Identifying Risk Factors for Male Acceptance of Intimate Partner Violence in Ethiopia

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ABSTRACT

Intimate partner violence (IPV) has become a growing public health concern. The majority of related research has focused on understanding the social context, predictors, and consequences of IPV for women, though several studies have highlighted the link between men who engage in IPV and higher risk sexual activities. What is lacking from the current literature is a more comprehensive understanding of the potential risk factors and social context for accepting male attitudes toward IPV, a likely precursor to acts of violence, from the perspective of men themselves. This paper examines individual, partnership, community, and social level factors that influence accepting attitudes toward IPV among males age 15-59 in Ethiopia (n=6,033) where over half of all males (57%) approve of IPV. Results of a probit regression analysis show that several individual, community, and social level factors were associated with more accepting attitudes towards IPV, including younger males (15-24 years), lack of education, the Moslem religion, men who reported that 3-5 decisions should be made by the husband alone, and men who reported agreement that a husband could respond with violence to a wife's refusal of sex. The findings underscore the importance of employing a multidimensional framework to understanding the factors that influence male attitudes toward IPV, suggesting that IPV prevention programs should not only ensure the inclusion of males in related interventions, especially the dynamics within a partnership, but should also target wider community and social level factors as well.

INTRODUCTION

Violence against women by an intimate partner, referring to any behavior that causes physical, psychological, or sexual harm by a spouse or partner is one of the most common forms of violence against women and has become a growing public health concern. Globally, between 10% and 69% of women report that at some point in their lives they have been physical assaulted by a male partner (Krug 2002). The prevalence of violence against women is generally high in sub-Saharan Africa in comparison to other regions. For example, more than 48% of ever-married Zambian women between the ages of 15-49 report ever having been beaten by a spouse or partner in their lifetime, with over 26% reporting exposure to

partnership violence in the previous 12 months (Kishor and Johnson 2004). This rate is approximately twice as high as reports of spouse and partnership violence reported in other countries such as Cambodia, Dominican Republic, Haiti, and India (Kishor and Johnson 2004). Ethiopia stands out as having one of the highest rates, with a reported prevalence of lifetime physical violence, sexual violence, or both among ever partnered women at 71 percent in rural areas (WHO 2005).

Numerous studies have documented the link between violence and negative reproductive and mental health outcomes for women, such as unwanted pregnancies, pregnancy complications, HIV/AIDS, sexually transmitted infections, depression and posttraumatic stress (Dunkle et al. 2004; Heise et al. 2003; Karamagi et al. 2006; Kishor and Johnson 2004; Pelser et al. 2005; Moore 1999: Watts and Mayhew 2004). Studies have also found similar associations between health outcomes and IPV for men as well. Males who approved of wife-beating or committed physical or sexual violence against their wives were more likely to have multiple sexual partners, less likely to consistently use condoms, more likely to have forced a partner to have sex in the past year, and have a greater number of premarital/extramarital sexual partners and STI symptoms or diagnosis (Gibbison 2007; Silverman et al. 2007).

Much of related research on IPV has examined the social context, predictors, and consequences for women or identified potential risk factors among men by asking women about characteristics of their partners, often focusing on individual level characteristics or partnership dynamics. However, studies identifying predictors of IPV from the perspective of men themselves or a more comprehensive understanding the social context related to male acceptance of IPV are much more limited.

BACKGROUND

Violence is a complex and context-specific issue, often the result of interactions between individual, couple, social, and environmental factors (Krug 2002). Justification of IPV by both men and women can also vary across different sociocultural contexts, indicating a cultural dimension to factors influencing IPV (Lawoko

2008). Behavior change theories, such as the theory of reasoned action (Ajzen and Fishbein 1980), suggest that an individual's attitude toward a select behavior is a critical element in an individual's performance of that behavior. Accepting male attitudes towards IPV has been suggested as one of the most important predictors of acts of violence, indicating that attitudes should be viewed as a critical precursor to the potential for acts of violence (Hanson et al. 1997).

Studies have identified a number of individual characteristics that may serve as potential risk factors to women's vulnerability in experiencing IPV, including marital status, age, education, financial autonomy, or a history of violence (WHO 2005; Pelser 2005; Moore 1999). Similar factors of younger age, low income, low academic achievement, a history of violence in the male's family (either through having witnessed or experienced violence), or certain personality factors have also been identified as linked to a male's risk of IPV (WHO 2002; Gerstein 2000). The impact of these variables may also differ across sociocultural contexts. In a comparative study between Kenyan and Zambian men examining differences in attitudes towards women's autonomy in decisionmaking on household purchases, Zambian men who were more conservative regarding women's autonomy tended to be older, more likely to have been married, less likely to have postsecondary education, less literate, and more likely to be employed in the agricultural sector than Kenyan men (Lawoko 2008). Therefore a richer understanding of individual level characteristics emerges when examined as part of a wider social or cultural context.

Risk factors for IPV also include the comparative characteristics of the female with respect to the male (Kishor and Johnson 2004). Inequality between partners may lead to tensions that can contribute to violence within the partnership, such as situations where a woman has achieved a higher socioeconomic or education status with respect to her partner. This may challenge established gender norms through enabling a woman to challenge male dominance by not complying with traditional gender roles, which can in turn lead to violence (Jewkes 2002). Similarly in circumstances where the male has a higher status with respect to his own achievements or a culturally-endorsed status, violence may also result to reinforce male dominance

(Kishor and Johnson 2004). Controlling behavior or jealousy by a husband within a partnership has also been found to be associated with the likelihood of a woman experiencing sexual violence (Gage 2005). Domination of one partner over the other in decisionmaking can reflect actual or perceived inequality within the relationship. Similarly, in households where more decisions are made jointly may be indicative of less inequality between partners, and therefore has shown to be associated with lower levels of justification of IPV (Hindin 2003).

Poverty has also been identified as a key contributor to IPV, particularly physical violence, with greater frequency and severity often occurring in lower socioeconomic groups (Jewkes 2002; Vung et al. 2008). As there are fewer expendable resources in poorer households, the means to relieve stress through recreational or other activities is reduced. Fewer economic resources may also be linked to greater mobility as household members leave to seek out economic opportunities, impacting the authority structure within the household. As men leave to pursue other wage-earning outlets, their dominance in the household may wane and women may garner more power within the household (McCloskey et al. 2005). In these situations, men may not be able to exert the traditional influence and control while at the same time, women may be in a position to challenge such dominance.

Previous studies have suggested that IPV tends to be more prevalent in societies where there are stronger male dominance ideologies and the gender inequality that places women in a subordinate position can play a particularly important role in the likelihood of IPV (García-Moreno 2002; Jewkes 2002). Challenges to patriarchal notions of masculinity can threaten the position of control or dominance of the male in the relationship which in turn may contribute to violence as a means to demonstrate superiority and power (Abrahams et al. 2004). What constitutes manhood in turn is often socially constructed and affected by cultural contexts as well (Barker & Ricardo 2005). Social norms can exert a strong influence in defining how a man is supposed to act, as well as the consequences when one deviates from this socially accepted gender role. Violence against women can be viewed as an extension of male authority that is socially

sanctioned and reinforced by local or cultural traditions (Barker & Ricardo 2005). Changing trends, such as greater numbers of women entering the workforce or securing education, may present a challenge to traditionally accepted gender roles and established male superiority.

CONCEPTUAL FRAMEWORK

The conceptual framework used in this analysis draws primarily from the ecological model (see Figure 1), referred to as an ecological model of human development (Bronfenbrenner 1979). The model was initially developed to look at causal factors of domestic violence at different levels. Later adaptations of the model were made to incorporate a more comprehensive understanding of the problems associated with domestic violence, identifying four levels of influence - individual, family, social-structural, and socio-cultural (Carlson 1984). The model was later applied to understanding both youth and intimate partner violence, and provides the basis for the social-ecological model currently used by the National Center for Injury Prevention and Control (Division of Violence Prevention) at the Centers for Disease Control and Prevention (Krug 2002; Heise 1998; CDC 2008). The framework used in this analysis retains the nested nature of the original model and examines contextual factors at the individual, relationship, community, and societal levels as they affect attitudes towards IPV.

Several factors previously identified as increasing the likelihood of becoming a perpetrator of violence at the individual level include younger age, low education levels, low income levels, substance abuse, a history of abuse (Krug 2002; CDC 2008; Gerstein 2000). A socio-demographic profile of males in Ethiopia, where approximately 52 percent of males are between the age of 15-29 and almost 43 percent of age 15-59 have no education, indicate a high proportion of some of the potential risk factors (EDHS 2005).

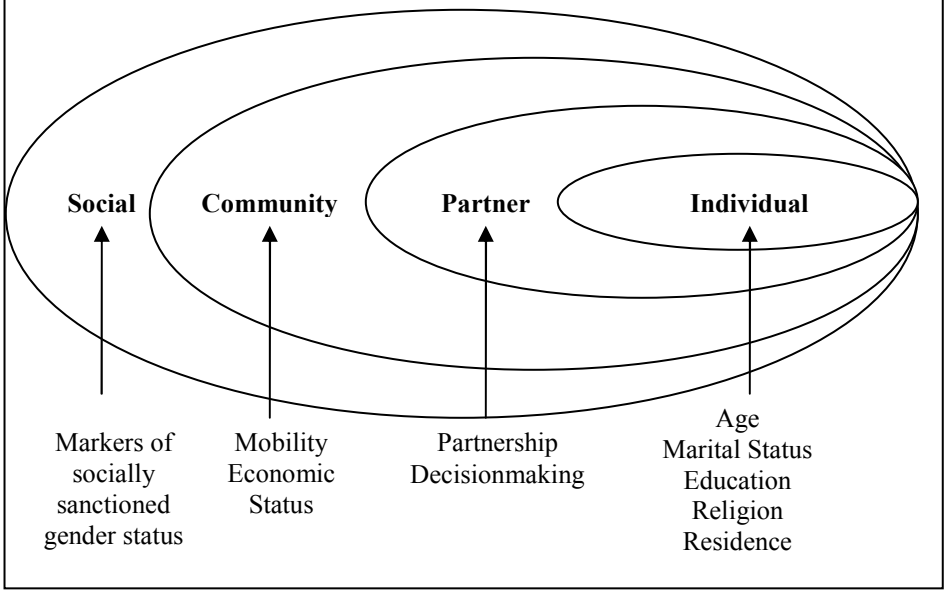
Salient elements identified of the immediate social relationships (peers, partners, family) include the attitudes, beliefs, and subjective perceptions that each individual brings into the relationship and the dynamics within the relationship (Carlson 1984). This analysis will focus on decisionmaking between

partners to capture a sense of the underlying perceptions of inequality and power interactions in partner relations and how they may affect attitudes towards violence.

Community-level characteristics reflect the economic realities and characteristics of community norms the individual operates within (Carlson 1984). Community characteristics that have previously been associated with violence include high levels of residential mobility, highly diverse populations, and high population densities, and high levels of unemployment (Krug 2002; Jewkes 2002). This analysis will focus on several of these characteristics including mobility and socioeconomic status at the community level.

Societal factors can create a climate of belief system that can encourage or inhibit violence. Factors previously identified as being associated with violence include norms that support violence as an acceptable way in which to resolve conflicts or solidify male dominance over women; general acceptance of violence; and sex-role stereotyping (Carlson 1984; Krug 2002). For this level, the analysis will use attitudes of wife's refusal of sex and acceptability of husband's response to refusal of sex as markers for social acceptability of violence against women and beliefs about sexual empowerment of women.

Figure 1: Framework for understanding accepting male attitudes toward intimate partner violence



RESEARCH QUESTION AND HYPOTHESES

This study aims to fill a current gap in the literature by identifying potential risk factors associated with accepting male attitudes of IPV. The predictor variables to be investigated include factors at the individual, partnership, community, and social levels. The analysis will specifically investigate the following hypotheses: (1) Individual characteristics among males, such as younger age, lower education status, and residence in a rural area, will be associated with more accepting attitudes toward IPV; (2) Males who think that most decisions should be made jointly between a husband and wife will be associated with less accepting attitudes towards IPV; (3) Males who live in communities characterized by higher mobility and lower socioeconomic status will be associated with more accepting attitudes towards IPV; (4) Males who live in communities where social acceptability markers toward gender status are lower (a wife does not have the right to refuse sex with her husband under any circumstance and a husband has the right to respond negatively towards a wife's refusal of sex) will be associated with more accepting attitudes toward IPV.

METHODS

Study Design

Data for this study were obtained from the 2005 Ethiopia Demographic and Health Survey (EDHS). Data was collected by the Population and Housing Census Committee Office under the auspices of the Ministry of Health from April to August 2005, with technical assistance provided by ORC Macro through the MEASURE DHS project. The survey was a nationally representative probability sample, using a two-stage stratified cluster design.

Three instruments were administered for the survey and included the *Household Questionnaire*, the *Woman's Questionnaire*, and the *Man's Questionnaire*. Of the 13,721 households interviewed a sub-sample of one-half of all the households were selected to receive the *Man's Questionnaire*. There were 6,778 eligible men identified with 6,033 successfully interviewed, yielding a response rate of 89 percent. Response rates for males were higher in rural areas than urban areas. The *Man's Questionnaire* collected data on a range of

information, including age, sex, education, reproduction, contraception, marriage and sexual activity, fertility preferences, and HIV and sexually transmitted infections. Questions were also included regarding attitudes toward domestic violence and household decision-making and were asked of all respondents. The information used in this analysis was gathered from the *Men's Questionnaire* only and included data from all men ages 15-59 (n = 6,033). Independent and dependent variables were drawn directly from or created from available data.

Measures

The outcome variable was created from the question "Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations": (1) "if she goes out without telling him"; (2) "if she neglects the children"; (3) "if she argues with him"; (4) "if she refuses to have sex with him"; (5) "if she burns the food?". Possible responses included *yes*, *no*, or *don't know*. A single dichotomous variable was created based on the responses, coded 0 when responding "no" to all circumstances (a husband is not justified in hitting or beating his wife under any of these situations) and coded 1 when responding *yes* or *don't know* to one or more of these circumstances (a husband is justified in hitting or beating his wife under one or more of these circumstances). A decision was made to classify *don't know* and *yes* responses together, as a respondent did not definitively commit to a *no* response and *don't know* responses represent a fairly small portion of overall responses. All subsequent analysis used approval of intimate partner violence as the outcome variable

Measures selected for the individual level included respondents' age, current marital status, education, religion, and place of residence. Five ten-year interval age groups were created consisting of age 15-24 (reference group), 25-34, 35-44, 45-54, and 55-59, with the exception of the age 55-59 group which was limited to five years due to ages available in the dataset. Respondent's education was a three-category variable consisting of no education (reference group), primary education, and secondary/higher education. The respondent's current marital status was a three category variable, consisting of never married (reference

group), currently married/living with partner, and separated/widowed/divorced. A three category variable was created for religious affiliation, representing Christian Orthodox (reference group), Moslem, and other. Place of residence was a two category variable, consisting of urban residence (reference group) and rural residence. For all individual level predictors dichotomous dummy variables were created, coded 1 to represent if respondents were in that group and coded 0 if not.

Measures of relationship dynamics, represented by decision-making, was an additive index derived from responses to questions asking who the respondent thinks should have the greater say over the following decisions: (1) "making large household purchases"; (2) "making small daily household purchases"; (3) "deciding when to visit family, friends, and relatives"; (4) "deciding what to do with the money she earns for her work"; (5) "deciding how many children to have and when to have them". The responses categories for each of the questions were *joint*, *husband only* or *wife/partner only*. Three separate indices were created, representing joint-dominated, husband-dominated, and wife/partner-dominated decision-making. For each index, binary categorical variables were first created, coded 1 if the respondent agreed with the decision-making category and coded 0 if the respondent selected any other response for each of the five decision-making categories listed above. Three additive indices was then created, with a range of 0 to 5, representing the number of decisions the respondent felt should be joint, husband-dominated, or wife-dominated. A dichotomous variable was then created from the index to represent low levels (0-2 decisions) of decisionmaking (reference group) and high levels (3-5) of decisionmaking for each category (joint, husband-dominated, wife/partner-dominated).

Two measures were selected as proxies to represent the type of community surroundings that may influence respondent approval toward IPV. First, a measure was created from the question "In the last 12 months, on how many separate occasions have you traveled away from your home community and slept away?" in order to provide a sense of whether the respondent lived in a community with high mobility or low mobility. A mean was created at the cluster level of the numerical responses and dichotomized to represent low mobility (reference category) and high mobility, using the midpoint as a cut-off level. Second the wealth index was

utilized to serve as a proxy for socioeconomic conditions in the community. The wealth index is a weighted index constructed using household asset data including ownership of a number of consumer items ranging from a television to a bicycle or car, as well as dwelling characteristics, such as source of drinking water, sanitation facilities and type of material used for flooring. Dummy variables were created for each of the wealth quintiles (poorest, poorer, middle, richer, richest), coded 1 if they were in that quintile and 0 if they were not. Means at the cluster level were taken for each quintile to serve as a proxy for community level conditions, with the poorest quintile serving as the reference group.

Two questions were used as proxies of women's status in society and general social acceptability of particular attitudes that could indicate greater acceptability of intimate partner violence. First, respondents were asked if they think a wife is justified in refusing to have sex with her husband when: (1) "She knows her husband has a sexually transmitted disease?" (2) "She knows her husband has sex with other women?" (3) "She is tired or not in the mood?" Possible responses included *yes*, *no*, or *don't know*. A single dichotomous variable was created in each of the three conditions to reflect whether the respondent believes that a wife is justified in refusing sex in that specific circumstance (coded 1) or a wife is not justified/don't know in refusing sex in that specific circumstance (coded 0). An index was created with a range of 0 to 3, and a mean taken at the cluster level to represent a social level marker. A subsequent binary variable was created from the index to represent the number of conditions the respondent felt that a woman had the right to refuse sex - under some (0 to 2) circumstances (reference category) and under all three circumstances.

Second, respondents were asked if a woman refuses to have sex with her husband when he wants her to, do they think a husband has a right to (1) "Get angry and reprimand her?"; (2) "Refuse to give her money or other means of financial support?"; (3) "Use force and have sex with her even if she doesn't want to?"; (4) "Go and have sex with another woman?". A single dichotomous variable was created in each of the four conditions to reflect whether the respondent believes that a husband has a right to respond/doesn't know in the way specified in the condition (coded 1) or a husband does not have a right to respond in the way specified in the condition (coded 0). An index was created with a range of 0 to 4, and a mean taken at the

cluster level to represent a social level marker. A subsequent binary variable was created from the index to represent the number of conditions the respondent felt that a husband had the right to respond in the manner specified – in none of the conditions (reference category) or some of the conditions.

Statistical Analysis

Bivariate and multivariate analyses were conducted in order to examine the association between the explanatory variables and the outcome variable of interest. Design-based F statistics were calculated for the cross-tabulations of the explanatory variables against approval of intimate partner violence. A probit econometric estimation model was selected for the analysis to represent the relationship between the discrete dependent variable (approval of IPV) and selected independent variables. Statistical analysis was conducted with *Stata SE10*© software. All analyses were weighted, applying sampling weights to survey settings. For the bivariate analyses, factors with a p-value of 0.05 or less were considered significant (level of significance $p<0.01$ and $p<0.05$ is denoted in the table of results). Maximum likelihood estimations with the probit regressions were used. For each category of interest in the model, dummy variables were withheld to serve as reference groups. The analytical strategy employed consisted of four regression models, with each model successively adding the contextual levels specified in the conceptual framework to determine the mediating effect when each level is added.

RESULTS

General characteristics

While 43 percent of respondents age 15-59 believe that intimate partner violence is not justified under any circumstance, 57 percent of respondents do believe that IPV is justified in one of more of the following circumstances: if the wife goes out without telling the husband; if the wife neglects the children; if the wife argues with the husband; if the wife refuses to have sex with the husband; or if the wife burns the food.

Table 1A (Appendix) provides a summary of descriptive statistics of all male respondents in the analysis for the individual, partnership, community, and social level predictor variables included in the model. Male

respondents are primarily between the ages of 15-24 (39.8 percent), currently married or living with a partner (56.7 percent), have no education (42.9 percent), practice the Christian Orthodox religion (49.3), and live in rural areas (84.8 percent). Within the joint decisionmaking category, a greater proportion responded that 3 to 5 decisions should be made jointly between a husband and his wife/partner (58.1 percent); within the husband-dominated category, a greater proportion responded that 0-2 decisions should be made by the husband alone (87.2 percent); and within the wife/partner alone category, a greater proportion also responded that 0-2 decisions should be made by the wife/partner alone (96.3 percent).

A slightly higher proportion of communities can be characterized as having low mobility (53.2 percent) and are approximately evenly distributed across wealth quintiles. With respect to the social attitude markers, approximately three-fourths of males (72.1 percent) responded they believed a wife could refuse sex with her husband under all three conditions (when she knows her husband has a STD, has other women, and when she is tired or not in the mood). The majority of males in the sample (62.9 percent) responded that they agreed a husband should take no actions against his wife if she refuses sex, including getting angry, refusing financial support, force unwanted sex, or have sex with other women. In general, males responded that a mean of less than one action (0.6) could be taken by a husband if his wife refuses sex.

Accepting male attitudes toward IPV

Weighted bivariate statistics are provided for the individual, partnership, community and social level predictors on the outcome variable of approval towards IPV (Table 1). Overall more than half the respondents for most categories at the individual level approved of IPV, with the exception of the secondary/higher educational level and urban residence. Significant associations were found among 15-24 year olds, where almost 60 percent approved of IPV ($p=0.0021$) and among 35-44 year olds, where approximately 53 percent approved of IPV ($p=0.0430$). Significant associations were found among all education levels, where 64 percent of respondents with no education ($p=0.0000$), 61 percent of respondents with primary education ($p=0.0003$), and 31 percent of respondents with secondary education or higher ($p=0.0000$) approved of IPV. Similar significant associations were found within the religion category, where

almost 51 percent of Orthodox Christians approved of IPV (p=0.0000) and almost 64 percent among the Moslems (p=0.0011). Among residential locations, 62 percent of rural respondents approved of IPV (p=0.0000), but only 28 percent of urban respondents approved of IPV (p=0.0000).

At the partnership level, significant associations were found among the joint (p=0.0000) and husband-only decisionmaking variables (p=0.0000). Among those that responded only 0-2 decisions should be made jointly, 65 percent approved of IPV. Though this decreased among those that responded 3-5 decisions should be made jointly, it still remained at 50 percent who approved of IPV. Among those that responded 3-5 decisions should be made by the husband alone, 73 percent approved of IPV. This latter pattern would be expected, as it reflects a consistent pattern between greater male dominance in decisionmaking and greater approval of IPV.

At the community level, over half the respondents living in both a low mobility community and a high mobility community approved of IPV (at 60 percent and 53 percent respectively), though both were non-significant relationships. Additionally, over half the respondents in each of the wealth quintiles approved of IPV, with the exception of the richest quintile, where only 38 percent approved of IPV. Among the wealth quintiles, significant relationships were observed in the poorest (p=0.0013), poorer (p=0.0000), and richest (p=0.0000) quintiles.

For both social level markers, interesting relationships were also observed. Among cluster level responses citing a wife could refuse sex under none, one or two circumstances 73 percent approved of IPV. However even among those that responded a woman had the right to refuse sex under all three conditions, over 50 percent still approved of IPV. Similar results were found among the cluster level regarding the actions a husband could take when a wife refused sex. Among responses that a husband could take 1 to 4 actions, 82 percent approved of IPV. Even among responses that a husband could take none of those actions, 41 percent still approved of IPV. Both social level variables were significant (p=0.0000).

Table 1: Percentage of males in Ethiopia who have accepting attitudes toward IPV[1] by individual, partnership, community, and social level characteristics

Characteristic	Percentage who approve of IPV[1] (n=6,033)	Number	Characteristic	Percentage who approve of IPV[2] (n=6,033)	Number
INDIVIDUAL LEVEL			COMMUNITY LEVEL		
Age			**Mobility**	*	
15 – 24	59.6*	1,430	Low mobility	60.0	1,924
25 – 34	54.2	810	High mobility	52.7	1,487
35 – 44	53.1**	610	**Wealth Index**		
45 – 54	55.5	420	Poorest	64.6*	710
55 – 59	60.9	142	Poorer	67.3*	796
Marital Status			Middle	60.6	654
Never married	57.5	1,389	Richer	58.3	698
Married	56.2	1,924	Richest	37.6*	552
Separated	51.2	97	SOCIAL LEVEL		
Education	*		**Wife refuse sex**	*	
None	64.3	1,664	Under none	72.9	1,228
Primary	61.1	1,375	Under all 3	50.2	2,183
Secondary/higher	31.3	372	**Husband's right to**	*	
Religion			No action	41.4	1,568
Christian Orthodox	50.9*	1,512	Some action	82.3	1,844
Moslem	63.6*	1,137			
Other	60.0	762			
Place of Residence	*				
Urban	28.4	261			
Rural	61.6	3,151			
PARTNERSHIP LEVEL					
Joint Decisionmaking	*				
0-2	65.1	1,645			
3-5	50.4	1,766			
Husband-Dominated Decisionmaking	*				
0-2	54.1	2,846			
3-5	73.1	565			
Wife/Partner-Dominated Decisionmaking					
0-2	56.5	3,281			
3-5	58.9	130			

[1] IPV = intimate partner violence

[2] All results are weighted for national representation. Statistics are from a Design-based F-statistic (*p<.01, **p<.05)

Accepting male attitudes toward IPV: predictors from multivariate models

Four models were run, with each successive model including an additional predictor level (Table 2). All four models were also significant (p=0.0000). With respect to the variables that all four models had in common, the same age categories remained significant (age 25-34, age 35-44, and age 45-54), with each negatively associated with the outcome variable (older age categories are less likely to approve of IPV compared to the 15-24 year old age group). The marital status category was not significant in any of the models. Both the primary and secondary education categories were significant until the fourth model when the social level variables were added, where only secondary level education remained significant. It was also negatively

associated with the outcome variable (those with secondary education or higher were less likely to approve of IPV compared to those with no education). The Moslem religion variable remained significant across all four models and was positively associated with the outcome (those of the Moslem religion were more likely to approve of IPV than those of the Orthodox Christian religion). The other religion category was significant in the first model, but not in the subsequent models. Interestingly, rural residence was significant in the first and second models with a positive association, but not in the final two models when community and social level predictors were added.

Decision-making variables were added in the second model. Both the joint and husband-dominated decisionmaking variables remained significant in all three models. However, while joint decisionmaking had a negative association with the outcome variable (those that responded 3 to 5 decisions should be made jointly between a husband and wife were less likely to approve of IPV than those that responded 0-2 decisions should be made jointly), the husband-alone decisionmaking had a positive association (those that responded 3 to 5 decisions should be made by the husband alone were more likely to approve of IPV than those that responded 0-2 decisions should be made by the husband alone).

Community level variables were added in model three. However neither the community mobility or wealth index variables were significant in either the third or fourth model. In the fourth model, where the social marker variables were added, the variable for a husband's response to a wife's refusal of sex was significant. This variable also had a positive association with the outcome variable (those who responded that a husband could take some actions to his wife's refusal of sex were more likely to approve of IPV). Correlations after the fourth model were also examined to provide insight as to why several of the variables were no longer significant in the final model, revealing some correlation between urban residence and secondary education (0.61; p=0.0000). Additionally, the use of survey weights has some effect on the significance of some variables due to some loss of precision with the addition of weights.

Table 2: Probit estimations of individual, partnership, community, and social level predictors on approval of IP

	Model 1			Model 2			Model 3			Model 4		
	B	**SE**	**p>|t|**	**B**	**SE**	**p>|t|**	**B**	**SE**	**p>|t|**	**B**	**SE**	**p>|t|**
Age												
15-24[a]												
25-34	-0.178	0.076	**0.020**	-0.175	0.076	**0.022**	-0.171	0.076	**0.025**	-0.157	0.079	**0.046**
35-44	-0.220	0.090	**0.014**	-0.215	0.088	**0.015**	-0.206	0.089	**0.021**	-0.171	0.093	**0.065**
45-54	-0.205	0.098	**0.038**	-0.204	0.097	**0.037**	-0.201	0.097	**0.039**	-0.196	0.102	**0.055**
55-59	-0.101	0.130	0.436	-0.084	0.129	0.518	-0.072	0.129	0.579	-0.022	0.132	0.864
Marital status												
Never married[a]												
Married	-0.109	0.077	0.160	-0.083	0.078	0.286	-0.090	0.078	0.247	-0.153	0.082	0.061
Separated	-0.122	0.154	0.430	-0.129	0.157	0.411	-0.124	0.152	0.415	-0.136	0.148	0.358
Education												
None[a]												
Primary	-0.147	0.060	**0.014**	-0.132	0.060	**0.028**	-0.128	0.060	**0.033**	-0.086	0.058	0.140
Secondary/higher	-0.703	0.084	**0.000**	-0.674	0.084	**0.000**	-0.641	0.081	**0.000**	-0.615	0.081	**0.000**
Religion												
Christian Orthodox[a]												
Moslem	0.215	0.081	**0.008**	0.178	0.082	**0.030**	0.174	0.086	**0.043**	0.183	0.072	**0.011**
Other	0.182	0.084	**0.031**	0.125	0.083	0.131	0.118	0.086	0.169	0.158	0.081	0.052
Residence												
Urban[a]												
Rural	0.484	0.120	0.000	0.449	0.120	**0.000**	0.156	0.190	0.411	-0.002	0.146	0.991
Decision: Joint												
0-2[a]												
3-5				-0.149	0.070	**0.033**	-0.141	0.068	**0.040**	-0.209	0.064	**0.001**
Decision: Husband												
0-2[a]												
3-5				0.275	0.080	**0.001**	0.284	0.080	**0.000**	0.199	0.080	**0.014**
Decision: Wife												
0-2[a]												
3-5				0.088	0.119	0.460	0.105	0.117	0.372	0.016	0.125	0.896
Mobility												
Low mobility[a]												
High Mobility							-0.052	0.076	0.496	-0.015	0.065	0.816
Wealth index												
Poorest[a]												
Poorer							0.388	0.286	0.175	0.346	0.252	0.171
Middle							0.195	0.243	0.422	0.061	0.228	0.790
Richer							0.107	0.215	0.618	0.343	0.198	0.083
Richest							-0.191	0.228	0.401	0.035	0.197	0.859
Wife can refuse sex												
Under none[a]												
Under all 3										-1.351	0.193	0.069
Husband's response												
No action[a]												
Some action										1.809	0.163	**0.000**
	No. of obs = 6028 F(11, 523) = 14.14 Prob > F = 0.0000			No. of obs = 6028 F(14, 520) = 13.04 Prob > F = 0.0000			No. of obs = 6028 F(19, 515) = 9.90 Prob > F = 0.0000			No. of obs = 6028 F(21, 513) = 19.99 Prob > F = 0.0000		

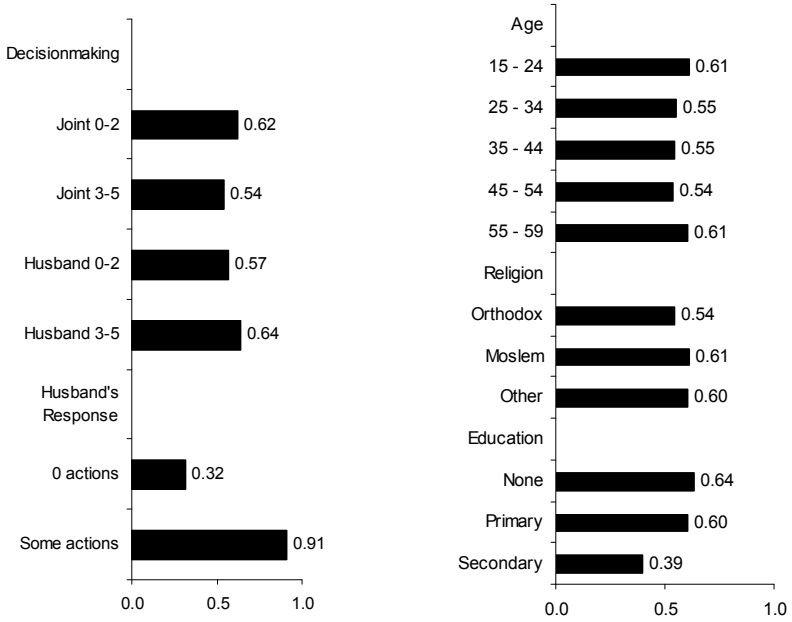
[a] Reference group

In order to better understand the magnitude of the effects of these variables on approval of IPV, marginal effects estimations were completed after the final model, found in table 2A (Appendix). The derivatives

indicate the direction and magnitude of change in probability of outcome. Two results of particular note are that those with primary education are 24 percent less likely to approve of IPV than those with no education, and those that respond a husband can take one or more actions against his wife for refusing sex are 71 percent more likely to approve of IPV than those who think a husband can take no action.

Predicted probabilities across the significant variable categories from the final model are presented in Figure 2. Most of the probabilities were .50 or higher. Among all males in the analysis, individual level factors with a higher probability of approval of IPV include those age 15-24 and age 55-59 (both 0.61), of Moslem religion (0.61), and having no education (0.64). Partnership level factors with a higher probability of approval of IPV include those that think few decisions should be made jointly (0.62) and those that think the husband only should make most of the decisions (0.64). Social level factors with a higher probability of approval of IPV are those that think a husband should take some action if his wife refuses sex (0.91).

Figure 2. Predicted probability of approval of IPV among males in Ethiopia



There were no trends observed in the age and religion categories, though the probability of approving of IPV did decrease with increasing levels of education, with the most significant drop at the secondary level of

education. Additionally, there were some expected decreases in joint decisionmaking (the probability of approving of IPV decreased as the number of decisions the respondent felt should be made together between a husband and wife decreased). Similarly there was a slight increase in the probability of approving of IPV when the respondent felt that the husband alone should make the majority of the decisions. Finally, there was a significant contrast in the probability of approving of IPV between those that felt some versus no actions should be taken by a husband when his wife refuses sex.

DISCUSSION

As attitudes toward intimate partner violence can be a predictor of acts of violence and a critical entry point for intervention efforts, they remain an important aspect to investigate particularly from the perspective of men themselves. In general, the results show that most levels of the model contained factors that were associated with approval of IPV, underscoring the importance of taking a holistic approach to investigating or addressing male attitudes toward intimate partner violence. Given this, it is likely that studying individual factors alone would be insufficient in fully understanding attitudes toward IPV. Additionally, it is likely that interventions at the individual level would also not likely be sufficient.

The analysis results show that more than half of Ethiopian males age 15-59 approve of IPV in one or more circumstance, which warrants concern. In addition to approving attitudes potentially serving to reinforce acceptability of violence, they can also reinforce traditional male dominance ideologies that may put women in a subordinate position. This may not only compromise several aspects of women's physical, sexual, and mental health, but also increase these risks to men's health as well.

Younger men and those with lower education levels are also more likely to approve of IPV. With respect to the age results, this data only dealt with one period in time the analysis and is therefore not able to discern if this attitude will carry over with the cohort as they age or if it is a characteristic typical among this age cohort itself. Analysis on future DHS surveys in Ethiopia may provide some insight regarding this issue. Given the

strong effect that higher education had on less approving attitudes towards IPV, improvements in education levels or educational opportunities is an important area that can be addressed. Additionally, many international targets focus on universal primary school education but the results show a statistically significant effect at the secondary level. Therefore more benefit might be gained by expanding secondary level opportunities within programs that specifically target IPV. This should be viewed not as the only answer, but one aspect of several contextual issues that can be addressed. It should also be considered that the group of males who have secondary level education or higher are also different in other ways.

The results of the study showed that the Moslem religion was also associated with approving attitudes of IPV. However, this result should be interpreted with caution. The religion one practices is not within a vacuum, and is often part of wider social and cultural interrelationships. The association between religion and accepting attitudes toward IPV, including the related social norms and roles, should be further explored within the Ethiopian context. Such research would provide greater insight into aspects that are unique to the Moslem religion, or part of wider web of societal or cultural beliefs that exist in Ethiopia specifically.

The results also highlight the importance that partnership dynamics plays in accepting attitudes toward IPV. Though only one aspect (decision-making) was examined, the results illustrate that greater support for joint decision-making is associated with lower levels of approval of IPV, while support for dominance in decision-making by the husband alone is associated with higher levels of approval of IPV. The decision-making variable illustrates a view of relative imbalances of power. However it is also important to note that though even among males that support a greater number of decisions made jointly, half still approve of IPV. Strategies that promote greater joint decision-making that specifically target males are an important first step.

Social attitudes regarding the acceptability of a husband's response to deal with a wife's refusal of sex through violence or taking punitive measures is likely an indication of both male dominance ideologies as well as the general acceptability of the use of violence as a means to settle disagreements that may be

prevalent in Ethiopian society. The male dominance ideologies reflected in this indicator may also be reflective of the perceived legitimacy by men to discipline women in Ethiopia. Additionally, the specific variable utilized (a husband's actions to refusal of sex by a wife) may illustrate the general view that women should be in a subservient position. It is also likely that such attitudes prevalent as a general social norm not only reinforce the domination of males, but also a woman's acceptance of abuse. Addressing social norms are more complex, but do indicate that changing attitudes at the individual level among men may not be enough to actually change attitudes, and perhaps the prevalence of IPV itself. At the social level, strategies that target the reinforcement (or creation) of legal frameworks that address IPV, punishment for IPV, or social or economic resources that assist women in taking advantage of opportunities that provide alternatives to accepting IPV, may prove beneficial.

There were several limitations to the study that prevented a more robust analysis of predictors of accepting male attitudes toward IPV. One limitation to the study is with respect to the study design and methods. If accepting male attitudes can be considered a proxy for acts of IPV, there is some discrepancy between reports of experiences of IPV by women and the accepting attitude result. This may in part be due to reporting bias by male respondents, who perhaps provided more socially acceptable responses during the data collection process. Some information was not also available in the dataset, such as previous exposure to violence as a victim or perpetrator, which could have been an important predictor to include at the individual level as it has been shown in previous studies to be an indicator for violence. Additionally, given the data was cross-sectional no causal inferences can be made.

Another set of limitations is related to the analysis. This study only focused on the individual characteristics of males themselves and aspects of the social and cultural context that may influence accepting male attitudes toward IPV. Limiting the analysis to the males alone precluded the inclusion of additional aspects of partnership dynamics that would also be important, such as educational and age differences between the

husband and wife themselves. This gap also highlights the need for further research regarding partnership dynamics from the male perspective.

Further research is needed to continue to develop an understanding of the nature of the power relationships within intimate relations and how the differentials in gender social norms affect males and females alike. Additional research could be conducted using the 2005 EDHS dataset, refining the model to include more partnership dynamics, and specifically looking at the subset of currently married or partnered men to develop a better understanding of actual dynamics occurring. Additionally, recalling the conceptual framework, a more robust model could be created, identifying additional factors that could represent the social and community levels.

Often programs that address intimate partner violence have targeted the empowerment of women. But programs also need to ensure that men are targeted as well, specifically addressing issues such as resolution of conflict and shared decision-making power. Comprehensive efforts would need to be made beyond the individual level and target community and social norms as well. The issue of intimate partner violence, with the implications for men and women alike, should remain a focus on the public health agenda.

Appendix

Table 1A: Descriptive statistics of all predictors among males in Ethiopia

	Percent (%)	Number (n)	Standard Error
Age			
15 – 24	39.8	2,397	.0082
25 – 34	24.8	1,495	.0076
35 – 44	19.0	1,148	.0066
45 – 54	12.5	756	.0054
55 – 59	3.9	233	.0033
Marital Status			
Never married	40.1	2,417	.0093
Married	56.7	3,423	.0096
Separated	3.2	190	.0031
Education			
None	42.9	2,589	.0139
Primary	37.3	2,251	.0118
Secondary	19.7	1,190	.0114
Religion			
Christian Orthodox	49.3	2,972	.0251
Moslem	29.7	1,788	.0242
Other	21.0	1,270	.0207
Place of Residence			
Urban	15.2	916	.0141
Rural	84.8	5,114	.0141
Decisionmaking			
Decisions made jointly (0-2)	41.9	2,528	.0152
Decisions made jointly (3-5)	58.1	3,502	.0152
Mean of joint index (range 0 – 5)			*2.7(.0533)*
Husband-dominated decisions (0-2)	87.2	5,256	.0083
Husband-dominated decisions (3-5)	12.8	773	.0083
Mean of husband-dominated index (range 0 - 5)			*1.0(.0348)*
Wife-dominated decisions (0-2)	96.3	5,809	.0041
Wife-dominated decisions (3-5)	3.7	221	.0041
Mean of wife-dominated index (range 0 – 5)			*0.9(.0246)*
Mobility			
Communities with low mobility	53.2	3,206	.0291
Communities with high mobility	46.8	2,824	.0291
Wealth Index			
Poorest	18.2	1,100	.0123
Poorer	19.6	1,184	.0108
Middle	17.9	1,079	.0103
Richer	19.9	1,198	.0108
Richest	24.4	1,469	.0161
Wife can refuse sex			
Under one or more of these circumstances	27.9	1,684	.0130
Under all of these circumstances	72.1	4,346	.0130
Mean of refusal index (range 0 – 3)			*2.46 (.0328)*
If wife refuses sex, husband has right to			
Do none of the actions	62.9	3,790	.0132
Do one or more of the actions	37.1	2,240	.0132
Mean of response index (range 0 – 4)			.6(.0282)
Total	**100.0**	**N=6,030**	

Table 2A. Marginal effects after probit estimations of individual, partnership, community, and social level predictors on approval of IPV among males in Ethiopia

y = Pr(justified) = 0.57603001	dy/dx	se	p>|z|		dy/dx	se	p>|z|
Age				**Decision: Joint**			
15-24[a]				0-2[a]			
25-34	-0.0619	0.0310	**0.046**	3-5	-0.0815	0.0246	**0.001**
35-44	-0.0677	0.0368	0.066	**Decision: Husband**			
45-54	-0.0775	0.0405	**0.055**	0-2[a]			
55-59	-0.0088	0.0517	0.864	3-5	0.0764	0.0302	**0.011**
Marital status				**Decision: Wife**			
Never married[a]				0-2[a]			
Married	-0.0598	0.0318	0.060	3-5	0.0064	0.0487	0.895
Separated	-0.0539	0.0590	0.361	**Mobility**			
Education				Low mobility[a]			
None[a]				High Mobility	-0.0059	0.0255	0.816
Primary	-0.0336	0.0227	0.140	**Wealth index**			
Secondary	**-0.2415**	0.0307	**0.000**	Poorest[a]			
Religion				Poorer	0.1353	0.0988	0.171
Orthodox Christian[a]				Middle	0.0238	0.0892	0.790
Moslem	0.0710	0.0276	**0.010**	Richer	0.1345	0.0776	0.083
Other	0.0613	0.0311	**0.049**	Richest	0.0137	0.0770	0.859
Residence				**Wife can refuse sex**			
Urban[a]				Under none[a]			
Rural	-0.0006	0.0570	0.991	Under all 3	-0.1377	0.0753	0.068
				Husband's response			
				None[a]			
				Some	**0.7085**	0.0645	**0.000**

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