Determinants of Reproductive Health Behaviour among Female Workers in Tertiary Institutions: Evidence from Nigeria

Agbeni KE[1*], Pope K[2], Gbadebo AJ[3], Nwuko OA[4]

DOI:10.5281/zenodo.15364842

[1*] Kehinde Emmanuel Agbeni, Department of Economics (Health Economics), Lagos State University, Nigeria.

[2] Kediesha Pope, Department of Management, University of Liverpool, United Kingdom.

[3] Adedoyin Judith Gbadebo, Department of Psychology, Faculty of Social Science, University of Lagos, Nigeria.

[4] Obinna Alexander Nwuko, Department of Politics and International Affairs, Northern Arizona University, United States.

The study investigates the determinants of reproductive health behaviour among female workers in tertiary institutions in Nigeria with the aim to determine the relationship between age, education and cultural factors and how it affects female reproductive health behaviour. The study adopted the new household economic theory. The study utilised the quantitative research method applying the use of structured questionnaire as instrument of data collection. From the population, the study selected 400 respondents as sample size and the collected data was analysed descriptively with means and standard deviation. The study concluded there is significant extent to which age, educational attainment, marriage and cultural norms/ religious beliefs influences reproductive health behaviour of female workers in tertiary institutions. The study recommended that tertiary institutions should collaborate with health organizations to implement educational programs that emphasize the impact of age and marriage on reproductive health, encouraging informed decisions about marriage timing and family planning. Health Institutions should incorporate reproductive health education into professional programs, particularly highlighting the role of educational attainment in fostering positive reproductive health behaviours. Health policymakers should design reproductive health initiatives that respect cultural and religious beliefs while promoting practices that enhance reproductive health outcomes.

Keywords: Reproductive, Health Behaviour, Female Workers, Tertiary Institution

1. Introduction

Reproductive health is an important issue which recently emerged as a matter of increasing concern by development experts, NGOs and government of various developing and developed countries owing to its implications for women's own health, health of their children, family members and socioeconomic development of society as well as population programmes. One of the fundamental components of development is promoting and achieving the health of women, most especially on reproductive health. The World Health Organization (WHO) (2013) sees reproductive health as a state of complete physical, mental and social well-being in all matters relating to the reproductive system and processes.

The definition was internationally accepted because it recognized that reproductive health affects and is affected by the economic circumstances, education, employment opportunities, family structures, as well as political, religious and legal environment (Roudi-Fahimi & Ashford, 2018). This implies that the most important components of reproductive health include family planning, safe motherhood, safe and satisfying sex, prevention and treatment of reproductive tract infections and sexually transmitted diseases, as well as the decision making power associated with these. One of the significant milestones of the twentieth century in the field of population and development is the recognition of women as equal partners in development efforts in all societies of the world (Odutolu, Adedimeji, Odutolu, Baruwa & Olatidoye, 2023).

By locating women within the context of global development, these conferences have encouraged women to openly discuss issues that affect their status and reproductive health. A major response to this development is a review of programmes and strategies aimed at improving the reproductive health of women (Odutolu, Adedimeji, Odutolu, Baruwa & Olatidoye, 2023). There was to a paradigm shift fired by a growing awareness of the negative health, social and economic consequences of unsafe sexual activity and childbearing, including unintended pregnancies, unsafe abortions, Sexually Transmitted Diseases (STDs), Acquired Immune Deficiency Syndrome (AIDS) and decreased economic power among women. Hence, women reproductive health care became the focal point of development issues in all countries,

rather than a matter of disease prevention. This is so because a woman's ability to bear children is linked to the continuity of families, clans and social groups, the control of property, the relationship between women and their expression of sexuality (Hossain & Hoque, 2015). In order to exercise this basic right within the social and cultural limits, women must have access to complete reproductive health information and services so that they can make free and informed choices; and ultimately have control over family size and more use of contraceptives resulting to checking of tremendous growth of population. Reproductive health behaviour of women as a number of dimensions, such as anatomy of reproductive organs, safe sex relations, safe motherhood, and child survival, gynaecological problems, reproductive rights, family planning adoption, STDs, HIV infection and AIDS (Pandey & Singh, 2018).

The concept is centred on human needs and development and it is envisaged as the entire life cycle, from the womb to the tomb (UN, 2012). Globally and locally women are becoming leaders in both their social role and the family- related value systems, yet some traditional, cultural and religious beliefs still hinder their decision making on their reproductive health behaviour. Women's control over their reproductive behaviour is a key component of reproductive health right, as reproductive behaviour is complex and determined by numerous factors which are directly influenced by a set of social and biological factors .

Reproductive health behaviour of women of childbearing age could be seen as women's attitudes to reproductive health issues; child bearing and rearing, number of children, family size norms, knowledge of family planning methods, sexual relationships, knowledge of prevention of sexually transmitted diseases, HIV/AIDS prevention and so on (Muoghalu, 2021). This reproductive health behaviour can be applied to a wide range of sexual and reproductive health decisions on whether to use contraception/family planning methods, what contraception/ family methods to be used, and whether or when to continue or switch methods, whether to seek or to avoid pregnancy, whether to space and time one's childbearing at one's own convenience. It has health implications for the lives of women generally. For example, family planning (FP) services are necessary both to women not wanting a pregnancy and to those who desire

pregnancy but want to ensure adequate spacing for promoting healthy living. Controlling the transmission of STIs not only helps to reduce long-term reproductive morbidities, such as ectopic pregnancy and infertility, but also reduces the likelihood of HIV transmission.

2. Objectives of the Study

The main objective of this study is to examine the determinants of reproductive health behaviour among female workers in tertiary institutions in Nigeria. Specifically, the study aims to determine the relationship and the extent to which age, educational attainment, marriage, cultural norms and religious beliefs influences female reproductive health behaviour particularly, among female workers in tertiary institutions. It also seeks to explore individual attitudes, perceptions, and levels of awareness regarding reproductive health among female employees, and ultimately recommend strategies to improve reproductive health outcomes and support systems for female workers in Nigerian tertiary institutions.

3. Literature Review

There are several theories on reproductive health behaviour. For this study, two major theories are reviewed. They are in many ways, 71 related to one another, showing understanding of health behaviour which is based on the assumption that people are rational in decision making as regards a given behaviour. They form a basis from which interventions aimed at increasing health behaviour can be developed.

Reproductive health, as defined by the World Health Organization (WHO, 2022), encompasses physical, mental, and social well-being in all matters relating to the reproductive system at all stages of life. In the Nigerian context, reproductive health remains a significant public health concern, especially among women of reproductive age, including female workers in tertiary institutions. This review examines the factors that influence reproductive health behaviour among this group, with emphasis on socio-cultural, economic, institutional, and individual determinants. Cultural beliefs and social norms play a pivotal role in shaping reproductive health behaviour in Nigeria. Studies such as that by Okonofua et al. (2019) highlight how societal expectations and traditional gender roles often limit

women's autonomy in making reproductive health decisions. Many female workers in academia, particularly in Northern Nigeria, experience cultural restrictions that impact their ability to access or utilize reproductive health services (Abubakar & Oyeyemi, 2020). Religious beliefs also intersect significantly with health behaviours. Islam and Christianity, which are predominant in Nigeria, sometimes promote doctrines that discourage the use of contraceptives or other reproductive health services (Oladipo, 2017). This religious influence may hinder even educated women, such as lecturers and administrative staff in tertiary institutions, from adopting beneficial reproductive health practices.

Higher levels of education generally correlate with better reproductive health outcomes. Female workers in tertiary institutions often possess higher education levels, which should theoretically translate to improved awareness and utilisation of reproductive services. However, evidence suggests that awareness does not always lead to action (Adebayo & Kolawole, 2021). The disconnect often lies in systemic barriers such as cost, access, and institutional support. Economic independence is another crucial factor. While many female academic staff earns a regular income, disparities still exist in pay and access to benefits compared to their male counterparts. Financial constraints can deter women from seeking timely reproductive healthcare, especially when such services are not subsidized or covered by institutional health insurance schemes (Uzochukwu et al., 2020). The workplace environment within tertiary institutions in Nigeria also shapes reproductive health behaviour. Institutions with robust health policies, gender-sensitive programs, and functional health centres tend to promote better health-seeking behaviour among female staff (Nwachukwu & Onwujekwe, 2016). However, many institutions lack tailored programs that cater specifically to the reproductive health needs of female employees.

Maternity leave, flexible working arrangements, and staff health education programs are inconsistently implemented across Nigerian universities and polytechnics. Where such policies exist, they are often poorly enforced, thereby limiting their effectiveness (Ezeani & Ezeibe, 2019). The absence of institutional support structures can discourage women from taking preventive measures or seeking timely interventions for reproductive health issues.

Personal beliefs, health literacy, and past experiences heavily influence reproductive health choices. According to a study by Adeyemi and Ayodele (2018), individual factors such as perceived susceptibility to illness, perceived benefits of health services, and confidence in the healthcare system shape whether or not female workers access reproductive health services. Fear of stigma, especially around infertility, contraceptive use, or sexually transmitted infections, can cause women to delay or avoid seeking care altogether. Moreover, mental health issues like stress and burnout, common among academic and administrative staff, can affect reproductive health both directly and indirectly (Nwosu et al., 2022). Gender power dynamics also have a considerable impact. Married female staff may face restrictions from partners regarding family planning or sexual health decisions, despite their professional status (Ajayi et al., 2020). Even within institutions, women may feel less empowered to advocate for their health needs due to hierarchical and patriarchal structures.

Extent to Which Age at Marriage Influences Reproductive Health Behaviour among Female Workers

Age at marriage and women reproductive health behaviour Age at marriage is of particular interest because it marks the transition to adulthood in many societies; the point at which certain options in education, employment, and participation in society are foreclosed; and the beginning of regular socially acceptable time for sexual activity and childbearing (Palamuleni,2021). He stated that age at marriage is one of the most important factors in population dynamics as it affects fertility, mortality and migration. Early marriage is associated with early childbearing, as in most cases particularly in developing countries; the main purpose of marriage is to have children. Early childbearing is also related to low status of women and adverse health risks on the mother and child.

As such, marriage is not only the most predominant context for childbearing but also one of the most important determinants of fertility (Lesthaeghe, Kaufmann & Meekers, 2018). Differences in age at entry into marriage, access to family planning services and their ability to utilize these services effectively and efficiently, economic status of the household (that is possession of wealth to invest on offspring),

and cultural and traditional norms in which the woman lives appear to play significant roles in creating variation in the level of reproductive behaviour (Mirza, Kovacs & Kinfu, 2021; Gibson & Mace, 2022). Delayed age at marriage or late marriage directly affects completed fertility by reducing the number of years available for childbearing. Late marriage permits women to complete their education, build labour force skills, and develop career interests that compete with childbearing within marriage.

This career interests may, in turn, motivate women to limit family size and/or widen the spacing of their children (Jensen & Thornton, 2023) .Women's age at marriage is an important factor for her fertility rate too. Many studies conducted in India, reveals that fertility rate declines with the increasing mean age at marriage (Khongsdier, 2015; Sahu, 2016;). Women in underdeveloped and developing countries marry early. Thus the age at first sexual intercourse, first marriage, and first birth are very important determinants of woman's risk of getting pregnant and the number of children she would have (Adebimpe, Asekun-Olarinmoye, Bamidele & Abiodun ,2021). One of the important factors affecting family size is age at marriage as the consequences of early marriages have dominant effect on population growth. Nagi (2018) explored the effect of demographic factors on reproductive health and fertility.

Adoptions of contraceptives were more likely to be associated more with older age and higher education at marriage (Saima, Stephenson & Rubenson,2021). Dyson and Moore (2018) state that arranged marriages, dowries, early age at marriage, social segregation of sexes, limited spousal communication and sex preference are the determinants of high fertility affecting reproductive health of women and that all these factors are related with the status of women and role change. Age at first marriage has been recognized as a crucial determinant of fertility because it marks the beginning of exposure to the risk of childbearing in societies where pre- marital sex is uncommon and where there is little deliberate effort to control fertility (Blanc & Rutenberg, 1990).

On the one hand, women who marry early will have, on average, a longer period of exposure to the risk of pregnancy, often leading to higher fertility.

On the other hand, societies with late age at first marriage have experienced decreased fertility rates while in traditional populations in 25 Asia and Africa, where age at first marriage is younger, high levels of fertility have been observed (Week, 2017). Generally, the age at which a woman enters to her first nuptial life is directly related to number of children she will bear, because it affects the length of time she will be at risk of becoming pregnant. Unmarried women may also have children, but majority of childbearing takes place after marriage, making age at marriage a valuable indicator of a woman's lifetime fertility (Acharya, 2020).

Socio-Economic Status and Reproductive Health Behaviour of Women

The relationship between socio-economic status and fertility has received much attention both from sociological and economic points of view (Alo, 2015).Alo (2011) asserts that socio-economic status is the outcome of a combination of series of personal characteristics, such as income, educational level, occupation and other factors. Historically, fertility decline in other major regions of the world has been attributed to a complex combination of factors related to the process of urbanization, industrialization and socio-economic development, such precipitating, overlapping and heterogeneous factors, which include education and employment of women outside home, income and religion, among others. Scholars have attempted to explain fertility decline by using as casual explanatory variables a number of socio-economic factors (Takayama, 2021).

Particular interest has been on changing female socio-economic role, which accelerates the decline in fertility in modernizing societies (Alo, Ogunleye & Adetula, 2018). Socio-economic indicators like household income (Kavitha & Audinarayana,2017), urban residence and women's employment in skilled work outside the home occupational status and household living conditions, have also proven to be strong predictors of a woman's likelihood of utilizing reproductive health services, (Magadi, Madise & Rodrigues, 2020). Studies have reported that the level of family income is one of the influencing factors on the use of contraceptives (Bagheri & Nikbakhesh ,2020).

Educational Attainment and Women Reproductive Health Behaviour

Women's education occupies a unique place in demographic discourse and policy because a large amount of empirical research has revealed that educated women delay marriage, use contraceptives, reduce fertility and produce many other beneficial reproductive and child health outcomes (United Nations,1991). Education has long been recognized as a crucial 27 factor influencing women's childbearing patterns considered in the literature as direct cause to the delay in the age at marriage (United Nations,1996).Extensive demographic literature is devoted to examining the role of female education in promoting sustained fertility decline (Martin & Juarez, 2015). In recent years, new research showing that a woman's schooling affects the reproductive and health behaviour of other women has raised the possibility that female education has greater capacity to transform the demographic landscape of a society than is currently believed (Kravdal, 2022).

The impact of women's education levels on fertility, contraceptive behaviour, and contraceptive method choice has been extensively studied by various researchers. Higher education levels in women have consistently been shown to have a significant negative effect on fertility levels and a positive effect on the use of contraceptives, although the exact mechanism through which education influences such behaviours and the direction of the relationship have not been identified (Stash, 2021). Education is also closely linked to the use of contraceptives, more educated women are more likely to use family planning (Saleem & Bobak, 2015). More adoption of family planning is associated with educational level of women (Furuta & Salway,2006).

Basu (2005) investigated the impact of differences in education and rural versus urban residences on current use of traditional methods. She found that the most highly educated and urban women in India were using traditional methods of birth control and the illiterate and rural women were opting for modern methods, (Abassi, Mehryar, Jones & McDonald, 2022). This would have bearing on reproductive behaviour of women generally. There are a number of reasons why demographers believe a woman's reproductive behaviour can be influenced by the education of other women. Diffusion theories emphasize the role of elite educated women in exposing other women to new ideas about fertility control.

Studies show that educated women get at a late age than non-educated women, and have better access to contraceptives than non-educated women (Alemayehu, Haider & Habte, 2020;). These studies advance arguments regarding reproductive health behaviour of women, as their results found positive associations between community level literacy among women and individual-level contraceptive use, net of an individual woman's schooling, Bangladesh.

Often, education is associated with characteristics that might lead a woman to choosing fewer children: literacy skills, greater personal autonomy, and exposure to new values, ideas, and role models. Literacy skills - reading comprehension, in particular - appear to have a pronounced impact on family size. One study found that, among women in South Africa, strong reading comprehension skills, regardless of family income level, affected family size (Carr, 2020). The study also suggests that access to information plays an important role in decision making.

Cultural Norms/Religious Belief and Women Reproductive Health Behaviour

McDermott and O"Dell (2021) refer to culture as the beliefs, values and practices of the people in a society. Similarly, Arowomole (2020) defines culture as peoples beliefs, practices, attitudes and values ,while Mohd (2015) view it as consisting of peoples beliefs and values. Culture could thus be seen as the practices, beliefs, attitude and values of the people within a given society. Culture is simply the totality of people's way of life. Sanderson (2018) in Daramola (2015) defines culture as the total way of life characterizing members of society including tools, knowledge and patterned ways of thinking and acting , learned and shared and are not the direct product of biological inheritance. Basically, culture has five characteristic – it is a system; diverse; shared; learned; and based on symbols.

In general, an individual's decision is shaped by the perceived attitudes and behaviours of others in the community (Rimal & Real, 2023). Community norms regarding family size and family planning, then, are likely to influence women's own attitudes, and ultimately influence their use of family planning. Studies in other settings have had mixed findings regarding the extent to which community-level norms around family planning and family size affect women's use of modern contraceptives (Kaggwa, Diop & Storey, 2018).

4. Methodology

The research design adopted for the study was the descriptive survey research design of the ex-post-facto. This design was adopted because it helps to describe and interpret the conditions or relationships that exist, opinions that are held, processes that are going on, effects that are evidence or trends that are developing. This type of design is usually adopted where the researcher does not aim at manipulating the variables of the study since the variables have already occurred. The population for this study consisted of female workers (academic and non-academic) staff that had spent at least two years in the tertiary institutions in South western, Nigeria. The inclusion criteria for the study were female workers that have spent at least two years in tertiary institutions, female workers working in tertiary institutions and must be female workers above the legal age, 19 years and above and within the reproductive age. The multi-stage sampling procedure was adopted for the study. In the first stage, the purposive sampling technique was adopted to pick thirteen tertiary institutions (five federal universities, four federal polytechnics and four colleges of education). In the second stage the stratified sampling technique was used to divide the tertiary institutions into faculties, registry, admissions and postgraduate schools, for the universities; schools, registry and admissions, for the polytechnics, and the colleges of education. The simple random sampling technique was used to select 400 respondents from various faculties and schools for academic staff and registry, admissions, postgraduate schools, schools and faculty, for non-academic staff using Taro Yamene sample calculator. The data collected from the field was analysed using statistical inference.

5. Results and Data Analysis

Table 1: Age Distribution of the Respondents

Category of Response	Frequency of Response	Percentage of Response
18 years to 30 years	208	53.3
31 years to 40 years	140	35.9
41years and above	42	10.8
Total	390	100

Source: *Authors' Field Computation (2025)*

Table 1 above showed that respondents between 18 to 30 years were 208 (53.3%), respondents between 31 years and 40 years were 140 (35.9%) and respondents from 41 years and above were 42 (10.8%).

Table 2: Religion Distribution of the Respondents

Category of Response	Frequency of Response	Percentage of Response
Christianity	360	92.3
Islam	22	5.6
None	8	2.1
Total	390	100

Source: Authors' Field Computation (2025)

Table 4.1.3 above showed that Christian respondents were 360 (92.3%), Muslim respondents 22 (5.6%) and non partisan religion respondents were 8 (2.1%).

Table 3: Marital Status Distribution of the Respondents

Category of Response	Frequency of Response	Percentage of Response
Married	252	64.6
Single	2	0.5
Separated	136	34.9
Total	390	100

Source: Authors' Field Computation (2025)

Table 3 above showed that married respondents were 136 (34.9%), single respondents were 252 (64.6%) and separated respondents were 2 (0.5%).

Table 4: Educational background Distribution of the Respondents

Category of Response	Frequency of Response	Percentage of Response
Ph.d	61	15.6
M.Sc	249	63.8
B.Sc	71	18.2
OND/NEC	9	2.3
Total	390	100

Source: Authors' Field Computation (2025)

Table 4 above showed that respondents with Ph.D as educational background were 61 (15.6%), respondents with M.Sc were 249 (63.8%), respondents with B.Sc were 71 (18.2%) and OND/NEC respondents were 9 (2.3%).

Table 5: Extent to which age at marriage influences reproductive health behaviour among female workers in tertiary institutions

Item Description of Statement		SA (4)	A (3)	D (2)	SD (1)	Total	Mean Score	Decision
Women who marry later often have greater awareness and use of modern contraceptive methods compared to those who marry at younger ages.	No of Response	274	99	16	1	1426	3.65	Accepted
	Total Number	1096	297	32	1			
Older women at marriage may have more health literacy and are more likely to seek antenatal care, postnatal care, and regular gynecological check-ups.	No of Response	300	81	7	2	1459	3.74	Accepted
	Total Number	1200	243	14	2			
Age at marriage can influence the number of children desired, with those marrying later often preferring fewer children.	No of Response	274	107	6	3	1432	3.67	Accepted
	Total Number	1096	321	12	3			
Female workers in tertiary institutions who marry later might have better access to healthcare services due to increased education and employment benefits.	No of Response	263	116	9	2	1420	3.64	Accepted
	Total Number	1052	348	18	2			

The data in Table 5 showed that the mean of respondents on extent to which age at marriage influences reproductive health behaviour among female workers in tertiary institutions. Given the 2.50 bench mark for acceptance, items 1-4 of the questionnaire has shown above the bench mark indicating that there are significants extent to which age at marriage influences reproductive health behaviour among female workers in tertiary institutions. In summary, respondents agreed that women who marry later often have greater awareness and use of modern contraceptive methods compared to those who marry at younger ages with mean score of 3.65, that Older women at marriage may have more health literacy and are more likely to seek antenatal care, postnatal care, and regular gynecological check-ups with mean score of 3.74,

that Age at marriage can influence the number of children desired, with those marrying later often preferring fewer children with means core of 3.67, that female workers in tertiary institutions who marry later might have better access to healthcare services due to increased education and employment benefits with mean score of 3.64,

Table 6: Extent to which educational attainment affects reproductive health behaviour among female workers in tertiary institutions

Item Description of Statement		SA (4)	A (3)	D (2)	SD (1)	Total	Mean Score	Decision
Higher educational attainment is linked to better understanding of reproductive health issues, including family planning, maternal care, and disease prevention.	No of Response	303	76	11	-	1462	3.74	Accepted
	Total Number	1212	228	22	-			
Educated women are more likely to use modern contraceptive methods and understand their benefits, reducing the risk of unintended pregnancies.	No of Response	123	90	176	1	1115	2.85	Accepted
	Total Number	492	270	352	1			
Women with higher education are more likely to seek timely antenatal care, attend regular health screenings, and consult healthcare professionals when needed.	No of Response	67	224	91	8	1130	2.89	Accepted
	Total Number	268	672	182	8			
Educational attainment increases reproductive decision-making power, allowing women to make informed choices about fertility, spacing of births, and healthcare utilization.	No of Response	109	95	186	-	1093	2.80	Accepted
	Total Number	436	285	372	-			

The data in Table 4.2.2 showed that the mean of respondents on extent to which educational attainment affects reproductive health behaviour among female workers in tertiary institutions. Given the 2.50 bench mark for acceptance, items 5-8 of the questionnaire has shown above the bench mark indicating that there are significant extent to which educational attainment affects reproductive health behaviour among female workers in tertiary institutions.

In summary, respondents agreed that higher educational attainment is linked to better understanding of reproductive health issues, including family planning, maternal care, and disease prevention with mean score of 3.74, that educated women are more likely to use modern contraceptive methods and understand their benefits, reducing the risk of unintended pregnancies with mean score of 2.85, women with higher education are more likely to seek timely antenatal care, attend regular health screenings, and consult healthcare professionals when needed with mean score 2.89, that the educational attainment increases reproductive decision-making power, allowing women to make informed choices about fertility, spacing of births, and healthcare utilization with mean score 2.80

Table 7: Relationship between cultural norms/ religious beliefs and reproductive health behaviour among female workers in tertiary institutions

Item Description of Statement		SA (4)	A (3)	D (2)	SD (1)	Total	Mean Score	Decision
Cultural and religious beliefs can influence attitudes toward contraceptive use, some groups encouraging large families while others support planning.	No of Resp.	281	90	16	3	1429	3.66	Accepted
	Total Number	1124	270	32	3			
Cultural norms may shape women's willingness to seek reproductive healthcare, particularly regarding gyneo exams, prenatal care, STI testing.	No of Resp.	287	90	10	3	1441	3.69	Accepted
	Total Number	1148	270	20	3			
Religious beliefs can influence the acceptance of reproductive health education, with some communities advocating for abstinence-only education while others support comprehensive sexual health education.	No of Resp.	276	94	18	2	1424	3.65	Accepted
	Total Number	1104	282	36	2			
In some cultural or religious contexts, discussing reproductive health may be taboo, leading misinformation, delayed care-seeking, negative outcomes.	No of Resp.	295	84	9	2	1452	3.72	Accepted
	Total Number	1180	252	18	2			

The data in Table 4.2.3 showed that the mean of respondents on relationship between cultural norms/ religious beliefs and reproductive health behaviour among female workers in tertiary institutions. Given the 2.50 bench mark for acceptance, items 9-12 of the questionnaire has shown above the bench mark indicating the significant relationship between cultural norms/ religious beliefs and reproductive health behaviour among female workers in tertiary institutions... In summation, the respondents agreed that cultural and religious beliefs can influence attitudes toward contraceptive use, with some groups encouraging large families.

5. Discussion of the Findings

Given the 2.50 bench mark for acceptance, In summary, respondents agreed that women who marry later often have greater awareness and use of modern contraceptive methods compared to those who marry at younger ages with mean score of 3.65, that Older women at marriage may have more health literacy and are more likely to seek antenatal care, postnatal care, and with mean score of 3.74, that Age at marriage can influence the number of children desired, with those marrying later often preferring fewer children with means core of 3.67, that female workers in tertiary institutions who marry later might have better access to healthcare services due to increased education and employment benefits with mean score of 3.64. The result indicated that there is significant extent to which age at marriage influences reproductive health behaviour among female workers in tertiary institutions, majority of the respondents agreed that women who marry later often have greater awareness and use of modern contraceptive methods compared to those who marry at younger ages as older women at marriage may have more health literacy and are more likely to seek antenatal care.

As regards to research question two which is the extent to which educational attainment affects reproductive health behaviour among female workers in tertiary institutions, the result indicated that there are significant extent to which educational attainment affects reproductive health behaviour among female workers in tertiary institutions. respondents agreed that higher educational attainment is linked to better understanding of reproductive health issues, including family planning,

maternal care, and disease prevention with mean score of 3.74, that educated women are more likely to use modern contraceptive methods and understand their benefits, reducing the risk of unintended pregnancies with mean score of 2.85 allowing women to make informed choices about fertility, spacing of births, and healthcare utilization.

Given to the result of the finding for research question three which is on the relationship between cultural norms/ religious beliefs and reproductive health behaviour among female workers in tertiary institutions, the result indicated that there is significant relationship between cultural norms/ religious beliefs and reproductive health behaviour among female workers in tertiary institutions. Majority of the respondents agreed that cultural and religious beliefs can influence attitudes toward contraceptive use, with some groups encouraging large families while others support family planning. that Cultural norms may shape women's willingness to seek reproductive healthcare, particularly regarding prenatal care, or STI testing, religious beliefs can influence the acceptance of reproductive health education, with some communities advocating for abstinence-only education while others support comprehensive sexual health education and in some cultural or religious contexts, discussing reproductive health may be taboo, leading to misinformation, delayed care-seeking, and negative health outcomes.

6. Conclusion

Based on the result of the findings for research, Majority of the respondents agreed that higher educational attainment is linked to better understanding of reproductive health issues, including family planning, maternal care, and disease prevention, that educated women are more likely to use modern contraceptive methods and understand their benefits, reducing the risk of unintended pregnancies. In addition, majority of the respondents agreed that women who marry later often have greater awareness and use of modern contraceptive methods compared to those who marry at younger ages as older women at marriage may have more health literacy and are more likely to seek antenatal care. Therefore is significant extent to which age at marriage, Educational attainment and religious beliefs influences reproductive health behaviour among female workers in tertiary institutions.

Recommendations

Tertiary institutions should collaborate with health organizations to implement educational programs that emphasize the impact of age at marriage on reproductive health, encouraging informed decisions about marriage timing and family planning. Institutions should incorporate reproductive health education into professional development programs, particularly highlighting the role of educational attainment in fostering positive reproductive health behaviours. Health policymakers should design reproductive health initiatives that respect cultural and religious beliefs while promoting practices that enhance reproductive health outcomes. Culturally sensitive counselling and community engagement can bridge gaps caused by cultural or religious misconceptions.

References

[1] Abbasi MJ, Mehryar A, Jones G, & McDonald P. (2022). Revolution, war and modernization: population policy and fertility change in Iran. *J. Popul. Res., 19*(1), 25–46.

[2] Acharya AK. (2020). *The influence of female age at marriage on fertility and child loss in India. Trayectorias*, 12.

[3] Adebimpe WO, Asekun-Olarinmoye E, Bamidele J, & Abodunrin O. (2021). A comparative study of socio-demographic determinants and fertility pattern among women in rural and urban communities in southwestern Nigeria. *Cont J Med Res, 5*(1), 32–40.

[4] Alemayehu T, Haider J, & Habte D. (2020). Determinants of adolescent fertility in Ethiopia. *Ethiop J Health Dev., 24*(1), 30–38.

[5] Alo OA, & Adetula GA. (2015). Myths and realities surrounding female genital mutilation in Ekiti State, Nigeria. *Int J Violence Relat Stud., 4*, 314–324.

[6] Arowomole KA. (2020). *Modern business management (Theory and Practice)*. Sango-Ota: Ade-Oluyinka Commercial Press.

[7] Bagheri M, & Nikbakhesh B. (2020). Prevalence of contraception usage and family planning. *Eur J Sci Res., 44*, 457–465.

[8] Basu P, Sarkar S, Mukherjee S, Ghoshal M, Mittal S, & Biswas S. (2006). Women's perceptions and social barriers determine compliance to cervical screening: Results from a population-based study in India. *Cancer Detect Prev., 30*(4), 369–374.

[9] Blanc AK, & Rutenberg N. (1990). Assessment of the quality of data at first sex, age at first marriage and age at first birth: Demographic and health surveys. In: *Assessment of DHS-I Data Quality*.

[10] Carr D. (2020). Is education the best contraceptive?. *The Population Reference Bureau Policy Brief. U.S. Agency for International Development (USAID)*. Available at: http://www.prb.org.

[11] Furuta M, & Salway S. (2006). Women's position within the household as a determinant of maternal health care use in Nepal. *Int Fam Plan Perspect., 32*, 17–27.

[12] Hossain I, & Hoque MM. (2005). Determinants of choices of delivery care in some urban slums of Dhaka city. *Pak J Soc Sci., 3*(3), 469–475.

[13] Jensen R, & Thornton R. (2003). Early female marriage in the developing world. *Gend Dev., 11*(2), 9–19.

[14] Jokela M, Alvergne A, Pollet TV, & Lummaa V. (2021). Reproductive behaviour and personality traits of the five-factor model. *Eur J Pers., 25*, 487–500.

[15] Kaggwa EB, Diop N, & Storey JD. (2018). The role of individual and community normative factors: a multilevel analysis of contraceptive use among women in union in Mali. *Int Fam Plan Perspect., 34*(2), 79–88.

[16] Kaida A, Kipp W, Hessel P, & Konde-Lule J. (2015). Male participation in family planning: results from a qualitative study in Mpigi District, Uganda. *J Biosoc Sci., 37*, 269–286.

[17] Kavitha N, & Audinarayana N. (2017). Utilization and determinants on selected MCH care services in rural areas of Tamil Nadu. *Health Popul Perspect Issues., 20*(3), 112–125.

[18] Kravdal Ø. (2022). Education and fertility in sub-Saharan Africa: individual and community effects. *Demography, 39*, 233–250.

[19] Leibenstein H. (1957). *Economic backwardness and economic growth*. New York: John Wiley and Sons.

[20] Mirza T, Kovacs GT, & Kinfu Y. (2021). Serving rural Australia with reproductive health expertise. *Aust J Rural Health., 9*(5), 241–245.

[21] Muoghalu CO. *The career woman and reproductive health behaviour in Nigeria: a case study of Ile-Ife and Lagos*. Available from: http://www.ajol.info.

[22] Nagi S. (2018). The effects of spironolactone on reproductive functions in female rats and mice. *Toxicol Appl Pharmacol., 66*, 221–228.

[23] Odutolu O, Adedimeji A, Odutolu O, Baruwa O, & Olatidoye F. (2023). Economic empowerment and reproductive behaviour of young women in Osun State, Nigeria. *Afr J Reprod Health, 7*(3), 92–100.

[24] Pandey S, & Singh M. (2018). Women empowerment and personal values as predictors of reproductive health. *J Indian Acad Appl Psychol., 34*(2), 309–316.

[25] Rappaport J. (2020). Terms of empowerment/exemplars of prevention: toward a theory for community psychology. *Am J Community Psychol., 15*, 121–148.

[26] Rimal RN, & Real K. (2023). Understanding the influence of perceived norms on behaviours. *Commun Theory., 13*(2), 184–203.

[27] Roudi-Fahimi F, & Ashford L. (2018). *Sexual and reproductive health in the Middle East and North Africa: a guide for reporters*. Washington, DC: Population Reference Bureau.

[28] Sahu AB. (2016). *Influence of female age at marriage on fertility and child loss: a study of selected state in India [Dissertation]*. Mumbai: Int Inst Popul Sci.

[29] Saima H, Stephenson R, & Rubenson B. (2021). Marriage decision-making, spousal communication, and reproductive health among youth in Pakistan. *Glob Health Action., 4*, 5079.

[30] Saleem S, & Bobak M. (2015). Women's autonomy, education and contraception use in Pakistan: a national study. *Reprod Health., 2*(8), 1–8.

[31] Saluja N, Sharma S, Salvat M, & Crognier E. (2014). Patrones reproductores en la población de Aitourir (Marruecos). In: *Biología de las poblaciones humanas: problemas metodológicos e interpretación ecológica. Actas VIII Congreso de la Sociedad Española de Antropología Biológica. Madrid: Ediciones UAM*, 927.

[32] Sánchez E. (2019). Tiempo de espera del primer hijo. *Bol Soc Esp Antropol Biol., 12*, 101–112.

[33] Stash S. (2021). Son preference and the dynamics of fertility decision-making among wives and their husbands in rural Nepal. In: *Sathar ZA, Phillips JF, editors. Fertility Transition in South Asia. New York: Oxford Univ Press*, pp. 300–327.

[34] Takayama N. (2001). Pension reform in Japan at turn of the century. *Geneva Pap Risk Insur., 26*(4), 529–546.

[35] Muoghalu C.O. (2015). *The career woman and reproductive health behaviour in Nigeria. A case study of Ile-Ife and Lagos*. Retrieved from http:/www.ajol.info.

[36] Nagi S (2018). The effects of spironolactone on reproductive functions in female rats and mice. *Toxicol. Appl. Pharmacol., 66*, 21–228,

[37] Odutolu O., Adedimeji, A., Odutolu, O., Baruwa O., & Olatidoye F. (2023). Economic empowerment and reproductive behaviour of young women in Osun State, Nigeria. *African Journal of Reproductive Health, 7*(3), 92-100.

[38] Pandey S., & Singh, M. (2018). Women empowerment and personal values as predictors of reproductive health. *Journal of the Indian Academy of Applied Psychology, 34*(2), 309-316.

[39] Rappaport, J. (2020). Terms of empowerment/exemplars of prevention: Toward a theory for community psychology. *American Journal of Community Psychology, 15*, 121-148

[40] Rimal, R.N., & Real K. (2023) Understanding the influence of perceived norms on behaviours. *Communication Theory 13*(2), 184-203.

[41] Roudi-Fahimi, F., & Ashford, L. (2018). *Sexual and reproductive health in the Middle East and North Africa: A guide for reporters*. Washington, Population Reference Bureau

[42] Sahu, A.B. (2016). Influence of female age at marriage on fertility and child loss: a study of selected state in India. *Unpublished M. Phil. Dissertation. Mumbai International Institute of Population Sciences*.

[43] Saima, H., Stephenson, R., & Rubenson, B. (2021). Marriage decision making, spousal communication, and reproductive health among youth in Pakistan. *Global Health Action, 4*, 5079.

[44] Saleem, S., & Bobak. M. (2015). Women's autonomy, education and contraception use in Pakistan: A national study. *Reproductive Health, 2*(8), 1-8.

[45] Salvat M, & Crognier E (2014). Patrones reproductores en lapoblación de Aitourir (Marruecos). In: Biología delas poblaciones humanas: problemas metodo-lógicos e interpretación ecológica. *Actas VIII Congreso de la Sociedad Española de Antropología Biológica. Madrid: Ediciones UAM*, pp. 927.

[46] Sánchez E. (2019). Tiempo de espera del primer hijo. *BolSoc Esp Antrop Biol, 12*, 101-112.

[47] Stash, S. (2021). Son preference and the dynamics of fertility decision-making among wives and their husbands in rural Nepal. *Fertility transition in South Asia. Z.A. Sathar, and J.F. Phillips (eds.). New York, New York: Oxford University Press Inc.*, pp. 300-327.

CONFLICTS OF INTEREST: *The writers have stated that they have no conflicting interests.*

STATEMENT OF DATA AVAILABILITY: *Data sharing is not applicable to this article as no new data were created or analyzed in this study.*

DISCLAIMER (ARTIFICIAL INTELLIGENCE): *The authors hereby declare that no generative AI tools, including text-to-image generators and large language models (ChatGPT, COPILOT, etc.), were used in the creation or editing of manuscripts.*