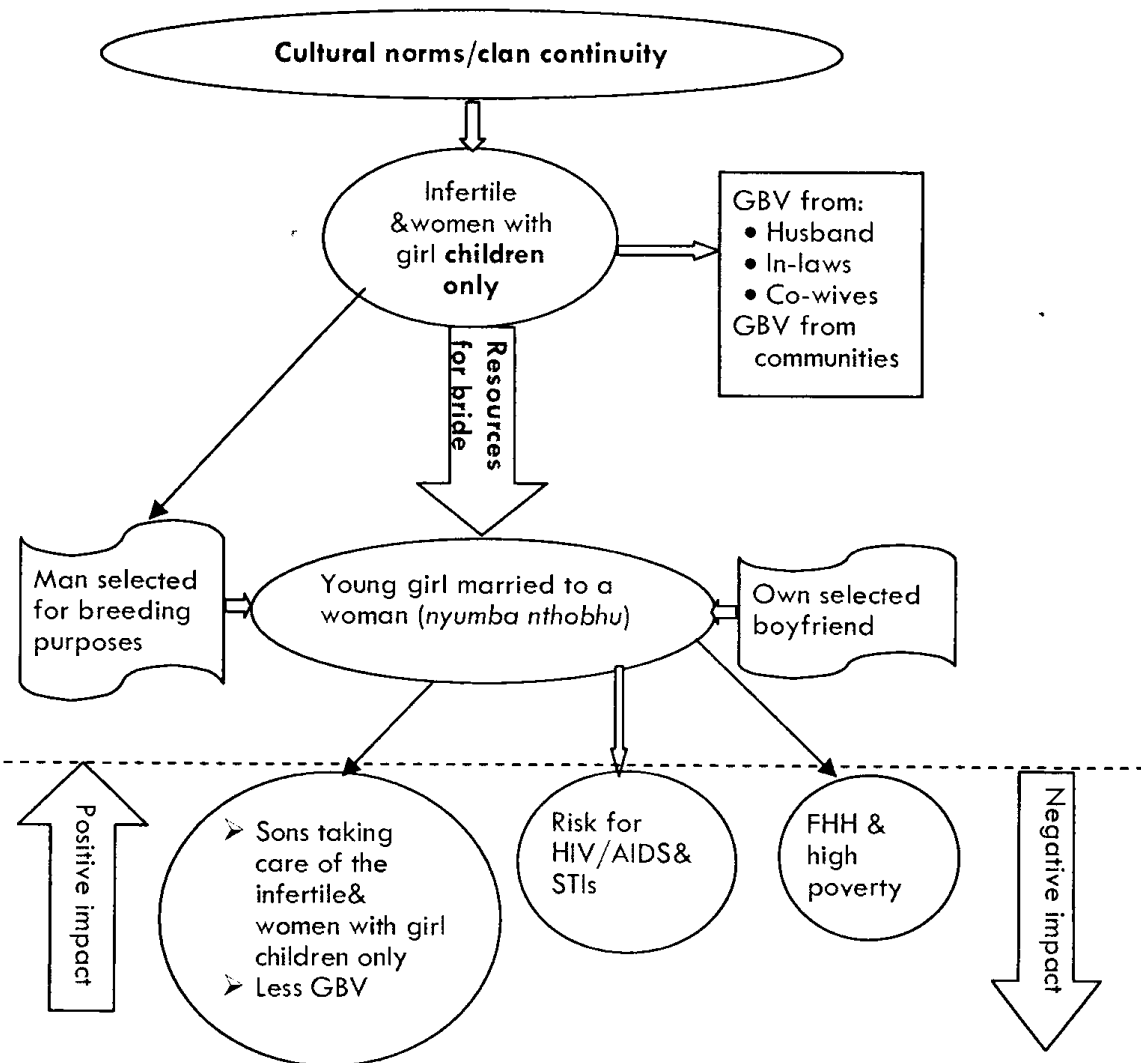


Figure 1: Conceptual Framework Showing Causes and Impact of Women and Women Marriage in Serengeti District

Culturally, this type of marriage is legitimized by paying bride price to the parents of the young girl. From the conceptual framework, the old woman has to select a man from her own clan to act as the husband for the purpose of reproducing children. However, the young girl is free to have love affairs with another man of her choice. This is the reason pushing young women into *nyumba ntobhu* as there is no control from men. As indicated in Fig. 1, there are positive consequences, such as when the young girls bear

children (girls and boys) for the continuity of the clan and take care of the old woman. On the other hand, there are negative consequences, such as high risk of contracting HIV/AIDS for the young girl and her partners. Furthermore, being a female headed household (FHH), *nyumba ntabhu* is characterized by high poverty level, especially after the death of the old woman as indicated in the conceptual framework.

2. Methodology

2.1 Study Area

Serengeti District is one of the five districts of Mara Region, others being Tarime, Bunda, Rorya and Musoma. The Kurya are the main ethnic group in the district; and are mainly agro-pastoralists. Culturally, the Kurya are keen adherents of traditional customs and practices, including women to women marriages. The Luo are the second main ethnic group in the area, and are also mainly agro-pastoralists. The Luo also firmly uphold their cultural beliefs, including widow cleansing and early marriage for girls. The major economic activities in the district include farming, livestock keeping, small business enterprises, small scale industries, local artisan mining, employment in various organizations, conventional tourism and ecotourism (URT, 2006). According to the National census of 2002, the total population in Serengeti District was 191862: 100322 were women, and 91540 were men (URT, 2002).

2.1 Justification of the Study Area

Serengeti District of Mara region was selected because of the high prevalence of GBV, as it is among the leading five regions in Tanzania with this practice (Aboud, 2004). Others are Manyara, Arusha, Dodoma and Kilimanjaro. Furthermore, Serengeti District is a bit land-locked compared to other districts in the region, therefore most of researches on GBV has been conducted in other regions such as Manyara, Arusha and Kilimanjaro, while little has been done in Serengeti District. Furthermore, TACAIDS et al. (2008) asserts that Mara region is one of the areas with high prevalence in HIV/AIDS.

2.2 Sample Size Determination

Using a multistage sampling for cross-sectional data collection, three divisions were purposively selected and two wards were randomly picked from the Rogoro Division, while one ward was randomly selected from each of the two divisions (Gurumeti and Ikorongo), making a total of 4 wards. Two villages were randomly selected from each ward, making a total of 8 villages for the study. To obtain respondents from each village, a group of men and women aged 15 and above of different marital statuses were gathered through the assistance of village leaders. Sampling was done randomly; and the sample size (398) was determined using Cochran's formula as indicated in Appendix 1. However, due to budget constraints, the sample size was then reduced to 240 based on the description given by Bailey (1994), where a sample or sub-sample of 30 respondents is the bare minimum for studies in which statistical data analysis is to be done.

2.3 Data Collection

Both quantitative and qualitative data were collected. The tool used in collecting quantitative data included semi-structured and structured questionnaires. Qualitative data was collected through focus group discussion and in-depth discussion.

2.3.1 Selection of Key Informants

Purposive sampling was used to obtain 29 key-informants (men and women) working with NGOs, government officials, including the local government authority. Purposive selection based on the role they perform in the district, as indicated in Table 1. These included the district community development officers, district medical officers, rural medical officers and the nearest police officers. These were visited and interviewed individually. Ward executive officers (WEOS), village executive officers (VEOS), village agricultural extension officer (VAEOs), and the representatives from NGOs working in the area were interviewed at the ward office. These were used to clarify some of the information acquired through other methods.

Table 1: Key informants participated in the study

Attribute for selection	No. of respondents
District Medical officer	1
District community development officer	1
District Planning Officer	1
Rural medical officers	2
Police officers	3
Ward executive officers	4
Village Executive Officers	8
Village Agricultural Extension Officers	8
Representatives from NGOs working in the area	1
Total	29

2.3.2 Selection of Respondents for Focus Group Discussions (FGDs)

Six to nine participants were purposively selected from each village to represent the entire community. According to Krueger (2006), a focus group works better when the participants are few, and the moderator asks few questions. Participants in FGDs included women married in *nyumba ntobhu*, GBV victims known by the village leaders, FGD non-victims, and traditional leaders.

Two FGDs of women and men were conducted separately, making a total of 16-18 participants for each village as indicated in Table 2. Information collected included the importance of women to women marriages among the Kurya, consequences of *nyumba ntobhu* marriages, and the changes they have gone through. FGDs aimed to get detailed information on the cultural norms and practices related to *nyumba nthobhu* marriages.

Table 2: FDG participants

Name of village	Number of FGD	Men	Women
Nyamakendo	2	4	3
Machochwe	2	3	5
Miseke	2	4	6
Rwamchanga	2	4	4
Nyamisingisi	2	3	3
Issenye	2	3	6
Maburi	2	4	5
Nyambureti	2	3	4
Total		28	36

2.3.3 Selection of Respondents for In-Depth Discussion

Participants for in-depth discussion were women married in *nyumba ntobhu* (the young and the old), and the men involved in this kind of marriage. These were selected using Snowball technique in which the first respondent identified the second respondent affected with similar form of violence. The first respondent was purposively selected by the assistance of village leaders. Two to three participants were involved in the discussion from each village, making a total of 16-24 participants. According to Shrader (2001), it requires an in-depth discussion to get the intended information on sensitive issues such as power relations within the *nyumba ntobhu*, challenges, and opportunities. This type of information was collected by the researchers alone because of the sensitive nature of issues, and the fact that the respondents involved were few (16-24). The collected information included life stories of the respondents, and the types of GBV practised within the *nyumba ntobhu*.

2.4 Data Analysis

2.4.1 Quantitative Data Analysis

The information collected through questionnaire was processed and analysed using the Statistical Package for Social Sciences (SPSS) computer software. The quantitative data were analyzed descriptively to obtain the means, percentages and frequencies of the various variables. These were used to construct frequency distribution tables for the interpretation of the results.

2.4.2 Qualitative Data Analysis

Qualitative information obtained through observation, verbal discussion, reports and other documents were analysed using content analysis. With content analysis, the recorded discussion was broken into units of information or themes to synthesize meaning, values and perception.

3. Results and Discussion

3.1 Socio-Demographic Characteristics of Respondents

3.1.1 Age of Respondents

Minimum age of respondents was 15 years, and the maximum was 82 years; while the mean age was 33 years, indicating that the study cuts across all age groups starting from those who are not yet married up to the very old women. For example, Table 3 indicates the largest proportion (21%) of women's age ranged from 25–29 years, implying that the majority of the respondents were young and in their active reproductive age. About 19.1% of the women were at the age range of 30–34; and 17.9% were at the age range of 20–24 years. Furthermore, Table 3 indicates that the largest proportion (71.1%) of respondents were married, reflecting the fact that married women are respected among the Kurya society. The study findings also indicate that 11.7% of the women were widowed, and 7.9% were not married (single) (Table 3). Since the study cuts across all age groups, single women were mainly girls, and a few women who had never been married.

The minimum and maximum years of schooling were zero and 12 years, respectively; while the average number of years of women at school was 7. Table 3 indicates that 73.9% of the respondents had completed primary schools, in line with government

Table 3: Social Demographic Characteristics of Respondents

Marital status	%	n= 240	Religion	n=240	%
Married	71.7		Christians		90.8
Widowed	11.7		Do not belong to any		7.1
Single	7.9		Muslim		1.7
Divorced	4.2		Tradition		0.4
Separated	4.2				
Cohabiting	0.4				
Education n=240			Age n=240		
7 years	73.9		15-19		16
Below 7	11		20-24		17.9
Secondary	6.7		35-39		12.0
Not educated	5.0		40-44		5.6
Below 4years in secondary	2.9		45-49		4.8
Standard 8	0.4		50-54		1.4
Minimum	0		55-59		1.2
Maximum	12		Above 60		1.0

cy that requires all school-going children to enrol in primary education. From the findings presented in Table 3, about 11% of the girls who were in school did not complete primary school education because of early pregnancy and marriages, among other things. A very low percentage (6.7%) of the girls had access to secondary school education. The findings further indicate that 5% of the women had no formal education. This can slow down the process for fighting against gender discrimination and cultural beliefs such as women to women marriages.

A majority (90.8%) of respondents were Christians, while few had no religious affiliation (Table 3). Participants were asked about how religion influences the marriage institution. They reported that Christians believe in the myth of the creation that Eve was taken from Adam's ribs; and as such some of the Christians who were committed to their marriages believed that women must be under the control of men. This is in agreement with what Lentz (1999) observed that women are obliged to respect orders from men under the patriarchy system and this was supported by religious institutions.

1.2 Age at First Marriage

The results, as presented in Table 4, indicates that majority (69.2%) of women were first married at the age of 15–18 years, which is below the estimated age of 19.8 for Maragion (URT, 2006). Early marriage imply long period in violent relationship. Further, the study shows that 24.6% of the women were married at the age between 19–21 years.

Table 4: Age at First Marriage

Age category	%
15-18	69.2
19-21	24.6
22-25	3.2
26-29	3.0
Total	100

These findings conform to the observations by TGNP (2004), which reported that some of the girls were expelled from school due to adolescence pregnancies and early marriages. However, the Tanzanian Marriage Act of 1971 allows girls of 15 years to get married, which is contrary to the constitution of Tanzania. The constitution states that the maturity age of 18 years gives one the right to choose leaders and the type of life one would want to live. That is why there have been campaigns to increase the age of girls at first marriage to allow them more time for to mature, and complete at least the compulsory primary school education.

3.2 Forms of GBV in the Study Area

During FGDs, participants provided the meaning of GBV, which was satisfactory to all the discussants. Under the guidance of the researcher, gender-based violence was given an operational definition as a form of violence occurring to women and girls. Such forms include wife battery, deprivation from access to and control over productive resources, female genital mutilation, and woman to woman marriage.

3.2.1 Wife Battering

In all the eight villages, women discussants negated the famous myth that wife battering is a sign of love in Serengeti district. They argued that beating may result into injuries and permanent disabilities; therefore nobody enjoy being beaten. On the other hand, when asked to clarify the myth, some male discussants admitted that normally women enjoy being beaten because it is associated with jealousy, assuming that men must beat their wives to prove that they love them. A majority (85%) of women in Serengeti district agreed that wife battering is the most frequent occurring GBV. This is an indicator that some abusive men use the false myth to justify GBV. This is in line with Kim *et al.* (2007) observation that in some of the African cultures, men are respected by the society by being able to exercise power over their wives through beating.

3.2.2 Early Marriage

FGDs revealed that young girls in Serengeti are forced by their parents to marry old men who are not of their choice. Through probing, FGD participants revealed that forced marriages are sometimes caused by the need for bride wealth. In conformity with Sikira (2010), about 61% of the respondents said that early marriages prevail in Serengeti District. Girls are married in order to solve some financial difficulties at their biological parents. After marriage, young mothers normally experience different forms of violence. One of the discussant at Machochwe village was quoted saying:

"I was terminated from school when I was in class six to marry an old woman because my parents wanted bride wealth to pay for my brother's marriage. Since I was not interested in marrying old women, soon after marriage I abandoned the old woman and married to a man of my choice"

3.2.3 Female Genital Mutilation (FGM)

Focus group discussants revealed that FGM is still practiced in Serengeti district; and serves as a promotion exercise for girls to indicate that they are ready for marriage. This is done because girls are regarded as sources of income through bride price. Further, discussants ascertained that FGM is a sign of maturity. As per Sikira (2009), about 44.4% respondents supported the statement that FGM is practiced in Serengeti.

3.2.4 Widow/ Widower Cleansing

Widow/widower cleansing is a cultural ritual that is practiced after the death of the husband/wife. FGD participants reported that the process of ritual cleansing is done through sexual intercourse with someone who is not known to the widow, or who is not a close relative of the deceased husband. These findings conform to those of Malungo (2001), which reveals that sexual penetration is a way of cleansing widows in Zambia.

3.2.5 Women to Women Marriages in the Study Area

It was revealed during FDGs that women to women marriages are commonly practiced in Serengeti. Men married to infertile women are culturally advised to marry a more than one wife. The barren/women with girls' children only are advised to marry a young girl for the purpose of getting (male) children. During one in-depth discussion, a woman married to a young girl at Nyamisisi village revealed that her aim was that the girl who will take care of her and her wealth in old age. This is in line with findings by Strace (2009) that old women engaged in women to women marriages with the aim of getting someone to take care of their resources in old age.

On the other hand, young girls accept marriage to old women to solve financial difficulties facing their biological parents in the form of bride price. There is no marriage without bride price among the Kurya. An old woman must work hard to accumulate resources for paying bride price. If in one way or another she fail to accumulate enough wealth, she asks for a loan from her brothers in the form of cattle. The old woman acquires the rights over the younger woman after paying the bride price, and the young girl so married must act according to the old woman's orders. Similarly, bride price gives the right to the young girl to have access to the old woman's resources. However, even if the bride wealth ties a young girl to an old woman, sometimes they divorce and marry to other men of their choice. Chausiku, a woman married to an old woman in Machochwe, was quoted as saying: *"I accepted marrying an old woman in order to avoid quarrels and constant blames from my parents as they wanted bride price. After they received it I decided to quit from the old woman's home."* Strace (2009) reports similar cases where old women had to re-marry after the first wife ran away.

3.2.6 Actors in the Women to Women Marriage

(a) The Invisible Husband

Before a marriage, an old woman must ask for a man from her clan to serve as a husband for the young girl (the invisible husband); and who will be regarded as the son of the old woman and hence. In this sense, the young girl will be regarded as daughter-in-law. Therefore, from this point of view, there is no real marriage between the two women. Marriage is defined through the paying of bride price, and not by intimate relationship between the two women. The role of the selected man is to impregnate the young girl. However, the children born out of this marriage will belong to the old woman who paid the bride price; and will use her name as their family name. The man chosen must have his own wife, and have no control over the young woman married to the old woman. Apparently, young women in such marriages are free to have sexual relationship with other men of their choice. During FDGs, participant reported that in most cases the young women re-marry as second or third wives after divorce. Such types of marriages are believed to contribute to the spread of sexually transmitted diseases including HIV/AIDS.

(b) The Visible Husband (The Old Woman/Infertile)

The older woman intending to marry a young girl is responsible for taking care of the young woman and the children as well. The older woman is forced by the culture to marry as her husband, and the community at large, scorn her since she either cannot bear children, or give birth to baby girls only. This was confirmed by a woman discussant during in-depth discussion, who said: “My husband and in-laws scorned on me saying that I am a useless woman for not bearing children. After ten years, my husband married to another woman who bears children. Another one lamented that: “My co-wife also scorned me, and the entire society also saw me as an outcast until I opted for a nyumba ntobhu marriage.” Although there was no physical violence mentioned, these women suffer from psychological violence especially when one lacks the bride wealth to pay for the young girls. On the other hand, participants reported that old women who marry young girls are unable to take care of these young girls. One in-depth discussant at Rwamchanga village reported that in some (rare) cases, young women conspire with their boyfriends to kill the old women in order to inherit their wealth. This happens mainly to barren women with a lot accumulated wealth.

(c) The Young Girl

Some young Kurya girls prefer women to women marriages to avoid violence from male partners. Some are forced into such marriages to avoid quarrels from their biological parents. One example is that of Chausiku, who decided to respect her parents’ wishes by accepting such a marriage; but thereafter ran away from the old woman’s home to marry a man of her choice. From the discussion with key informants, it was evident that parents with girl children regard themselves as being rich because of the anticipated bride wealth. We should mention here that a so-married young woman is responsible for taking care of her children as a single parent when the old woman dies or become incapable of taking care of the family.

3.3 Frequency of Occurrence of Some of the GBV

The respondents were also asked to report the frequency of occurrence of some of the common GBV in the area. Wife battering was reported by the biggest percentage (16%) of respondents; hence it was the most frequently practiced form of GBV (Table 5). Deprivation of basic needs for the family was mentioned by 15.4% of the respondents; followed by early marriage (13.3%); and women to women marriages (11.4%).

Table 5: Frequency of Occurrence of Some Forms of GBV

Forms of GBV	n	Sum	%
Wife beating	217	872	16.0
Deprived basic necessities	208	837	15.4
Early marriage	164	725	13.3
Marital rape	145	693	12.7
FGM	170	685	12.6
Married to fellow women	151	623	11.4
Lack of inheritance of resources after the death of husband	172	581	10.7
Forced sexual intercourse by in-laws	138	430	7.9
Total		5446	100.0

4. Conclusion and Recommendation

4.1 Conclusion

Based on the functionalist perspectives, the main reason for women to women marriages is to enable older infertile women/women-with-girl-children only to have (male) children for the continuity of their name and the clan. However, this paper indicates that currently this is not the only reason for women to women marriages as the younger women are regarded as caretakers of the old women. Young women agree marrying old women in order to inherit wealth after the old woman die.

Similarly, some young girls marry old women because of the bride price paid to their parents. In view of this, we dispute the myth that there is marriage between two women as it is commonly advocated by the communities, development actors, politicians and gender activist in Serengeti District. What is prevailing are just agreements between the parents of young girls to allow their daughters to live with the old women and bear children. The 'marrying' old women are regarded as a mother in-laws because of the bride price paid to the young girls' parents. Thus, the power of bride price gives the old woman the power to control the young woman in a similar way as men do to their wives. This reconfirms the feminist ideology (radical feminism) on femininity being the cause of gender discrimination since in this case the old woman exerts masculinity power over the young woman.

Furthermore, a woman to woman marriage is an uncertain relation that can end at any time, causing more frustrations to the old woman. In rare cases the old woman can end up being killed by a young woman's boyfriend so that the young woman inherits wealth.

A woman to woman marriage, as practiced among the Kurya, is a source of psychological and economic violence to the young woman when she becomes the only breadwinner after the mother in-law (old woman) dies or ceases to work because of age. Young girls in such relationships, therefore, can engage in intimate relationship with other partners as a solution of economic constraints, something that places them in high risk of contracting the HIV/AIDS. Similarly, women to women marriages encourage single parenting and poverty among women in the society.

4.2 Recommendations

A majority of women experience various form of GBV, such as physical violence in the form of wife battery in Serengeti District. This is mainly due to stereotypic thinking of men towards masculinities, which is reinforced by norms and customs. These norms create powerful incentives for people's behaviour of becoming perpetrators and victims of GBV. However, these stereotypes can change through awareness creation among women and men to create the 'power within', which would improve the internal confidence of women and men to bring about changes through the socialization of both girls and boys at household levels. Thus, the challenges are on the government institutions like the community development offices, CBOs, faith based organizations (FBO), and NGOs working with local communities to empower communities (men and women) in various aspects related to gender relations.

GBV is assumed to be exacerbated by cultural norms. Therefore, a formulation of community based organizations (CBOs) would stimulate the process of changing some of the cultural practices such as widow/widower cleansing, paying of bride price, and marriage between women. This would be enhanced by lobbying and advocacy by traditional leaders, and through the use of by-laws.

Since there were high levels of early marriages reported in the area, the government, through the Ministry for Community Development, Gender and Children, should come up with guidelines that could lead into the formulation of policies guiding these young mothers to attend school after delivery. Similarly, some of the outdated laws, such as the Tanzanian Marriage Act of 1971, which allows marriage of girls aged 15, should be amended because the Act makes girls lose their education opportunities.

4.3 Areas for Further Research

Further studies are needed to explore how women can be protected against violence, while at the same time safeguarding their marriage and culture. Also, the attitude of men selected for breeding purposes under *nyumba nthobhu* marriage arrangements should also be assessed.

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Appendix 1: Sample size Determination Using Cochran's Formula

The sample size was determined according to Cochran's formula based on level of precision, degree of confidence and variability of the population as described hereunder:

$$n = \frac{N}{1} = N(e)^2$$

Where:

n = Sample size

N = The population size

e = The level of precision or sampling error, this is the range in which the true value of the population is estimated to be. It is often estimated in percentages 5/100.

Based on the above equation, the sample size was determined to be 398 respondents.