

Correlating Educational Attainment and Single Parenting in Nigeria

Tendayi C. Garutsa^a & Temitope J. Owolabi^{*b}

* Corresponding author:

Email:temitopeowolabi01@gmail.com

a. Department of Sociology, North-West University, Mmabatho, South Africa.


b. Department of Sociology, University of Lagos, Lagos, Nigeria.

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ABSTRACT

This study delves into the intricate connection between educational achievement and decisions regarding family planning, alongside the escalating prevalence of single parenting. Existing literature suggests that children raised in single-parent households, particularly those led by mothers, may develop positive attributes. However, conversely, this scenario can also give rise to negative traits, contributing to societal issues. Moreover, choices related to engaging in unprotected sex, initial pregnancies, and assuming the role of a single parent may be influenced by one's educational attainment. Nevertheless, the study acknowledges the contradictory conclusions within the literature regarding the correlation between education and single parenting for unmarried women. This necessitates a thorough examination. Employing a mixed research methodology that is non-experimental, incorporating both quantitative and qualitative techniques, the study conducted an online survey via Facebook with the Nigerian Single Parent Lounge group due to the constraints imposed by the COVID-19 pandemic. The findings indicate that among highly educated women, education is linked to reduced fertility rates and delayed childbirth. The study identifies several contributing factors to single parenting, including heightened independence, delayed marriage, and the financial autonomy of educated women. Consequently, the paper proposes targeted family planning awareness initiatives, enhanced accessibility to contraceptives, and policy adjustments to assist women in managing their personal and professional lives. To address the complexities involved, the study recommends the introduction of programs aimed at aiding women in navigating family planning decisions in tandem with their employment. Additionally, cultural attitudes hindering highly educated women from entering into marriage should be addressed, fostering a more inclusive societal perspective.

KEYWORDS

Economic dependence; educational attainment; family planning, reproductive choices, single parenting.

INTRODUCTION

The Nigeria Data Portal (2018) indicates that Nigeria's population distribution by marital status is as follows: 50.01% married, 46.44% unmarried, 1.97% widowed, 0.72% divorced, and 0.86% separated. Among the multidimensionally deprived population, unmarried individuals remain particularly vulnerable to a heightened risk of poverty, poor health, and various negative emotional and social outcomes for their children (Adejoh et al., 2019). Despite numerous studies highlighting the impact of the sexual and reproductive behaviours of unmarried teenagers in Africa, there is a dearth of research on unmarried single mothers (Miller & Ridge, 2009; Whiteman et al., 2001). Consequently, there is a growing body of research on women who are not officially married but are pregnant or have recently given birth.

Recent findings from Adewoyin et al. (2021) reveal that single mothers in Nigeria make up 9.5% of the global population, positioning Nigeria as one of the countries with the highest prevalence of single mothers in Africa, spanning diverse ethnic backgrounds. Akinyemi and Wandera (2020) previously reported a national prevalence of 2.9% in the Northern region and 2.3% in the Southern region. This prevalence has resulted in adverse emotional states for children, including low self-esteem, as well as instances of bullying and stigmatization from society members (Alaba et al., 2017). Children from such households face considerable challenges, leading them to adopt various coping strategies such as skipping school (Adewoyin, Chukwu, and Sanni, 2018) and exhibiting violent behaviors (Haruna-Ogun, 2018), among other outcomes.

Additionally, the prevalence of single parenting, particularly from mothers, has been linked to a lack of parental guidance and control, resulting in children displaying harmful traits that impact both themselves and society at large. This includes involvement in social vices like cultism (Hank and Steinbach, 2018), thuggery (Islam et al., 2017), and other criminal tendencies. These behaviors stem from the deficiency of this family structure in instilling the right values in children.

Education has been found to impact humans' ways of life; hence, determining their thought patterns and behaviour. Findings in much of the literature have not been consistent in identifying the relationship between education and single parenting among unmarried women. For example, women who lack a college degree or who struggle with literacy are more likely to be single mothers. (Issa, 2018). By implication, educational level informs decisions relating to unprotected sex, which could lead to unwanted pregnancy. The result is, single parent mothers emerging on the demographic horizon.

Additional findings discovered that women who have more education are less inclined to be single parents. (Obasi, et al. 2018; Elo, et al., 2019) because of their knowledge of contraceptive use, and thus they avoid early child birth or unplanned pregnancies (Oyefara, 2011). In contrast, Makama (2013) argued that higher educational attainment engenders single parenting because the increased empowerment of women builds an ideology of independence, making them get married late, hence forcing them into single parenting. This growing debate

has necessitated the need for the study to identify and unravel the form of education (formal or informal) amongst single mothers who have never been married that significantly influences single parenting which previous studies did not examine. Hence, this current study's primary objective is to examine the relationship between education and single parenting among unmarried mothers in Nigeria.

LITERATURE REVIEW

Educational attainment and single parenting

Education has been found to impact on human life, which determines their thought patterns and behaviour. This is one rationale why the present era of globalization has significantly enhanced the lives of women throughout the world (Young and Schieman, 2018). However, women in Sub-Saharan Africa remain deprived of such education, which in turn compromises their civil rights, health and employment, among others. According to a report by UNFPA (2021), 52 percent of the seventy-two million children who do not go to school are female. Equally, UNESCO (2014) reported that girls are 4% less likely than boys to finish primary school. This implies how the girl child has been relatively more deprived of education compared to her male counterpart; and with several gains recorded worldwide in terms of overall educational level, more children than ever are now attending primary school. However, the parity in education between males and females is still very wide (Center for Longitudinal Studies, 2019). Female education is a human rights issue (UN, 2015), and it is the responsibility of the government to facilitate this because they are instrumental and significant in contributing to the development of a nation (British Council, 2014). Yet, in Nigeria, women suffer exclusion from education, making them vulnerable to poverty and unemployment.

Basically, findings across works of literature have not been consistent in identifying the relationship between education and single parenting among unmarried women. In a survey conducted by OECD (2019) on young female adults, it was shown that men and women within the ages 16 and 39 had a link wherein women with low literary competence are more likely to be single parents. 11% and 4% of young women and men respectively who had literacy proficiency scores in the bottom 20% of their nation are single parents. The fact that persons with higher literacy rates also have greater academic achievement helps to explain this link. They thus establish families later on average than their less skilled contemporaries.

The fact that the prevalence of single-parent families has risen more quickly among individuals with a lower educational background over time may be one of the reasons why the negative effects of single parenting have not been reduced (Gähler and Palmtag, 2015). The majority of the studies on this topic have been conducted in industrialized countries, and it has not examined how the fragmentation of family system by educational attainment has changed over time or across different countries. Miller et al. (2017) discovered that whereas better-educated women were more likely to be single mothers in Italy, fewer women who are educated were more likely to be single mothers in other countries like the United Kingdom and

Finland, among others. However, only four studies have particularly investigated the changes in single parenting's educational disparities across a range of European countries.

Studies have shown that women with poor levels of education or literacy have a higher likelihood of being single parents (Amato, 2018; Issa, 2018). By implication, educational level informs decisions like unprotected sex which could lead to unwanted pregnancy; as a result, single-parent mothers would emerge. According to other research, women who have completed more schooling are less likely to be single mothers (Ghazi-Saidi, et al, 2020) because of their knowledge of contraceptive use, which delays their child birth experience (Oyefara, 2011).

Findings from Araba (2021) show that women with low literacy and educational background are more likely to become single parents, and that this connection holds among within ages 16 and 39. Similarly, a study by Boval (2023) on the susceptibility of single women in higher education institutions discovered that young mothers were among the respondents with poor literacy proficiency scores. A reverse was the case for female respondents who scored higher. Furthermore, studies reveal that women who possess a Master's degree or above are more preoccupied with professional stability and growth chances compared to their less educated colleagues, and they frequently work in secure positions in the government service (Liu & et al., 2023). According to Gill et al. (2008) research, women who are highly educated are far more assured of their ability to compete than less educated women. Female respondents with graduate degrees are often conversational, and laid-back (Martin, 2017). They often possess a strong sense of self-assurance and were certain of their long-term goals. They exercise self-control, feel independent, radiate confidence, and value themselves, all of which may influence how they choose to have children.

Educational attainment and reproductive choices

There are conflicting findings in the research on the relationship between women's educational attainment and their plans for having children and their reproductive decisions. Numerous researchers, for instance, Broekmans, et al. (2007) and Kohler et al. (2002) claim that the amount of education for women and fertility rates are negatively correlated. Women with higher education levels are more likely than women with lower education levels to delay childbearing in order to advance their careers. (Miettinen and Jalovaara, 2020; Mills et al., 2011; Pradhan, 2015; Stack et al., 2020). They also have few children, which implicitly lowers birth rates (Broekmans et al., 2007). However, women with a college degree or higher are now more probable than their less educated counterparts to have two or three children in Scandinavian nations (Kravdal, 2008). According to long-term research conducted in the United States, women who have doctoral and master's degrees now are more likely to become parents than they were ten years ago (Causey et al., 2015). From a variety of angles, academics explain the positive correlation between greater education and higher reproductive intentions/choices.

A typical female university graduate today is probably less likely to be focused on a profession than her counterpart years back, and as a result, receptive to having more

children (Shang and Weinberg, 2013). This is because more women are pursuing higher education. Also, spending money on education yields labor-market returns, or greater salaries, as well as higher returns on marriage (Chiappori et al, 2009). Women with greater levels of education are more inclined to marry men from comparable socio-economic backgrounds and earn better incomes, both of which increase their financial security. They do not have to pick between job and family since they can afford to pay market rates for daycare (Cortes & Tessada, 2011; Whiteman et al., 2001).

Relationship between level of education and choice of marriage

According to the World Bank (2015), educated women frequently delay having children, which lowers fertility rates in Africa. Similarly, to this, Alice (et al., 2020) pointed out that educated women have the greatest marriage delays. The findings support the hypothesis that educated women delay marriage longer than their less educated peers. They also found that for educated women, there are very few eligible males to choose from, namely educated single men, which makes the conventional marriage market extremely competitive for this category of women. As a result, individuals frequently put off getting married in an effort to locate better spouses. While Budu et al. (2021) looked at the relationship between women's formal education and marriage, Corno et al. (2020) and Ashrat et al. (2020) looked at marriage trends in the context of bride wealth. In other words, they evaluated the impact of high unemployment rates and bride wealth on men's capacity to get married. Corno et al. (2020) further noted that the existence of bridewealth, or "Ilobolo," is the most likely factor contributing to the fall in marriage rates among young African South Africans compared to their white counterparts. Ilobolo is a bride payment given to the bride's family in the form of cattle, and the amount depends on the father's social standing. Given the high costs of getting a woman, it has become nearly impossible for these men to get married due to the high unemployment rates among men (Ngweyama, 2022). But throughout the years, it has been noted that the rates of marriage between Africans and white South Africans are very different. White women marry more frequently than African women, more than twice as often. The majority of black women would rather be single than copulating before getting married, but most white people have no trouble cohabiting, which typically results in marriage.

Educational attainment and economic dependence/independence

Women's education has a substantial positive societal impact; some of the most noticeable outcomes include reduced rates of newborn and maternal mortality as well as lower fertility rates (Setini et al., 2020). Moreover, closing the gender gaps contributes to gender equality, which is valued for its own sake as well as the fact that it guarantees that everyone has equal rights and opportunities, irrespective of gender. (Nussbaum, 2011); women can gain cognitively from schooling as well. Better cognitive functioning for women enhances the quality of life and provides extra benefits. One example is the notion that women who value education are more suited to make decisions about their own and their children's health (WHO, 2017). Likewise, women who are more intelligent are more inclined to engage in governance (Pew Research

Center, 2015). There are countless instances of trained women in developing countries securing privileges for themselves by participating in politics, as educated women are more inclined to become involved in politics and witness political events (WHO, 2017; Nitsche and Bruckner, 2021). According to evidence from Levine et al. (2018), countries with educated women are more likely to have democratic governments.

There are additional benefits related to the woman's position in the family. For example, it has been discovered that educated women face less domestic violence (Sen, 2008). Women with higher levels of education also tend to be engaged in family decision-making and reported contributing more to decisions over time. Particularly Leigh et al. (2017) noted that these advantages apply to financial choices; having women take a more active part in the family has social advantages for all family members in addition to the inherent value of improving a woman's autonomy. In addition, a study by World Bank (2021) found that children, especially girls, are more likely to go to school and advance their educational standing in a home where the mother has a degree. Adult literacy initiatives can indirectly assist in teaching women the importance of education and motivating them to enroll their children in school in homes where the mother is uneducated (Burns, 2020). Having an educationally inclined mother as opposed to an educated father has a lot of additional advantages for kids, such as improved nutrition and greater survival rates (Katiyar, 2016).

Educational attainment and unwanted pregnancies

In a UN Department of Economic and Social Affairs (2019) survey, 36.4 million women in underdeveloped nations between the ages of 20 and 24 who had given birth before turning 18 acknowledged doing so. 95 percent of births to teenage mothers occur in developing nations, where two million girls bear children prior to the age of 15. Teen pregnancy is made more common in low- and relatively low nations by a lack of education. Education affects people's lives regardless of their socioeconomic status, and those who live in low- and very low-income countries typically have less access to educational opportunities than those who do in higher-income countries. A lack of essential education, particularly for women, reduces prospects for economic growth and a decent standard of living, which, according to Asah (2021), adds to economic suffering. Since poverty is usually associated with adolescent pregnancy and low levels of education, countries that experience poverty are more likely to observe a higher likelihood of adolescent pregnancy and low education levels among their young people. The correlation between low- and lower-middle-income countries and teen pregnancies draws attention to the high percentage of young mothers in different parts of the world (Azevedo et al., 2012). African poverty, education, and teen pregnancy have been the main topics of earlier studies. Nevertheless, no attempts have been made to examine the connections between these concepts. 86% of teenage or unplanned pregnancies result in less favourable educational achievements, according to Barmao-Kiptanui (2020). In addition to poorer educational levels associated with pregnancy, parents' responses to their teenage daughter's pregnancy also had

a consequence on their daughter's success in school: adolescent mothers with supportive parents outperformed their classmates in terms of their academic careers.

Kim and Kim (2020) investigated 83 adolescent pregnancies with girls between the 13 and 19 years of age with pregnancies involving pregnant women who were picked at random and were between the ages of 20 and 32 in a four-year retrospective analysis. They found that young mothers were more likely than older women to have lower educational levels, have complications during pregnancy and childbirth, need caesarean sections, or even pass away. Neal et al. (2015) used several indicator cluster surveys to analyze adolescent pregnancy characteristics in three east African countries, including the age of mothers, relationship status, employment, education, state or location, urban/rural domicile, and religion (Uganda, Kenya, and Tanzania). They discovered that young females who fall pregnant inadvertently are more vulnerable to problems and health concerns during pregnancy and delivery. Also, less educated females and poorer communities have a higher prevalence of younger adolescent mothers with their first children, particularly those who are under 16 years old. In addition, there is a significant connection between poverty, illiteracy, and teen pregnancy.

METHODOLOGY

Study Design

A non-experimental mixed research method was used, that is, a blend of quantitative, as well as qualitative methods. The essence of the triangulation of methods was for validation and to capture areas that the quantitative method was not be able to. Apart from this, it enabled the researcher to dig deep into the lives and experiences of unmarried mothers. Questionnaire was utilized for the collection of quantitative or statistical data, while the Key Informant Interviews (KII) were used to collect and qualitatively explore the views, beliefs and experiences of the respondents on the subject of the research.

Due to the COVID-19 pandemic, an online survey was used for both the quantitative and qualitative methods. Facebook was selected for the study, because it is a platform that drives engagement and where wider respondents can be reached (Maree and Heeden, 2021; Millar and Ridge, 2009). The researcher identified a group of women on Facebook called Nigerian Single Parent Lounge (NSPL). It is a community of single mothers alone with over ten thousand active members. It is made up of divorcees, mothers of babies not married to their child's father and widows. The researcher was granted the permission to conduct the study, with the approval of the group members (single mothers) on Facebook. A gatekeeper Approval letter was issued to this effect. This was structured in such a way that; the gatekeeper added the researcher to the Facebook group where he had direct access to members. In essence, the investigator was responsible for choosing and recruiting the participants for the study using Facebook. Participants were required to take part in the study for the duration of the data collection process, just in case they needed to provide additional information regarding their experiences. They could also be requested to consider providing follow-up information

Study Settings

The study location for this research was Nigeria, which is a federal republic with a population of about 210 million people (Worldometer, 2021). The female population stands at 101 million, making a substantial growth and an annual rate of 2.56%. The selection of Nigeria as the study setting was anchored on the increase in single parenting among women and the choice of never to get married. The study population for this research involved women over the age of 18 who have given birth to children but were never married and had at least one child as a dependent.

Sampling

For quantitative research, probability sampling was used, whereas non-probability sampling was used for the qualitative investigation. For the former, a multistage approach was adopted. This began with getting the population of members of Nigerian Single Parents' Lounge Facebook, which is 10,000. The next step entailed calculating the sample size objectively by using the Raosoft sample size calculator. 370 was obtained with a 5% error margin and a 95% confidence level. Raosoft is scientific in character since, in addition to other methods for calculating sample size, it contains options for calculating margin error and level of confidence. Although the Raosoft sample size calculator suggested 370 samples; in order to make provisions for non-respondents, as well as poorly completed questionnaires, the sample size was increased to 450, and this was selected across Nigeria using an online survey. An advert was placed on the Facebook group, and members were allowed to voluntarily signify interest directly to the researcher's contact as provided in the participants recruitment advert. The following was the eligibility criterion: They were to be unmarried mothers with at least one child; They should reside in Nigeria and; They should be more than 18 years.

The 450 respondents were further chosen using the simple random sample approach from the entire number of members who willingly expressed interest in taking part in the study. In doing this, potential participants were assigned numbers with the aid of the "**random number generator**". Based on the specifications of the study, it generated a random number table which showed the respondents that have been selected for the study. On the other hand, for the qualitative study, the convenience sampling was employed. The first 30 respondents among those who participated in the quantitative study, and who showed interest for further interviews, were selected.

Instruments

The structured quantitative questionnaire was composed of multiple-choice options, Likert type items as well as some relevant demographic questions with a view that a range of data is collected. The survey link was disseminated widely through Facebook groups and pages focused on the topic of interest. The importance of this is underscored by the generation of reminders and follow-up messages that were subsequently sent at weekly intervals to increase participation and enhance response rates. We collected the data via Google Forms in order for the data to be stored and securely and systematically managed for analysis at a later time.

Semi-structured Key Informant Interviews (KIIs) were essential for obtaining deeper insights in the qualitative investigation. The interview guide was created to address key topics and provide respondents room to expand on their viewpoints and experiences. Every interview was performed remotely via Zoom, WhatsApp, or Skype, and was arranged at a time that worked best for the respondent. Thanks to the virtual method, a larger geographic reach was guaranteed, and participants who might not have been able to participate otherwise because of location restrictions were included. With the respondents' permission, interviews were recorded to guarantee precision and depth in gathering qualitative data. In-depth notes were also made at every meeting to supplement the information that was recorded.

To prepare it for analysis, the data produced by the quantitative and qualitative aspects underwent a thorough cleaning process. After being exported from Google Drive, this kind of data was used in statistical software for both descriptive and inferential analysis. This allowed users to enter quantitative variables into the application and run various inferential statistics tests. Following a coding procedure that tagged transcripts for recurrence of pertinent terms and patterns, results from the interview data were examined as themes, and the qualitative data were thematically evaluated. Combining several methods of data gathering allowed for a far more comprehensive analysis of the problem at hand.

Data Analysis

To analyze quantitative data, the Statistical Package for Social Sciences (SPSS) was employed. – version 27; the Univariate and Bivariate analysis were utilised as methods of analysis. The Univariate analysis was used to analyse variables like ages, educational level and age at first birth. Regression analysis was employed in the bivariate study to understand and deduce the association between the dependent variable (single parenting) and the independent variables (education). For the qualitative data, thematic analysis was used to analyse the responses. The framework for this was based on narrowing down each objective in relation to various themes that have been identified from the field. The data was transcribed, read through, and responses coded in line with the research objectives were discussed. The objectives were structured in themes and analysed alongside the quantitative data.

In order to ensure validity of data, the research instruments were reviewed by some experts to ensure that the questions captured the objectives of the study. Aside this, established theories and literature were incorporated to guide the formulation of the questions. On the other hand, to achieve the reliability of data gathered, a pilot study was conducted before the main study, and the same instruments were administered two separate times to the same set of people. The outcomes and results were compared to assess the reliability over time.

Ethical Considerations

Certain ethical considerations must be achieved in gathering research information and evidence. Principally, the researchers made efforts to gather data voluntarily from respondents among members of the Nigerian Single Parents' Lounge. No personal information of the respondent was disclosed whether deliberately or accidentally, thus, ensuring that **anonymity**

of response is guaranteed. To achieve this, each questionnaire was labelled and coded as Respondent 1, Respondent 2, etc. This is to ensure that respondents' identities are not revealed or made public. The information provided by the respondents were kept **confidential** and no third party had access to their responses. Before the commencement of the interviews, the researcher assigned pseudonyms, and these were used to capture the names and identities of respondents. With regards to the **security and storage of data**, the researcher made sure that the information in both physical (printed) and soft copy devices were securely locked up and password protected.

RESULTS

Demographic Characteristics of Respondents

The following section provides and presents findings from this study on age, religion, ethnic group, educational qualification, monthly income, employment status and current number of children.

Age Distribution of Respondents

The chart (Figure 1.1) below presents the various age categories of participants. As revealed in the data, there are 20% below the age of 25, and 30.7% were 36-25 years, while there were 13.3% that were 46. A 36% majority of the respondents were between 26 and 36 years, which falls within the recommended and statutory age (18 years) for marriage in Nigeria. Hence it could be inferred from the data that, despite being unmarried, most participants are of marriageable age. Unmarried single mothers who fell within the age bracket of 46 years and above were less represented because some of them would have decided to have children later in life because of the role education and career development played in their lives.

Figure 1.

Age Distribution of Respondents

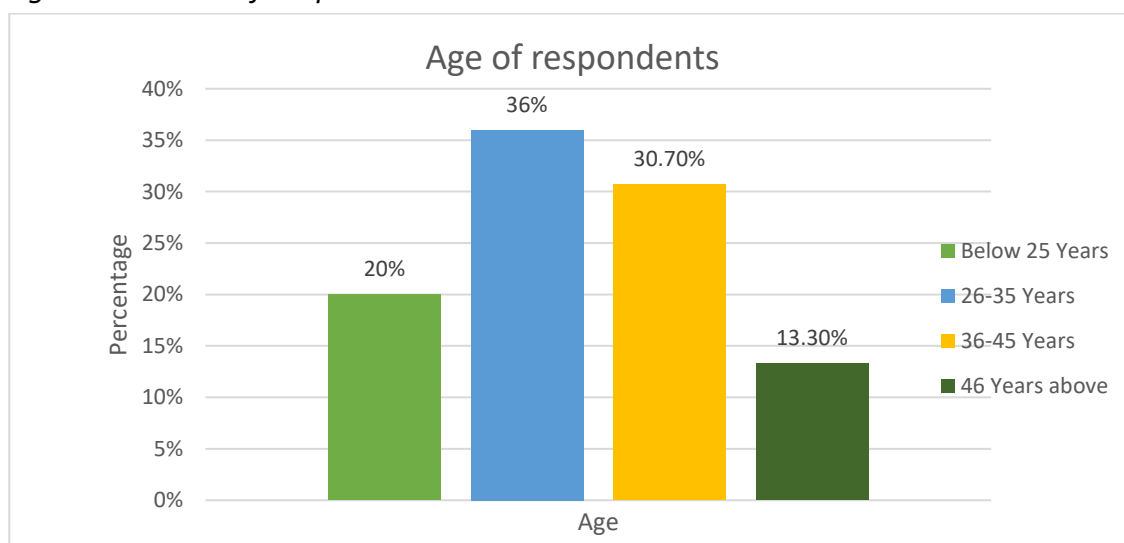


Figure 1 demonstrates how being a single mother is now the norm in Nigeria. The rising prevalence of children conceived outside of marriage is partly to blame for this prevalence. This is consistent with Ntoimo and Odimegwu (2020), who noted that the mean age of single

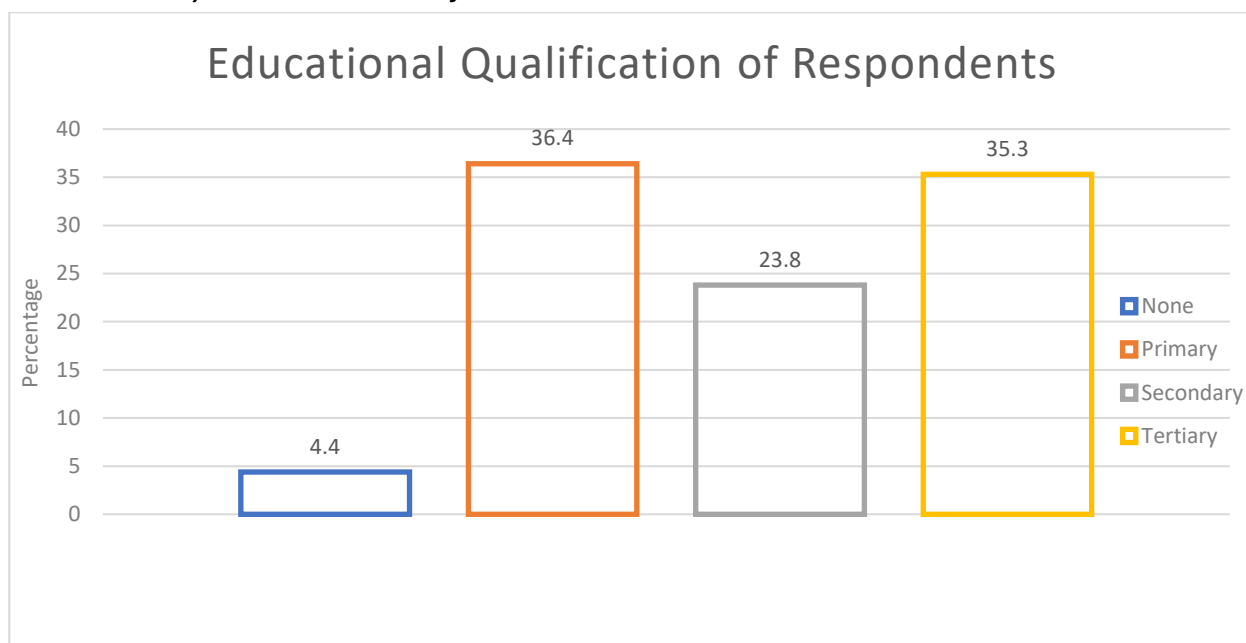
mothers in Nigeria is 29 years; and this was not also far-fetched from the findings of Adedokun & Adedokun (2024) who found that Nigeria is experiencing a steady growth in out-of-wedlock motherhood, and the majority of those are younger females.

Distribution of Respondents by Educational Qualification

The figure below offers information on the various educational standings of the respondents. The data reveals that 4.4% of the participants have never been to school. As a result, they have not acquired any form of formal education or training. 36.4% of respondents see their educational career end at the basic level (primary school), while 23.8% manage to complete a secondary level, while people with university and polytechnic achievements (tertiary education) are 35.3%.

Figure 2.

Distribution by Educational Qualification



Going by the data, respondents with the attainment of primary and tertiary education seemed to level up, and by implication, single parenting could be engendered by both low and high educational attainment. This could be attributed to the evolving family structure that has seen an increase of women who voluntarily or involuntarily become single mothers without being married.

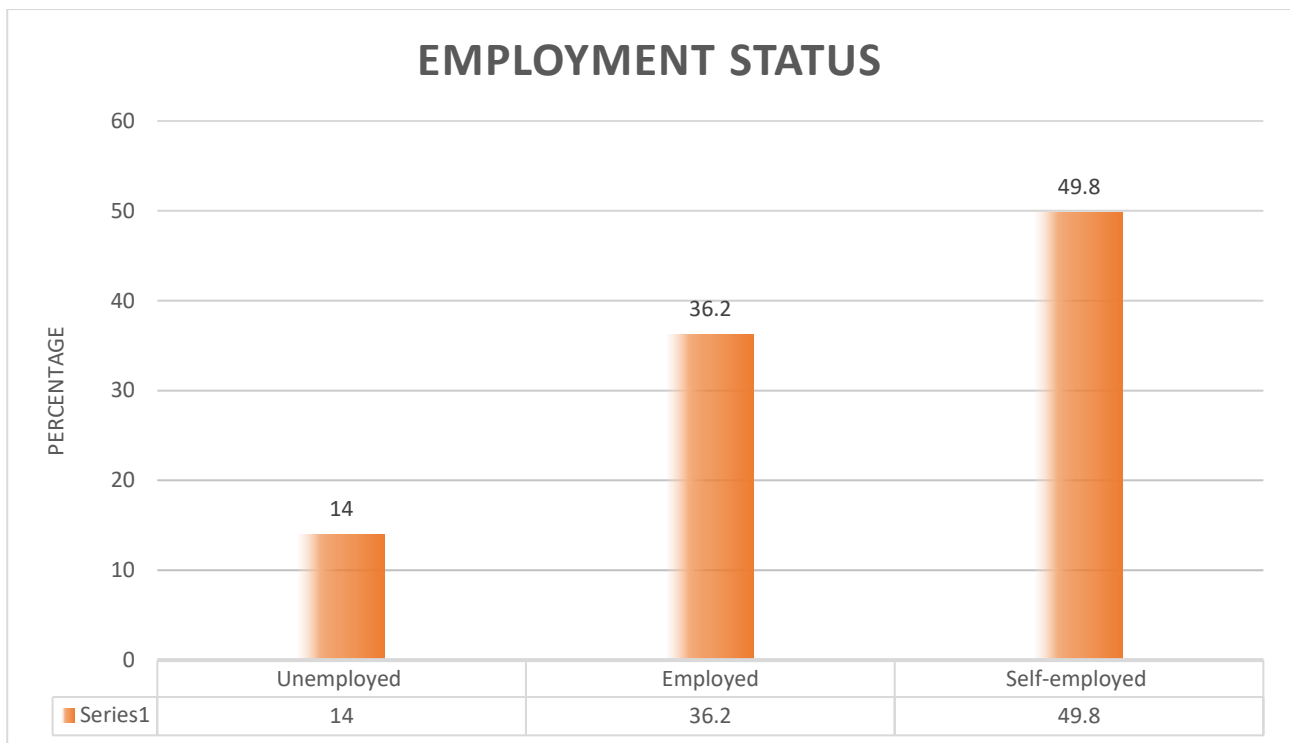
Distribution of Respondents by Employment Status

Employment status played a crucial role as a determining factor associated with the participants' educational attainment. To clarify, the level of education exerted influence on the employment status, thereby affecting the choices made by participants to remain unmarried. The employment index of the respondents as present in the chart below (Figure 1.3.), reveals that 14% are unemployed, 36.2% are gainfully employed while 49.8% are self-employed, with the latter representing what most single mothers. It could be said that they have embraced the concept of entrepreneurship and self-reliance initiatives to cushion the effects of poverty. As

supported by the findings of Kayode (2018), single mothers, in a bid to have time for their children, venture into self-employment and entrepreneurial activity, as an antidote to the prevailing abject poverty in Nigeria. Thus, they identify various opportunities that are related to the satisfaction of needs, and this is done by converting them to products and services of value (Akinyemi & Wandera, 2020).

Figure 3.

Distribution by Employment Status



Distribution of Respondents by Current Number of Children

Figure 1.4 below reveals the current number of children per respondent. According to the data, 26.2% of the study population are with a single child, and the most respondents (51.8%) have two children, and those with three children is at 14.7%, while those with four children and above are 7.3%. Since a majority of single mothers in Nigeria have two children, they are guided by the philosophy that their children may fall victim to circumstances, or that they may be at the receiving end of negative circumstances. Hence, they decide to limit the number of children they raise. This was justified in Nuah (2023) where it was articulated that single parenting makes children victims of emotional backlash, and this might be too burdensome for their mothers. To this end, in order to reduce this stress, trauma and struggle all alone, they reduce the number of children they give birth to.

Figure 4.

Current Number of Children

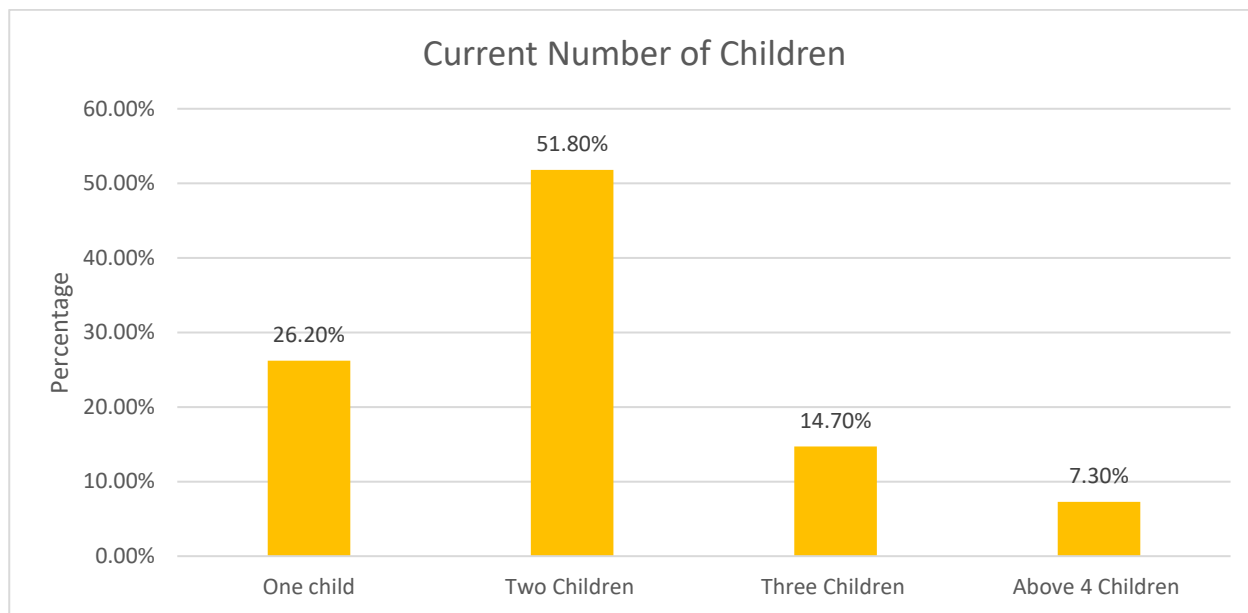


Table 1.

Regression Table - Relationship Between Single Parenting and Educational Level

Variable		Odds Ratio	p>z	95% Conf. Interval
Educational level	Primary	1		
	Secondary	0.226107	0.297	0.8356329 1.799041
	Tertiary	1.291213	0.5	0.6142245 2.714367

The results of the logistic regression shed important light on the connection between single parenthood and educational attainment. The adjusted odds ratios, which account for pertinent variables including age, perceived financial benefits, and family background, provide a more nuanced picture of how varying educational attainment affects the probability of becoming a single mother. The data indicates that women who have completed secondary education are 77% less likely than women who have completed primary education to become single mothers. According to this research, having a secondary education may help shield a person from becoming a single parent. This may be due to a number of things, including improved decision-making skills, easier access to information, and possibly bigger income opportunities that come with a higher level of education.

On the other hand, it has been found that women who have completed higher education—university or college degrees—are 29% more likely to become single parents than women who have just completed primary education. This surprising outcome might call for more research to determine the underlying causes. The wide confidence interval (0.6142245 to 2.714367) indicates some uncertainty in the estimate, highlighting the need for cautious interpretation even though this finding is statistically significant.

Changing societal norms and attitudes may be one reason why women with postsecondary education are more likely to become single parents. Women may put their personal and professional aspirations ahead of traditional family structures in their pursuit of higher education and career progress. Women who wait to get married and have children because they want to pursue their careers and education more than others may become single mothers when they get older and learn to parent on their own.

Moreover, increasing agency and autonomy are frequently correlated with higher levels of education, enabling women to make thoughtful decisions about starting families. Education can lead to economic independence and a decreased dependence on traditional family structures, which may influence some women to consider single motherhood as a feasible alternative for beginning a family. The intricate relationship between family dynamics and socioeconomic factors is highlighted by the association found between educational attainment and single parenthood. Education affects life choices and family dynamics in addition to empowering people and increasing prospects for socioeconomic growth. The consequences of these discoveries surpass scholarly discussions, since they may have an impact on the development of policies and social actions. Understanding how education affects family dynamics can help design focused interventions that support vulnerable populations and encourage holistic development.

The logistic regression study concludes by highlighting the importance of educational attainment in predicting women's single motherhood. Higher education offers a more nuanced link, highlighting the need for greater research and subtle policy interventions to address the changing dynamics of family formation in modern society, even though secondary education seems to give protective effects against single parenthood.

Chi-square test of the relationship between education and single parenting

The findings have been justified from the hypothesis test result conducted using Chi-Square. The table below shows a Chi-Square result for the test which examined the relationship between educational qualification and single parenting among unmarried mothers. The statement is presented as:

H_0 : There is no relationship between education and single parenting among unmarried mothers in Nigeria

H_1 : There is a relationship between education and single parenting among unmarried mothers in Nigeria

From this test presented in table 2, **educational qualification** (Independent variable) was measured using the question – “...I gave priority to my career than marriage” while single parenting (dependent variable) was measured by the question – “...I feel contented with being a single mother”. Therefore, if this value is similar to or lower than the set alpha level, the outcome is significant (normally .05). We will reject the null hypothesis in this situation because the degree of freedom (df) is 16 and the Chi-Square value is 164.527; the p-value (0.00) is less

than the standard alpha value; therefore, we accepted the alternative, which stated that there is a connection between education and single parenting among unmarried mothers.

Table 2.

Chi-Square Test- Relationship Between Education and Single Parenting

		I feel contented with being a single mother					
		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
I give priority to my career than marriage	Strongly Agree	35	7	12	7	24	85
	Agree	7.8%	7.8%	2.7%	1.6%	5.3%	18.9%
	Agree	15	73	21	52	12	173
		3.3%	16.2%	4.7%	11.6%	2.7%	38.4%
	Undecided	2	6	17	42	21	88
		0.4%	1.3%	3.8%	9.3%	4.7%	19.6%
	Disagree	8	14	15	33	16	86
		1.8%	3.1%	3.3%	7.3%	3.6%	19.1%
	Strongly Disagree	4	1	7	6	0	18
		0.9%	0.2%	1.6%	1.3%	0.0%	4.0%
	Total	64	101	72	140	73	450
		14.2%	22.4%	16.0%	31.1%	16.2%	100.0%

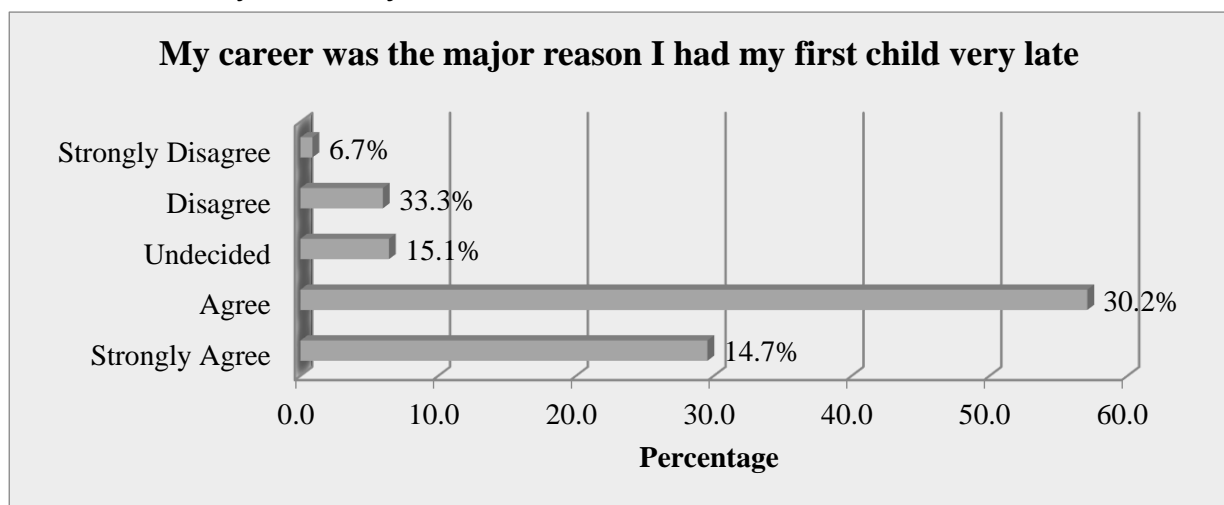
$\chi^2 = 164.527$; $df = 16$; $Sig < .000$

Education, career, and age at first childbirth

Lower educational attainment is one of a number of negative maternal outcomes linked to early conception in women. The timing of significant events in women's lives, such as when they start having children and taking on marital obligations, is significantly influenced by education.

Figure 5.

Career as the Major Reason for Late Childbirth



This was evident in this study as shown in figure 5 above, where a larger proportion of the respondents (45%) agreed that their career was the major reason they had their first child very late compared to 41% who disagreed with the notion that their career was the reason they

had their first child late. 15% of the participants were undecided. These findings reveal that while some, due to the length of time it takes to acquire education, inevitably postpone marriage; but for others, it was based on the need to build an effective career path that would sustain their future income level, and when the family sets in, there could be a distortion of this career goal. This was also expressed in some of the qualitative responses that were obtained from the .key informant interviews.

“If we say let us marry, our husbands will train us in school, it’s a lie...By the time we give birth to one, two, three children, education is finished...By the time we enter marital union, ‘honey’ and ‘sweetie’ will end, and I will not go to school again” (Interviewee No 25, February, 2022)

“Whereas women are getting educated and their values and preferences are improving, the cultural ideals of early marriage and traditional mate selection preference are fading away at a slower pace. For instance, I was 35 when I had my first child. I had my baby for a married man. Of course, it pays me like that because my career is still intact” (Interviewee No 21, February, 2022).

... and

“When a woman is too educated, it limits the number of men who will come around her because men have ego. They want a woman they can control, a woman they are more than, not a woman that will seem to rule over them” (Interviewee No 18, February, 2022).

Findings from both the interviews and survey show that, for many women, their career is a cornerstone to their world and who they are. They do a trade-off between the options of a family or a career choice.

Education, Contraceptive use and single parenting

As shown in table 3 below, it was found that a majority of unmarried single mothers (56%), agreed that women with higher educational attainment are less likely to be single mothers because of their knowledge of contraceptive use, whilst 23.1% disagreed, 3.3% strongly disagreed and disagreed with this notion.

Table 3.

Higher educational attainment and single parenting

Women with higher educational attainment are likely to be single mothers because of their knowledge of contraceptive use, which will not make them experience early childbirth	Frequency	Percent
Strongly Agree	119	26.4
Agree	133	29.6
Undecided	79	17.6
Disagree	104	23.1
Strongly Disagree	15	3.3
Total	450	100.0

Some respondents also mentioned that their inability or failure to utilize contraception resulted in their unintended pregnancies. They concurred that their failure to use contraceptives such as condoms during sex or tablets prior to or following sex was the cause of their pregnancy. This was also in line with the qualitative findings; when asked about this, some of them had this to say.

“Would I say I was raped at the age of 17? Well, it was my neighbor who forcefully had sex with me. It was not even long, however, if he had either used a condom, or if I had used pills, I would not have been a single mother now. That time, I was not too exposed nor educated compared to what I know now” (Interviewee No 9, January, 2022).

...and

“I was meant to use contraceptives, a drug which I failed to use within 72 hours of sexual intercourse. I got pregnant at 22 years of age, and I am left to cater for the child alone since the father is still a student. I dropped out of school to cater for this child” (Interviewee No 17, February, 2022).

The implication of this is that, although health facilities have increased significantly and rapidly in modern societies, women now could make decisions and choices on single parenting. However, little effort has been made towards the use of contraceptives because some women see this routinely as a private matter.

DISCUSSION OF FINDINGS

The findings in this study confirm what has already been shown in the body of literature that educated women delay having children and getting married, are more likely to use contemporary contraception as a result, and eventually have lower fertility rates than do less educated women (Dattoo et al., 2021; Karaoglan & Saracoglu, 2021). In the literature on economics, this is illustrated by a decreased demand for children as a result of higher opportunity costs associated with parenting among highly educated women who typically have more options on the job market. Yaya et al. (2018) and Adedini et al. (2019) also demonstrated a substantial relationship between education level and chance of taking a certain form of contraception. Further, it was reported by Orlanes and Cuarteros (2020) that the projected probability of using contraceptives were significantly greater for employees and self-employed women.

By implication, education appears to increase women's knowledge of family planning and the usage of contraceptives. Women with higher levels of education are more likely to use contraceptive techniques than women with lower levels of education, as has already been shown in this study. Women with higher levels of education have had more exposure to information on contraception and are more knowledgeable about their role in controlling fertility. Education also indirectly contributes to their higher use of contraceptives: while attending school does not always result in literacy, time spent in a classroom may improve literacy abilities, enabling women to comprehend decontextualized language and influencing behavior (Levine, et al., 2018).

The mother's time is heavily invested in child-rearing tasks. Due to its time commitment, education also decreases women's want or desire for children while increasing their need for contraception. As a result, highly educated women are more inclined to put off having children while continuing their studies. Women with higher levels of education demand fewer children once they complete their schooling and enter the workforce than women with lower levels of education. The higher cost of lost income is the cause of this. Therefore, educated women are more likely than their less educated colleagues to use contraceptive techniques throughout their productive years in the workforce.

Findings on education, career and age at first birth revealed that most participants who are in school and those who attain higher levels of education are likely to have their first children later in their life due to advancing their career paths. On a fundamental level, girls who are in school are typically not married, and vice versa (Marphatia, et al. 2020). Therefore, women are more likely to marry later in life the more education they possess. As a result, decades of demographic study have shown a high correlation between education and family formation at the individual level. In particular, it has long been known from a number of micro-level studies (Wodon et al., 2017) that women with more education start having children later in life than those with less education.

Findings show that highly educated women frequently choose status and education over marriage. Since marriage makes it easier to have children and raise them, which they view as being time-consuming, an increase in wage rates has a negative substitution effect on the desire for marriage, which has led to an increase in single parenting. While holding onto the latter, they build prospects which would hold them on for the future (Akinyemi and Wandera, 2020). This mostly relies on economic theory, which highlights certain fundamental ways in which postponed parenthood and marriage may be linked to single parenting among mothers who are not married. These pathways include increased interpersonal or partnership stability as well as rewards on both human and financial capital (Makama, 2013). It's significant that these pathways have also been linked to socio-economic differences in the educational progression of women. According to this economic hypothesis, having children comes with significant opportunity costs for women. When women have children, they frequently leave the workforce, at least temporarily, which results in a loss of experience and income. Delaying childbirth or fertility, however, can cause these losses to occur at a more affordable time, such as after a woman has gathered a lot of work experience, has a more stable job, and can afford the high expense of child care. Their decision to be single mothers would mostly depend on how long they put off getting married. If they accept this trade-off, they may end up becoming single parents since they are too old to get married. Nevertheless, not everyone may be able to take advantage of these advantages of delayed fertility. Instead, they are based on the general situation of women in the labor market, which is heavily dependent on their educational attainment.

The planned behavior theory of Ajzen (1991) is helpful in explaining the effects of schooling on solitary parenting among unmarried moms. It contends that intentions are the most direct predictor of the associated behavior and has some overlap with the social exchange theory. This theory states that three groups of factors have an immediate impact on intentions: (a) personal positive and negative attitudes toward the behavior, such as getting married and having children; (b) subjective norms, such as perceived social pressure to engage or not to engage in the behavior; and (c) perceived behavioural control, such as the ability to perform the behavior, which may rely heavily, for example, on the availability of housing, income, or other factors. Significantly, whereas perceived behavioural control is more important in the decision to have a child, the move to single parenting is mostly driven by the existing subjective norm and individual beliefs toward marriage. It is reasonable to infer that the perception of behavioural control has a favourable impact on the intentions of single, highly educated women to become pregnant (Haggar et al., 2022; Wang et al., 2021).

This implies that, in addition to the fact that lack of awareness about the use of contraceptives mediates as a factor to single parenting, it has also been found that education delays marriage and childbirth by increasing the autonomy of women, allowing them more power over marriage decisions and, through employment before marriage, greater control over resources (Kayode, 2018; Adewoyin et al., 2021). Similar to how knowledge autonomy, decision-making autonomy, physical autonomy and interaction with the outside world, emotional autonomy, economic and social autonomy, and self-reliance are all influenced by education and are particularly significant for fertility decisions, this current study and related literature have identified five separate but interdependent elements of autonomy. Nevertheless, by applying the same reasoning, these increases in autonomy ought to provide girls more influence over how long they spend in school, giving them more exposure to the educational factors that have an impact on these demographic processes.

In a nutshell, this study establishes that education is a correlate of single parenting among unmarried mothers in Nigeria. When compared to women who are illiterate, mothers who are educated are more inclined to be single mothers, and as these women's educational attainment increases, marriage becomes less likely (Adewoyin et al., 2020). Professional single women have given a variety of reasons for not getting married, including the need for independence and difficulty finding the perfect mate. The marriage market for educated women is impacted because these ladies want to marry intelligent men, whereas educated men typically marry women who are less educated than them. Another obstacle to marriage among educated women is bride-wealth payment customs, which are expensive and beyond of reach for them.

The Social exchange theory can explain this finding: it is a socio-economic theory that explains contraceptive use and delayed fertility because of educational attainment. It also emphasizes the direct and indirect opportunity costs associated with choosing to delay having children. This idea contends that more education and higher labour force involvement lead to greater economic independence for women. By implication, it lessens the benefits of marriage,

allowing single parenting among mothers who are not married. In other words, because of their high levels of education, it is considered that women choose not to start families or get married to earn more money.

CONCLUSION AND RECOMMENDATIONS

Campaigns aimed at raising awareness about the importance of family planning, the array of contraceptive options available, and the benefits of strategically spacing and timing pregnancies should be developed collaboratively by the government and NGOs. Both educated and less educated women should be the target audience for these awareness initiatives.

The government should ease restrictions on contraceptive use, enhance accessibility by reducing costs, and make them readily available, particularly for women from lower-income families. Consideration should be given to programs offering contraceptives at discounted prices or for free to individuals facing financial difficulties.

Organizations need to implement procedures and policies supporting highly educated women in balancing their personal and professional lives. Examples include flexible work schedules, maternity leave regulations, and childcare assistance, enabling women to pursue their professional ambitions without feeling compelled to postpone family planning.

There is also a need to provide educated women with programs on ovulation cycle monitoring, collaboration between the government and non-governmental organizations is crucial. This collaboration can empower individuals to make informed choices about family planning, especially if their primary goal is career advancement.

Private and public sectors should work towards altering cultural norms that discourage women with advanced degrees from getting married. Dispelling myths and prejudices surrounding marriage is essential, promoting a more inclusive image of marriage and family that considers both familial and workplace needs.

Women with diverse educational backgrounds should have access to employment counselling and support, aiding them in navigating the interplay between family planning, career aspirations, and education. Information about the potential advantages and challenges of delaying childbirth can be incorporated into these support programs.

Limitations of the study

The study might not fully represent the population or have a limited sample size that is skewed. This may have an impact on the study's findings' validity and generalizability. The study might have depended on participant self-reported data, which could contain errors or biases. From an alternative perspective, it's possible that participants provided socially acceptable answers that didn't accurately represent their real-world encounters or actions.

Furthermore, it's possible that the study lacked a control group to compare the results of single parenting to those of two-parent families and that individuals weren't tracked down over time to evaluate the long-term impacts of underage pregnancy and single parenting.

The qualitative research design was used for the survey because the researcher wanted to fully immerse himself in the lives of the respondents, who were single mothers, and discover

how underage pregnancy leads to single parenting. Future research, however, should employ more thorough statistical analysis from a quantitative standpoint to demonstrate the predictive power of other characteristics besides underage pregnancy in determining single parenting in Nigeria.

Conflict of Interest

The authors declare no conflict of interest concerning this article's research, authorship, and publication.

REFERENCES

- Adedini, S. A., Omisakin, O. A., & Somefun, O. D. (2019). Trends, patterns and determinants of long-acting reversible methods of contraception among women in sub-Saharan Africa. *PloS one*, 14(6), <https://doi.org/10.1371/journal.pone.0217574>
- Adejoh, S. O., Kuteyi, R. K., Ogunsola, V., & Adeoye, T. A. (2019). Single motherhood: Experiences of never married women in Lagos, Nigeria. *The Nigerian Journal of Sociology and Anthropology*, 17(2), 100-112. [https://doi.org/10.36108/NJSA/9102/71\(0270\)](https://doi.org/10.36108/NJSA/9102/71(0270))
- Adelakun, O. S., & Adelakun, A. (2024). The child support system and women's access to child support in Nigeria. In *Single Parents and Child Support Systems* (pp. 161-176). Edward Elgar Publishing. <https://doi.org/10.4337/9781800882409.00015>
- Adewoyin, A. S., Daramola, O. A., Ogbenna, A. A., & Adeyemo, T. A. (2021). Immune erythrocyte antibodies in adult patients with sickle cell disease and blood donors in Lagos, Nigeria: a comparative study. *Immunohematology*, 37(3), 131-137. <https://doi.org/10.21307/immunohematology-2021-020>
- Adewoyin, Y., Awelewa, O. F., Uzoma, I. E., & Anazonwu, N. P. (2020). Prevalence pattern and sociodemographic correlates of single motherhood in Nigeria. *Sexuality Research and Social Policy*, 1-13. DOI: [10.1007/s13178-020-00523-0](https://doi.org/10.1007/s13178-020-00523-0)
- Adewoyin, Y., Chukwu, N. N. A., & Sanni, L. M. (2018). Urbanization, spatial distribution of healthcare facilities and inverse care in Ibadan, Nigeria. *Ghana Journal of Geography*, 10(2), 96-111. <https://www.ajol.info/index.php/gig/article/view/181166>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-](https://doi.org/10.1016/0749-5978(91)90020-)
- Akinyemi, J. O., & Wandera, S. O. (2020). Family changes and their implications for child health outcomes in Sub-Saharan Africa: A multivariate decomposition analysis. *Family Demography and Post-2015 Development Agenda in Africa*, 199-221. https://doi.org/10.1007/978-3-030-14887-4_10
- Alaba, O. O., Olubusoye, O. E., & Olaomi, J. O. (2017). Spatial patterns and determinants of fertility levels among women of childbearing age in Nigeria. *South African Family Practice*, 59(4), 143-147. <https://www.ajol.info/index.php/safp/article/view/160508>

- Alice, G., Berkay, Ö., Philippe, V. (2019). Do Children Carry the Weight of Divorce? *Demography*; 56 (3): 785–811. DOI: [10.1007/s13524-019-00784-4](https://doi.org/10.1007/s13524-019-00784-4)
- Amato, L. (2018). Math anxiety: The impact on traditionally underserved and marginalized adult female undergraduate students in elementary statistics. Available from ProQuest Dissertations and Theses database.(UMI No. 10884).
<http://hdl.handle.net/2047/D20279957>
- Araba, S. E. Y. (2021). Gender Digital Equality Across ASEAN. Issue 358 of ERIA discussion paper series, Economic Research Institute for ASEAN and East Asia
- Asah, J. (2021) Single Parenting and Its Effects on Students' Academic Performance in Kumba III Municipality, Meme Division, Cameroon. *International Journal of Education, Learning and Development* Vol. 9, No.1, pp.30-41. <https://ssrn.com/abstract=3770176>
- Ashraf, N., Bau, N., Nunn, N., & Voena, A. (2020). Bride price and female education. *Journal of Political Economy*, 128(2), 591-641. <http://dx.doi.org/10.1086/704572>
- Azevedo, J. P., Lopez-Calva, L. F., & Perova, E. (2012). Is the baby to blame? An inquiry into the consequences of early childbearing. The World Bank. Available at: <http://www-wds.worldbank.org/external/default/WDSC...ered/PDF/WPS6074.pdf>
- Barmao-Kiptanui, C. (2020). De-stigmatizing teenage motherhood: The re-entry policy implementation in Kenya. *International Journal of Research and Innovation in Social Science*, IV(II), 2454–6186. <http://kerd.ku.ac.ke/123456789/311>
- Boval, A. (2023). Adolescents' Sources of Sexual Health Information in Sub-Saharan Africa: A Scoping Review. Available at: <https://hdl.handle.net/11250/3089866>
- British Council, (2014) Our work in society. Available at:
<https://www.britishcouncil.org/ng/programmes/society>
- Broekmans, F. J., Knauff, E. A., te Velde, E. R., Macklon, N. S., & Fauser, B. C. (2007). Female reproductive ageing: current knowledge and future trends. *Trends in Endocrinology & Metabolism*, 18(2), 58-65. DOI: [10.1016/j.tem.2007.01.004](https://doi.org/10.1016/j.tem.2007.01.004)
- Budu, E., Ahinkorah, B. O., Seidu, A. A., Hagan Jr, J. E., Agbemavi, W., Frimpong, J. B., ... & Yaya, S. (2021). Child marriage and sexual autonomy among women in Sub-Saharan Africa: evidence from 31 demographic and health surveys. *International journal of environmental research and public health*, 18(7), 3754. doi: [10.3390/ijerph18073754](https://doi.org/10.3390/ijerph18073754)
- Burns, P. M. (2020). Maternal Education, Home Environment, and Educational Aspirations: The Relationship with Children's Math Skills. Teachers College, Columbia University.
- Causey, S. T., Livingston, J., & High, B. (2015). Family structure, racial socialization, perceived parental involvement, and social support as predictors of self-esteem in African American college students. *Journal of Black Studies*, 46(7), 655-677.
<https://doi.org/10.1177/0021934715592601>
- Center for Longitudinal Studies (2019) Research round-up – October to December 2019.
<https://cls.ucl.ac.uk/research-round-up-october-to-december-2019/>

- Chiappori, P. A., Iyigun, M., & Weiss, Y. (2009). Investment in schooling and the marriage market. *American Economic Review*, 99(5), 1689-1713. DOI: 10.1257/aer.99.5.1689
- Corno, L., Hildebrandt, N., & Voena, A. (2020). Age of marriage, weather shocks, and the direction of marriage payments. *Econometrica*, 88(3), 879-915.
<https://doi.org/10.3982/ECTA15505>
- Cortes, P., & Tessada, J. (2011). Low-skilled immigration and the labor supply of highly skilled women. *American Economic Journal: Applied Economics*, 3(3), 88-123. DOI: 10.1257/app.3.3.88
- Datoo, M. S., Natama, M. H., Somé, A., Traoré, O., Rouamba, T., Bellamy, D., ... & Tinto, H. (2021). Efficacy of a low-dose candidate malaria vaccine, R21 in adjuvant Matrix-M, with seasonal administration to children in Burkina Faso: a randomised controlled trial. *The Lancet*, 397(10287), 1809-1818. DOI:[https://doi.org/10.1016/S0140-6736\(21\)00943-0](https://doi.org/10.1016/S0140-6736(21)00943-0)
- Elo, I. T., Hendi, A. S., Ho, J. Y., Vierboom, Y. C., & Preston, S. H. (2019). Trends in Non-Hispanic White Mortality in the United States by Metropolitan-Nonmetropolitan Status and Region, 1990-2016. *Population and development review*, 45(3), 549–583.
<https://doi.org/10.1111/padr.12249>
- Gähler, M., & Palmtag, E.-L. (2015). Parental divorce, psychological well-being and educational attainment: Changed experience, unchanged effect among Swedes born 1892–1991. *Social Indicators Research*, 123(2), 601–623. <https://doi.org/10.1007/s11205-014-0768-6>
- Ghazi-Saidi, L., Criffield, A., Kracl, C. L., McKelvey, M., Obasi, S. N., & Vu, P. (2020). Moving from face-to-face to remote instruction in a higher education institution during a pandemic: Multiple case studies. *International Journal of Technology in Education and Science*, 4(4), 370-383. DOI: <https://doi.org/10.46328/ijtes.v4i4.169>
- Gill, J., Sharp, R., Mills, J., & Franzway, S. (2008). I still wanna be an engineer! Women, education and the engineering profession. *European Journal of Engineering Education*, 33(4), 391-402. DOI: [10.1080/03043790802253459](https://doi.org/10.1080/03043790802253459)
- Hagger, M. S., Cheung, M. W. L., Ajzen, I., & Hamilton, K. (2022). Perceived behavioral control moderating effects in the theory of planned behavior: A meta-analysis. *Health Psychology*, 41(2), 155. DOI: [10.1037/hea0001153](https://doi.org/10.1037/hea0001153)
- Hank, K., & Steinbach, A. (2019). Families and Their Institutional Contexts: the Role of Family Policies and Legal Regulations. *Kölner Zeitschrift für Soziologie & Sozialpsychologie*, 71(1), 375–398. DOI: 10.1007/s11577-019-00603-z.
- Haruna-Ogun, O. A. (2018). Geographical differentials in uptake of antenatal care services in Nigeria. *Health Care for Women International*, 39(1), 34-49.
<https://doi.org/10.1080/07399332.2017.1388804>

- Islam, J., Rahman, Z., & Hollebeek, L. D. (2017). Personality factors as predictors of online consumer engagement: an empirical investigation. *Marketing Intelligence & Planning*, 35(4), 510-528. <https://doi.org/10.1108/MIP-10-2016-0193>
- Issa, B. (2018). Marriages in Context: Interactions between Chronic and Acute Stress among Newlyweds. Presentation at the International Meeting on the Developmental Course of Couples Coping with Stress, October 12-14, 2018, Boston College, Chestnut Hill, MA. <https://doi.org/10.1037/11031-001>
- Karaođlan, D., & Saraçođlu, D. Ő. (2021). Women's socioeconomic status and choice of birth control method: an investigation for the case of Turkey. *Journal of Biosocial Science*, 53(1), 137-156. DOI: [10.1017/S0021932020000103](https://doi.org/10.1017/S0021932020000103)
- Katiyar, S. P. (2016). Gender disparity in literacy in India. *Social Change*, 46(1), 46-69. DOI: [10.1177/0049085715618558](https://doi.org/10.1177/0049085715618558)
- Kim, G. E., & Kim, E. J. (2020). Factors affecting the quality of life of single mothers compared to married mothers. *BMC psychiatry*, 20, 1-10. <https://doi.org/10.1186/s12888-020-02586-0>
- Kohler, H. P., Billari, F. C., & Ortega, J. A. (2002). The emergence of lowest-low fertility in Europe during the 1990s. *Population and development review*, 28(4), 641-680. <https://doi.org/10.1111/j.1728-4457.2002.00641.x>
- Kayode, S. T. (2018) Assessment of resource utilization and entrepreneurial skill development in a knowledge economy society. *Joplet*, 1 (2), 199-209.
- Kravdal, Ő. (2008). A broader perspective on education and mortality: are we influenced by other people's education? *Social science & medicine*, 66(3), 620-636. <https://doi.org/10.1016/j.socscimed.2007.10.009>
- Leigh-Hunt, N., Bagguley, D., Bash, K., Turner, V., Turnbull, S., Valtorta, N., & Caan, W. (2017). An overview of systematic reviews on the public health consequences of social isolation and loneliness. *Public health*, 152, 157-171. DOI: [10.1016/j.puhe.2017.07.035](https://doi.org/10.1016/j.puhe.2017.07.035)
- Levine, M. E., Lu, A. T., Quach, A., Chen, B. H., Assimes, T. L., Bandinelli, S., ... & Horvath, S. (2018). An epigenetic biomarker of aging for lifespan and healthspan. *Aging (alban NY)*, 10(4), 573. DOI: [10.18632/aging.101414](https://doi.org/10.18632/aging.101414)
- Liu, Y., Nam, B. H., & Yang, Y. (2023). Revisiting symbolic power and elite language education in China: a critical narrative ethnography of the English education major at a top language university in Shanghai. *Educational Review*, 1-27. <https://doi.org/10.1080/00131911.2023.2184774>
- Makama, G. A. (2013). Patriarchy and gender inequality in Nigeria: The way forward. *European scientific journal*, 9(17).
- Maree, T., & Van Heerden, G. (2021). Beyond the "like": customer engagement of brand fans on Facebook. *European Business Review*, 33(2), 255-271. DOI: [10.1108/EBR-02-2019-0025](https://doi.org/10.1108/EBR-02-2019-0025)

- Marphatia, A. A., Saville, N. M., Amable, G. S., Manandhar, D. S., Cortina-Borja, M., Wells, J. C., & Reid, A. M. (2020). How much education is needed to delay women's age at marriage and first pregnancy?. *Frontiers in Public Health*, 7, 396.
<https://doi.org/10.3389/fpubh.2019.00396>
- Martin, F. (2017). Mobile self-fashioning and gendered risk: Rethinking Chinese students' motivations for overseas education. *Globalisation, Societies and Education*, 15(5), 706-720. <https://doi.org/10.1080/14767724.2016.1264291>
- Miettinen, A., & Jalovaara, M. (2020). Unemployment delays first birth but not for all. Life stage and educational differences in the effects of employment uncertainty on first births. *Advances in Life Course Research*, 43, 100320.
<https://doi.org/10.1016/j.alcr.2019.100320>
- Millar, J & Ridge, T (2009), 'Relationships of care: working lone mothers, their children and employment sustainability', *Journal of Social Policy*, vol. 38, no. 1, pp. 103-121.
[https://doi.org https://10.1017/S0047279408002572](https://doi.org/https://10.1017/S0047279408002572)
- Miller, T., Howe, P., & Sonenberg, L. (2017). Explainable AI: Beware of inmates running the asylum or: How I learnt to stop worrying and love the social and behavioural sciences. arXiv preprint arXiv:1712.00547. <https://doi.org/10.48550/arXiv.1712.00547>
- Mills, M., Rindfuss, R. R., McDonald, P. & Te Velde, E. (2011). Why do people postpone parenthood? Reasons and social policy incentives. *Human reproduction update*, 17(6), 848-860. DOI: [10.1093/humupd/dmr026](https://doi.org/10.1093/humupd/dmr026)
- Neal, S. E., Chandra-Mouli, V., & Chou, D. (2015). Adolescent first births in East Africa: disaggregating characteristics, trends and determinants. *Reproductive health*, 12, 13.
<https://doi.org/10.1186/1742-4755-12-13>
- Ngwenyama, N. N. (2022). *Lobola in Eswatini: Exploring Male Vulnerabilities through Kinship Making* (Master's thesis, Faculty of Humanities). Available at:
<https://open.uct.ac.za/items/26746058-9e46-443b-a5b3-3a3714b4f2ff>
- Nigeria Data Portal (2018) Nigeria Population by Marital Status. Available at:
<https://nigeria.opendataforafrica.org/yjdggyg/nigeria-population-by-marital-status>
- Nitsche, N., & Brückner, H. (2021). Late, but not too late? Postponement of first birth among highly educated US women. *European Journal of Population*, 37(2), 371-403.
doi: [10.1007/s10680-020-09571-z](https://doi.org/10.1007/s10680-020-09571-z)
- Ntoimo, L. F. C., & Odimegwu, C. O. (2020). Theoretical perspectives on family research. *Family demography and post-2015 development agenda in Africa*, 75-82. DOI: [10.1007/978-3-030-14887-4_4](https://doi.org/10.1007/978-3-030-14887-4_4)
- Nuar, S. C. (2023). *The Divorced, Single Mother's Journey of Healing and Empowerment After Her Ex-Husband's Infidelity*. Michigan School of Psychology. Available at:
<https://www.proquest.com/openview/f7b9ea63f7b660a6474cd803458cdc28/1?pq-origsite=gscholar&cbl=18750&diss=y>

- Nussbaum, M. C. (2011). *Creating capabilities: The human development approach*. Harvard University Press. Available at: <https://ndpr.nd.edu/reviews/creating-capabilities-the-human-development-approach-2/>
- OECD (2019) Indicator A7. To what extent do adults participate equally in education and learning? Available at: <https://www.oecd-ilibrary.org/docserver/df2ec3d0-en.pdf?expires=1722215261&id=id&accname=guest&checksum=236F66AFCD1B6FE5D7D21F8C750D2C3>
- Obasi, C. C., Osinowo, H. O., & Fashola, T. M. (2018). Personality traits as predictors of parenting stress among caregivers of children with autism in Lagos, Nigeria. *African Journal for the Psychological Studies of Social Issues*, 21(2), 65-83. Available at: <https://ajpssi.org/index.php/ajpssi/article/view/306>
- Orlanes, J. D., & Cuarteros, K. G. (2020). Significant Factors in Using Contraceptives among Married Women in Cagayan de Oro City using Binary Logistic Regression. *Canadian Journal of Family and Youth/Le Journal Canadien de Famille et de la Jeunesse*, 12(1), 200-224. DOI: <https://doi.org/10.29173/cjfy29498>
- Oyefara, J. L. (2011). Determinants of adolescent fertility in contemporary Yoruba society: a multivariate analysis. *Gender and Behaviour*, 9(2), 3979-4004. <https://hdl.handle.net/10520/EJC34702>
- Pew Research Center (2015) Chapter 2: What Makes a Good Leader, and Does Gender Matter?. Available at: <https://www.pewresearch.org/social-trends/2015/01/14/chapter-2-what-makes-a-good-leader-and-does-gender-matter/>
- Pradhan, R., Wynter, K., & Fisher, J. (2015). Factors associated with pregnancy among adolescents in low-income and lower middle-income countries: a systematic review. *J Epidemiol Community Health*. 69(9):918-24. <https://doi.org/10.1136/jech-2014-205128>
- Sen, A. (2008). Violence, identity and poverty. *Journal of peace research*, 45(1), 5-15. <https://doi.org/10.1177/0022343307084920>
- Setini, M., Yasa, N. N. K., Supartha, I. W. G., Giantari, I. G. A. K., & Rajiani, I. (2020). The passway of women entrepreneurship: Starting from social capital with open innovation, through to knowledge sharing and innovative performance. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(2), 25. <https://doi.org/10.3390/joitmc6020025>
- Stack, S. W., Jagsi, R., Biermann, J. S., Lundberg, G. P., Law, K. L., Milne, C. K., ... & Best, J. A. (2020). Childbearing Decisions in Residency: A Multicenter Survey of Female Residents. *Academic Medicine*, 95(10), 1550-1557. doi: <https://10.1097/ACM.0000000000003549>
- UN, (2015). Attacks against girls' education on the increase. Available at: <https://www.ohchr.org/en/newsevents/pages/attacksagainstgirlseducationontheincrease.aspx>.

- UNESCO (2014). Education For All: Global Monitoring Report. Teaching and Learning for All. UNESCO: Paris. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000225654>
- United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019: Highlights. ST/ESA/SER.A/423. Available at: https://population.un.org/wpp/Publications/Files/WPP2019_Highlights.pdf
- UNPFA (2021) Key results of Nigeria in 2021. Volume 50, Issue 2, Pages 179-211. Available at: <https://www.unfpa.org/data/transparency-portal/unfpa-nigeria>
- Wang, X., Zhang, M., Yu, Y., Hu, B., & Yang, X. (2021). Extending the theory of planned behavior to examine Chinese parents' intention to use child care services for children under age 3. *Children and Youth Services Review*, 129, 106208. DOI: <https://10.1016/j.chilyouth.2021.106208>
- Whiteman, D. C., Whiteman, C. A., & Green, A. C. (2001). Childhood sun exposure as a risk factor for melanoma: a systematic review of epidemiologic studies. *Cancer causes & control*, 12, 69-82. <https://doi.org/10.1023/A:1008980919928>
- WHO (2017). World health statistics 2017: monitoring health for the SDGs, sustainable development goals. Available at: <https://www.who.int/publications-detail-redirect/9789241565486>
- Wodon, Q., Male, C., Nayihouba, A., Onagoruwa, A., Savadogo, A., Yedan, A., ... & Petroni, S. (2017). Economic impacts of child marriage: global synthesis report. Available at: <https://projects.iq.harvard.edu/violenceagainstwomen/publications/economic-impacts-child-marriage-global-synthesis-report>
- World Bank (2015) Female Education and Childbearing: A Closer Look at the Data. Available at: <https://blogs.worldbank.org/health/female-education-and-childbearing-closer-look-data>
- World Bank (2021) Girls' Education. Available at: <https://www.worldbank.org/en/topic/girlseducation>
- Worldometer (2021) Nigeria Population. Available at: <https://www.worldometers.info/world-population/nigeria-population/>
- Yaya, S., Uthman, O. A., Ekholuenetale, M., & Bishwajit, G. (2018). Women empowerment as an enabling factor of contraceptive use in sub-Saharan Africa: a multilevel analysis of cross-sectional surveys of 32 countries. *Reproductive health*, 15(1), 1-12. <https://doi.org/10.1186/s12978-018-0658-5>
- Young, M., & Schieman, S. (2018). Scaling back and finding flexibility: Gender differences in parents' strategies to manage work–family conflict. *Journal of Marriage and Family*, 80(1), 99-118. <https://doi.org/10.1111/jomf.12435>