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A Cross-Sectional Survey "Quality of Life and its Predictors Among Infertile Women at Selected Infertility Clinics of Bagalkot"

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Abstract **Original Research Article**

Background: In our society, women play an important role from birth till death. Despite showing proficiency in all their roles, in today's modern era, women seem to be standing behind men. Infertility is a common problem affecting one couple in six. It can be defined as the incapacity to fulfill pregnancy after reasonable time of sexual intercourse with no contraceptive measures taken. ***Objectives:*** To Assess the Quality of life of Infertile women, its predictors of Quality of life and to Determine association between Quality of life and its predictors among infertile women. ***Methods:*** A cross-sectional study with the sample of 60 infertile women, selected by disproportionate stratified random sampling. WHO Quality of life scale was used to assess the data regarding quality of life and its predictors among infertile women. The data was entered in MS excel sheet and transferred to SPSS 18 for analysis. ***Results:*** Mean, SD and mean percentage of total quality of life score illustrate that, the highest mean percentage of INFERTILE women's (11.72%)was found for overall domain with mean (71.5%) and SD (1.41), following by (70%) was found for physical domain with mean (21) and SD (3.35), psychological domain (59.37%) with mean (20.78) and SD (3.16), social domain (79.53%) with mean (11.93) and SD (1.82), environment domain (69%) with mean (27.66) and SD (4.0) and total QOL (67.97%) with mean (88.37) and SD (13.74), and Age, Religion, Education, Occupation, Income, Type of family, Area of residence, Age of menarche, Age of marriage, No of children, History of miscarriage / stillbirth, Duration of marriage, Age of spouse, History of bad spouse bad habits, infertility treatment, Family support, and Source of information are not associated with QOL. And Housewife women's (P< 0.000), History of irregular menstrual cycle (P< 0.006), Treatment taken for spouse (P< 0.049) and Education of spouse with PUC / higher education (P< 0.052) and Family support (P< 0.000) are Predictors of QOL in Infertility women. ***Conclusion:*** The Quality of life among infertile women 1.66% was with Fair QOL, 43.33% were with Good QOL And 55% were with excellent QOL. Housewife women's), History of irregular menstrual cycle, Treatment taken for spouse and Education of spouse with PUC / higher education (P< 0.052) and Family are Predictors of QOL in Infertility women.

Keywords: Assess, Infertility, Infertile women, Quality of life, Predictors.

INTRODUCTION

In many societies around the globe, maternity provides a kind of social respectability for couples, and lack of pregnancy has been perceived as a humiliating condition. Infertility is defined as the failure to achieve clinical pregnancy after twelve months of regular unprotected sexual intercourse. It is considered a crisis with various biological, psychological, economic, ethical and cultural consequences.[1]

Infertility is a common chronic disease affecting many reproductive-age women and men and represents a major life burden, causing anxiety, depression, relationship dysfunction, and social marginalization.[2]

Reproduction is intricately controlled by a multitude of hormonal mechanisms, and any disruptions in these hormonal regulations may potentially result in infertility.[3]

In this modern world women's attitude against pregnancy and being a mother is changing accordingly. There occurs so many miscarriages and maternal death during the pregnancy.[4]

Infertility is characterized by the inability to conceive after 12 months or more of consistent, unprotected sexual activity. It can be caused by a variety of abnormalities of the female reproductive system.[5]

The evidence for changes in the prevalence of infertility is difficult to establish. This increase could be due to at least four factors: delayed childbearing, alterations in semen quality due to habits such as cigarette smoking and alcohol, changes in sexual behavior and eliminations of most taboos.[6]

The QoL concept now makes it possible to assess the effects of treatment on health conditions, comprehending outcomes beyond morbidity, and mortality. Moreover, it emphasizes the patients' reported outcomes since the patients are considered to be most capable of measuring their own condition subjectively in several areas of their lives. Clinicians tend to measure the results of interventions through the decrease in symptoms and the involution of the disease. Patients do so through the feeling of comfort or the ability to resume daily activities satisfactorily.[7]

Females are more likely to suffer from psychological disturbances, especially in societies where females are mostly accused to be the reason for couple's inability to conceive and cultural and social pressures and norms are one of the most important contributing factors in the development of these psychological issues. In addition, education and employment status of the female partner are among the influencing factors. In fact, the quality of life is a feeling of goodness and results from the satisfaction or dissatisfaction of various aspects of life which are important to the person. It includes health, occupational, socio-economic, psychosocial, and familial areas, and it is important as a scale of health care measurement. It is believed that and this factor is one of the factors which may affect the outcome of infertility treatment.[8]

METHODS

It was a cross-sectional study with an aim to assess the Quality of life and its predictors among infertile women at selected infertility clinics at Bagalkot sample of 60 infertile women was selected by disproportional stratified random sampling.

Study Participants: The study participants were infertile women at Bagalkot. The sampling criteria included the infertile women of selected infertility clinics at Bagalkot. Who were willing to participate in the research study.

Sample Size: The research study was conducted on 60 infertile women in selected in infertility clinics at Bagalkot.

Setting of the Study: The study was conducted in infertility clinics of selected hospitals. H. S.K. Hospital & Research Center of Bagalkot and Kuntoji Multispecialty Hospital Navanagar Bagalkot.

Data Collection and Instrument: The data regarding Quality of life of infertile women was assessed by using WHO Quality of life scale. It is developed by W.H.O. It includes the items to assess data regarding quality of life. Briefly the WHO Quality of life scale contain a 26 items instrument consisting of four domains: Physical health (7 items), Psychological health (6 items), Social health (3 items), and environmental health (8 items); it also contains QOL and general health items. Each individual items of the WHOQOL is scored from 1to 5 on a five-point ordinal scale, which is stipulated as a five-point ordinal scale. The score is then transformed linearly to a 0-100 scale.

Validity, Reliability and Translation of Data Collection Intruments: WHOQOL scale is a self-administered, self-reporting tool established by WHO, to screen individual for their quality of life. The content, construct and criterion validity of the tool has been supported by its use since 4 decades in various researches, consultation, feedback and revision. The instruments were translated to Kannada language and then retranslated to English language and the similarity between original and translated tool were ascertained by Linguistic experts. . The coefficient of stability was completed using split half technique and test and retest technique. The reliability of the test was found out by using Karl Pearson's coefficient of correlation formula. The reliability coefficient for WHOQOL scale was 0.73 which indicates that the tools reliable.

Ethical Clearance: Ethical clearance certificate was obtained from Institutional ethical clearance committee, B.V.V.S Sajjalashree Institute of Nursing sciences, Bagalkot (ref No. BVVS SIONS-IEC/2022 - 23/312. DT: 04/06/2023) Written consent of participation was obtained from participants before data collection.

Statitical Analysis: The data was analyzed using SPSS version 25. The obtained data was entered in MS excel sheet. The data was edited for accuracy and completeness. The categorical responses were coded with numerical codes. The data was presented with frequency and percentage distribution tables and diagrams. The description of quality of life and its predictors was presented with Arithmetic mean, range and standard deviation. Binary logistic regression analysis and Odds ratio were used to associate the determinants with infertile women. Chi-square test was used to find out the association between the socio-demographic variables.

RESULTS

Descriptive and inferential statistics was used to analyze the data. The numerical data obtained from the sample was organized and summarized with the help of descriptive statistics like percentages, mean, median and standard deviation. Karl Pearson's coefficient correlation formula was used to find out significance of infertile women. Chi square test is used to find out the association.

Part –I: Description of a Sample in Terms of Socio Demographic Variables N = 60

Sl No	Variables	Frequency	Percentage
1 Age			
	< 25 Yr	17	28.33%
	25 – 35	37	61.66%
	> 35	6	10%
2. Religion			
	Hindu	43	71.66%
	Muslim	12	20%
	Christian	5	8.333%
3. Education			
	Illiterate	7	11.66%
	Up to 10^{th}	36	60%
	PUC / Higher	9	15%
	Graduated	8	13.33%
4. Occupation			
	Housewife	35	58.33%
	Cooley	13	21.66%
	Agriculture	4	11.66%
	Employed	7	11.66%
	Self-employed	1	1.666%
5. Income			
	Below 6000	13	21, 66%
	6000- 9000	16	26.66%
	9000-12000	22	36.66%
	12000 & above	9	15%
6. Type of family			
	Joint	33	55%
	Nuclear	27	45%
7. Area of residence			
	Rural	34	56.66%
	Urban	26	43.33%
8. Age at Menarche			
	11-12	3	5%
	13-14	44	73.33%
	15-16	13	21.66%
9. Age at Marriage			
	Below 18 yrs	12	20%
	19-30 yrs	46	76.66%
	More then 30 yrs	2	3.33%
10. No of Childrens			
	0	60	100%
	1	0	0
	2	0	0
	3	0	0
11. History of Miscarriage			
	Yes	16	26.66%
	No	44	73.33%
12. History of Irregular Menstrual Cycle			
	Yes	32	53.33%
	No	28	46.66%

13. Duration of Marriage			
	Below 5 yr	15	25
	5-10 yr	40	66.66
	10 yr& above	5	8.33
14. Age of Spose			
	25 -35	39	65
	36- 45	21	35
15. Education of Spouse			
	Illiterate	3	5%
	Up to 10^{th}	19	31.66%
	PUC / High school	29	48.33%
	Graduated	9	15%
16. History of any Bad Habits			
	NO	41	68.33%
	Yes	19	31.66%
17. Infertility treatment taken for Self / Spouse /Both			
	Self	16	26.66
	Spouse	12	20
	Both	32	53.33
18. Family Support			
	Yes	60	100
	No	0	0
19. Source of Information			
	Self	11	18.33
	Health educator	27	45
	Family and Peer group	22	36.66
	Social media	0	0

Majority of infertile women (65%) were belongs to 25-35 years of age, (71.66%) were belongs to Hindu religion, (60%) were belongs to up to 10^{th} educational status, (58.33) were belongs to housewife, (36.66%) were with income of 9000-12000, (76.66%) were married at 19-30 Year age, (100%) were with 0 children, (73.33%) were without the history of miscarriage, (73.33%) were got menarche at 13-14 year, infertile women spouse (48.33%) were educated up to PUC / high school, (55%) were belongs to joint family, . (56.66%) were from rural area, married duration (66.66%) were 5–10-year, infertile women's spouse (65%) was belonged to age 25-35years, spouses (68.3%) were without any history of bad habits, (53.33%) were with history of irregular menstrual cycle. (53.33%) were took treatment for both i.e. for women and spouse, (100%) were with family support, (45%) were took infertility clinic information from Health educator.

PART – II: Table 1: levels of Quality of life among infertile women N =60

Level of quality of life	Range of score	No of respondents	Percentage (%)
POOR	< 45	0	0%
FAIR	45-66	1	1.66%
GOOD	67-88	26	43.33%
EXELLENT	> 89	33	55%

0% was with Poor QOL, 1.66% were with Fair QOL, and 43.33% Good QOL, 55% were with Excellent QOL.

Table 2: Mean and Sd of Quality-of-Life Scores

Variable	Maximum Score	Mean	S.D	Mean Percentage
Overall QOL	10	7.15	1.41	71.5%
Physical Domain	30	21	3.35	70%
Psychological domain	35	20.78	3.16	59.37%
Social Domain	15	11.93	1.82	79.53%
Environmental domain	40	27.66	4.0	69%
Total QOL	130	88.37	13.74	67.97%

Shows that to mean, SD and mean percentage of total quality of life score illustrate that, the highest mean percentage of INFERTILE women's (11.72%)was found for overall domain with mean (7.15) and SD (1.41), following by (35%%) was found for physical domain with mean (21) and SD (3.35), psychological

domain (34.6%) with mean (20.78) and SD (3.16), social domain (19.8%) with mean (11.93) and SD (1.82), environment domain (46%) with mean (27.66) and SD (4.0) and total QOL (147.28) with mean (88.37) and SD (13.74).

PART – III: Table Association between the Quality-of-life score and their socio demographic variables

Sl. No	Sociodemographic Variables	Df	Chi square Value	Table value	P Value
1	Age	1	0.13	2.000	0.70
2	Religion	1	1.36	2.000	0.24
3	Education	1	0.33	2.000	0.56
4	Occupation	1	1.84	2.000	0.17
5	Income	1	0.01	2.000	0.89
6	Marital status	1	2.23	2.000	0.13
7	Number of children	1	7.70	2.000	0.00
8	History of misscarriage	1	0.47	2.000	0.44
9	Age at menarche	1	3.68	2.000	0.05
10	Education of spouse	1	1.93	2.000	0.16
11	Type of family	1	0	2.000	1
12	Area of residence	1	0.0075	2.000	0.93
13	Duration of marriage	1	5.021	2.000	0.02
14	Age of spouse	1	4.35	2.000	0.03
15	Spouse any bad habits	1	0.0153	2.000	0.90
16	History of any irregular menstrual cycle	1	0.578	2.000	0.44
17	Treatment self or spouse	1	0.169	2.000	0.68
18	Family support	1	0.074	2.000	0.78
19	Source of information	1	0.61	2.000	0.43

*P<Df-degree of freedom

Findings reveals that there is no significant between Quality of life scores of infertile women's with their socio demographic variables such as Age, religion, education, occupation, income, marital status, No of children, history of miscarriage, age at menarche, education of spouse, type of family, area of residence, duration of marriage, age of spouse, spouses history of bad habits, history of irregular menstrual cycle, treatment taken for self / spouse/both, family support, source of information.

DISCUSSION

Report of findings is never sufficient to convey their significance. The meaning that the researcher gives to the result plays a rightful and important role in the report.[6]this chapter deals with the discussion of the Quality of life among infertile women. A Cross-sectional survey conducted at infertility clinics of Bagalkot. The study with appropriate literature review, statistical analysis and findings of the study based on objectives of the study.[7] the aim of the present study was a total 60 women's, were selected for the study by using WHO Quality of life scale [WHOQOL].

Majority of infertile women (65%) were belongs to 25-35 years of age, 28.33% were belongs to < 25 years of age, 10 % were belong to > 35 years of age, (71.66%) were belongs to Hindu religion, 20% were Muslim, 8.3% were Christian, (60%) were belongs to up to 10th educational status, 15% were PUC or Higher studies, 13.3% were Graduated, 11.6% were Illiterate, (58.33) were belongs to housewife, 21.66%were cooley, 11.66% were Agriculture, 11.66 were Employed, 1.6% were self-employed, (36.66%) were with income of 9000-12000, (26.66%) were belongs to 6000-9000, (21.66%) were belongs to Below 6000, (15%) were belongs to 12000 and Above, (76.66%) were married at 19-30 Year age, (20%) were belongs to Below 18 yrs, (3.33%) were belongs to > 30 yrs, (100%) were with 0 children, (73.33%) were without the history of miscarriage, (26.66%) were with history of miscarriage, (73.33%) were got menarche at 13-14 year, 21.66% were belongs to 14-15 yrs, 5% were 12-13 yrs, infertile women spouse (48.33%) were educated up to PUC / high school, 31.66%were belongs to up to 10th, 15% were belongs to graduated, 5% were illiterate, (55%) were belongs to joint family, 45% families were Nuclear, (56.66%) were from rural area, 43.33% were from urban, married duration (66.66%) were 5-10 year, (25%) were below 5 yrs, 8.3 % were 10yr and above, women's spouse (65%) were belongs to age 25-35years, (35%)were 36-45 age group, women's spouses (68.3%) were without any history of bad habits, (31.6%) were with bad habits, (53.33%) were with history of irregular menstrual cycle , (46.6%) were without irregular menstrual cycle, (53.33%) were took treatment for both i.e. for women and spouse, (26.6%) were self-treatment & (20%) were with spouse treatment., (100%) were with family support, (45%) were took infertility clinic information from Health educator, (36.6%) were Family and peer group, (18.3%) were with self-source.

Quality of life predictors are Age, Religion, Education, Occupation, Income, Type of family, Area of residence, Age of menarche, Age of marriage, no of children, History of miscarriage / stillbirth, Duration of marriage, Age of spouse, History of bad spouse bad habits, infertility treatment, Family support, and Source of information are not associated with QOL. Housewife women's (P< 0.000), History of irregular menstrual cycle (P< 0.006), Treatment taken for spouse (P< 0.049) and Education of spouse with PUC / higher education (P< 0.052) and Family support (P< 0.000) are Predictors of QOL in Infertility women.

CONCLUSION

Assessment of Quality of life and its predictors among infertile women shows that most of infertile women were belongs to (65%) 25 -35 yrs of age. (1.66%) were with Fair QOL, (43.33%) were with Good QOL, (55%) were with Excellent QOL. It states that most of infertile women have Excellent QOL. The total mean percentage was (67.97%), Standard deviation was (13.74%), Mean is (88.37%). Housewife women's (P< 0.000), History of irregular menstrual cycle (P< 0.006), Treatment taken for spouse (P< 0.049) and Education of spouse with PUC / higher education (P< 0.052) and Family support (P< 0.000) are Predictors of QOL in Infertility women.

Hence, by this study we conclude that, most of the infertile women have fair and excellent quality of life. Housewife, history of irregular menstrual cycle education, history of irregular menstrual cycle and family support were the predictors of Quality of life.

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Data analysis and interpretation- All researchers
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