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RESEARCH ARTICLE

Social and cultural factors perpetuating early marriage in rural Gambia: an exploratory mixed methods study [version 1; peer review: 1 approved, 1 approved with reservations]

Mat Lowe¹ , Mamsamba Joof², Bomar Mendez Rojas³

¹Society for the Study of Women's Health (SSWH), Old Yundum, Kombo North District, The Gambia

²Agency for the Development of Women and Children (ADWAC), Kerewan, North Bank Region, The Gambia

³Pan American Health Organisation, Tugicigalpa, Honduras

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Abstract

Background: Over the last two decades, early marriage in the Gambia declined significantly (from 58% to 30%). Yet evidence indicates that nearly 8.6% of marriages in the Gambia involved girls younger than 15, and 46.5% of marriages are with girls aged 18 or below. The reasons for the decline but continuing practice of early marriage, despite existing legislation prohibiting child marriage, are not very well understood. Very few studies have been conducted to find out what and how local factors influence decisions about early marriage in the Gambia. More information is therefore needed on underlying reasons for the persistence of early marriage in the Gambia so that program managers can use this information to design strategies towards accelerating the decline of early marriages.

Methods: The study was conducted in 24 rural settlements in Lower Baddibu District in the North Bank Region of the Gambia. It was based on a mixed-methods design including a cross-sectional household survey with a sample of 181 female adolescents and focus group discussions with 16 male and female parents.

Focus group discussions were digitally-recorded, transcribed verbatim and analyzed using thematic content analysis, while survey data were analyzed using Stata.

Results: Using multiple regression analysis, this study found that ethnicity more than other factors, exerts an independent effect on early marriage. Themes identified during focus group discussions also revealed that fear of premarital sex and loss of virginity outside marriage were major reasons for the perpetuation of early marriage.

Conclusions: These findings suggest that the practice of early marriage in rural Gambia is associated with ethnicity and practices related to social and cultural norms. The findings also suggest that in

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1. **Oluwaseyi Abiodun Akpor** , Afe Babalola
University, Ado Ekiti, Nigeria

2. **Peter J. Winch** , Johns Hopkins Bloomberg
School of Public Health, Baltimore, USA
Anna Passaniti, Johns Hopkins Bloomberg
School of Public Health, Baltimore, USA

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order to decrease early marriages, future efforts should focus on allaying the fears around premarital sex and loss of virginity related to delay in marriage.

Keywords

Early marriage, Gambia, mixed-methods, female adolescents, average age, prevalence, virginity, premarital

Corresponding author: Mat Lowe (sswhgambia@outlook.com)

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Introduction

Early marriage or child marriage, defined as marriage before the age of 18, is perceived as a grave violation of human rights. It is a global problem, even though it is prohibited by the Convention on the Rights of the Child and the Convention on the Elimination of All Forms of Discrimination against Women^{37,38}, two of the most broadly endorsed international human rights agreements. In the last decade, the practice of early marriage declined worldwide from 25% to 21%, a modest reduction of 15%¹.

However, the rate of decline has been slowest in West and Central Africa, the region with the highest prevalence of child marriage^{1,2}. Within the region, estimates vary from 76% in Niger to 18% in Cape Verde³. In West and Central Africa, four in ten girls⁴ marry before the age of 18, and one in three marries before age 15. At this rate, with the growing population of girls in the region, the number of child brides in West and Central Africa is projected to increase from 6.4 million in 2015 to 7.1 million by 2030².

The reasons why early marriage is so common in West and Central Africa are wide ranging and can be grouped under religion, tradition and culture, poverty, and gender inequalities^{8,20,21,36}. However, there is evidence that research findings from communities cannot be generalized to other countries or even to other communities within the country where the research was conducted²². Rather, because of this inability to generalize it is crucial to use locally derived evidence to understand how and why communities differ in their approach to child marriage so that more sensitive strategies can be developed to address the problem. The purpose of this study, therefore, was to provide a contextualized picture of underlying factors that are perpetuating early marriage in rural Gambian communities.

Early marriage in the Gambia

A National Child Protection Strategy Plan, which highlighted early marriage as an issue to address, was launched in 2016. Despite this, early marriages are still common in the Gambia which is listed in the top 41 countries worldwide where the prevalence of child marriage is 30% or more⁴⁴. Historically, early marriages were widespread with 58% of 40–49-year-old marrying before the age of 18. But this declined over time and now an estimated 30 percent of women aged 20–24 marry before the age of 18. The reasons for this decline are uncertain although increasing enrolment of girls in school may be a contributory factor⁴³.

Girls are more affected than boys, with a girl-to-boy ratio for marriage before the age of 18 of 43:1²⁵. Girls most at risk come from poorer rural households with little or no education^{25,44}. Urban women aged 25–49 tend to marry about two years later than their rural counterparts. For instance, women in Banjul the capital city marry four years later than women in Kuntaur, a rural settlement 21.0 versus 17.0. For women who have secondary or higher education the median age to marry is 22.2 compared to 17.3 for women who have no education. Similarly, women in the wealthiest quintile marry at a median

age of 20.8 years whereas women in the lowest quintiles marry at 17.2 years²⁵. Adolescents are aware of contraceptives (91%) but rarely use them (3.3%), so that childbearing begins early in the Gambia²⁵. Almost one in five (18 percent) of adolescent women age 15–19 are already mothers or pregnant with their first child²⁵.

The reasons for why the practice of early marriage still persists in the Gambia despite the initial decline and the effect of the recent 2016 legal reforms to outlaw early marriage⁴⁵ have received inadequate attention aside from a single published report³⁴. More information is therefore needed on underlying reasons for the persistence of early marriages in the Gambia. But even more importantly no studies have yet been conducted to design interventions based on locally generated research findings that fully characterize contextual factors influencing decisions on early marriage in rural Gambian communities. The primary purpose of this study is to address these gaps and to provide program managers with detailed information on the type and short-term effects of contextually relevant interventions that can be scaled up to change societal attitudes towards accelerating the decline of early marriages in rural Gambia. The study was conducted as part of a larger research project addressing teen pregnancy and early marriage in the Gambia⁴¹.

Methods

Study design and setting

This study was based on a mixed-methods design that included a cross-sectional household survey and focus group discussions as primary data collection techniques. It was conducted in 24 rural settlements in Lower Baddibu District in the North Bank Region of the Gambia. Lower Baddibu District has a population of 17,961²⁴. It had the second-lowest recorded median age at marriage (17.3 years) in a national survey²⁵.

Selection and recruitment of study participants

Cross-sectional household survey. The sampling frame for the cross-sectional household survey was drawn from the Directory of Settlement²⁴, which is the census frame. The sample was selected in two stages. First, all the 24 settlements in Lower Baddibu District were randomly selected and grouped under the four main ethnic groups, Mandinka, Fula, Wolof and Serer, with probability proportional to population size age 10 years and above for each ethnic group of settlement (Table 1). Further stratification by age was done. Those to be interviewed were divided into three age groups: a) 10–19 years; b) 20–39 years; and c) 40+ years. The proportion of the population in the Gambia that falls into each of these groups is estimated at 35% for 10–19; 42% 20–39 and 23% for those aged 40+²⁴. These proportions were used to determine the number of those to be interviewed within each age group in each ethnic group of settlements (Table 2). Female adolescents represent 56% (181 out of 320 adolescents) of the total 10–19 years targeted for the survey (Table 2). Female adolescents (aged 10–19 years) were the main focus of the survey because the practice of early marriage has a greater impact towards young females.

Table 1. Sample size determination by probability proportional to population size.

Major ethnic group	Name of settlements	Population size 10+ years	No of respondents	No. of Households
Mandinka	Kerewan Gunjur Suwareh Kunda Kinteh Kunda Janneh-ya Banni Saaba	8561	311	52
Fula	Tallen Fula Choken Fula Toro Bah Yallal Bah Kerr Banno Mbaburr Kunda Foday Biran Njie Kunda Toro Tayam	1965	277	46
Wolof	Amdalai Tallen Wollof Taiba (Jebel Satou) Njawara Daru Salam Tawakaltu Panneh Bah	1449	264	44
Serer	Samba Musa Choken Missira	78	63	11
	Total	12053	915	153

Table 2. Sample size determination by ethnic group, settlement, number of respondents and age group (in years).

Major ethnic group	Name of settlements	No of respondents	Age group (years)		
			10–19	20–39	≥40+
Mandinka	Gunjur Kerewan Suwareh Kunda Kinteh Kunda Janneh-ya Banni Saaba	311	109	131	71
Fula	Tallen Fula Choken Fula Toro Bah Yallal Bah Kerr Banno Mbaburr Kunda Foday Biran Njie Kunda Toro Tayam	277	97	116	64
Wolof	Amdalai Tallen Wollof Taiba (Jebel Satou) Njawara Daru Salam Tawakaltu Panneh Bah	264	92	111	61
Serere	Samba Musa Choken Missira	63	22	26	15
	TOTAL	915	320	384	211

When the research team arrived in the selected settlement, a systematic sampling approach was used to select every second household, followed by convenience sampling to select respondents within each household. Two female respondents aged 10- to 19-year were selected. The research team then continued to collect data in the settlement until they obtained the numbers required. However, if the households did not provide the number of respondents required, then the research team subsequently moved to a random new settlement. Interviews were conducted at noon and sometimes in the late evening to maximize the response rate. No more than two individuals per household in the same age group were interviewed to increase representativeness.

Focus group discussions. The participants were selected purposively, and were mainly parents, who were recruited voluntarily with the help of the research team. They were chosen based on their role as household heads with actual or potential relevance and understanding of decision-making processes around early marriage.

Data collection

Quantitative data. Two types of questionnaires (a Household Questionnaire and a Female Adolescent Questionnaire, both available as *Extended data*^{49,50}) were used to conduct face to face interviews with interviewees. The Household Questionnaire was used to identify female adolescents eligible to be interviewed with the Female Adolescent Questionnaire. In addition, the Household Questionnaire also collected information on the condition of the dwelling and household amenities and possessions, such as the source of drinking water, type of sanitation facilities, materials used to construct the dwelling, and ownership of various consumer durables, land, and farm animals. The Female Adolescent Questionnaire collected information on characteristics of female adolescents (age, marital status, ethnicity, literacy, current school attendance, education, employment, exposure to early marriage prevention messages, average age of marriage and characteristics of parents). The questionnaires were adapted from a similar study in Ethiopia²⁶ and from the Demographic Health Survey of the Gambia²⁵. They were pre-tested in three settlements in Sabach Sanjal District, which have similar characteristics to Lower Baddibu District, where the study was conducted. The pre-testing allowed revisions and finalization of the questionnaires before they were put to full-scale administration.

Qualitative data. For the qualitative data collection, two focus group discussions that included 16 participants including both male and female parents were conducted in two selected case study settlements (Njwara and Foday Biran). The focus group discussions typically lasted for 45 minutes and were held in either the village health post or community center to avoid distraction. They were conducted in the vernacular languages (Mandinka, Wolof, Fula and Serer) by the main author and the research team, which comprised of four data collectors and two field supervisors. The main author and the research team have a thorough mastery of the four main languages (Mandinka, Wolof, Fula and Serer) used to conduct the focus group discussions. A focus group discussion guide which was developed based on

review of existing literature was used to facilitate discussion during focus group discussions (this is available as *Extended data*⁴⁸). The focus group discussion guide explored perceptions of and attitudes towards early marriage. It was pre-tested with participants that have similar inclusion criteria as those who participated in the focus group discussions. Focus group discussions were digitally recorded using an IC recorder and transcribed verbatim in English language.

Data management and analysis

Quantitative data. Descriptive analysis of survey respondents' demographic characteristics was first conducted using the means and standard deviations for continuous variables and the frequencies and percentages for categorical variables. Second, multiple logistic regression analysis was used to determine the predictors of early marriage among female adolescents. We used a progressive analytical strategy starting with the calculations of the unadjusted odds ratios. We first ran model 1 in which ethnic groups were adjusted by messages to prevent early marriage. In model 2 we assessed whether the observed associations of model 1 were explained by the presence of selected household characteristics (a proxy of wealth). In models 3 and 4, we evaluated the extent the associations of previous model are explained by female's education, adolescent parents' survival status, adolescent's parent ability to read and write and whether the female adolescent agree that fathers as heads of household and not mothers should arrange for their daughters' and sons' marriage. All the analyses were conducted in Stata version 12.0 produced by StataCorp in College Station, TX.

Qualitative data. Data analysis process for the qualitative data involved listening to all sound recording files from focus group discussions by the main author and the research team before transcription began. After transcription, the transcribed text was read at least three times to make sense of totality. This process of transcription and reading of the transcribed texts allowed identification of thematic categories, which were later developed into major themes. Coding and analysis of all data were subjected to content analysis²⁸, and NVivo 11 Pro was used to manage the data.

Ethical considerations

Before the start of the study, the main author submitted the study proposal and tools to the Scientific Coordinating Committee (SCC) Medical Research Council (MRC) The Gambia at the London School of Hygiene and Tropical Medicine (LSHTM). The main author was then invited to present at the meeting of the SCC. The SCC provided some inputs on the study proposal and tools following presentation by the main author at its meeting. The revised study proposal and tools in relation to the issues raised by the SCC was re-submitted by the main author and later approved by the SCC. In the study proposal and tools was later submitted and approved by the SCC (SCC 1651v1.1). The SCC then subsequently forwarded the approved study proposal and tools to the Joint Gambia Government/ MRC Ethics Committee for further consideration, which later provided ethical approval (SCC 1651v1.2) following minor changes on the informed consent form.

During data collection, informed consent, verbal and written depending on the level of literacy, were obtained from the study participants. Parental informed consent was sought for minors under the age of 18 years and since the research team were composed of men, permission was also taken from husbands of married female adolescents because husbands can decide whether their women should talk to other men or not⁴².

Care was also taken to make sure that all questions were asked in a culturally respectful and non-judgmental way. This was achieved through the careful selection and training of data collectors and field supervisors, as well as by the design of the study tools. In all the study communities, courtesy calls were also made to village heads (locally known as “Alkaloes”) to inform them about the purpose of the study and to seek clearance from them. Although this method of obtaining approval is considered customary, it is highly ethical and recommended, since village heads yield much power over their people and territories.

Results

The results are presented in two sections. First, data on demographic characteristics of female adolescents are presented, followed by factors associated with early marriage. Individual-level responses to questionnaires⁴⁷ and de-identified summary transcripts of focus group discussions are available as Underlying data. Focus group transcripts⁴⁶ are available as Underlying data.

Demographic characteristics of female respondents

Table 3 presents the demographic characteristics of female adolescents in the cross-sectional household survey. Nearly 70% of female adolescents belonged to the Mandinka and Fula ethnic groups and are older than 13 years. About 12% of them are currently or ever married. On average, female adolescents have 4.2 years of schooling and about 45% are currently attending school. The average age at which female adolescents first heard that their parents had arranged for their marriage was 16 years (Figure 1), which is below the national legal age of 18 years of marriage.

The vertical orange line is the average age at which the female respondent first heard that her parents arranged her marriage. The orange area represents the 95% confidence interval of the average. The average was 16 years, the minimum value of the average was 15.1 years, and the maximum value was 16.6 years. The horizontal red lines and circles represent villages in which the average age is below the minimum value, the blue lines represent the villages in which the average age is above the maximum value, and the green lines represent the villages in which the average age falls within the average range for this area.

Factors associated with early marriage

Factors identified using multiple logistic regression analysis.

Table 4 shows regression analysis results for factors associated with marrying before 18 years among female adolescents. In the

Table 3. Demographic characteristics of female adolescents aged 10–19 years.

Variable	Female adolescents n = 181	
	Mean (SD)	%
Ethnic group		
Fula		32.5
Mandinka		37.6
Serer		5.1
Wolof		24.9
Age group		
10 to 12 years		17.8
13 to 15 years		35.0
16 to 19 years		47.2
Marital status		
Currently/ever married		11.7
Never married		88.3
Years of schooling	4.2 (4.1)	
Currently attending school		
Yes		45.2
Years of education		
0 years		41.6
1 to 6 years		21.3
7 to 9 years		27.4
10 to 12 years		9.6
Activity has spent most of the time spent in the last 12 months		
Going to school/studying		45.2
Housework/child care		40.6
Looking for work		14.2

unadjusted associations, females in both the Mandinka and Wolof ethnic groups have a higher probability of marrying before 18 years than do females in the Fula ethnic group. Compared with the reference group, females in the Mandinka ethnic group have a 3-fold higher probability of marrying before 18 years, and those in the Wolof ethnic group have a 2.9-fold higher probability; both results are statistically significant at the 0.05 level.

In Model 1, we entered the ethnic groups simultaneously and whether the respondent was exposed to messages regarding the prevention of early marriage, as classified by the number of sources (e.g., radio, TV). After the number of messages received was held constant, females in the Mandinka and Wolof ethnic groups had a 2-fold greater probability of marrying early than did females in the Fula ethnic group.

Figure 1. Average age at which a female adolescent first heard that her parents had arranged her marriage. Five villages are not displayed because they have no data on average age at which female adolescent first heard that her parents had arranged her marriage.

In Model 2, we evaluated the association of ethnic group and probability of marrying before 18 years while holding constant the socioeconomic condition of the family and the messages of early marriage prevention. As a proxy of family socioeconomic condition, we created a composite index of six household characteristics, where the higher the number of characteristics in the households, the higher the socioeconomic condition. When household characteristics are taken into account in Model 2, the significance level for the Mandinka ethnic group disappeared, while that for the Wolof ethnic group remains statistically significant. The lack of significance for the Mandinka ethnic group indicates that part of the effect observed in Model 1 was explained by the socioeconomic condition of the family and was not an effect of the Mandinka ethnic group by itself. On the other hand, the result of the Wolof ethnic group indicates that independent of the socioeconomic conditions, this ethnic group has a higher probability of marrying early.

In addition to the variables included in Model 2 and Model 3, we included the females' duration of schooling. The inclusion of this variable will help to elucidate whether female education may confound the associations among ethnic group, family socioeconomic condition and marrying before 18 years. The results of Model 2 indicate that when family socioeconomic conditions and adolescent female education are held constant, females in the Wolof ethnic group have a 3-fold higher probability of marrying before 18 than do females in the Fula ethnic group.

In Model 4, we added five more variables to those evaluated in Model 3. The results show that when family socioeconomic condition, adolescent female education, living mother, living father, mother's/father's ability to read and write and whether the female adolescent agrees that fathers, as heads of household, and not mothers, should arrange for their daughters' and sons' marriage are held constant, females in the Wolof ethnic group still have nearly a 3-fold higher probability of marrying early than females in the Fula ethnic group. All these results indicate that ethnicity, particularly Wolof, exert an independent effect on the probability of marrying early. These results were crossed examined with findings from the focus group discussions, which explored alternative explanations for early marriage.

Themes identified during focus group discussions. Other factors associated with early marriage also included practices related to social and cultural norms. Findings from the focus group discussions revealed that fear of premarital sex and loss of virginity outside marriage were reported as major factors in the perpetuation of early marriage. In one focus group discussion, a participant, was quoted as saying: "It is very risky to delay marriage for your daughter because you don't know what that might become of her". In another focus group discussion, a participant, added the following: "In fact, in the first place, there is no guarantee that she [your daughter] is not having love affairs. To be sure that she does not have sexual encounter or loss her virginity before marriage, it is better to marry her off". From the above statements it is clear that

Table 4. Regression analysis results for factors associated with marrying before 18 years.

Variables	Unadjusted	Model 1	Model 2	Model 3	Model 4
	OR (95 % CI) ¹	OR (95 % CI)	OR (95 % CI)	OR (95 % CI)	OR (95 % CI)
Ethnic group (reference: Fula) ²					
Mandinka	3.1** (1.34 – 7.28)	2.32* (0.85 – 6.32)	2.1 (0.82 – 5.18)	1.8 (0.69 – 4.69)	1.79 (0.66 – 4.84)
Wolof	2.9** (1.12 – 7.61)	2.84* (0.85 – 9.47)	3.16** (1.17 – 8.48)	3.0** (1.07 – 8.61)	2.85** (1.0 – 8.15)
Number of messages of preventing early marriage seen or heard by female youth (Reference: Not heard or seen messages)					
From one source	0.72 (0.28 – 1.82)	0.58 (0.18 – 1.83)	0.58 (0.18 – 1.86)	0.71 (0.21 – 2.39)	0.65 (0.18 – 2.27)
From two sources	1.23 (0.42 – 3.58)	0.67 (0.19 – 2.32)	0.65 (0.18 – 2.29)	0.83 (0.22 – 3.10)	0.93 (0.23 – 3.64)
From three to five sources	0.70 (0.18 – 2.61)	1.76 (0.18 – 16.6)	2.23 (0.22 – 21.9)	3.35 (0.32 – 35.4)	2.94 (0.24 – 35.1)
Selected household characteristics (reference: Households have none of the characteristics)					
Households with Electricity AND Piped water into dwelling AND Ventilated improved pit latrine	2.20 (0.78 – 6.17)		2.91** (1.13 – 7.48)	2.54 (0.96 – 6.73)	3.24** (1.13 – 9.31)
Electricity AND Piped water into dwelling AND Ventilated improved pit latrine AND Walls made of bricks/cement/ cement blocks AND Roof made of corrugated iron AND Floor made of cement/bricks/ceramic	4.05** (1.07 – 15.3)		5.15** (1.47 – 18.0)	5.39** (1.49 – 19.5)	6.97** (1.79 – 27.1)
Years of adolescent female's schooling (reference: 8 to 12 years)					
0	2.20 (0.66 – 7.35)			0.86 (0.33 – 2.20)	0.82 (0.31 – 2.19)
1 to 4	13.5** (1.45 – 18.6)			4.31 (0.47 – 39.2)	4.36 (0.47 – 40.2)
5 to 7	2.19 (0.60 – 8.02)			2.19 (0.69 – 6.92)	1.76 (0.54 – 5.78)
Mother is alive (yes)	0.74 (0.09 – 6.14)				2.11 (0.39 – 11.4)
Father is alive (yes)	1.84 (0.66 – 5.1)				1.36 (0.47 – 3.93)
Father can read and write (yes)	2.60 (0.58 – 11.6)				0.78 (0.25 – 2.44)
Mother can read and write (yes)	3.05 (0.39 – 23.9)				2.18 (0.43 – 11.1)
The female adolescent agree that fathers as heads of household and not mothers should arrange for their daughters' and sons' marriage	2.47 (0.80 – 7.60)				1.64 (0.64 – 4.25)

**The results are statistically significant at 0.05 level. 1= Unadjusted odds ratio; 2= The Serer ethnic group has no enough observations to be included in this logistic regression analysis

fear of premarital sex is a major factor in early wedlock. It is also clear that ensuring virginity at marriage is highly regarded and therefore fuels the belief that girls should marry early. These issues are further complicated by the perceived lack of good potential husbands and the limited meaningful alternatives to marriage available for girls, such as explained by this participant: *“There is great pressure on us [parents] to delay marriage for our girls. We at times submit to this pressure. But the thing is that a good husband is also hard to come by so that when this opportunity arises for your girl, you are left with no other options but to marry her off”*.

Taken together, these factors might at least partly explain the reasons for the continuing practice of early marriage in rural Gambian communities in Lower Baddibu District.

Discussion

Our findings suggest that the practice of early marriage in rural Gambia is associated with ethnicity and practices related to social and cultural norms. We found that, ethnicity, particularly Wolof, exerts an independent effect on the probability of marrying early. This finding is consistent with a study³¹ that showed ethnic factors as determinants of early marriage among young females. Our findings also revealed that among parents, fear of premarital sex and loss of virginity outside marriage were reported as major factors in the perpetuation of early marriage. This finding is in keeping with the chastity explanation as proposed by Bicchieri *et al.*³³, which explains that parents want their daughters to be chaste and believe that there is a risk that girls who grow older may lose their virginity outside of marriage. The finding has wide programmatic implications. It suggests that in order to prevent early marriages, future efforts should focus on allaying the fears around premarital sex and loss of virginity related to delay in marriage. Such efforts may include providing girls with age appropriate information to prevent early sexual activities and engaging parents on discussions focusing on the social norms around early marriage. These strategies are contextually relevant and can be implemented and scaled up to change societal attitudes towards accelerating the decline of early marriages in rural Gambia. For instance, many parents in our focus group discussions supported providing girls with information about the harmful effects of premarital sex and teenage pregnancies, as well as organizing community engagement forums with parents as effective package of interventions that can be implemented to prevent early marriage in rural Gambia.

While our study has provided a contextualized picture of the underlying social and cultural factors that are perpetuating early marriage in rural Gambia, the findings should be interpreted in light of the following limitations. First, it was conducted in a single district, which limits generalization to other districts. There is evidence that study findings on early marriage from communities cannot be generalized to other countries or even to other communities within the country where the study was conducted²². Second, because child marriage is illegal in the Gambia, participants may have provided measured responses for fear that they may be blamed by other community members and/or possibly be prosecuted by providing enough

information on the situation of early marriage. Finally, although the study has touched on some important factors perpetuating early marriage, the findings are by no means all the social and cultural factors that perpetuate early marriage in rural Gambian communities. Nonetheless, the study has important implications for policy and or practice. It can be used by program managers to accelerate the decline of early marriages in the Gambia.

For future research, the study indicates the need for a more robust population-based study, which would have the potential to provide a more contextualized picture of the prevalence and factors that are perpetuating early marriages in rural Gambian communities.

Data availability

Underlying data

Figshare: Social and cultural factors perpetuating early marriage in rural Gambia: an exploratory mixed methods study. <https://doi.org/10.6084/m9.figshare.1005516.v1>⁴⁶.

This project contains de-identified summary transcripts of focus group discussions. Focus group transcripts.

Figshare: Social and cultural factors perpetuating early marriage in rural Gambia: an exploratory mixed methods study. <https://doi.org/10.6084/m9.figshare.10045979.v1>⁴⁷.

This project contains responses to the questionnaires administered in this study.

Extended data

Figshare: Social and cultural factors perpetuating early marriage in rural Gambia: an exploratory mixed methods study. <https://doi.org/10.6084/m9.figshare.10046024.v1>⁴⁸.

This project contains the focus group discussion guide.

Figshare: Social and cultural factors perpetuating early marriage in rural Gambia: an exploratory mixed methods study. <https://doi.org/10.6084/m9.figshare.10046090.v1>⁴⁹.

This project contains the questionnaire administered to the female adolescents.

Figshare: Social and cultural factors perpetuating early marriage in rural Gambia: an exploratory mixed methods study. <https://doi.org/10.6084/m9.figshare.10046102.v1>⁵⁰.

This project contains the household questionnaire.

Data are available under the terms of the [Creative Commons Attribution 4.0 International license](#) (CC-BY 4.0).

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References

1. **Child marriage: latest trends and future prospects.**
[Reference Source](#)
2. United Nations Population Fund: **Marrying too young end child marriage.** New York, NY: UNFPA; 2012.
[Reference Source](#)
3. UNICEF: **Monitoring the status of children and women.** 2018; Accessed 8 Aug 2018.
[Reference Source](#)
4. UNICEF: **Achieving a future without child marriage.**
[Reference Source](#)
5. Population Reference Bureau: **The world's youth 2006 data sheet, bridge.** 2006.
[Reference Source](#)
6. United Nations Children's Fund: **Ending child marriage: progress and prospects.** New York, NY: UNICEF; 2014.
[Reference Source](#)
7. Larsen JE: **Young people in west and Central Africa trends, priorities, investments and partners, UNICEF.** 2009; Accessed 10 Aug 2018.
[Reference Source](#)
8. **Child marriage in West and Central Africa – Girls not Brides, The Global Partnership to end Child Marriage.**
[Reference Source](#)
9. Nour NM: **Health consequences of child marriage in Africa.** *Emerg Infect Dis.* 2006; **12**(11): 1644–9.
[PubMed Abstract](#) | [Free Full Text](#)
10. World Health Organization: **Report of the expert group meeting on mainstreaming adolescent pregnancy in the work of the World Health Organization.** 2009; Accessed 21 Aug 2018.
[Reference Source](#)
11. WHO: **WHO Guidelines on Preventing Early Pregnancy and Poor Reproductive Health Outcomes Among Adolescents in Developing Countries.** Geneva, Switzerland: WHO; 2011.
[PubMed Abstract](#)
12. Maheu-Giroux M, Filippi V, Maulet N, *et al.*: **Risk factors for vaginal fistula symptoms in Sub-Saharan Africa: a pooled analysis of national household survey data.** *BMC Pregnancy Childbirth.* 2016; **16**: 82.
[PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
13. Nguyen MC, Wodon Q: **Early Marriage, Pregnancies, and the Gender Gap in Education Attainment: An Analysis Based on the Reasons for Dropping out of School.** In *Child Marriage and Education in sub-Saharan Africa.* Wodon Q, Washington DC: World Bank; 2015b (forthcoming).
14. Parsons J, Edmeades J, Kes A, *et al.*: **Economic impacts of child marriage: a review of the literature.** *Rev Faith Int Aff.* 2015; **13**: 12–22.
[Publisher Full Text](#)
15. UNICEF: **Hidden in plain sight: a statistical analysis of violence against children.** New York, NY: UNICEF; 2014.
[Reference Source](#)
16. Abu-Ghaida D, Klasen S: **The costs of missing the millennium development goal on gender equity.** *World Dev.* 2004; **32**(7): 1075–107.
[Publisher Full Text](#)
17. **Economic impacts of child marriage: global synthesis report.**
[Reference Source](#)
18. Smith LC, Haddad L: **Reducing child undernutrition: past drivers and priorities for the post-MDG era.** *World Dev.* 2015; **68**: 180–204.
[Publisher Full Text](#)
19. Girls not brides: **Child marriage in West and Central Africa.** 2017; Accessed 9 Aug 2018.
[Reference Source](#)
20. Johansson N: **Child marriage: the underlying reasons and possible solutions.** Linnaeus University, Faculty of Social Sciences, Department of Social Studies; 2015.
[Reference Source](#)
21. Quentin W, Chata M, Adenike O, *et al.*: **Girls' education and child marriage in West and Central Africa: key findings ahead of the October 2017 high level meeting on ending child marriage in West and Central Africa (French).** Washington, D.C: World Bank Group; 2017.
[Reference Source](#)
22. **Lessons learned from national initiatives to end child marriage.** 2016.
[Reference Source](#)
23. Chant S, Touray I: **Gender in The Gambia in retrospect and prospect.** GAMCOTRAP Working Paper; 2012.
[Reference Source](#)
24. **2013 Population and Housing Census, Directory of Settlements, Gambia Bureau of Statistics Banjul, The Gambia.**
25. Demographic and Health Survey: **Gambia bureau of statistics banjul.** Maryland, USA: The Gambia ICF International Rockville; 2013.
26. Gage A: **Coverage and Effects of Child Marriage Prevention Activities in Amhara Region, Ethiopia.** 2009.
[Reference Source](#)
27. Nicola J, Fiona S, Carol W: **Question guide: researching norms about early marriage and girls' education.** 2015.
[Reference Source](#)
28. Braun V, Clarke V: **Using thematic analysis in psychology.** *Qual Res Psychol.* 2006; **3**(2): 77–101.
[Publisher Full Text](#)
29. Menon JA, Kusanthan T, Mwaba SOC, *et al.*: **Ring' your future, without changing diaper - Can preventing teenage pregnancy address child marriage in Zambia?** *PLoS One.* 2018; **13**(10): e0205523.
[Publisher Full Text](#)
30. **The Gambia-Multiple indicator cluster survey 2010. Fourth Round.**
[Reference Source](#)
31. Rumble L, Peterman A, Irdiana N, *et al.*: **An empirical exploration of female child marriage determinants in Indonesia.** *BMC Public Health.* 2018; **18**(1): 407.
[PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
32. **A baseline study on child marriage, teenage pregnancy and female genital mutilation/cutting in Kenya.**
[Reference Source](#)
33. Bicchieri C, Jiang T, Lindemans JW: **A social norms perspective on child marriage: The general framework.** *Penn Soc Norms Group (Pennsong).* 2014; **13**, Accessed January 29, 2019.
[Reference Source](#)
34. Jouhki J, Stark L: **Causes and motives of early marriage in the Gambia and Tanzania.**
[Reference Source](#)
35. Ghaffari M, Gharlipour Gharghani Z, Mehrabi Y, *et al.*: **MPremarital Sexual Intercourse-Related Individual Factors Among Iranian Adolescents: A Qualitative Study.** *Iran Red Crescent Med J.* 2016; **18**(2): e21220.
[PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
36. Nour NM: **Health Consequences of Child Marriage in Africa.** *Emer Infect Dis.* 2006; **12**(11): 1644–1649.
[PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
37. **UNG Assembly-United Nations, Treaty Series, 1989-wunrn.**
[Reference Source](#)
38. http://www.bayefsky.com/general/cedaw_c_2006_li_4.pdf
39. **The Research Ethics Guide Book.**
[Reference Source](#)
40. **A guide to developing end child marriage projects and how to fund raise them.**
[Reference Source](#)
41. **Addressing teen pregnancy and early marriage in the Gambia.**
[Reference Source](#)
42. Lowe M, Chen DR, Huang SL: **Social and Cultural Factors Affecting Maternal Health in Rural Gambia: An Exploratory Qualitative Study.** *PLoS One.* 2016; **11**(9): e0163653.
[PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
43. Jouhki J, Stark L: **Causes and Motives of Early Marriage in The Gambia and Tanzania. Is New Legislation Enough?** University of Jyväskylä, Poverty and Development Working Papers, 1/2017.
[Reference Source](#)
44. **Lessons learned from national initiatives to end child marriage –Girls not Brides.** The Global Partnership to end Child Marriage; 2016.
[Reference Source](#)
45. UNICEF: **A Big Win for Girls on the Banning of Child Marriage in The Gambia, 2016a.**
[Reference Source](#)
46. Lowe M, Rojas BM, Joof M: **Social and cultural factors perpetuating early marriage in rural Gambia: an exploratory mixed methods study.** *figshare.* Journal contribution; 2019.
<http://www.doi.org/10.6084/m9.figshare.10055516.v1>
47. Lowe M, Rojas BM, Joof M: **Social and cultural factors perpetuating early marriage in rural Gambia: an exploratory mixed methods study.** *figshare.* Dataset; 2019.
<http://www.doi.org/10.6084/m9.figshare.10045979.v1>
48. Lowe M, Rojas BM, Joof M: **Social and cultural factors perpetuating early marriage in rural Gambia: an exploratory mixed methods study.** *figshare.* Dataset; 2019.
<http://www.doi.org/10.6084/m9.figshare.10046024.v1>
49. Lowe M, Rojas BM, Joof M: **Social and cultural factors perpetuating early marriage in rural Gambia: an exploratory mixed methods study.** *figshare.* Journal contribution; 2019.
<http://www.doi.org/10.6084/m9.figshare.10046090.v1>
50. Lowe M, Rojas BM, Joof M: **Social and cultural factors perpetuating early marriage in rural Gambia: an exploratory mixed methods study.** *figshare.* Journal contribution; 2019.
<http://www.doi.org/10.6084/m9.figshare.10046102.v1>

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Peter J. Winch

Department of International Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA

Anna Passaniti

School of Public Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA

Abstract:

- Conclusions repetitive of the Results section of the Abstract.
- Results and Conclusions sections not well integrated, and are not very specific. What about ethnicity factors early marriage? What are the social and cultural norms? Much repetition between the two sections of the Abstract. Does not create excitement in the reader to download and read this paper.
- Results: Using multiple regression analysis, this study found that ethnicity more than other factors, exerts an independent effect on early marriage. Themes identified during focus group discussions also revealed that fear of premarital sex and loss of virginity outside marriage were major reasons for the perpetuation of early marriage.
- Conclusions: These findings suggest that the practice of early marriage in rural Gambia is associated with ethnicity and practices related to social and cultural norms. The findings also suggest that in order to decrease early marriages, future efforts should focus on allaying the fears around premarital sex and loss of virginity related to delay in marriage.

Introduction:

- Good that they presented a universal definition of child marriage at the very beginning.
- What are the consequences of early marriage that the authors are particularly concerned with? Is it from a public health lens, access to education, human rights, bodily autonomy, gender equality? Explicitly stating *why and how* child marriage is a problem in West Africa would strengthen this section.

Early Marriage in The Gambia:

- It might be necessary to note that many women and adolescents of childbearing age from rural Gambia are only recently getting birth certificates, where their age is estimated from memory since the date wasn't recorded on their actual date of birth.
- Especially for women who need a birth certificate to access an antenatal card, We have observed that since now most everyone knows that child marriage is illegal, they report being 18 years of age when in actuality they are much younger. Therefore, the reported rate of 30% here is unlikely to be accurate.
- High awareness but low uptake of family planning among adolescents: A major factor seems to be people's preference to use family planning only for birth spacing, rather than for delaying first pregnancy.

Methods:

- In the first paragraph on page 6, rephrase: "Parental informed consent was sought for minors under the age of 18 years. Since the research team was composed of men, permission was also taken from husbands of married female adolescents because culturally, husbands are expected to give permission for other men to speak with their wives."
- The qualitative component of the study is minimal. With only two focus groups, the authors are not in a position to explain differences in marriage patterns between ethnic groups. If this were a major objective of the study, in-depth interviews with different family members including elders would be necessary. Therefore, it is unclear what is gained from the focus groups. Certainly, only limited qualitative data are presented in the Results section.
- The description of the qualitative data analysis is very generic.

Results:

- Good break down of demographic characteristics. The rationale behind why these characteristics were selected is also strong and clear.
- The finding about Wolof ethnicity having an independent effect on the probability of marrying early is interesting because they are the only ethnic group that does not typically practice female genital cutting (FGC), and the fear/ concern that girls will engage in premarital sex is among the main reasons for practicing both FGC and early marriage.
- This study brings up further questions about the relationship between practicing early marriage and practicing FGC – for example, are groups that do not practice FGC more likely to practice early marriage because they are not using FGC as a tool to prevent premarital sex? This points again to the fact that conducting only two focus groups, and no interviews, provides little insight into the situation. The authors do not present qualitative data that explain the reasons for differences between the ethnic groups with any detail or clarity.

Discussion:

- In the "Early Marriage in The Gambia" section, the writers brought up that awareness of family planning methods is high but uptake is low among adolescents. The findings may

suggest that shifting social norms surrounding how and why family planning is used (i.e. currently only for birth spacing rather than delaying first pregnancy) may also be an important programmatic implication.

- The weakness and limited nature of the qualitative data collection make it difficult to arrive at robust conclusions.

Is the work clearly and accurately presented and does it cite the current literature?

Partly

Is the study design appropriate and is the work technically sound?

Partly

Are sufficient details of methods and analysis provided to allow replication by others?

Yes

If applicable, is the statistical analysis and its interpretation appropriate?

Partly

Are all the source data underlying the results available to ensure full reproducibility?

Yes

Are the conclusions drawn adequately supported by the results?

Partly

Competing Interests: No competing interests were disclosed.

We confirm that we have read this submission and believe that we have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however we have significant reservations, as outlined above.

Reviewer Report 17 December 2019

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Oluwaseyi Abiodun Akpor

Department of Nursing Science, College of Medicine and Health Sciences, Afe Babalola University, Ado Ekiti, Nigeria

The study was aimed at providing information on the type and short-term effects of contextually relevant interventions that can be scaled up to change societal attitudes towards accelerating the decline of early marriages in rural Gambia. Overall, the study design was appropriate with robust

data collection and interpretation. The data were adequately interpreted and discussed.

The authors should however reduce the length of the background in the abstract and include more findings in the result section.

The manuscript is recommended for indexing, subject to the minor revision.

Is the work clearly and accurately presented and does it cite the current literature?

Yes

Is the study design appropriate and is the work technically sound?

Yes

Are sufficient details of methods and analysis provided to allow replication by others?

Yes

If applicable, is the statistical analysis and its interpretation appropriate?

Yes

Are all the source data underlying the results available to ensure full reproducibility?

Yes

Are the conclusions drawn adequately supported by the results?

Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: adolescent and maternal health

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

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