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Assessment of Knowledge and Perception of Infertility among Married Couples in Safana Local Government Area of Katsina State, Nigeria: A Community-Based Study

Abubakar Musa,¹ Usman Abba,² Ibrahim Mustapha,³ Muhammad Umar Ibrahim,⁴ Mohammed Kabir Abdullahi.⁵

¹Department of Community Medicine, Abubakar Tafawa Balewa University/Abubakar Tafawa Balewa University Teaching Hospital, Bauchi – Nigeria

²Department of Obstetrics and Gynaecology, Yobe State University Damaturu, Yobe State - Nigeria

³Katsina State Primary Health Care Agency, Katsina State-Nigeria

⁴Department of Community Medicine Abubakar Tafawa Balewa University Teaching Hospital, Bauchi – Nigeria

⁵Department of Obstetrics and Gynaecology, Abubakar Tafawa Balewa University/Abubakar Tafawa Balewa University Teaching Hospital, Bauchi – Nigeria

Correspondence: Dr. Abubakar Musa, Department of Community Medicine, Abubakar Tafawa Balewa University and Abubakar Tafawa Balewa University Teaching Hospital, PMB 0117 Bauchi State, Nigeria. amusa2@afbu.edu.ng, [+234\(0\)8034490786](tel:+234(0)8034490786)

ABSTRACT

Infertility is a significant reproductive health concern with profound social, emotional, and cultural implications, particularly in regions where fertility is highly valued. Understanding community-level knowledge and perceptions is crucial for designing effective interventions. This study aimed to assess the knowledge and perception of infertility among married couples in Safana Local Government Area, Katsina State, Nigeria. A community-based descriptive cross-sectional study was conducted using a semi-structured interviewer-administered questionnaire. A sample of 300 married individuals of reproductive age was selected via convenience sampling. Data were analyzed using SPSS Version 24.0, employing descriptive statistics. Of the 300 questionnaires distributed, 280 were completed and returned (93.3% response rate). Most respondents (44.6%) had a fair level of knowledge about infertility. The primary source of information was mass media (41.1%). Medical conditions (37.5%) were most commonly identified as a cause. A majority (55.4%) believed infertility affects marital stability, and 55.4% viewed it as highly stigmatized in the community. Most respondents (91.1%) had consulted a health professional regarding infertility. While awareness of infertility is reasonably high in Safana, knowledge regarding medical treatments remains limited, and stigmatizing perceptions persist. There is a critical need for targeted community health education and improved access to fertility care services to address misconceptions and reduce stigma.

Keywords: Knowledge, perception, infertility, married couples, Katsina

INTRODUCTION

Infertility is defined as the inability to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse.¹ It affects an estimated 48–186 million individuals globally, with a significant burden in low- and middle-income countries.² Infertility is not merely a biomedical condition; it carries substantial social, emotional, and cultural weight, particularly in settings where fertility is closely tied to identity, marital stability, and social acceptance.³

In sub-Saharan Africa, infertility is often stigmatized, with women disproportionately bearing blame and social consequences.⁴ Cultural norms emphasizing procreation, combined with limited access to reproductive healthcare, exacerbate the psychological and social distress experienced by infertile couples.⁵ In Northern Nigeria, where patriarchal and pronatalist values prevail, infertility can lead to marital discord, polygamy, and social isolation.⁶

Despite advances in assisted reproductive technologies (ART), awareness and utilization remain low in rural areas due to financial, geographic, and cultural barriers.⁷ Understanding local perceptions and knowledge is essential for designing effective interventions. This study therefore aims to assess the knowledge and perception of infertility among married couples in Safana Local Government Area, Katsina State, Nigeria.

METHODOLOGY

Study Design and Location

A community-based descriptive cross-sectional study was conducted in Safana LGA, Katsina State, Nigeria, a rural area characterized by a Sudan savannah climate and an economy based on farming and livestock.⁸

Study Population and sampling

The study included married couples of reproductive age (15–49 years) residing in Safana LGA for at least two years. Excluded were individuals who were severely ill or temporarily absent during data collection.

Using the formula for cross-sectional studies⁹:

$$n = \frac{Z^2 \times p \times q}{d^2}$$

Where:

- $Z=1.96$ ($Z=1.96$ (95% confidence interval))
- $p=0.246$ ($p=0.246$ (prevalence from a previous study)¹⁰)
- $q=0.754$ ($q=0.754$)
- $d=0.05$ ($d=0.05$ (margin of error))

The minimum sample size was calculated as 283, rounded up to 300. A non-probability convenience sampling technique was employed to recruit participants due to accessibility and time constraints.

Data Collection and Analysis

Data were collected using a pre-tested, semi-structured, interviewer-administered questionnaire covering socio-demographics, knowledge, and perceptions of infertility. The questionnaires were administered by trained research assistants. Data analysis was performed with IBM SPSS Statistics Version 24.0. Descriptive statistics (frequencies and percentages) were used to summarize the data.

Ethical Considerations

Verbal informed consent was obtained from all participants. The study protocol adhered to principles of confidentiality and voluntary participation.

RESULTS

A total of 280 out of 300 questionnaires were successfully retrieved, yielding a 93.3% response rate.

Socio-demographic Characteristics

Most respondents (39.3%) were aged 21–25 years, and 75% were female. Regarding education, 39.3% had only primary education, while 26.8% had no formal education. A majority (58.9%) were engaged in business/trading, and 62.5% had been married for 1–5 years.

Table 1: Socio-demographic characteristics of the respondents

VARIABLES	FREQUENCY (280)	PERCENTAGE (%)
Age (years)		
16 – 20	56	20
21 – 25	110	39.3
26 – 30	75	26.8
31 – 35	19	6.8
36 and above	20	7.1
Sex		
Male	70	25
Female	210	75
Educational qualifications		
No formal education	75	26.8
Primary education	110	39.3
Secondary education	75	26.8
Tertiary education	20	7.1
Occupation		
Farmers	85	30.4
Business	165	58.9
Civil servant	30	10.7
Duration of marriage		
Less than 1 year	35	12.5
1-5 years	175	62.5
6-10 years	55	19.6
11-15 years	10	3.6
More than 15 years	5	1.8

Level of Knowledge of Infertility

Nearly half of the respondents (44.6%) self-rated their knowledge of infertility as "Fair." Only 12.5% rated it as "Excellent."

Table 2: Level of knowledge of infertility among couples

VARIABLES	FREQUENCY	PERCENTAGE (%)
Excellent	35	12.5
Good	85	30.4
Fair	125	44.6
Poor	35	12.5

Knowledge of Infertility among Couples

The majority (80.4%) had heard about infertility, primarily through media (41.1%) and health professionals (23.2%). Only 44.6% knew about medical treatments for infertility. When asked to identify causes, 37.5% cited medical conditions such as PCOS and endometriosis, while 30.4% cited lifestyle factors. Only 26.8% viewed it strictly as a medical condition.

Table 3: Knowledge of infertility among couples

VARIABLES	FREQUENCY	PERCENTAGE (%)
Have you heard about infertility before		
Yes	225	80.4
No	55	19.6
If yes, from where did you get information about infertility?		
Family/Friends	35	12.5
Health professionals	65	23.2
Media (TV, Radio, Newspapers)	115	41.1
Internet/Social Media	10	3.6
Which of the following do you believe can cause infertility?		
Age	75	26.8
Lifestyle factors (smoking, alcohol consumption)	85	30.4
Medical conditions (e.g., PCOS, endometriosis)	105	37.5
Environmental factors (exposure to toxins)	10	3.6
Genetics	5	1.8
Do you know any medical treatments available for infertility?		
Yes	125	44.6
No	155	55.4
How do you perceive infertility?		
A serious medical condition	75	26.8
A social problem	85	30.4
A personal failure	15	5.4
A divine will	105	37.5

Perception of Infertility among Couples

Infertility was most commonly perceived as a "divine will" (37.5%) or a "social problem" (30.4%) and 55.4% viewed it as highly stigmatized in the community. 78.6% (Agree/Strongly Agree) believed infertility could affect marital stability and 55.4% attributed infertility more to men than women, Medical support was deemed most important (51.8%).

Table 4: Perception of infertility among couples

VARIABLES	FREQUENCY	PERCENTAGE (%)
Do you believe that infertility can affect the stability of a marriage?		
Strongly agree	155	55.4
Agree	65	23.2
Neutral	25	8.9
Disagree	20	7.1
Strongly disagree	15	5.4
Do you think infertility is more commonly caused by the man or the woman?		
Man	155	55.4

Woman	100	35.7
Both equally	25	8.9
How is infertility viewed in your community?		
Highly stigmatized	155	55.4
Moderately stigmatized	100	35.7
Not stigmatized	25	8.9
What kind of support do you believe is important for couples facing infertility?		
Emotional support	55	19.6
Medical support	145	51.8
Financial support	35	12.5
Social support	45	16.1

Common Contributing Factors

Health-related factors and lifestyle choices were considered the most common contributors of infertility (51.8% and 19.6%). 71.4% agreed that smoking/alcohol affects fertility and only 8.9% acknowledged traditional beliefs affecting fertility. The majority (91.1%) had consulted a health professional regarding infertility, with 37.5% advised to make lifestyle changes or treatment (30.4%).

Table 5: Common contributing factors to infertility among couples

VARIABLES	FREQUENCY	PERCENTAGE (%)
In your opinion, what are the most common factors contributing to infertility in this area?		
Health-related factors	145	51.8
Lifestyle choices	55	19.6
Environmental factors	35	12.5
Socio-economic factors	45	16.1
Do you believe lifestyle choices such as smoking and alcohol consumption can affect fertility?		
Strongly agree	145	51.8
Agree	55	19.6
Neutral	35	12.5
Disagree	25	8.9
Strongly disagree	20	7.1
Are there traditional beliefs or practices in your community that are thought to affect fertility?		
Yes	25	8.9
No	255	91.1
Have you or your spouse ever consulted a health professional regarding infertility?		
Yes	255	91.1
No	25	8.9
If yes, what was the outcome?		
Received treatment	85	30.4
Referred to a specialist	66	23.6
Advised to make lifestyle changes	105	37.5
No specific advice given	24	8.5

DISCUSSION

This study reveals that while awareness of infertility is relatively high among married couples in Safana LGA, deep-seated cultural and religious perceptions continue to shape understanding and responses. The finding that 37.5% of respondents perceive infertility as a “divine will” aligns with studies from Northern Nigeria, where religious interpretations often overshadow biomedical explanations.¹¹ This can delay or prevent seeking medical care, as also observed in other Islamic contexts.¹²

The high level of stigma reported (55.4%) is consistent with literature from sub-Saharan Africa, where infertility frequently leads to social exclusion, blame, and marital instability, particularly for women.¹³ The attribution of infertility more to men than women (55.4%) contrasts with many studies that place blame disproportionately on women, suggesting possible region-specific gender dynamics that warrant further exploration.¹⁴

Knowledge regarding medical treatments remains limited, with only 44.6% aware of available options. This gap underscores the need for targeted health education campaigns. Media was the primary source of information (41.1%), indicating its potential as a tool for disseminating accurate reproductive health information.¹⁵ The strong reliance on health professionals for consultation (91.1%) is encouraging, yet the fact that many were advised only on lifestyle changes points to possible limitations in local healthcare capacity for advanced infertility management.¹⁶

Study Limitations and Future Research

The use of convenience sampling may limit generalizability. Self-reported data are subject to social desirability bias, especially regarding sensitive topics like infertility. The cross-sectional design prevents causal inferences. Future studies should employ mixed methods to explore the cultural constructs of infertility in depth and assess the availability and quality of infertility services at healthcare facilities in the region.

CONCLUSION

This study showed infertility is a multifaceted issue in Safana LGA, shaped by moderate knowledge, strong cultural beliefs, and prevalent stigma. While health-seeking behaviour is common, awareness of treatment options remains low. Community-based, culturally sensitive interventions are needed to improve education, reduce stigma, and enhance healthcare access for infertile couples.

RECOMMENDATIONS

1. Integrate infertility education into community health programs, involving religious and traditional leaders.
2. Train primary healthcare workers in infertility counseling and basic management.
3. Improve access to affordable diagnostic and treatment services.
4. Encourage media partnerships to broadcast accurate reproductive health information.
5. Foster support groups to reduce stigma and provide emotional support.

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