

Culture and domestic violence amongst ever-married women in Malawi? An analysis of emotional, sexual, less severe physical and severe physical violence.

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Abstract

As many as 42% of ever-married women have experienced some form of physical, sexual or emotional violence perpetrated by their current or most recent spouse in Malawi, higher than the global estimate at 35% (NSO-Malawi & DHS-Program, 2017; WHO, 2017). Previous studies on the linkages between gender based violence or violence against women and culture in Malawi have been limited to a few selected districts with analysis being largely descriptive (Bisika, 2008; MHRC, 2006). No study has investigated associations between cultural factors and violence against married women across the whole population in Malawi by type of domestic violence. In this study, we use the latest national level data from ever married women aged 15 to 49 years to explore the association between cultural factors and the likelihood of married women experiencing sexual, physical and emotional violence after controlling for socio-economic factors using multilevel logistic regression modelling. Key cultural factors associated with violence against women were type of marriage (polygynous or monogamous), age at marriage, religion and ethnicity. Husband's consumption of alcohol also emerged as a very important attribute of violence against married women. Interventions to tackle violence against married women in Malawi should aim at promoting monogamous marriages and discouraging polygynous marriages and the culture of heavy alcohol consumption amongst husbands. Future studies could explore further if there are key lessons that families can learn from Muslim families and across ethnic groups.

Introduction

As many as 42% of ever-married women have experienced some form of physical, sexual or emotional violence perpetrated by their current or most recent spouse in Malawi (NSO-Malawi & DHS-Program, 2017). The estimate of domestic violence in Malawi is much higher than the global percentage estimated at 35% (WHO, 2017). Some customs and cultural practices in Malawi could contribute to normalisation of intimate partner violence. For example, religious institutions in Malawi do not recognise marital rape and it is understood that when a woman signs the marriage contract, she gives consent to sex throughout her married life (Kanyongolo & Malunga, 2011). A recent study indicates concordance between men and women in Malawi in their perception that women do not have the right to refuse sex from husbands (Kaminaga, 2017). A good percentage of women in Malawi think the husband is justified to beat their wife for at least one of the following reasons, *if the wife burns food, argues with husband, goes out without telling him, neglects children or refuses sex* (NSO-Malawi & ICF_International, 2016). Nevertheless, there are regional variations in the reported justifications. The latest national level study indicates that the highest percentage is in the Northern region (24.9%) followed by the Central region (16.7%) and the lowest is in the Southern region (13.9%). Although the rank and order is not replicated in the regional variation for the level of spousal violence, the Southern region reported the lowest level of violence at 37% and the level of spousal violence was highest in the Northern and Central regions (47%) vindicating the work of earlier studies that acceptance of intimate partner violence is both a barrier to its reduction and a strong predictor of its prevalence (Alio et al., 2011; NSO-Malawi & ICF_International, 2016).

Although patriarchy and dependency theories suggest that economic and social processes that support the patriarchal order contribute to women inferiority and increase their potential of suffering from domestic violence, a study in eight African countries that included Malawi suggests that cultural factors/customs such as having multiple partners may be more

important to domestic violence than socio-economic status (Alio et al., 2011; Andersson et al., 2007; Dobash & Dobash, 1979; Hyde-Nolan & Juliao, 2011). Culture can be defined as the general customs and beliefs of a particular group of people at a particular time. It is the characteristics and knowledge of a particular group of people, encompassing language, religion, cuisine, social habits, music and arts (Hanson, 2013). In Malawi, the importance of culture is enshrined in the Malawi Constitution section 26 which recognises that every person shall have the right to use the language and to participate in the cultural life of his or her choice (UNFPA, 2012). The strength of culture in supporting and legitimising gender inequality is a subject of debate in contemporary times. Feminists argue that culture is highly gendered and embeds structural inequalities through society (Anderson, 1997; Renzetti et al., 2001). Malawi is no exception, socio-cultural factors such as polygyny, dowry and male heading households have been linked to domestic violence (Bisika, 2008). In addition, it has been argued that religion just like culture is a powerful institution within a society which plays a major role in shaping gender roles, social rules and behaviours (Inglehart & Norris, 2003). Most women in Malawi accept domestic violence as a family affair and are less likely to report it (Pelser et al., 2005). A study on attitudes towards wife beating in Benin, Ethiopia, Malawi, Mali, Rwanda, Uganda and Zimbabwe revealed that more women than men perceive wife beating as justified (Rani et al., 2004). In this study, secondary education and household wealth were important predictors of non-acceptance of wife-beating, suggesting that socio-economic status may modify the extent to which cultural factors influence domestic violence.

One custom that emanates from poor socio-economic status commonly practised in Malawi is early/child marriage. Early marriage is marriage that occurs when one or both partners are less than 18 years of age (UNFPA, 2012). At 47%, Malawi's level of girl child marriage is ranked 11th globally (GoM-AFIDEP, 2017; NSO-Malawi & ICF_International, 2017). In contrast, only 8% of boys marry before the age of 18 in Malawi which indicates that most

girls are marrying men that are much older than themselves (NSO-Malawi & ICF_International, 2017). A study across 30 countries found that the average age of first abuse for women is 22.1 years, entailing that women are more likely to encounter their first abuse when they are young adults (Peterman et al., 2015). But the association between spousal age difference and violence against women may differ across populations; showing a protective effect against domestic violence in Nigeria but elevating the risk of women suffering intimate partner homicide in the United States (Adebowale, 2018; Breitman & Schackelford, 2004). In Malawi, most early marriages are forced marriages due to the practice of wife inheritance or parents using that as an opportunity for improving their poor socio-economic conditions and such practices are common in communities that practice polygynous marriages (MHRC, 2006). Early marriage has been linked to domestic physical violence in India (Pallikadavath & Bradley, 2018).

Although polygyny is a common cultural practice across all ethnic groups in Malawi, it is predominant in the Northern region amongst patrilineal communities (Berge et al., 2013; Chikhungu et al., 2014). In polygynous marriages, first wives get less support and attention from their husbands once their husbands acquire a new wife (MHRC, 2006). The patrilineal communities in the Northern region also practice bride price (*lobola*), which is a cultural practice where the groom's family makes a payment to the bride's family in kind, cash or material upon marriage to make the union legitimate (Oguli, 2004). Gray (1960) asserts that bride price payment reduces women to the status of a property owned by the husband such that they are unable to defend and control their bodies. Most communities in the central and southern regions are matrilineal. A common characteristic of matrilineal societies is higher autonomy amongst women which leads to higher divorce rates than their counterparts in the patrilineal societies (Arnado, 2004; Takyi & Gyimah, 2007). Unsurprisingly, the Southern

region of Malawi has a relatively larger percentage of female headed households (28%) compared to the Central region (21.2%) and Northern region (19.9%)(NSO-Malawi, 2012).

Although not a cultural factor per say, heavy alcohol consumption has been commonly linked to domestic violence across the globe but the impact of alcohol consumption on behaviour is said to vary across societies (Brecklin & Ullman, 2002; Gilchrist et al., 2003; McKinney et al., 2009; SIRC, 1998). Evidence based on cross-cultural research and controlled experiments indicate that the effects of alcohol on behaviour are largely determined by social and cultural factors rather than the effect of ethanol within it. Societies hold different expectations about the effects of alcohol and social norms regarding the drunken state (SIRC, 1998). It has been established that alcohol is only an enabler of certain culturally given drunken states with some societies across the world displaying little aggression after consuming alcohol and others showing aggression only in specific drinking contexts or against selected categories of drinking companions(Heath, 1983; Marshall, 1983). In Malawi a modest percentage (14.5%) takes alcohol but significantly more men drink alcohol (27.3%) than women (1.6%)(ADD, 2013).

Previous studies on the linkages between gender based violence or violence against women and culture in Malawi have been limited to a few selected districts with analysis being largely descriptive(Bisika, 2008; MHRC, 2006). No study has investigated cultural factors that are associated with various types of violence against married women across the whole population in Malawi. In this study, we use the latest national data in Malawi to explore the association between cultural factors and the likelihood of married women experiencing sexual, physical and emotional violence after controlling for socio-economic factors.

Methods

The analysis used data from women aged 15 to 49 years from the Malawi Demographic and Health Surveys (DHS) of 2015. The woman's questionnaire collected information from 24,562 women out of 25,146 women aged 15 to 49 years that were eligible for the interview representing a 98% response rate. One third of the sampled households received domestic violence questions (6,379 household). Specifically constructed weights were used to adjust for selection of only one woman per household to ensure national representativeness. The domestic violence module collected data on different types of violence; physical, sexual and emotional. The survey also provided information on background characteristics including household wealth status and demographic characteristics of all household members such as age, sex and relationship to household head. Further details of study design and data collection are reported on the National Statistical Office of Malawi website: <http://www.nsomalawi.mw/>.

Variables of Analysis

Dependent Variable/s: We analysed four types of domestic violence; sexual, less severe physical, severe physical and emotional. The dependent variable was binary, a woman that experienced any of the four types of domestic violence took the value 1 and 0 otherwise. The four types of domestic violence were defined as follows:

Sexual violence: Ever being forced by their partner or husband to have sexual intercourse when they did not want to or been forced to perform a sexual act that they did not want.

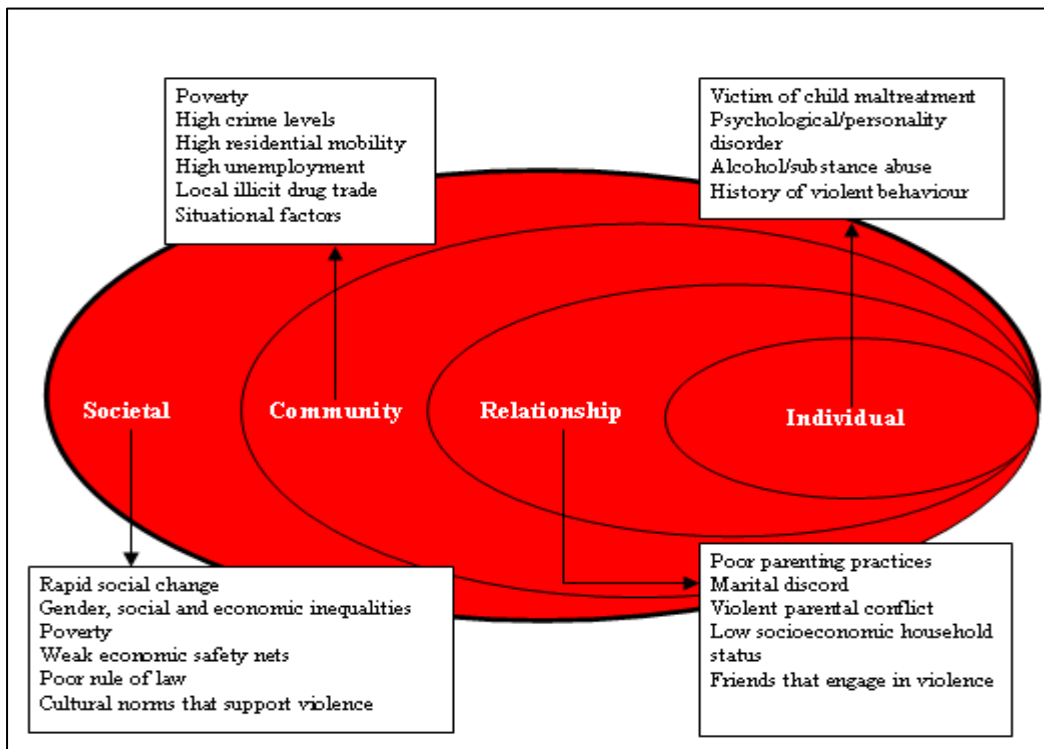
Emotional violence: Ever been insulted or made feel bad about herself by their husband or partner, been humiliated in front of others or been ever threatened, hurt, or harmed someone that the respondent cared about.

Less severe physical violence: Being physically harmed by their partner or husband such as ever been pushed, shaken, ever been slapped or punched with a fist or hit by something harmful, ever had their arm twisted or hair pulled or having something thrown at them.

Severe physical violence: Ever been kicked, dragged, strangled, burnt or ever been threatened with knife/gun or other weapon by their husband or partner.

Independent variables: The study of associates of domestic violence are best conceptualised through the ecological model of violence (Carson, 1984) commonly used by the WHO Violence Prevention Alliance shown in figure 1 (WHO, 2018). Of key relevance to this study is the societal level which recognises factors such as gender, social and economic inequalities, poverty, and cultural norms.

Figure 1: The ecological framework: examples of risk factors at each level



Source: WHO(2018) The VPA approach

<http://www.who.int/violenceprevention/approach/ecology/en/>

The choice of cultural and socio-economic variables was guided by ecological framework of violence and empirical scholarship on factors associated with domestic violence discussed in the introduction and data available in the 2015 Malawi Demographic and Health Survey. The initial bivariate analysis explored if there exists an association between any form of domestic violence and the following respondent's characteristics: current age, age at cohabitation, level of education, place of residence, region of residence, religion, ethnicity, spousal age difference, husband's alcohol consumption, age at first sex, current occupation and type of marriage (including respondent's rank among other wives for polygynous marriages). Table 1 presents the independent variables that are included in the final models.

Table 1. *Distribution of background characteristics*

Background Characteristic	% Distribution	Number of women
Cultural factors		
<i>Ethnicity</i>		
Chewa or Mang'anja or Nyanja	34.74	1,878
Tumbuka or Nkhonde or Tonga	14.28	772
Lomwe	18.63	1,007
Yao	12.08	653
Sena	4.77	258
Ngoni	12.28	664
Others	3.22	174
<i>Religion</i>		
Christian	88.07	4,761
Muslim	11.93	645
<i>Descendants</i>		
Patrilineal	19.74	1,067
Matrilineal	80.26	4,339
<i>Wife rank</i>		
Only wife	89.42	4,834
First wife	4.92	266
Second or higher order wife	5.66	306
Woman's socio-economic status		
<i>Woman's level of education</i>		
No education	14.06	760
Primary	64.02	3,461
Secondary and tertiary	21.92	1,185
<i>Woman's Occupation</i>		
Not working	27.12	1,466
Self-employed in agriculture	42.93	2,321

Unskilled employed	15.89	859
Skilled employed	14.06	760

Table 1. *Continued, Distribution of background characteristics*

Background Characteristic	% Distribution	Number of women
Demographic factors		
<i>Current age</i>		
15-19	7.05	381
20-24	22.42	1,212
25-29	21.81	1,179
30-39	32.65	1,765
40-49	16.07	869
<i>Age at first Cohabitation</i>		
13 years or less	5.77	312
14 to 17 years	45.14	2,440
18 years or more	49.09	2,654
<i>Age at first Sex</i>		
13 years or less	8.45	457
14 to 17 years	57.99	3,135
18 years or more	33.56	1,814
Geographical factors		
<i>Place of residence</i>		
Urban	18.41	995
Rural	81.59	4,411
<i>Region</i>		
Northern	18.52	1,001
Central	34.04	1,840
Southern	47.45	2,565
Husband's characteristics		
<i>Husband's education level</i>		
No education	10.62	491
Primary	53.89	2,491
Secondary and tertiary	35.48	1,640
<i>Husband's occupation</i>		
Not working	9.74	450
Self-employed in agriculture	35.68	1,649
Unskilled employed	22.54	1,042
Skilled employed	32.04	1,481
<i>Husband's alcohol consumption</i>		
Doesn't drink	70.05	3,787
Drinks sometimes	19.18	1,037
Drinks often	10.77	582

Statistical Analysis

Data was analysed using a statistical package called STATA version 14.0. Sampling weights were used to account for the unequal probability of selecting a survey respondent. To describe the proportional distribution of the survey respondents, cross tabulations were performed and Chi-Square test of association was performed to examine the association between the domestic violence variables and the cultural, demographic, geographic, socio-economic variables and husband characteristics. Chi-square tests of association were performed instead of correlation tests or other measures of associations because the data are categorical (Rea & Parker, 2014).

The final analysis used multilevel logistic regression modelling to estimate the odds ratios (OR) of a woman experiencing domestic violence for women of particular cultural traits after taking into account background characteristics that were statistically significant in the Chi square test of association. Multivariate analyses are able to identify characteristics associated with experiencing domestic violence net of other factors, whereas multilevel modelling ensures that estimates are robust in hierarchical data such as those use in this study and where the factors being studied vary significantly at a higher level e.g. community. In the models where significant variation of domestic violence exists at the community level, the fixed effects estimates are representative of the community level and not at the population level. A p-value of less than 0.05 was used to decide which variables were statistically significant in both the bivariate and multivariate analysis.

Modelling Framework

We used the logit link $\log_e \left(\frac{\pi_{ij}}{1-\pi_{ij}} \right)$, a function that models the probability that a woman I in community j experienced (either sexual, emotional, less severe physical or severe physical

domestic violence). We fitted a two level random intercept model, with the woman as the first level and the community as the second level. The two-level random intercept model for woman i nested within a community j may be represented as follows;

$$\log_e \left(\frac{\pi_{ij}}{1-\pi_{ij}} \right) = \beta_0 + \beta_1 x_{1ij} + \beta_2 x_{2ij} + \dots + \beta_6 x_{6ij} + u_{0j}$$

$$u_{0j} \sim N(0, \sigma_{\mu 0}^2)$$

Where x_1 to x_6 represent a mixture of cultural, demographic, geographic, and socio-economic and husband/partner characteristics which are explanatory variables for the probability that woman i in community j experiences some form of domestic violence. β_0 is the overall intercept and β_1 to β_6 are coefficients for the explanatory variables x_1 to x_6 . U_{0j} is the community-level random effect, which represents the variation of the likelihood of experiencing violence for women from different communities and is assumed to be normally distributed with mean equal to 0 and variance equal to $\sigma_{\mu 0}^2$.

Results

Bivariate Analysis

A chi square test was undertaken to test the association between the four types of domestic violence and the background factors comprised of cultural, demographic, geographic, socio-economic and husband/partner characteristics to identify which variables should be included in the multilevel logistic regression analysis. Ethnicity, religion, marriage type, education level, occupation and husband's intake of alcohol were significantly associated with all the four types of violence and the following variables were associated with either one, two or three of the four types of domestic violence; lineage, age at cohabitation, age at first sex, residence (whether rural or urban), husband occupation and husband education level.

We also studied the variation in approval of wife beating across cultural and geographical factors that are further analysed in the multivariate analysis of the four types of domestic violence because acceptance of domestic violence may perpetuate its existence and in some cases reduce the likelihood of it being reported (Alio et al., 2011; Andersson et al., 2007; Biswas et al., 2017). Table 2 presents results of a chi square test of association between the variable on the percentage of women that think wife beating is justified for any of these reasons; *if she neglects children, argues with husband, refused to have sex with husband or burns food* and the cultural and geographical factors. The Findings show that the percentage of women that think wife beating is justified was higher among women that married between the ages of 14 to 17 years than those that married at less than 13 years or over 18 years of age, higher amongst women from rural areas than in women from urban areas, higher in Northern region than in the Central and Southern regions, higher amongst Christian women than Muslim women, highest amongst the Tumbuka, Nkhonde and Tonga ethnic grouping, second highest amongst those grouped as Others and lowest amongst the Ngoni and higher amongst women in polygynous marriages than women in monogamous marriages.

Table 2. Association between Perception on wife beating and cultural and geographical factors

Characteristics	Wife beating is justified % (N)	Chi Square P value
Age at first cohabitation/marriage		.02
< 13 years	13.78 (43)	
14 to 17 years	16.15 (394)	
18 years or over	13.34 (354)	
Residence		<.01
Urban	8.84 (88)	
Rural	15.94 (703)	
Region		<.01
North	22.78 (228)	
Central	12.61 (232)	
South	12.90 (331)	
Religion		.02
Muslims	11.47 (74)	
Christians	15.06 (717)	
Ethnicity		<.01
Chewa, Mang'anja and Nyanja	13.95 (262)	
Tumbuka, Nkhonde and Tonga	24.22 (187)	
Lomwe	11.82 (119)	
Yao	11.03 (72)	
Sena	16.28 (42)	
Ngoni	10.54 (70)	
Others*	22.41 (39)	
Marriage Type		0.03
Monogamous	14.27 (690)	
Polygynous	17.66 (101)	

*Others comprise of various ethnic groupings that are foreign

Results of the Multilevel Logistic Regression Analysis

The results of the multilevel logistic regression are presented in Tables 3 and 4. Table 3 shows the results of the random part of the model and Table 4 provides the results of the fixed part of the model. All models showed significant community level variance. In the fixed part of the model, three variables (Urban/Rural residence, Lineage and Husband occupation) turned out not significant in the multivariate analysis despite showing a statistically significant association in the bivariate analysis.

Table 3. *Results of the Random part of the model*

Model	Variance	Chi Square Wald Statistic	P value
Sexual violence	0.33	17.02	<.01
Emotional violence	0.23	12.96	<.01
Less severe physical violence	0.18	8.34	<.01
Severe physical violence	0.23	4.3	.04

Cultural and Geographical factors

The results of the fixed part of the model indicated that type of marriage (polygynous or not) was an important factor that explaining the likelihood of a woman experiencing any form of domestic violence. The odds of experiencing violence were higher in first wives than in wives in monogamous marriages; 49% higher for emotional violence, 61% higher for less severe violence and 82% higher for severe physical violence. In the emotional violence model there was a significant difference in the odds of experiencing violence between women that were in monogamous marriage and women that were second wives in polygynous marriages. The odds of experiencing emotional violence were 34% higher in second or higher order wives than in wives in monogamous marriages. There was a statistically significant interaction between wife rank and age at cohabitation in the sexual violence model. Compared to women in monogamous marriages aged 13 or less, the odds of experiencing sexual violence were nearly three times for first wives aged 18 years above. The ethnicity variable was only significant in the less severe physical violence and severe physical violence. The odds of experiencing less severe physical were 28% higher amongst the Lomwe and 45% higher amongst the Sena than the Chewa. Religion also turned out to be significantly associated with experiencing domestic violence. The odds of experiencing any form of domestic violence were lower for Muslim women compared to Christian women; 33% lower for sexual violence, 34% lower for emotional violence, 39% lower for less severe physical violence and 41% lower in severe physical violence. The region variable was

significantly associated with sexual and emotional violence only. The odds of experiencing sexual violence were 64% higher amongst women from the Central region than women from the Northern region and the odds of experiencing emotional violence were 57% higher among women from the Central region than in women from the Northern region.

Husband Characteristics

Out of the three husband characteristics; husband's education level, husband's occupation and husband's alcohol intake it was only husband's alcohol intake that was significantly associated with woman's experience of domestic violence. Compared to women whose husbands do not take alcohol, women whose husbands often drunk alcohol had higher odds of experiencing sexual violence (4 times), emotional violence(6 times), less severe physical violence (7 times) and severe physical violence (9 times). The odds of experiencing any form of violence was about twice for women whose husbands' sometimes drunk alcohol compared to women whose husband do not take any alcohol.

Socio-economic and demographic Variables

Woman's employment status, woman's education status, age at first cohabitation, age at first sex and woman's current age which were included as control variables were significantly associated with at least one type of violence.

Table 4 Results of the fixed part of the multilevel logistic regression

Variable	Sexual violence	Emotional violence	Less severe physical violence	Severe physical violence
<i>Region (Reference is Northern region)</i>				
Central region	1.64 (1.19,2.29)**	1.57 (1.18,2.08)**	0.86 (0.65,1.15)	0.78 (0.53,1.16)
Southern region	1.00 (0.71,1.39)	1.29 (0.97,1.71)	0.89 (0.67,1.19)	0.95 (0.65,1.42)
Cultural factors				
<i>Religion (Reference is Christian)</i>				
Muslim	0.67 (0.47,0.96)*	0.66 (0.48,0.89)**	0.61 (0.44,0.85)**	0.59 (0.37,0.96)*
<i>Wife rank (Reference is only wife)</i>				
First wife		1.49 (1.12,1.98)**	1.61 (1.20,2.16)**	1.82 (1.25,2.66)**
Second or higher order wife		1.34 (1.02,1.76)*	0.80 (0.59,1.09)	1.21 (0.81,1.81)
<i>Interaction between marriage type and age at marriage: Reference is Only wife 13 years or less</i>				
Only wife#14 to 17 years	1.41 (0.96,2.09)	-	-	-
Only wife#18 years or above	1.14 (0.77,1.70)	-	-	-
First wife#13 years or less	0.66 (0.14,3.15)	-	-	-
First wife#14 to 17 years	1.74 (0.98,3.10)	-	-	-
First wife#18 years or above	2.91 (1.63,5.20)***	-	-	-
Second or more#13 years or less	0.96 (0.25,3.66)	-	-	-
Second or more#14 to 17 years	2.17 (1.24,3.79)**	-	-	-
Second or more#18 years or above	1.41 (0.79,2.25)	-	-	-
<i>Ethnicity (Reference is Chewa,Nyanja and Mang'anja)</i>				
Tumbuka, Tonga and Nkhonde	1.19 (0.83,1.70)	1.01 (0.74,1.38)	1.20 (0.87,1.64)	0.86 (0.55,1.34)
Lomwe	1.07 (0.81,1.41)	1.08 (0.86,1.36)	1.28 (1.01,1.63)*	1.38 (1.00,1.90)
Yao	1.36 (0.94,1.96)	1.04 (0.76,1.43)	1.36 (0.97,1.90)	1.28 (0.80,2.03)
Sena	1.31 (0.87,1.98)	1.30 (0.92,1.84)	1.45 (1.01,2.08)*	1.13 (0.67,1.89)
Ngoni	1.01 (0.78,1.31)	0.91 (0.72,1.14)	0.95 (0.74,1.22)	1.34 (0.97,1.85)
Others	1.34 (0.80,2.23)	0.80 (0.50,1.28)	1.19 (0.75,1.88)	1.04 (0.55,1.96)
Socio-economic factors				
<i>Occupation (Reference is not employed)</i>				
Self-employed Agriculture	1.45 (1.19,1.76)***	1.12 (0.95,1.32)	0.98 (0.82,1.17)	1.00 (0.78,1.28) 1.56
Un skilled employment	1.51 (1.19,1.76)**	1.52 (1.24,1.86)***	1.44 (1.17,1.79)**	(1.17,2.08)**
Skilled employment	1.37 (1.05,1.79)	1.10 (0.88,1.38)	1.15 (0.91,1.46)	1.21 (0.88,1.69)
<i>Education (Reference is no education)</i>				
Primary education	1.27 (1.00,1.61)	1.24 (1.01,1.53)*	1.24 (1.00,1.54)	1.15 (0.86,1.56)
Secondary education or higher	0.92 (0.68,1.25)	0.96 (0.74,1.24)	0.79 (0.60,1.04)	0.96 (0.66,1.40)

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4 *continued*, Results of the multilevel logistic regression

Variable	Sexual violence	Emotional violence	Less severe physical violence	Severe physical violence
Demographic factors				
<i>Age at first cohabitation</i> (Reference is 13 years or less)				
14 to 17 years		1.19 (0.88,1.62)	1.13 (0.82,1.17)	1.31 (0.84,2.04)
18 years or above		1.15 (0.84,1.57)	1.06 (0.76,1.47)	1.21 (0.77,1.93)
<i>Age at first sex</i> (Reference is 13 years or less)				
14 to 17 years	0.77 (0.58,1.02)	0.78 (0.61,1.00)	0.88 (0.68, 1.14)	0.85 (0.60,1.20)
18 years or above	0.87 (0.64,1.18)	0.81 (0.62,1.06)	0.72 (0.54,0.96)*	0.65 (0.44,0.95)*
<i>Age group</i> (Reference is 15 to 19 years)				
20-24	0.95 (0.69,1.32)	1.06(0.78,1.43)	1.17 (0.86,1.60)	1.57 (0.95,2.59)
25-29	1.04 (0.75,1.45)	1.42 (1.05,1.92)*	1.22 (0.89,1.67)	1.59 (0.96,2.63)
30-39	0.86 (0.63,1.24)	1.31 (0.98,1.76)	1.22 (0.90,1.66)	1.40 (0.85,2.30)
40-49	0.71 (0.48,1.05)	1.27 (0.93,1.75)	1.09 (0.79,1.53)	1.93 (1.15,3.24)*
Husband's characteristics				
<i>Alcohol consumption</i> (Reference is does not take alcohol)				
Drinks often	4.42 (3.38,4.47)***	6.41 (5.24,7.83)***	7.41 (6.05,9.07)***	9.10 (7.15,11.56)***
Drinks sometimes	1.71 (1.42,2.06)***	1.94 (1.66,2.28)***	2.42 (2.05,2.86)***	2.07 (1.63,2.63)***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Discussion

This study aimed to explore cultural factors that are associated with sexual, emotional and physical (less severe and severe) violence against married women in Malawi. The findings indicate that marriage type (monogamous or polygynous), age at marriage, ethnicity and religion are important cultural factors that determine the likelihood of a married woman experiencing any form of domestic violence in Malawi. Husband's/partner's alcohol intake also emerged an important determinant of domestic violence encountered by married women in Malawi and its influence may vary across cultural settings.

In all four types of domestic violence, the odds of Muslim women experiencing domestic violence were less than those of Christian women. This finding is interesting and may either indicate that Islamic teachings of wife's obedience to her husband ensures that the likelihood of Muslim women being at loggerheads with their husband are minimal or that such teachings increases acceptability of domestic violence amongst Muslim women such that they are less likely to report (Biswas et al., 2017; Eidhamar, 2018; Islam.org, 2015). In Malawi, Muslim women have higher odds of experiencing controlling behaviour than Christian women, which aligns with Islamic teachings (Chikhungu et al., 2019) but the finding from this study that the percentage of women that approve wife beating for any reason is higher amongst Christian women than Muslim women suggests that the low levels of violence among Muslim women may not be as a result of acceptance of violence and low reporting level, but that violence is actually low amongst Muslim women.

The finding that women in polygynous marriages have higher odds of experiencing violence than women in monogamous marriages is consistent with findings from previous studies in Malawi and other settings (Bisika, 2008; Jansen & Agadjarian, 2016). Women in polygynous marriages tend to have limited access to land, inheritance and sources of formalised power and are therefore less likely to have a more equal relationship with their partners compared to women in monogamous unions (Goody, 1973; McCloskey et al., 2005; White & Burton, 1988). The biggest difference in the odds of experiencing of violence between women in polygynous and monogamous marriages was in the likelihood of experiencing severe physical violence compared to less severe physical violence and emotional violence. The study also found that there was no significant difference in the odds of experiencing less severe and severe physical violence between women in monogamous marriages and women that were second wives in polygynous marriages similar to findings from Mozambique (Jansen & Agadjarian, 2016).

Interestingly the influence of age at marriage/cohabitation on domestic violence depended on type of marriage (monogamous or polygynous). Women that married at 14 years of age or more were more likely to encounter sexual violence if they were first wives in a polygynous marriage than women that married at 13 years or less in a monogamous marriage, which is not consistent with the expectation that younger women may be more vulnerable and more likely to be abused but cements the important influence of marriage type over and above age at cohabitation/marriage of the woman. Marrying at an 18 years of age or more has been seen to be protective of physical domestic violence in India (Pallikadavath & Bradley, 2018).

The ethnicity variable was a significant factor in the less severe and severe physical violence models only. The Lomwe and the Sena had higher odds of experiencing these two forms violence compared to the Chewa, Mang'anja and Nyanja. Interestingly the Tumbuka, Nkhonde and Tonga ethnic group, the majority of which practise bride price (*lobola*) did not have higher odds of experiencing violence compared to the Chewa, Mang'anja and Nyanja that do not practice bride price(Gray, 1960). The Lomwe follow a matrilineal lineage system but the Sena are patrilineal(Chikhungu et al., 2014). This finding suggests that there are potentially other factors within these ethnic groupings that may explain why they have relatively higher levels of violence compared to the Chewa, Mang'anja and Nyanja.

By a greatest margin the factor that explained the likelihood of women experiencing any form of domestic violence is whether the wife's partner/husband drunk alcohol or not. The difference in the odds of experiencing violence were highest between women whose husbands drunk alcohol often and those whose husbands did not drink alcohol; highest in the severe physical violence model, followed by less severe physical violence, then emotional violence and sexual violence. The difference in odds of experiencing violence between women whose husbands' drunk alcohol occasionally and those than never drank alcohol was

significant but smaller. The role of alcohol in domestic violence has been reported in numerous previous studies (Bernardin, 2014; Brecklin & Ullman, 2002; Gilchrist et al., 2003; Kim et al., 2016; McKinney et al., 2009; Room et al., 2005) but socio-economic status may mediate the relationship between alcohol use and intimate partner violence and different societies may have different expectations about the effects of alcohol and social norms when people are drunk such that behaviour in a drunken state may vary across societies (Greene et al., 2017; SIRC, 1998). A small percentage of men take alcohol in Malawi (ADD, 2013). The study was based on cross-sectional data so the relationship between the cultural factors and violence against women should be strictly interpreted as an association, we cannot conclude that cultural factors that emerged statistically significant in the modelling cause violence against women.

Conclusion and Recommendations

Apart from socio-economic factors such as woman's education level and occupation and husband alcohol consumption, cultural factors are important determinants of the likelihood of women experiencing domestic violence in Malawi. Key cultural factors are type of marriage (polygynous or monogamous), age at marriage, religion and ethnicity. Age at marriage/cohabitation interacts with type of marriage such that those that got married at a relatively younger age in monogamous marriage are less likely to encounter sexual violence than older first wives in polygynous marriages. Perceptions that wife beating is justified for various reasons may not explain why some groups are more likely to experience violence than others; a higher percentage of Christian women perceive that it is justified for a man to beat his wife than Muslim women but Muslim women are less likely to encounter any of the four types of violence. Interventions to tackle violence against married women should aim at promoting monogamous marriages and discouraging polygynous marriages and the culture of

heavy alcohol consumption amongst husbands. Future studies could explore further if there are key lessons that families can learn from Muslim families and across ethnic groups.

Conflict of interests

The authors have no conflicts of interests to declare in this submission.

Ethics Committee Approval

The study used publicly available anonymised data such that there was no need to seek ethical approval. The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

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