

Quality of Life and its Determinants Among Lactating Mothers in South East Senatorial District, Rivers State, Nigeria

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Copyright © 2026 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.	<p><i>Health-related quality of life (HRQoL) is particularly important for women during the postnatal period. This study examined the quality of life and its determinants among lactating mothers in the South-East Senatorial District of Rivers State, Nigeria, using a cross-sectional research design. The study population comprised 1,965 lactating mothers attending postnatal clinics, from which a sample of 983 respondents was selected through a multistage sampling procedure. Data were collected using a structured questionnaire titled Health Survey Instrument and Health-Related Quality of Life Instrument (HSIHRQoL-SF-12v2) and analyzed with the Statistical Package for the Social Sciences (SPSS version 27) using descriptive statistics, multivariate regression, and one-way analysis of variance (ANOVA) at a 0.05 level of significance. The findings revealed that 78.8% of the respondents had a good quality of life, while 21.2% reported a poor quality of life. A very strong positive relationship was observed between income level and quality of life ($r = 0.81$), with income accounting for 72.6% of the variance in quality of life ($R^2 = 0.726$). Statistically significant relationships were also found between quality of life and income level, access to healthcare services, family support, parity, age, and religion ($p < 0.05$). The study concluded that lactating mothers in the South-East Senatorial District of Rivers State generally had a good quality of life, which is encouraging and should be sustained, and recommended that postnatal clinics adopt a holistic approach by addressing the physical, psychological, and social health needs of both mothers and infants through the availability of qualified healthcare professionals.</i></p>
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Introduction

A strong level of health-related quality of life (HRQoL) is especially crucial for women during the postnatal stage. For lactating mothers, quality of life is a multidimensional construct that includes physical, psychological, social, and environmental aspects, all of which influence perceptions of life satisfaction and overall well-being (World Health Organization, 2020). It was asserted by Chen et al. (2020) that, breastfeeding experiences significantly impact the quality of life of lactating mothers. Positive breastfeeding experiences, including successful initiation, comfortable breastfeeding techniques, and bonding with the infant during breastfeeding, can enhance maternal well-being and satisfaction with motherhood. Maternal health significantly influences the quality of life of lactating mothers.

Improving the quality of life of lactating mothers necessitates a comprehensive, multifaceted approach that targets the underlying social and economic determinants of health. According to Hawkins et al. (2024), socioeconomic status and educational attainment, also contribute significantly to health disparities among lactating mothers. Women from lower socioeconomic backgrounds often face challenges accessing prenatal care, nutritional support, and other essential services that are critical for promoting maternal and infant health. For example, Nguyen et al. (2021) showed that women with low income status are more likely to experience food insecurity and live in neighborhoods with limited access to healthy food options, which can negatively impact breastfeeding initiation and

duration. Notably, socioeconomic status intersects with educational background.

Educational background serves as a crucial determinant of health disparities among lactating mothers, influencing the quality of life. According to Ciccone et al. (2021), higher educational attainment is associated with increased access to prenatal care, breastfeeding support services, and preventive health services, which contribute to better maternal and infant health outcomes. Conversely, mothers with lower levels of education may face barriers to accessing healthcare services, including lack of health insurance, transportation challenges, and limited health literacy, which can result in disparities in breastfeeding outcomes. Additionally, Geronimus et al. (2021) stated that, educational attainment is associated with healthier lifestyle behaviors, such as smoking cessation, physical activity, and adherence to prenatal care guidelines, which contribute to improved maternal health outcomes and good quality of life.

Family support plays a critical role in shaping maternal mental health outcomes during the postpartum period. Such support may manifest in multiple forms, including emotional reassurance, practical assistance with household responsibilities and childcare, and active encouragement of breastfeeding within both the family and the broader community. However, disparities in family support may exist among certain populations, with women from disadvantaged backgrounds or those lacking social support networks facing challenges in accessing adequate support for breastfeeding (Tuthill et al., 2021). Mohlman (2021) argued that, social support from family members, including partners, parents, and extended family, can positively impact maternal mental health, breastfeeding practices, and overall well-being during the postpartum period. However, disparities in family support may exacerbate maternal mental health problems, particularly among women from marginalized communities or those experiencing social isolation. Family support not only influences maternal well-being and infant health outcomes but also affects the overall caregiving environment within the household. According to Crear-Perry et al. (2021), Addressing social factors is fundamental to enhancing the health outcomes and overall quality of life of lactating mothers. Since the establishment of the World Health Organization's Commission on the Social Determinants of Health (SDOH) over a decade ago, a substantial body of research has confirmed that social determinants—referring to the conditions in which individuals are born, grow, live, work, and age—are key factors influencing disease risk and susceptibility across both clinical and public health contexts (WHO, 2020).

Speaking from personal experience and observations, quality of life among lactating mothers in Rivers South-

East is a sources of concern both to the researcher and among healthcare professional. Thus, the need to unravel the determinants, which if known could provide a guide on what aspect to focus on during any intervention to improve the health and quality of life of the mothers during the lactating period. Therefore, the problem is to identify the most impactful factors that contribute to poor quality of life but, data revealing such is scarce hence, the need for this study. Bai et al. (2021) argued that, little is known about quality of life and its determinants. Consequently, this study investigated the quality of life of lactating mothers and the factors influencing it in the South-East Senatorial District of Rivers State, Nigeria. The study was guided by the following research questions:

1. What is the level of quality of life among lactating mothers in the South-East Senatorial District of Rivers State, Nigeria?
2. Which factors influence the quality of life of lactating mothers in the South-East Senatorial District of Rivers State, Nigeria?

Hypotheses

The following null hypotheses were formulated to guide the study and were tested at the 0.05 level of significance.

1. There is no statistically significant association between income level and the quality of life of lactating mothers in the South-East Senatorial District of Rivers State.
2. There is no statistically significant association between family support and the quality of life of lactating mothers in the South-East Senatorial District of Rivers State.

Methodology

A cross-sectional research design was employed. The population of this study consisted of one thousand, nine hundred and sixty-five (1,965) lactating mothers attending postnatal clinic in South East Senatorial District. The inclusion criteria included healthy mothers, who gave consent for the study and those attending postnatal clinic in the selected facilities. The sample size for this study was 983 which is 50% ($n = 50/100 \times 1,965$) of the entire population (1,965) because, according to Nwana (2020) when the population is a thousand or few thousand, 50% of the population can be used as the sample size.

A multistage sampling technique was employed to determine the study sample. In the first stage, a clustering method was used to categorize all Local Government Areas within the Senatorial District based on geographical terrain into riverine areas (Andoni and Opobo/Nkoro) and upland areas (Oyigbo, Eleme, Tai, Gokana, and Khana). In the second stage, simple random sampling was applied to select

two health centres from each Local Government Area. In the third stage, respondents were selected from the chosen health facilities using simple random sampling.

Data were gathered using a structured questionnaire titled *Health Survey Instrument and Health-Related Quality of Life Instrument (HSIHRQoL-SF-12v2)*, which yielded a reliability coefficient of 0.82. The data were analyzed using

the Statistical Package for the Social Sciences (SPSS version 27). Both descriptive statistics—percentages, means, and standard deviations—and inferential statistics, specifically one-way analysis of variance (ANOVA), were applied at a 0.05 level of significance.

Results

The results of the study are shown below:

Table 1: Distribution showing Respondents' Health-Related Quality of Life

SN	Items	SD	D	U	A	SA	Mean	S. D
1	I do not feel any pain	271	201	481	00	00	2.73	1.33
2	I can perform any physical activity without limitation	220	201	52	380	100	2.94	1.40
3	I fall asleep easy and I sleep long enough; when I wake up, I feel rested	205	109	100	202	337	3.37	1.57
4	I take care of myself completely	102	160	109	268	314	3.56	1.37
5	My physical condition is excellent	102	161	150	439	101	3.29	1.18
6	I am always in a good mood	101	362	59	380	51	2.91	1.19
7	I feel upset very rarely	110	212	251	262	118	3.07	1.20
8	I feel good in my skin	151	110	100	261	331	3.54	1.46
9	Life is beautiful	101	102	100	371	279	3.66	1.29
10	The world is beautiful	51	52	150	438	262	3.85	1.05
11	My family relations are excellent	101	111	100	481	160	3.51	1.21
12	I am doing excellently at my job	101	59	159	532	102	3.5	1.11
13	I regularly meet my friends and enjoy their company	101	170	100	481	101	3.33	1.19
14	I may say that my sex life is very good	51	218	101	433	150	3.43	1.16
15	My relations with colleagues at job are good	103	50	150	500	150	3.57	1.15
16	I am content with my finances	278	210	110	255	100	2.67	1.40
17	I feel completely safe	51	59	320	464	59	3.44	0.90
18	I easily adapt to environmental temperature	110	159	203	372	109	3.22	1.20
19	I do not have problem with breathing where I live or work	103	268	51	254	277	3.35	1.42
Grand mean							3.31	1.25

Criterion mean = 3.00. Guide: <3.00 is poor quality of life while ≥3.00 is good quality of life

Table 1 presented the distribution showing respondents' Health-Related Quality of Life. The result showed that the grand mean of 3.31 was greater than the criterion mean of 2.50, indicating a good health related quality of life. Majority (f = 481) indicated that they did not feel any pain, their family relations are excellent, they regularly meet friends and enjoy, 439 showed that their physical condition is excellent, and 380 indicated that they are always in a good mood. Thus, lactating mother had good health-related quality of life.

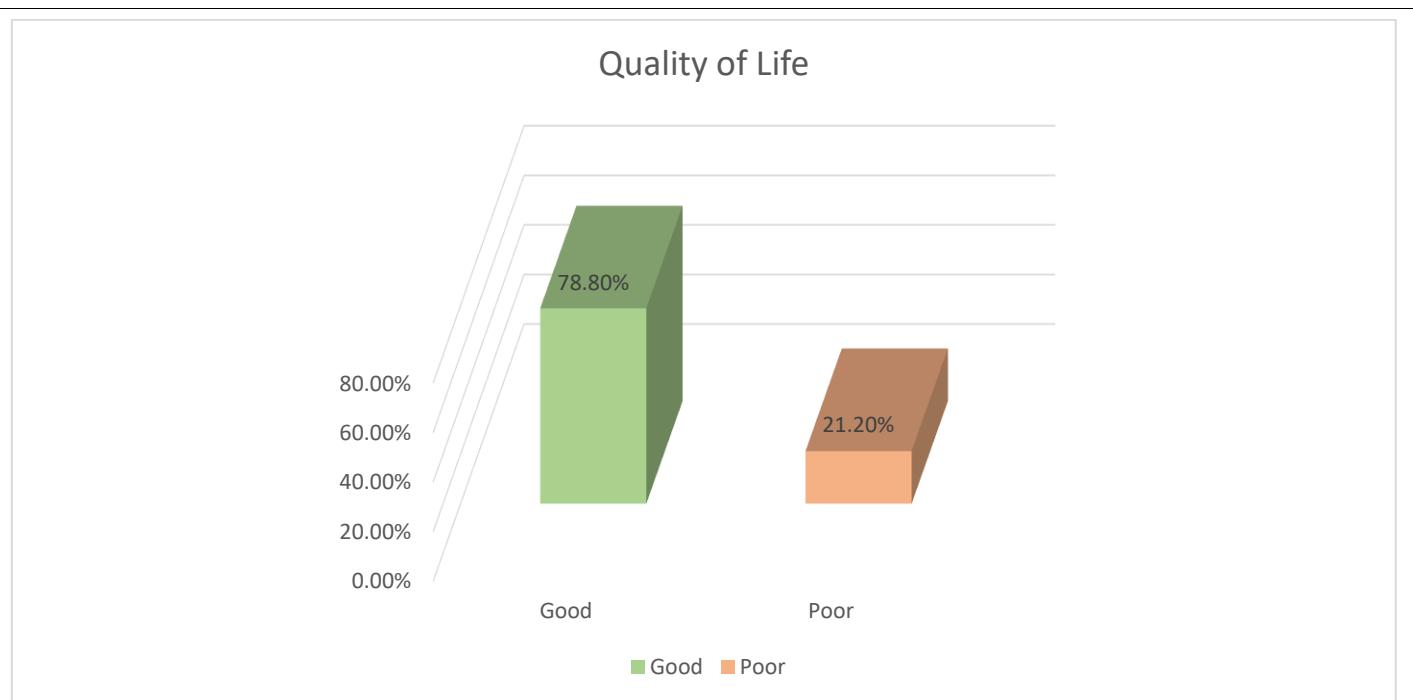


Fig 1: Bar Chart showing overall quality of life of the respondents

Fig 1 presents the overall quality of life of the respondents. The result showed that overall, more than three quarter (78.8%) had good quality of life while 21.2% had poor quality of life.

Table 2: Linear regression showing relationship between level of income and quality of life among lactating mothers

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Remark
1	0.81	0.72	0.72	0.76	Very High relationship

Guide: 0.00-0.19 = very low, 0.20-0.39 = low, 0.40-0.59 = moderate, 0.60-0.79 = high and 0.80 above is very high relationship

Table 2 presents the relationship between income level and quality of life among lactating mothers. The findings reveal a strong positive correlation between income level and quality of life ($r = 0.81$). Furthermore, income level accounted for 72.6% of the variation in the quality of life of lactating mothers, as indicated by the coefficient of determination ($R^2 = 0.726$).

Table 3: Mean and standard deviation showing family/social support for better quality of life among lactating mothers

SN	Items	Mean	S.D
1	I have someone I can really count on to listen to me when there is a need	2.60	0.83
2	I have someone to depend on in case of any emergency	2.63	1.01
3	My family members are supportive to me, particularly anything relating to my health	2.59	0.84
4	I have friends that can run around for me if there is need to do so	2.27	1.04
5	I feel people around me are concerned about my health and well being	2.70	0.88
Grand mean		2.56	0.92

Criterion mean = 2.50. Guide: <2.50 is poor support while ≥ 2.50 is good support

Table 3 presents the mean and standard deviation showing family/social support for better quality of life among lactating mothers. The result revealed that the grand mean of 2.56 was greater than the criterion mean of 2.50 indicating a good support from family. Specifically, the respondents indicated that they feel people around them are concerned about their health and well-being (2.70), they have someone to depend on in case of any emergency (2.63), they have someone they can really count on to listen to them when there is a need (2.60), and family members are supportive to them, particularly anything relating to their health (2.59).

Table 4: Linear regression showing significant relationship between family support and quality of life among lactating mothers

Model		Sum of Squares	df	Mean Square	F	Sig.	Decision
1	Regression	7924.12	1	7924.12	6189.10	0.00*	Rejected
	Residual	1218.87	952	1.28			
	Total	9143.00	953				

*Significant; $p < 0.05$

Table 4 shows the results of the regression analysis assessing the relationship between family support and the quality of life of lactating mothers in the South-East Senatorial District of Rivers State. The analysis revealed a statistically significant relationship between family support and quality of life, as indicated by the regression statistic $[F(1, 952) = 6189.10, p < 0.05]$. Accordingly, the null hypothesis asserting that there is no significant relationship between family support and the quality of life of lactating mothers in the South-East Senatorial District of Rivers State was rejected.

Table 5: Linear regression showing significant relationship between level of income and quality of life among lactating mothers

Model		Sum of Squares	df	Mean Square	F	Sig.	Decision
1	Regression	2648.396	1	2648.396	4521.62	0.00*	Rejected
	Residual	557.604	952	.586			
	Total	3206.000	953				

*Significant; $p < 0.05$

Table 5 reports the findings of the regression analysis evaluating the relationship between income level and the quality of life of lactating mothers in the South-East Senatorial District of Rivers State. The results reveal a statistically significant association between income level and quality of life, as evidenced by the regression statistic $[F(1, 952) = 4521.62, p < 0.05]$. Consequently, the null hypothesis asserting that there is no significant relationship between income level and the quality of life of lactating mothers in the South-East Senatorial District of Rivers State was rejected.

Discussion of Findings

The findings of the study are discussed below:

The result showed that overall, more than three quarter (78.8%) had good quality of life while 21.2% had poor quality of life. This finding was expected thus encouraging because lactating mothers who are saddled with the responsibility of caring for their new born need good quality of life to be healthy and strong enough to take good care of their infants. The findings of this study are consistent with those of Beyene et al. (2021) conducted in southern Ethiopia, which reported that women exhibited a good level of health-related quality of life. The findings of this study corroborate those of Kumera and Haidar (2021), conducted in health facilities in Asosa Town, Ethiopia, which reported a good level of health-related quality of life among women. This similarity between the previous studies and the present one could be due to the homogeneity

of the study respondents as both studies focused on reproductive age women and lactating mothers, this could be implicated for the similarity found between previous studies and the present study. However, the finding is at variance with that of Ahmad et al. (2021) in Australia which showed the mothers generally experienced poor health-related quality of life. The present result also varies from that of Shana et al. (2020) which showed poor quality of life among the mothers. This variation may be attributed to differences in the study settings, as the previous studies were conducted in other locations, whereas the present study was carried out in Rivers State.

The results of the study revealed a very strong positive relationship between income level and quality of life among lactating mothers ($r = 0.81$). Additionally, income level accounted for 72.6% of the variance in the quality of life of lactating mothers, as indicated by the coefficient of determination ($R^2 = 0.726$). This finding is not different from the report from several other studies such as Muzaffar (2024) which showed that, women are less likely to access any healthcare services if such services are within the cost they can afford or within the level of income. The finding also corroborates Fisseha et al. (2021) whose report revealed access to healthcare facility is necessary for its utilization. The findings of this study are consistent with those of Odetola (2024), which indicated that the provision of health services aligned with individuals' income levels positively influences health outcomes. The similarity between the findings of the previous studies and the present

study may be attributed to the homogeneity of the study populations, as both investigations focused on women of reproductive age, including lactating mothers. This shared demographic characteristic may account for the comparable results observed across the studies.

The findings of the study indicated a statistically significant relationship between family support and quality of life, as demonstrated by the regression result $F(1, 952) = 6189.10, p < 0.05$. This finding may not be surprising because when women are supported by their families, they will be strengthened to do better in taking care of their health. This finding corroborates that of Gadelha et al. (2023) on health-related quality of life of women in Brazil which showed that family and social support correlates with quality of life. The findings of this study are consistent with those of Bai et al. (2021), whose investigation of health-related quality of life after childbirth in the Netherlands demonstrated that family and social support are positively associated with quality of life. This finding corroborates that of Girardi et al. (2023) on health-related quality of life of women in United State which showed that family and social support is a strong variable influencing the quality of life of women. The similarity between the findings of previous studies and the present study may be attributed to the homogeneity of the study populations, as both focused on women of reproductive age, including lactating mothers. This shared demographic characteristic may account for the consistency observed between earlier research and the current findings.

Conclusion

It was concluded that lactating mothers in South-East Senatorial District of Rivers State had a good quality of life, which is encouraging and should be sustained, and the determinants of quality of life among lactating mothers were level of income, access to healthcare services and family/social support.

Recommendations

The following recommendations were made based on the findings of the study:

1. Quality of life is all-encompassing hence, the postnatal clinics should consider and attend to all the domains of health of both the mother and infant by ensuring that professionals are on ground to discharge their duties both on the social, mental and physical health.
2. Families, caregivers and friends of the lactating mothers should not relent in giving their support to them in any way possible.
3. Government should not relent in their effort to empower women economically by bringing more skills acquisition programmes to them, this will

enhance their level of income and decision making on the use of healthcare services to maintain good health.

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