Drivers of Marriage and Health Outcomes Among Adolescent Girls and Young Women: Evidence From Sub-Saharan Africa and South Asia

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ABSTRACT

Purpose: Previous studies have examined the relationship between age at marriage and health outcomes, but few have explored how marriage drivers are associated with health outcomes. In this study, we examine the relationship between two marriage drivers, premarital pregnancy and agency, and several health outcomes (use of maternal health care services, child health outcomes, and change in depressive symptoms) among married adolescent girls and young women (AGYW) in sub-Saharan Africa and South Asia.

Methods: We use three panel data sets collected by the Population Council: the Adolescent Girls Empowerment Program from Zambia (N = 660), the Malawi Schooling and Adolescent Study from Malawi (N = 1,041), and Understanding the Lives of Adolescents and Young Adults from India (N = 894 in Bihar, N = 599 in Uttar Pradesh). Our analytical models use logistic and multinomial logistic regression.

Results: We find mixed evidence of the association between marriage drivers and health outcomes. Results show that having agency in marital partner choice in India is associated with both an increase and decrease in reported depressive symptoms. In addition, pregnancy before marriage is associated with fewer antenatal visits and hospital-based births in Malawi than pregnancy after marriage. However, we find no evidence that it is associated with worse child health outcomes than pregnancy after marriage in Malawi and Zambia.

Conclusions: Overall, our study suggests that the relationship between marriage drivers and AGYW's health outcomes after marriage is not consistent across contexts. We highlight the importance of interpreting marriage drivers within prevailing norms to understand their impact on married AGYW's health.

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IMPLICATIONS AND CONTRIBUTION

Our study suggests that understanding the context and drivers of marriage may help inform more effective interventions in support of married AGYW’s health, extending beyond the role of marriage drivers as potential pathways to delaying or preventing marriage. Specifically, we urge more support for access and use of maternal health care services for premarital pregnancies in Malawi and mental health support in cases where agency in partner choice may be a risk factor for negative changes in depressive symptoms in India.

Marriage can have critical health consequences for adolescent girls and young women (AGYW) and for their children [1,2]. Yet, despite substantial focus on delaying marriage, few studies have sought to distinguish between the drivers of marriage among AGYW and how variation in these drivers may result in differential effects on health across the life course. In essence, what
happens before marriage may be important for experiences within marriage. From a policy perspective, understanding how marriage drivers contribute to negative health outcomes can help to better target interventions aimed at preventing these outcomes, including among married girls. In this study, we examine the relationship between selected drivers of marriage and use of maternal health care services, child health, and mental health (depression) in three countries where marriage among AGYW is common.

These drivers are based on a conceptual framework (see Psaki et al. 2021 in this supplement), which outlines five marriage drivers for AGYW. Poverty [3,4] and social norms [5,6] represent the core underlying mechanisms that create conditions of economic constraint and acceptability for marriage at younger ages, prompting households and communities to engage in the practice. In addition, the framework highlights pregnancy and fear of sexuality and pregnancy, lack of agency, and lack of opportunity as additional drivers. Girls may marry when they or their parents feel there are few alternatives available, when they have little choice in deciding the timing of their marriage and choosing their spouse, and when pregnancy results in voluntary or forced marriage. These drivers are likely to interact, manifesting in different combinations across cultural contexts. The framework hypothesizes that marriage drivers not only affect age at marriage but are also linked to long-term outcomes.

This study evaluates this hypothesis empirically by adapting the framework (see Figure 1A, B) to investigate whether specific drivers are associated with specific health outcomes among married AGYW. That is, we seek to understand how, once marriage occurs among AGYW, the drivers of that marriage may affect longer-term health outcomes. To examine such a relationship requires data sets with sufficient sample sizes of married AGYW and measures of multiple drivers and a range of health outcomes observed after marriage. Although we do not yet have data that measure all drivers, we can evaluate selected marriage drivers and their relationship with specific health outcomes across diverse contexts.

Specifically, we use observational and experimental panel data sets collected by the Population Council in Zambia, Malawi, and India to examine two relationships, explored as case studies: (1) Associations between premarital pregnancy as a marriage driver and both use of maternal health care services and child health outcomes in Malawi and Zambia and (2) Associations between agency in marital partner choice as a marriage driver and change in depressive symptoms after marriage in India, where most marriages are arranged. We treat household wealth as an underlying marriage driver by including it as a control in all our analyses.

Hypotheses for these relationships are based on previous, mainly qualitative evidence indicating that premarital pregnancy may adversely affect maternal and child health, and agency in marital decision-making may be associated with marital quality, which may further affect AGYW’s mental health. In the following sections, we elaborate the theoretical mechanisms that might explain these relationships, describe the data sets and cultural contexts, present methods and results for each case study, and finally, a general discussion and conclusion.

The Population Council’s Institutional Review Board (IRB) approved this work as exempt, as it includes secondary data analysis of de-identified data. The original data collection was also conducted by the Population Council and approved by the Council’s IRB and in-country IRBs. Informed consent procedures included parental permission and adolescent assent (for minors) and informed consent (for adults 18+ and emancipated minors).

**Case study 1: Does pregnancy as a marriage driver affect use of maternal health services and child health outcomes in Zambia and Malawi?**

This case study examines whether, among married AGYW in Malawi and Zambia, those who are pregnant before marriage use maternal health care services (a proxy for maternal health) differently or have different child health outcomes for their first birth, compared with girls who become pregnant after marriage. In both Malawi and Zambia, premarital pregnancy is common and can result in marriage [7–9], making them ideal contexts for evaluating post-marriage outcomes with premarital pregnancy as a marriage driver.

**Theoretical mechanisms**

As a marriage driver, premarital pregnancy (see Figure 1A) may cause stress because of social norms that discriminate against unmarried, pregnant AGYW and force them to marry after pregnancy, and increased economic deprivation due to lack of financial support from parents and/or partners [7]. These conditions may adversely affect AGYW’s mental health, nutrition, and access to resources that enable them to use health care services and have healthy birth outcomes. Premarital pregnancy can also limit educational attainment [10], which may be associated with negative effects on child health [11]. Furthermore, there is evidence that marriages driven by premarital pregnancy in sub-Saharan Africa are less stable and are more likely to be associated with domestic violence [12], which may also have a detrimental impact on maternal and child health.

Conversely, marriage may offer some protection from discrimination and economic security [7,13], thus mitigating the potential harmful effects of household and community responses to premarital pregnancy. In addition, other aspects of community support, such as the availability of health services to AGYW in response to premarital pregnancy, may determine whether premarital pregnancy adversely affects use of maternal health care services and child health.

**Data and sample**

To examine the relationship between premarital pregnancy as a marriage driver and both use of maternal health care services and child health (see Table 1), we use two panel data sets from Malawi and Zambia. These include the Malawi Schooling and Adolescent Study (MSAS) and the Adolescent Girls Empowerment Program (AGEP). The MSAS is an observational panel data set with six rounds of data on adolescent boys and girls aged 14–17 years at baseline, collected by the Population Council between 2007 and 2013, in Southern Malawi. The AGEP is an experimental data set with five rounds of data on adolescent girls aged 10–19 years, from a randomized controlled trial conducted by the Population Council in Zambia, between 2011 and 2018.
AGED measures marriage among girls older than 15 years, starting at round 2, underrepresenting those who may have married before age 15. However, as per the 2018 Zambia Demographic and Health Survey, only 2% of girls aged 15–19 years were married or had given birth before age 15 [15], making this restriction reflective of local context.

Figure 1. The adapted conceptual framework for premarital pregnancy and health outcomes (A). The adapted conceptual framework for agency and health outcomes (B).
Analytical samples from the panel data sets include 1,041 ever-married AGYW from the MSAS (Malawi) and 660 ever-married AGYW from the AGEP (Zambia), who had all given birth at least once. For AGEP, we excluded girls at baseline who had already given birth at round one but were never married as their first pregnancy did not result in marriage.

Method

Pregnancy before marriage was calculated for the MSAS using life event calendars through which girls indicated whether they became pregnant before or after marriage. They were coded as pregnant before marriage if pregnancy immediately preceded marriage in the sequence of life events reported. For the AGEP, this was measured more directly in response to the following question about their first marriage: “Were you pregnant when you got married to/started living with [spouse name]?” This survey also asked girls if they were forced to marry due to pregnancy if they reported being pregnant at the time of first marriage.

Dependent variables for child health were restricted to first-born children, to compare first birth outcomes for AGYW who conceived before and after marriage. Child health measures included child mortality and low birth weight (<2.5 kilograms) following World Health Organization (WHO) birth weight definitions for both the MSAS and AGEP and completed WHO recommended vaccinations in the first year of life for the AGEP only, due to data availability. We assessed use of maternal health care services as a proxy for maternal health and examined whether girls gave birth at home for both the AGEP and MSAS and the number of antenatal visits (two or less, three or more) for MSAS only. All variables were dichotomous.

Our models include logistic regressions reported as odds ratios (ORs) for all dichotomous outcomes and control for age at marriage, educational attainment, and baseline household wealth (below and above the median) constructed through a household asset index. We did not include other potential pathways and individual controls previously highlighted as theoretical mechanisms because of data availability.

Results

Overall, 29.8% of AGYW in Malawi (MSAS) and 52.1% of AGYW in Zambia (AGEP) were pregnant before first marriage. Age at marriage ranged from 10 to 25 years in Malawi and 14–23 years in Zambia. Thus, premarital pregnancy is much more prevalent in Zambia than in Malawi, in our sample.

In Malawi, descriptive statistics (see Table 2) showed few substantive differences in outcomes for AGYW who marry after a premarital pregnancy and those who conceive and give birth definitions for both the MSAS and AGEP and completed WHO recommended vaccinations in the first year of life for the AGEP only, due to data availability. We assessed use of maternal health care services as a proxy for maternal health and examined whether girls gave birth at home for both the AGEP and MSAS and the number of antenatal visits (two or less, three or more) for MSAS only. All variables were dichotomous.

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Table 1
Case study data and variables' summary

<table>
<thead>
<tr>
<th>Case study 1: Does pregnancy as a marriage driver affect use of maternal health services and child health outcomes in Zambia and Malawi?</th>
<th>Case study 2: Is agency in marital partner choice associated with a change in depressive symptoms in India?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data sources</td>
<td>Malawi Schooling and Adolescent Study (MSAS) in southern Malawi; Adolescent Girls Empowerment Program (AGEP) in Zambia</td>
</tr>
<tr>
<td>Type of data</td>
<td>MSAS: Longitudinal, observational survey with 6 rounds collected between 2007 and 2013</td>
</tr>
<tr>
<td>Analytical sample</td>
<td>1,041 (MSAS) and 660 (AGEP) girls married between ages 10–25 (MSAS) and 14–23 (AGEP) who had given birth at least once.</td>
</tr>
<tr>
<td>Dependent variables</td>
<td>MSAS: child mortality, low birth weight, home birth, three or more antenatal visits</td>
</tr>
<tr>
<td>Main independent variables</td>
<td>Pregnancy before marriage</td>
</tr>
<tr>
<td>Data sources</td>
<td>Understanding the Lives of Adolescents and Young Adults (UDAYA) in Uttar Pradesh (UP) and Bihar, India</td>
</tr>
<tr>
<td>Type of data</td>
<td>AGEP: Longitudinal, experimental study with 5 rounds collected between 2011 and 2018</td>
</tr>
<tr>
<td>Analytical sample</td>
<td>894 (Bihar) and 599 (UP) girls who married between baseline and follow-up, at ages 12–22</td>
</tr>
<tr>
<td>Dependent variables</td>
<td>AGEP: child mortality, low birth weight, home birth, completed child vaccinations in first year</td>
</tr>
<tr>
<td>Main independent variables</td>
<td>Agency in partner choice</td>
</tr>
</tbody>
</table>

Table 2
Means and standard deviations for all maternal and first-child health outcomes, by premarital pregnancy status, among married adolescent girls and young women in Malawi and Zambia

<table>
<thead>
<tr>
<th></th>
<th>Malawi</th>
<th>Zambia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnant after marriage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child died</td>
<td>.12</td>
<td>.12</td>
</tr>
<tr>
<td>Low birth weight</td>
<td>.12</td>
<td>.12</td>
</tr>
<tr>
<td>Fully vaccinated in the first year of life</td>
<td>.81</td>
<td>.70</td>
</tr>
<tr>
<td>Maternal health outcomes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had three or more antenatal visits</td>
<td>.87</td>
<td>.10</td>
</tr>
<tr>
<td>Home birth</td>
<td>.08</td>
<td>.50</td>
</tr>
<tr>
<td>Mean</td>
<td>St-dev</td>
<td>Mean</td>
</tr>
<tr>
<td>Child health outcomes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child died</td>
<td>.33</td>
<td>.32</td>
</tr>
<tr>
<td>Low birth weight</td>
<td>.33</td>
<td>.30</td>
</tr>
<tr>
<td>Fully vaccinated in the first year of life</td>
<td>.34</td>
<td>.30</td>
</tr>
<tr>
<td>Maternal health outcomes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had three or more antenatal visits</td>
<td>.34</td>
<td>.29</td>
</tr>
<tr>
<td>Home birth</td>
<td>.27</td>
<td>.29</td>
</tr>
<tr>
<td>Mean</td>
<td>St-dev</td>
<td>Mean</td>
</tr>
</tbody>
</table>
after marriage. Notably, a slightly smaller proportion of AGYW with a premarital pregnancy (81%) had three or more antenatal visits than those who became pregnant after marriage (87%). Logistic regression models adjusted for controls (see Table 3) showed that, in Malawi, AGYW who were pregnant before marriage were significantly less likely to have three or more antenatal visits (OR = .58). They were also more likely to give birth at home (OR = 1.57), but this effect is only significant at a 10% level. In addition, although premarital pregnancy was not associated with child mortality in Malawi, later marriage was associated with a lower likelihood of child mortality and of giving birth at home.

In Zambia, descriptive statistics and logistic regression models showed few differences between the use of maternal health care services and child health outcomes among AGYW who were pregnant before marriage and those who became pregnant after marriage, except for child vaccinations. Fifty-eight percent of children born to AGYW with a premarital pregnancy were fully vaccinated in the first year of life, compared with 51% of children born to AGYW who became pregnant after marriage. Adjusted for controls (see Table 3), this difference was significant at the 10% level (We also explored the relationship between forced marriage due to pregnancy and maternal and child health outcomes among 344 Zambian girls who were pregnant at the time of first marriage. 57.3% of AGYW who were pregnant at the time of first marriage reported being forced to marry due to pregnancy. This exploratory analysis with a small sample size allowed us to examine how the interaction between two drivers (see Figure 1), pregnancy and lack of agency, might affect maternal and child health. Results (not shown here) show that pregnant girls who are forced to marry are more likely to have first-born children with low birth weight, but this effect is only significant at the 10% level in bivariate models and not significant in models adjusted for controls.). Overall, we find suggestive evidence that premarital pregnancy, as a marriage driver, is associated with lower use of maternal health care services in Malawi but not in Zambia. We find no conclusive evidence of its relationship with child health in both countries.

Case study 2: Is agency in marital partner choice associated with a change in depressive symptoms in India?

In this case study, we examine how agency in marital partner choice, or in other words, deviating from the norm of marriage being arranged by parents or with familial involvement [16], is associated with a change in depressive symptoms among married AGYW in India. Measuring change in depressive symptoms allows us to account for mental health before marriage, making a unique contribution to literature that has largely used cross-sectional measures of depressive symptoms [2].

Theoretical mechanisms

Agency in marital partner choice (see Figure 1B) may either improve or worsen mental health depending on the meaning and consequences of exercising marriage-related agency within a cultural and normative context. For instance, previous research has found that choosing your own spouse is associated with improved partner communication in India [17]. Therefore, mental health may remain the same or improve if agency in partner choice results in better marriage quality and reduced likelihood of violence. However, previous research from India also suggests that having agency in partner choice does not protect girls and young women from domestic violence [18]. Although gender norms within marriage may thus be similar regardless of whether AGYW choose their own spouse, exercising agency in a context where it is not normative [16] may result in greater risk of depression through social sanctions that deprive women of support systems in times of need [18].

Data and sample

To examine the relationship between agency in marital partner choice and change in depressive symptoms, we use a panel data set from India. The Understanding the Lives of Adolescents and Young Adults data set was collected by the Population Council in the Indian states of Bihar and Uttar Pradesh (UP). The study interviewed unmarried and married adolescent boys and girls, aged 10–19 years at baseline in 2015, and reinterviewed them at ages 13–22 (in 2018–19). Our analytical sample from the Population Council’s Understanding the Lives of Adolescents and Young Adults data set (see Table 1) includes 894 married AGYW from Bihar and 599 married AGYW from UP, who were married between baseline and follow-up, but unmarried at baseline. Age at marriage ranged from 12 to 22 years.

Method

The main dependent variable, change in depressive symptoms (Previous evidence, including from India, suggests that the
Patient Health Questionnaire-9 instrument is stable to measure variance over time, and it is thus conducive to measuring change in depressive symptoms reliably (Gonzales-Blanch et al. 2018; Man et al. 2021) was constructed by subtracting depressive symptoms at baseline from depressive symptoms at follow-up: coded 1 for an increase in depressive symptoms if respondents moved up one level between baseline and follow-up, coded 2 for a decrease in depressive symptoms if respondents moved down one level between baseline and follow-up, and coded 0 for no change between baseline and follow-up. Depressive symptoms at both baseline and follow-up were measured through responses to the Patient Health Questionnaire-9 depression inventory. Responses to each of the nine items were reverse coded, summed (scores ranged from 0 to 27), and categorized [19] based on cutoffs for no (0–4), mild (5–9), moderate (10–14), moderately severe (15–19), and severe (20–27) depressive symptoms at both rounds.

We measured agency in marital partner choice through a dichotomous variable measuring whether AGYW or their parents chose their spouse. We also included covariates known to be associated with depression and mental health as controls [20]: age at marriage, educational attainment, household wealth (at baseline), religious affiliation, and experiences of physical violence perpetrated by parents after age 10.

We used multinomial logistic regression models to estimate the relative risk (RR) of experiencing change (increase/decrease) in depressive symptoms after marriage, compared with experiencing no change after marriage.

**Results**

Descriptive results (see Table 4) showed that over half (52% in Bihar and 56% in UP) of married AGYW experienced no change in depressive symptoms, about a third (34% in Bihar and 31% in UP) experienced an increase in depressive symptoms, and a minority (14% in Bihar and 13% in UP) experienced a decrease in depressive symptoms between baseline and follow-up. In addition, a slightly higher proportion of AGYW chose their own spouse in UP (11%) than in Bihar (8%), but the practice of parents choosing a spouse is common and normative in both states.

Multinomial logistic regression models (see Table 5), one for each Indian state, showed that, net of controls, choosing their own spouse was associated with both a significant increase (RR = 2.65, p = .001) and decrease (RR = 2.50, p = .021) in depressive symptoms among AGYW in UP, but not in Bihar. In addition, AGYW who experienced physical violence perpetrated by their parents were more likely to experience a decrease in depressive symptoms in UP (significant at a 10% level) and were less likely to experience an increase in depressive symptoms in Bihar, relative to AGYW who experienced no change in depressive symptoms.

Overall, we find that agency in marital partner choice is associated with change in depressive symptoms after marriage for some AGYW in India. Although we find evidence of change in both directions, it is important to note that a larger proportion (see Table 4) of girls experience an increase in depressive symptoms after marriage, relative to those who experience a decrease in depressive symptoms.

**Discussion**

We find mixed evidence of the association between marriage drivers and health outcomes (use of maternal health care services and mental health) across both case studies. Specifically, we find that AGYW who were pregnant before marriage are 42 percentage points less likely to have three or more antenatal visits, relative to AGYW who became pregnant after marriage in Malawi. There is little evidence that this driver results in differential child health outcomes and other indicators of maternal health care use in both Malawi and Zambia. In addition, we find that having agency in marital partner choice is associated with both an increase and decrease in depressive symptoms among married AGYW in UP (but not in Bihar), in India. Relative to AGYW who experience no change in depressive symptoms, AGYW in UP are approximately 2.5 times more likely to experience an increase or decrease in depressive symptoms. While these effects seem large, we treat this as evidence of suggestive associations between drivers and health outcomes, given that they may be subject to omitted variable bias and cannot be causally attributed.

Differences in our findings for Malawi and Zambia suggest that premarital pregnancy as a marriage driver may be associated with AGYW’s health in contexts where pregnancy before marriage is relatively less common (as indicated in our samples), but the reasons for these cross-country differences are difficult to verify empirically. Our findings may also reflect differences in the provision of reproductive health services in both countries. In Malawi, there is evidence that providers are hesitant to offer family planning services to girls considered too young [21], which makes premarital pregnancy more likely. In some cases, girls in Malawi may be unable to seek antenatal care because of laws that require the presence of a partner at visits [22]. In contrast, Zambia has better access to sexual and reproductive health services, particularly with access to safe abortion, relative to Malawi [23]. Local laws and policies should focus on identifying those among AGYW who become pregnant before marriage and are at highest risk of insufficient antenatal care in Malawi and make antenatal care more accessible to them, given that the use of maternal health care services is associated with other maternal and child health outcomes [24,25].

Within-country differences in our findings in India paint a similar picture for the relationship between agency as a marriage driver and married AGYW’s mental health. We find that having agency in marital partner choice is associated with both an increase and decrease in depressive symptoms in UP, but not in Bihar. Although surprising, this corroborates previous evidence from India which suggests that “love marriage”, which
represents greater agency in partner choice relative to arranged marriages, is associated with both improved marriage quality and communication and limited social support in the event of negative marital experiences like domestic violence [18]. Although we cannot verify the mechanisms through which these changes in depressive symptoms occur, these results suggest that leaving AGYW to exercise agency without fostering an enabling environment in which agency in marital decision-making is acceptable may be harmful to their mental health. Our findings also suggest that mental health interventions should target the marital transition as an important point of support for married AGYW.

Results from both case studies also highlight the importance of other individual- and family-level factors that may be relevant to determining health outcomes. For instance, girls with higher educational attainment are less likely to give birth at home in Zambia, but not in Malawi. In addition, girls who experience violence perpetrated by parents at a younger age are less likely to experience an increase in depressive symptoms in Bihar and more likely to experience a decrease in depressive symptoms in UP. Thus, variation in girls’ own individual assets and family experiences within local contexts may influence whether and how marriage drivers affect health outcomes, contributing to cross-regional differences in observed relationships.

Our study has some limitations. First, we caution that our findings should be interpreted as associations and not causal relationships. There are other individual, marriage-related, and region-specific variables that may be associated with the health outcomes in these case studies, many of which are unobserved in these data and may result in omitted variable bias. Second, we cannot ensure that the timing of change in depressive symptoms occurred after marriage or that depressive symptoms did not fluctuate between baseline and follow-up. Third, although drivers such as agency or premarital pregnancy may not be associated with some of the health outcomes we examined, they may still influence other aspects of health. We therefore urge the collection and examination of measures in multiple health domains with a longer follow-up period, and for multiple marriage drivers, to allow for comparison.

These findings illustrate some empirical support for a new conceptual framework [26], as evidence suggests that the significance of a relationship between marriage drivers and health outcomes is mixed. Nevertheless, we highlight that the examination and consideration of the continued relevance of marriage drivers, even among AGYW who are already married, are important for programs and policymakers that seek to improve health outcomes for this population and complement efforts to understand the role that marriage drivers play in determining age at marriage.

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References


Table 5
Multinomial logistic regression models predicting change in depressive symptoms among married adolescent girls and young women in India, reported as relative risk ratios

<table>
<thead>
<tr>
<th></th>
<th>Bihar (N = 894)</th>
<th></th>
<th>Uttar Pradesh (N = 599)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Increase in depressive symptoms</td>
<td>Decrease in depressive symptoms</td>
<td>Increase in depressive symptoms</td>
<td>Decrease in depressive symptoms</td>
</tr>
<tr>
<td>The girl chose the spouse (ref: parents chose)</td>
<td>1.11 [0.30]</td>
<td>0.97 [0.38]</td>
<td>2.65** [0.79]</td>
<td>2.50* [0.99]</td>
</tr>
<tr>
<td>Age at marriage</td>
<td>0.97 [0.05]</td>
<td>0.97 [0.07]</td>
<td>0.92 [0.06]</td>
<td>1.00 [0.09]</td>
</tr>
<tr>
<td>Highest grade attained</td>
<td>1.02 [0.02]</td>
<td>1.04 [0.03]</td>
<td>0.99 [0.02]</td>
<td>1.03 [0.04]</td>
</tr>
<tr>
<td>Non-poor (ref: poor)</td>
<td>0.69 [0.16]</td>
<td>1.45 [0.56]</td>
<td>0.94 [0.25]</td>
<td>0.57 [0.20]</td>
</tr>
<tr>
<td>Muslim (ref: Hindu)</td>
<td>1.18 [0.25]</td>
<td>1.21 [0.35]</td>
<td>1.03 [0.23]</td>
<td>1.17 [0.37]</td>
</tr>
<tr>
<td>Physical violence</td>
<td>0.61** [0.10]</td>
<td>1.17 [0.25]</td>
<td>0.96 [0.20]</td>
<td>1.56 [0.43]</td>
</tr>
<tr>
<td>Category N</td>
<td>307</td>
<td>118</td>
<td>186</td>
<td>73</td>
</tr>
</tbody>
</table>

Note: Standard errors in parentheses, *p < .1, **p < .05, ***p < .01. ***p < .001.


