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Gender Norms, Beliefs and Academic Achievement of Orphaned Adolescent Boys and Girls in Uganda

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Abstract

This study examined the traditional gender norms and beliefs held by orphaned adolescent boys and girls, and the role of such norms and beliefs on their academic performance. Data from a NIMH-funded study known as Suubi-Maka in Uganda were analyzed. Results indicate that overall, adolescents held strong gendered norms and beliefs that favor males over females. Compared to boys, girls were more likely to report more egalitarian gender norms and beliefs that give equal consideration to both girls and boys. In addition, more egalitarian gender norms and beliefs were associated with better school grades. Study findings point to the need to integrate targeted components that address harmful gender norms and beliefs in programs that support vulnerable adolescents, including education policy, if we are to address inequalities in education access and achievement, as well promote and strengthen education for all in sub-Saharan Africa.

Keywords

Academic achievement; gender beliefs; gender norms; orphaned adolescents; Uganda

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Disclosure statement

The authors have no conflict of interest to report.

Availability of data and materials

The datasets analyzed during the current study are available from the corresponding author on reasonable request.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author (PN).

Introduction

Following the establishment of the 2000 Dakar Framework for Action goals (UNESCO, 2000), and the development of the Millennium Development Goals (United Nations, 2000), progress has been made in realizing gender parity (i.e., the relative access to education of boys and girls) in primary and secondary school education worldwide. Globally, two thirds (66%) of countries have reached gender parity in primary school education, 45% in lower secondary and 25% in upper secondary (UNESCO, 2019a). Sub-Saharan Africa (SSA) and Southern Asia have the lowest proportion of countries with gender parity at 36% and 33% in primary school education, respectively; and with even lower rates in lower and upper secondary education (UNESCO, 2018).

Despite this progress in enrollment, school dropout is still a major problem. An estimated 59 million children of primary school-going age (between 6 and 15 years) worldwide were out of school in 2018; more than half of these (32 million) live in SSA (UNESCO, 2019b). Girls account for 56% (18 million) of all out of primary school-going children in SSA (UNESCO, 2019c). Unfortunately, out-of-school girls in SSA are more likely than out-of-school boys never to reenroll in school, primarily due cultural gender norms and beliefs that favor boys' education over girls' education (Kågesten et al., 2016; UNESCO, 2019a). Yet, girls' education is essential in the development of positive social, economic and health outcomes (Wodon, Montenegro, Nguyen, & Onagoruwa, 2018). Specifically, girls with higher levels of education are able to make better sexual and reproductive health decisions, including delaying marriage (Rihani, 2006); and educated young women are more likely to send their children to school and to protect themselves and their children against HIV/AIDS, and sexual exploitation (Osili & Long, 2008; Rihani, 2006). Economically, girls with access to and control over economic resources are more likely to invest in their families -breaking the intergenerational cycle of poverty (Wodon et al., 2018).

Because adolescence is a crucial stage of development, beliefs held and decisions made during this stage may have life-long consequences for adolescents' economic, social and health wellbeing, especially for girls. In this paper, we examine the traditional gender norms and beliefs held by orphaned adolescent girls and boys, and how these beliefs and norms impact their academic performance. This is an important area of investigation, especially, as governments in SSA are trying to implement programming and policies promoting education for all and gender equality. Moreover, findings may inform the development of future targeted interventions addressing harmful gendered norms and beliefs that impact educational outcomes for girls in SSA.

Theoretical framework

This study is positioned within social role theory (Eagly, 1987; Eagly & Wood, 1999), which posits that individuals are members of social positions, and that they hold expectations for their own behaviors and those of other persons. More specifically, social role theorists argue that society's social structures contribute to gender stereotypes, which are rooted in different social roles assigned to women and men (Eagly & Wood, 2016). For example, women are more frequently encountered in homemaker or domestic roles, whereas men tend to be breadwinners and are more often located at higher levels within the occupational hierarchy

(Cejka & Eagly, 1999; Rudman & Glick, 2001). Through socialization, these gender roles may support and sustain gender stereotypes among boys and girls, which in turn may influence their behaviors, as well as educational outcomes.

Culturally gendered beliefs and norms among adolescents

Gender is often correlated with status and power. Gender beliefs are defined as universal stereotypes about gender that serve to exacerbate the difference between men and women (Ridgeway & Correll, 2004). On the other hand, gender norms are defined as a set of rules for what is masculine and feminine behavior in a given culture (Endepohls-Ulpe, 2012; Ryle, 2011). Specifically, in every cultural setting, children are socialized overtly and/or covertly to conform to rules of “how to be” a girl or a boy (Endepohls-Ulpe, 2012; Muhanguzi, 2011; Witt, 1997). Males and activities associated with men are considered more valuable and prestigious than females and activities associated with women (Endepohls-Ulpe, 2012).

Studies in SSA have documented that girls are negatively constructed as weak in their households and schools; and are often seen as less deserving of an education compared to boys (Abuya, Onsomu, & Moore, 2014; Abuya, Oketch, & Musyoka, 2013). Elsewhere, studies have documented that parents have estimated that their sons had significantly higher IQs than their daughters (Furnham, Reeves, & Budhani, 2002; Neto & Furnham, 2011). These beliefs - from a young age, may shape the way adolescents interact, form relationships, and engage in sexual and reproductive practices and social behaviors (Kågesten et al., 2016).

In SSA communities affected by HIV/AIDS, traditional gender norms and beliefs combine with economic and social demands in families dominated by orphans and vulnerable children to further disrupt the education opportunities for girls. Although orphaned girls and boys suffer negative consequences on several measurable outcomes (Cluver & Gardner, 2007; Kasirye & Hisali, 2010; Operario, Pettifor, Cluver, MacPhail, & Rees, 2007; Thurman, Brown, Richter, Maharaj, & Magnani, 2006), orphaned girls are more vulnerable to decline in schooling (Nabunya & Ssewamala, 2014). Specifically, orphaned girls are more likely to miss school as they are usually required to stay at home to take care of their young siblings, sick relatives, as well as household responsibilities - leading to declining school grades, and eventually dropping out of school (Evans, 2010; Nabunya & Ssewamala, 2014). Moreover, compared to boys, orphaned girls are more likely to initiate early sexual activity, exposing them to sexually transmitted infections including HIV (Birdthistle et al., 2008; Gregson et al., 2005). Therefore, it is crucial to develop and implement programs that have the potential to help alter the entrenched cultural gender beliefs and norms that tend to disadvantage girls, and help promote educational access, participation and achievement for girls.

Gender norms and education in Uganda

Although Uganda achieved gender parity at the primary level in 2014, girls' enrollment at the secondary school level is lagging behind, and girls are more likely to drop out of school early compared to boys (The Republic of Uganda, 2016). Similar to other developing

countries, girls' education in Uganda is hindered by the male-dominated social and cultural norms that favor boys' education, especially when a family has limited financial resources. Parents recognize that the cost of educating a girl is not just the cost of tuition, but also a loss of labor -because families need them to work or take care of household responsibilities. Moreover, families are more likely to view the education of a girl not as an investment, but as a loss or an investment in someone else's family -in which the girl marries into (Bantebya, Muhanguzi, & Watson, 2014; Rihani, 2006). As such, the opportunity cost of educating a girl is often seen as higher compared to educating a boy.

In addition, adolescent girls face additional challenges due to gendered social norms that place high value on girls' reproductive capabilities, while reinforcing harmful practices such as early marriages and in some communities, female genital mutilations. Girls are primarily seen as bearers of children and there is often very limited vision of what they can do and can achieve (Bantebya et al., 2014; UNICEF, 2014). Compared to boys, girls are more likely to marry early, have their first child at a very young age, have more children, and limited access to family planning services (UNICEF, 2014). The Uganda Bureau of Statistics (UBOS, 2012) estimates that 35% of girls drop out of school due to early marriages and 23% due to pregnancy. Further, out-of-school girls, orphaned children and poor adolescents living in rural communities are at a high risk of human trafficking and sexual violence (Muhanguzi, 2011; Murphy, Stark, Wessells, Boothby, & Ager, 2011).

Although societal gendered norms are known, very few studies have examined the norms and beliefs held by adolescents in SSA (Blum, Mmari, & Moreau, 2017; Moreau et al., 2019). Moreover, none of these studies examined how gender norms and beliefs are associated with academic performance of poor adolescents orphaned as a result of HIV/AIDS. To address this gap, this study utilized secondary data from a National Institute of Mental Health-funded Suubi-Maka study, a randomized clinical trial for adolescents orphaned by HIV/AIDS in Uganda. The specific research questions are:

1. What are the traditional gender norms and beliefs held by orphaned adolescent boys and girls in Uganda?
2. Do these gender norms and beliefs vary by gender?
3. How do these gender norms and beliefs impact academic performance of orphaned adolescents?

Given that gender norms reflect deeper social structures and are reinforced by various social institutions, change becomes complicated, especially, if some groups benefit from or perceive that they benefit from the status quo rooted in these gender norms (Kaufman et al., 2014; Radke, Hornsey, & Barlow, 2018). As such, we hypothesize that given the way boys and girls are socialized, gender norms and beliefs will vary by gender. Specifically, compared to girls, we expect that boys will exhibit strong traditional gendered norms and beliefs that favor males. In addition, more egalitarian gender norms and beliefs - resulting from exposure to new information challenging the established gender norms in schools, will be associated with better school grades among orphaned adolescents.

Methods

Sample and setting

Secondary data from the Suubi-Maka study (2008–2012), a randomized clinical trial funded by the National Institute of Mental Health (NIMH) were analyzed. The study tested a family-based economic empowerment intervention among orphaned adolescents in Uganda. A total of 346 adolescents (10–17 years) and their caregivers (child-caregiver dyad) participated in the study. Adolescents were eligible to participate if: 1) they had lost one or both parents to HIV/AIDS, 2) they were enrolled in the last 2 years of primary schooling (equivalent of 6th and 7th grades in the US), and 3) they were living within a family, not an institution. Participants were recruited from 10 comparable, geographically separate, rural public primary schools in Masaka and Rakai political districts in Uganda - a region heavily affected by HIV/AIDS and poverty. As such, all participating schools were primarily serving children from poor households.

Intervention description

Each adolescent-caregiver dyad was randomly assigned to either the control condition (n=167 dyads) receiving usual support and care services offered to orphaned adolescents in Uganda, such as food aid in the form of school lunches, and scholastic materials (textbooks, notebooks and school uniforms), or the treatment condition (n=179 dyads), receiving usual care services (mentioned above) plus a matched child development account (CDA) intended for post-primary education or microenterprise/small family business development. In addition, adolescents and their caregivers received workshops on financial planning, management and microenterprise development intended to promote economic stability for the families in the study, and to enable the participating adolescent to continue in school with greater economic security. Finally, participants in both conditions received mentorship sessions throughout the intervention period, intended to help participants develop the ability to identify specific future goals and educational aspirations through building their self-esteem, encouraging hopefulness and building stronger communication skills with their caregivers.

While previous studies have examined the effect of the intervention on education related outcomes, including academic performance (Curley et al., 2010; Nabunya et al., 2019; Ssewamala, Karimli, Han, & Ismayilova, 2010; Ssewamala et al., 2016; Ssewamala & Ismayilova, 2009), the current study is only focused on gender norms and academic performance.

Ethical considerations

Participation in the study was voluntary. Informed consent and assent were obtained from participants' caregivers and adolescents respectively. The study received approval from Columbia University (IRB-AAAD2525) and the Uganda National Council for Science and Technology (SS-1540).

Data and measures

Data were collected using a 90-minute interviewer administered survey. We analyzed data collected at baseline (time 1), 12-months (time 2) and 24-months (time 3) follow-up.

Gender norms and beliefs were measured at baseline using 10-items adapted from the Attitudes Toward Women Scale for Adolescents (AWSA), used to measure adolescents' attitudes toward women's rights and roles (Galambos, Petersen, Richards, & Gitelson, 1985). The scale has been tested in previous studies, with high internal consistency and reliability (Daugherty & Dambrot, 1986; Galambos et al., 1985; Yoder, Rice, Adams, Priest, & Prince, 1982). Scale items are related to educational performance and future expectations of girls and boys, family support, encouragement and decision making, and involvement in intimate relationships and behaviors. Sample items include: "*On average, girls are as smart as boys,*" and "*More encouragement in a family should be given to sons than daughters to go to college.*" The Cronbach's alpha was .78 for boys and .72 for girls, indicating a relatively high level of internal consistency. Scale items had binary responses (*Agree*=1 and *Disagree*=0). Items in the inverse direction were reverse coded to create a summary score, with high scores representing more egalitarian gender norms and beliefs i.e., giving equal consideration to both girls and boys.

Academic performance was measured using scores from national standardized examinations, known as Primary Leaving Examinations (PLE). All students intending to enroll in secondary education in Uganda are required to complete and pass PLE. PLE scores were collected at 12 and 24-months for participants -who at study initiation, were in primary 7 and 6, respectively. Scores are measured in aggregates, ranging from 4 (best) to 36 (worst). To illustrate, a total aggregate of 4 means that a student received Distinction 1 (also presented as D1, the best grade one could get in any given subject) for each of the four subjects on which each student is tested, i.e., English, Mathematics, Social Studies, and Science. Likewise, if a student gets a total aggregate of 36, it means that he/she got Failure 9 (also presented as F9, the worst grade one could get) for each of the four subjects outlined above. Aggregates are then categorized into four divisions as follows: Aggregates 4–12 (Division 1), 13–23 (Division 2), 24–29 (Division 3), 30–34 (Division 4), and 35–36 (Failure). Participants in the current study scored between 6 and 36. Official PLE scores were obtained from the Uganda Ministry of Education and Sports - the national governing body of education in Uganda.

Baseline participants' characteristics, including age, gender, orphanhood status (whether single or double orphan), primary caregiver (surviving biological parent or other relative e.g., grandparent(s), aunt, uncle, sibling or in-law), and participating in the intervention were included in the model as control variables.

Analysis procedures

All analyses were conducted in SPSS version 25. Bivariate analyses (independent sample t-tests and cross tabulations) were conducted to examine baseline sample characteristics, gender differences on the total scores and individual items of the AWSA scale. Hierarchical regression models were conducted, with two models controlling for a block of predictors.

Model 1 controlled for participants' age, gender, primary caregiver, orphanhood status and the intervention, and model 2 controlled for gender norms. Adjusted R squares were compared to determine the strength of each model.

Results

Sample characteristics

Characteristics of the sample are summarized in Table 1. Sixty-five percent (65%) of participants were female, 52% were assigned to the treatment condition, receiving the intervention. The average age was 13.4 years, and boys were slightly older than girls ($t=2.06$, $p .05$). The majority of participants (69.9%) were single orphans, meaning they had lost one biological parent. About 35.5% of participants reported their surviving biological parent as their primary caregiver. In terms of school performance, the average score on PLE standardized examinations was 24 aggregates, indicating that the majority of the study participants passed in division two (with division one being the best).

Baseline gender norms and beliefs between boys and girls

At baseline, we observe statistically significant gender differences on the overall ASWA scale (Table 2). Girls reported more egalitarian gender norms and beliefs that give equal considerations, compared to boys ($t=-4.45$, $p<.000$). We further examined these differences on specific individual items. As presented in Table 3, boys and girls did not differ significantly, except on two items related to education. More boys than girls believed that it is more important for boys than girls to do well in school (84.3% versus 45.3%, $\chi^2=49.37$, $p .001$), and that boys are better than girls in school (62% versus 35%, $\chi^2=23.01$, $p .001$). No other statistically significant differences were observed.

On items related to family support, encouragement and decision making (Table 3), while we observe difference between girls and boys, none of these were statistically significant. The majority of participants (91.3%) believed that the father should have greater authority in decision making than the mother, with more girls responding in affirmative (92% versus 90%). More than half of all participants (57.8%) believed that more encouragement in the family should be given to sons than daughters to go to college -with more boys answering in affirmative (64.5% versus 54.2%). In addition, 70.5% of all participants believed that girls should be more concerned with becoming good wives rather than desiring a professional career, with more boys agreeing with the statement (73.6% versus 68.9%). Regarding relationships and behaviors, about 84% of all participants believed that girls should have the same freedom as boys (88.4% of boys and 81.8% of girls). However, 24% of participants believed that it is alright for a girl to propose marriage to a boy and 28% believed it's alright for girls to carry condoms.

Gender norms, beliefs and academic performance

Results from hierarchical regression analysis are presented in Table 4. We conducted two models, with model 1 controlling for participants' age, gender, primary caregiver, orphanhood status and the intervention, and adding gender norms in model 2. In model 1 age ($\beta=0.90$, 95% CI=0.26, 1.54, $p .001$) was associated with lower PLE scores, while

participating in the intervention was associated with better PLE scores ($\beta=-4.78$, 95% CI= $-6.35, -3.21$, $p < 0.001$) (the lower the better). In model 2, more egalitarian gender norms and beliefs were associated with better PLE school grades ($\beta=-0.81$, 95% CI= $-1.29, -0.32$, $p < .001$). Female adolescents were less likely to perform as well as their male counterparts ($\beta=2.23$, 95% CI= $-0.58, 0.33$, $p < .01$). Similarly, older adolescents were less likely to perform as well as young adolescents ($\beta=0.92$, 95% CI= $0.29, 1.55$, $p < .01$). In addition, participation in the intervention remained a significant predictor of better PLE grades ($\beta=-4.51$, 95% CI= $-6.05, -2.96$, $p < .001$). Model 1 accounted for 15% ($R^2=0.153$) of the variance in PLE score, and 18.5% ($R^2=0.185$) of the variance, when gender norms were added in model 2. The 3-percentage change between model 1 and model 2 was statistically significant ($p < .001$).

Discussion

The goal of this paper was to examine the traditional gender norms and beliefs held by orphaned adolescent boys and girls in Uganda, and whether such norms and beliefs are associated with adolescents' academic performance. We find the following. First, overall, adolescents -both girls and boys -hold strong traditional gendered norms and beliefs that favor males (fathers and sons) in the family, in all aspects, including educational performance, expectations and future goals, family support, encouragement and decision making, and involvement in intimate relationships and behaviors. These findings are consistent with previous studies that reported similar findings (Bantebya et al., 2014; Rihani, 2006). Unfortunately, such beliefs might have long lasting implications on the social, economic and health wellbeing of girls beyond adolescence (Ridgeway, 2009; Ridgeway & Correll, 2004; Shakya et al., 2019). This is because, in poor communities impacted by HIV/AIDS, men often control family economic resources and therefore, are in charge of making financial-related decisions, including girls' access to education and health care services.

Second, study findings support our hypothesis that gender norms and beliefs would vary by gender. Specifically, girls in our study reported more egalitarian gender norms and beliefs that give equal considerations to both boys and girls. Although adolescents are socialized to conform to specific gender rules (Endepohls-Ulpe, 2012; Muhanguzi, 2011; Witt, 1997), it is possible that attaining some education may help correct misconceptions associated with gender norms. Indeed, studies have documented that schools may expose girls to new information and ideas that challenge the established gender norms (Evans, 2014, Marcus, Harper, Brodbeck, & Page, 2015; Malhotra, Amin, & Nanda, 2019). In addition, education enhances self-esteem and self-confidence (Kneppers, 2015; Posti-Ahokas & Palojoki, 2014; Seeberg, 2011), and in return, girls may use this acquired self-confidence to challenge discriminatory norms and practices and overcome setbacks. (Evans, 2014; Harper & George, 2020; Harper & Marcus, 2018).

As previously stated, it is important to note that while both girls and boys may be exposed to information challenging the established gender norms, change becomes complicated if some groups -in this case boys, benefit from or perceive that they benefit from the status quo rooted in these gender norms (Kaufman et al., 2014, Radke et al., 2018). Alternatively, if the new information and or extra strategies targeting girls (e.g., girls school attendance) are

implemented in the absence of similar provisions for boys, this may inversely reinforce gender stereotypes (Marcus et al., 2015). Overall, this finding points to the role of education in addressing harmful gender norms that tend to disadvantage girls, especially in developing countries.

Third, we find that more egalitarian norms and beliefs were associated with better PLE scores. It could be that participants whose families promote equal opportunities for both girls and boys, and encourage girls to pursue their academic goals, are more likely to concentrate and perform better. Moreover, the encouragement from family members may contribute to adolescents' increased self-esteem, which in turn, may improve academic performance (Arshad, Zaidi, & Mahmood, 2015; Kwek, Bui, Rynne, & So, 2013; Maropamabi, 2014; Rosli et al., 2012). However, further investigation is needed to understand the mechanisms through which gender norms and beliefs impact academic achievement.

Fourth, participants' gender and age were both associated with PLE grades. Girls were less likely to perform as well as boys. This is not uncommon in Uganda. Although the number of girls who sit for PLE is higher than that of boys over the years, boys tend to perform better than girls (The New Vision, 2020; 2017). Moreover, for orphaned adolescent girls, it could be a function of added family responsibilities and caregiving that interfere with adolescents' school attendance and performance (Evans, 2010; Nabunya & Ssewamala, 2014).

In terms of age, orphaned adolescents are less likely to be at a proper grade level due to a number of factors, including late school enrollment -as some families tend to prioritize schooling for younger children as opposed to older adolescents (Guo, Li, & Sherr, 2012), irregular school attendance due to interruptions caused by prolonged parental illness and proceeding death, as well as relocations to other households willing and able to provide for them -all leading to declining school grades and grade repetition (Ainsworth, Beegle, & Koda, 2005; Bicego et al., 2003; Case, Paxson, & Ableidinger, 2004; Evan & Miguel, 2004; Kasirye & Hisali, 2010; Monasch & Boerma, 2004; Pufall et al., 2014; Ssengendo & Nambi, 1997). Indeed, although the average age for students in primary 7 is 13 years, participants in our study were between 10 and 17 years, meaning that older adolescents experienced irregular schooling, which impacted their school participation and PLE performance.

Finally, consistent with previous findings, participating in the intervention was associated with better PLE grades, pointing to the potential of a family-based economic strengthening interventions in promoting academic performance, especially for orphaned adolescents (Curley et al., 2010; Nabunya et al., 2019; Ssewamala et al., 2016, 2010; Ssewamala & Ismayilova, 2009).

Limitations

Study findings should be carefully interpreted in light of the following limitations. First, while we utilized the AWSA to assess adolescents' gender norms and beliefs, it is not a direct measure of families' attitudes or behaviors with respect to school participation or achievement for girls. Second, we utilized self-reports which tend to suffer from social desirability. However, participants did not have any incentive to inflate or downplay their

beliefs and experiences. Third, data was collected from adolescents enrolled in school. Findings could be different among adolescents out-of-school.

Implications and conclusion

Our findings contribute to the limited literature examining gender norm and beliefs among adolescents in SSA, as well as the role of such norms and beliefs on adolescent's academic performance. Findings point to the need for incorporating components that specifically target the negative gendered norms and beliefs that tend to disadvantage girls in favor of boys. One example could be through peer mentorship programs designed to help adolescents, especially girls, develop the ability to identify specific future goals and educational aspirations, build their self-esteem, encourage hopefulness, build stronger communication skills with their caregivers, while helping to alter the entrenched cultural gender beliefs and norms. Moreover, incorporating these components in programming, such as school policies, would be one step toward addressing inequalities in education access and achievement, as well promoting and strengthening education for all.

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Table 1.

Sample characteristics.

Variable	Total (N=346) %	Girls (n=225) %	Boys (n=121) %	χ^2/t -test
Gender		65	35	
Study condition				
Control	48.3	48	48.8	
Treatment	51.7	52	51.2	
Age (Mean, SD) (min/max: 10–17)	13.4 (1.24)	13.3 (1.20)	13.6 (1.30)	2.06*
Orphanhood status				0.16
Double orphan	30.1	29.3	31.4	
Single orphan	69.9	70.7	68.6	
Primary Caregiver				5.57
Biological parent	35.5	34.2	38	
Grandparent	28.3	16.5	11.8	
Other caregiver (grandparents, aunt, uncle, siblings, etc.)	40.4	28.1	36.1	
PLE Grades (Mean, SD) (min/max: 6–36)	24.1 (6.86)	24.59 (6.47)	23.09 (7.53)	-1.69

Note:

* $p < .05$.

Table 2.

Bivariate analysis results: Gender norms and beliefs by gender.

Variable	Total (N=346)	Girls (n=225)	Boys (n=121)	t-test
AWSA Scale (Mean, SD) (min/max = 0–8)	4.17 (1.58)	4.44 (1.56)	3.67 (1.51)	-4.45***

Note:

p .001.

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Table 3.

Individual item analysis of gender norms and beliefs by gender (%).

Gender norms and beliefs items	Total (N=346)	Girls (n=225)	Boys (n=121)	χ^2
Swearing is worse for a girl than for a boy	63.3	62.2	65.3	0.32
On average, girls are as smart as boys	66.8	69.3	62	1.92
More encouragement in a family should be given to sons than daughters to go to college	57.8	54.2	64.5	3.38
In general, the father should have greater authority than the mother in making family decisions	91.3	92	90.1	0.37
It is more important for boys than girls to do well in school	59	45.3	84.3	49.37***
Boys are better in school than girls	44.5	35.1	62	23.01***
It is alright for a girl to propose to a boy	24	21.8	28.1	1.72
Girls should be more concerned with becoming good wives other than desiring a professional career	70.5	68.9	73.6	0.82
Girls should have the same freedom as boys	84.1	81.8	88.4	2.6
It's alright for girls to carry condoms	28.3	28.4	28.1	0.01

Note:

 p .001.

Table 4.

Regression on PLE performance.

Variable	Model: β (95% CI)	Model 2: β (95% CI)
Constant	13.28 (4.14, 22.43) **	15.72 (6.61, 24.83) ***
Gender (male)	1.59 (-0.04, 3.23)	2.23 (0.58, 3.88) **
Age	0.90 (0.26, 1.54) **	0.92 (0.29, 1.55) **
Primary caregiver (biological parent)	0.09 (-1.73, 1.91)	0.18 (-1.61, 1.97)
Orphanhood Status (double orphan)	0.68 (-1.24, 2.59)	0.75 (-1.14, 2.63)
Treatment condition	-4.78 (-6.35, -3.21) ***	-4.51 (-6.05, -2.96) ***
Gender norms		-0.81 (-1.29, -0.32) ***
F-value (df)	9.65 (5) ***	10.09 (6) ***
R ²	0.153	0.185
Adjusted R ²	0.137	0.167
Change in R ²		0.032 ***

Note:

**
p .01,***
p .001.