

# Rising Trend of Infertility Among young married women in South-South

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## Abstract

Infertility is a concern to every reproductive age woman and their well-wishers and it's on the increase across Africa. This raises concern among married women and their husband and is more rampant among both young and old in marriage. The aim of this study is to evaluate Rising Trend of Infertility Among Married women in the South-South. This was a descriptive study involving 350 female of reproductive age who were within the age of 18 to 47 years. A well-structured questionnaire was administered to participants. Each participant had one questionnaire to fill appropriately and independently after instructions were given to them by the Research Assistants. The study lasted for a period of 3 months. Exclusion criteria were those women that are not married, and are not up to reproductive age. Inclusion criteria are women that have done their investigations. Data was analyzed with SPSS version 26 and P value < 0.05 was considered significant. The results of the study shows that 42.9% of the respondents were within 28-32 years of age and 57.1% had tertiary education. The results revealed that 48.7% are business class, 71.4.7% are married, 71.4% yet to be pregnant, 42.9% have married between 2-4 years, 85.7% are been expecting baby, 71.3% do not have a child, 71.4% have breasts discharging milk, 90.0% had abortion, 77.1% have done investigations, and 87.5% of the participants were having infertility issues.

**Keywords:** Rising, Trend, Infertility, young, married, women

## Introduction

Reproductive process is an important activity that women of reproductive age engaged in at different levels of relationship (Gbaranor et al., 2020a). Reproduction is an important aspect of African culture with the aim to maintain continuity in the family circle (Gbaranor K. B., et al., 2020b). Women of reproductive age need to

be free from anything that we delay or deny them from conception or from having their normal life (Biralto et al., 2024).

Infertility is defined as the failure to achieve pregnancy after 12 months of regular unprotected sexual intercourse. Approximately 85% of infertile couples have an identifiable cause. The most common causes of infertility are ovulatory dysfunction, male factor infertility, and tubal disease. The remaining 15% of infertile couples have “unexplained infertility.” Lifestyle and environmental factors, such as smoking and obesity, can adversely affect fertility (Carson and Kallen, 2022).

Infertility is a universal barrier affecting people all over the world and its cause and importance may vary according to the geographical location and socio-economic condition. Infertility Awareness is the first step in maintaining pregnancy power in lifestyle modification (Deyhoul, et al., 2017). According to the reports of the International Committee for Monitoring Assisted Reproductive Technology (ICMART) and the World Health Organization (WHO), “infertility” is a couple’s failure in pregnancy after 12 months of unprotected sexual intercourse and pregnancy attempts. Infertility is a global problem affecting people around the world whose cause and importance may vary according to the geographical location and socio-economic condition. According to the statistics, annually 60-80 million couples around the world suffer from infertility (Sudha and Reddy, 2013). Infertility occurs once pregnancies are ended up with abortion (ASR) or the delivery of a child with multiple hereditary diseases (Cozaru, et al., 2012). According to the medical diagnosis, infertility may be treated by reproductive surgery, prescribing hormones or applying infertility technologies (Sudha and Reddy, 2013). Infertility awareness, like men and women’s awareness of risk factors, is the first step in protecting pregnancy in lifestyle modification. Knowledge and awareness of fertility depends on education rather than personal fertility or motherhood and fatherhood experience. Health improving strategies started with educational interventions (Sabarre, et al., 2013). Secondary infertility refers to a state in which pregnancy does not occur after one year (in some epidemiologic studies 2 years) of unprotected sexual intercourse despite at least one pregnancy in the past. Women with secondary infertility cannot give birth to alive child (Dhont, et al., 2011). Infertility may result from a wide range of abnormalities one or both of which exist. However, infertility is not much different in people and it can have a variety of causes (Palihawadana, et al., 2012). The primary and secondary causes of infertility are reviewed in this study. This study examines the following points: primary causes of infertility, such as genetic factors, hormonal disorders, genetic disorders, congenital defects or reproductive system diseases; secondary factors, including lifestyle related factors, such as obesity, diet, smoking, alcohol consumption and chemical environments, and secondary factors related to human infertility such as unsafe methods of childbirth and post-partum period as well as symptoms of sexually transmitted diseases (Deyhoul, et al., 2017).

## Materials And Methods

This was a cross-sectional study involving 350 young women who were within the age of 18 to 47 years. A well-structured questionnaire was administered to participants. Each participant had one questionnaire to fill appropriately and independently after instructions were given to them by the Research Assistants. The study lasted for a period of 3 months (October to December, 2024). Statistical analysis of data was done using SPSS. Version 25 and P value < 0.05 was considered significant for data.

## Results

The study shows that 50(14.3%) of the participants had primary education, 100(28.6%) secondary education and 200(57.1%) tertiary education, 30(8.57%) were into farming, 170(48.6%) business, 130(37.1%) civil servants while 20(5.7%) were students, 250(71.4%) were not pregnant and 100(28.6%) were pregnant (Table 1). The results also revealed the duration of marriage, 70(20.0%) have married for 6 months – 1 year, 150(42.9%) for 2-4 years, 80(22.9%) for 5-7 years, 30(8.6%) for 8-10 years and 20(5.7%) for 12-14 years (Table 2). The results shows that 300(85.7) were expecting baby, 50(14.3%) were not (Table 3), 100(28.6%) have a child, 250(71.4%) have no child, 250(71.4%) have been expecting children for <5 years, 100(28.6%) for >5 years, 100(28.6%) have their breasts discharging milk and 250(71.4%) do not, 270(90.0%) have carried out abortion before marriage and 80(10.0%) do not, 270(77.1%) have carried out investigations and 80(22.9%) is yet to do investigations (Table 5). Investigations done by the participants shows that 70(20.0%) did scan, 100(22.6%) did HSG, 150(42.9%) did hormonal profile and 30(8.6%) conducted other investigations (Table

6). The results of the investigation done shows that 150(42.9%) were normal and 200(57.1%) were abnormal (Table 7).

**Table 1: Pregnant Women**

Response	Frequency	Percentage (%)
Participants who have been pregnant	100	28.6
Participants who have not been pregnant	250	71.4
<b>Total</b>	<b>350</b>	<b>100.0</b>

**Table 2: Duration of marriage**

Response	Frequency	Percentage (%)
6 months-1 year	70	20.0
2-4 years	150	42.9
5-7 years	80	22.9
8-10 years	30	8.6
12-14 years	20	5.7
<b>Total</b>	<b>350</b>	<b>100.0</b>

**Table 3: Participants who are expecting baby**

Response	Frequency	Percentage (%)
Yes	300	85.7
No	50	14.3
<b>Total</b>	<b>350</b>	<b>100.0</b>

**Table 4: Participants who have carried out previous abortion**

Response	Frequency	Percentage (%)
Participants who have carried out previous abortion	270	90.00
Participants who have not carried out abortion	80	10.00
<b>Total</b>	<b>350</b>	<b>100.0</b>

**Table 5: Participants who have done investigation**

Response	Frequency	Percentage (%)
Yes	270	77.1
No	80	22.9

<b>Total</b>	<b>350</b>	<b>100.0</b>
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**Table 6: Investigation done by the participants**

<b>Response</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Scan	70	20.0
HSG	100	22.6
Hormonal profile	150	42.9
Others	30	8.6
<b>Total</b>	<b>350</b>	<b>100.0</b>

**Table 7: Results of investigations done by the participants**

<b>Response</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Normal	150	42.9
Abnormal	200	57.1
<b>Total</b>	<b>350</b>	<b>100.0</b>

## Discussion

Infertility is on the increase among reproductive age women. It is a concern to every reproductive age woman and their well-wishers and it's on the increase across Africa. This raises concern among married women and their husband and is more rampant among both young and old in marriages. Several factors such as medical, psychological, social, spiritual, economical and financial have contributed to this increase in the level of infertility. Most victims are having sleepless night with different thoughts that could heighten the psychosocial aspect of their lives.

The study revealed that majority of the participants were within the age 28-32 years and they were within the active reproductive age, hence find it to take in seamlessly. These are women who morals are high to be pregnant soon after their marriage ceremony in a seamless way taking into cognizance that they are still young. Majority of the participants had tertiary level of education and this could have been a relief in terms of enlightenment about reproductive health. However, some of them(participants) do not have the knowledge and awareness while some of them but could not salvage them. The study revealed that majority of the participants were in the business class and this business could be stressful and as such could affects their reproductive cycles.

The study revealed that majority (71.4%) of the participants have never had any pregnancy since they married and some of them have stayed for less than a year in marriage and some greater than a year. The duration of marriage of the participants include: 20.0% for 6 months – 1 year, 42.9% for 2-4 years, 22.9% for 5-7 years, 8.6% for 8-10 years and 5.7% for 12-14 years respectively and 85.7% were expecting baby. The research shows that 28.6% of the participants have a child after their first child, and thereafter, they find it difficult to be pregnant majority (71.4%) have no child at all.

Majority (80.5%) of the married women that participated in the study agreed that they are facing infertility and this shows that infertility has become rampant among married women. Most of the women (71.4%) were expecting children for <5 years and (28.6%) for >5 years and 90.0% of the participants had abortions before marriage and few have their breasts discharging milk. Abortion and galactorrhoea are some of the risk factors for infertility. Abortion carried out by an unskilled person and in an unclean environment may pose threat fertility. This act could have been committed in their schooling days when they were still sexually active and never knew the aftermath of such act. This could be that, since majority of the participants had tertiary level

of education, it means that they may have involved in multiple sexual partners without putting on protecting device and this might have necessitated the abortions they carried out.

The study revealed that 77.1% of the participants who were looking for fruitfulness of the womb have carried out the required investigations and the investigations done by the participants shows that 20.0% did abdominopelvic scan, 22.6% did hysterosalpingogram (HSG), 42.9% did hormonal profile and 8.6% conducted other investigations. The results of the investigations done revealed that 42.9% were normal and 57.1% were abnormal.

This study revealed that majority of the married women are facing infertility and this is on the increase in recent times. This finding is in consonant with previous study by Gbaranor et al., (2020b) that revealed majority of the women have delayed conception. Most of the women have done the required investigations and yet they are not pregnant and thus some of them have gone ahead to employed the services of herbalists to see if hope will come their way. However, most of these women who are facing infertility are being faced with psychological trauma inflicted on them by their in-laws and this alone could also procrastinate the situation owing to the fact stress and pressure affect reproductive hormones. This study agreed with previous study by Gbaranor et al., (2024) that revealed that psychological trauma arising from infertility among women of reproductive age is on the increased and this has caused a lot of havoc to women.

Some possible attributed risk factors to this infertility as captured in our study include: medical, psychological, social, spiritual, economic and financial.

## Conclusion

The study revealed that majority of the married women are facing infertility and this is on the increase in recent times. Most of the women have done the required investigations and yet they are not pregnant and thus some of them have gone ahead to employed the services of herbalists to see if hope will come their way. However, most of these women who are facing infertility are being faced with psychological trauma inflicted on them by their in-laws and this alone could also procrastinate the situation owing to the fact stress and pressure affect reproductive hormones. The study also revealed some possible attributed risk factors to this infertility as captured in our study include: medical, psychological, social, spiritual, economic and financial.

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## References

1. Biralo P. K., Gbaranor K. B., Adjughah J. U., Mube A. W., Amaechi G. I., Baridam G. D., Bademosi A., Ohaka J., Saronee F., Irete A. L., Oyadotun M (2024). Rising Incidence of Fibroid among Reproductive Age Women in South-South, Nigeria. *International Journal of Medical Science and Dental Research*. Vol 07, Iss 04, PP 113-118
2. Cozaru GC, Butnariu LI, Gorduza EV (2012). Genetic counselling in reproductive disorders. *Soc Behav Sci*. 2012;33(1):213- 217. doi:10.1016/j.sbspro, 01.114.
3. Dhont N, Luchters S, Muvunyi C (2011). The risk factor profile of women with secondary infertility: an unmatched case-control study in Kigali, Rwanda. *BMC Womens Health*;11:32. doi:10.1186/1472-6874-11-32.
4. Gbaranor, K. B., Mube, W. A., Adjughah, J. U., Ndukwu, G. U., Austin-Asomeji, I., Kinako, S. E., Ohaka, J. C., Lebara, L. B., Ibisio Bruce, Sokolo J. E. E., & Amadi N. I. (2020a). Determinants and Effects of Unwanted Pregnancy among Women of Reproductive age in Rural Areas of Rivers State. *International Journal of Medical Science and Dental Research*, 05(05), 51-56
5. Gbaranor, K. B., Nazor, P. B. G., Clinton, D. O., Kalio, D. G. B., & Peace, E. O. (2020b). Determinants of Delayed Desired Conception among Reproductive Women of Port Harcourt. *IOSR Journal of Dental and Medical Sciences*, 19(3)

6. Gbaranor, K. B., Pepple, B. G., Ore Adaeze C., Mube A. W., Cookey-Gam, I. F., Ekeng, O., Ogbonda, N. P., Bademosi I., Maakai, B., John, E. E., Orukwogu U., George T. S., Kinanen, L. D., Nunumaa B. B (2024). Psychological Effects Arising from Infertility amongst Married Women in South-South Nigeria. *Scholars International Journal of Anatomy and Physiology*. 7(9): 148-152
7. Narjes Deyhoul, Tina Mohamaddoost, Meimanat Hosseini (2017). Infertility-Related Risk Factors: A Systematic Review. *International Journal of Women's Health and Reproduction Sciences* Vol. 5, 24–29
8. Palihawadana TS, Wijesinghe PS, Seneviratne HR. (2012). Aetiology of infertility among females seeking treatment at a tertiary care hospital in Sri Lanka. *Ceylon Med J.*;57(2):79-83. doi:10.4038/cmj.v57i2.4461.
9. Sabarre KA, Khan Z, Whitten AN, Remes O, Phillips KP. (2013). A qualitative study of Ottawa university students' awareness, knowledge and perceptions of infertility, infertility risk factors and assisted reproductive technologies (ART). *Reprod Health J.*;10(41):1-10. doi:10.1186/1742-4755- 10-41
10. Sandra Ann Carson, Amanda N. Kallen (2022). Diagnosis and Management of Infertility: A Review. *HHS Public Access*. 06; 326(1): 65–76. doi:10.1001/jama.2021.4788.
11. Sudha G, Reddy KS (2013). Causes of female infertility: a crosssectional study. *International Journal of Latest Research in Science and Technology*.;2(6):119-123.