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Muthulakshmi C
Associate Professor of
Obstetrics & Gynecological
Nursing, Saveetha College of
Nursing, SIMATS, Chennai,
Tamil Nadu, India

Kavinmathi P
B.Sc Nursing Final year,
Saveetha College of Nursing,
SIMATS, Chennai, Tamil
Nadu, India

Corresponding Author:
Muthulakshmi C
Associate Professor of
Obstetrics & Gynecological
Nursing, Saveetha College of
Nursing, SIMATS, Chennai,
Tamil Nadu, India

A study to determine factors associated with infertility among couples attending infertility clinic in SMCH

Muthulakshmi C and Kavinmathi P

Abstract

The present study aims to assess the factors associated with infertility among the couples attending infertility clinic at SMCH. Methods and material: A Descriptive research design was used for the present study. A total 60 samples were collected using non probability purposive sampling technique and couples, were used as samples. The face to face interview was done with the couples and their demographic status and factors associated with infertility was assessed, followed by that data was gathered and analyzed. Results: the results the study revealed that there is a significant association between the selected demographic variables of the couples with the factors associated with infertility at the level of $p < 0.01$ conclusion Thus, the present despite that factors associated with infertility.

Keywords: factors associated, infertility, couples

Introduction

Infertility is often a silent struggle, depression levels in the patients with infertility is more compared to diagnosed cancer patients^[1].

Infertility has a varied impact on multiple dimensions, approximately 60-80 million couples around the world, still it is progressive in nature^[2]. Now, traditionally fertility awareness was considered to be knowledge of female anatomy and physiology and its application to family planning and couples may be exposed to the factors causing infertility to some extent^[3]. Nature of the human, instinctively desires to have offspring. Infertility is a painful emotional experience faced through the sub fertile couples. Infertility is considered as a global concern, which impacts in many aspects of life^[4].

Fertility is high value in many cultures and child production is the basic human intent, though medical system has been improved, the infertility case over world could not be controlled, only to some extent they proceed^[5].

Couples interaction and social impact on them, plays a major role, thus assisted reproductive technology (ART) has been systematically progressive over the last 30 years, due to social stigma related to infertility^[6]. Infertility is meta-analysis was done in Iran and found that 78.4% suffer with primary infertility and 26.6% of them with secondary infertility. Thus it is necessary to assess the knowledge regarding infertility^[7].

The purpose of the study 1.To assess the factors associated with infertility among the couple 2. To find the association between the factors associated with infertility and their selected demographic variables.

Material and Methods

After obtaining and ethical clearance from the institutional ethical committee of Saveetha institute of medical and technical science and formal permission letter obtained from the in charge of infertility clinic, present study was conducted. For the present study quantitative approach with descriptive research design was adopted. The data were collected using a non-probability purposive sampling technique from 60 couples. The inclusion criteria for the study participants, who are available during the study period and who are cooperative and who understand both Tamil and English. Exclusion criteria for the study are samples who not willing to participate in the study. The purpose of the study was explained by the investigator to each of the study participants and a written informed consent was obtained from them. The demographic and the factors associated with infertility data was collected from the samples using semi structured questionnaire by face to face interview. The data were analyzed by biostatistics. The sample characteristics were described using frequency and percentage, Chi- square was used to associate the level of experience with their selected demographic variables.

Results and Discussion

Section A: Demographic data of the couples attending infertility clinic at SMCH.

While assessing the age variables, 3(5%) of them were in age group of <20 years, 23 (38.8%) were in age group of 21-30 years, 22(36.7) were in the age group of 31-40 years and remaining 17(28.3%) were of > 40 years. Education status emphasis that about 20(33.35) of the population were under formal education, 5(8.3%) were under primary education, 25(41.6%) were recruited secondary education, remaining 10(16.75) were professionalize. data on occupation implies that 16(26.75) are home workers, 14(23.3%) were running business, 3(5%) are labor workers and rest of 27(35%) were clerical worker. maximum of the

couples, 26(43.3) of them of nuclear family, 21 (35%) of were of conjoint family and rest, 17(21.7%) were of joint family. While assessing the income of couples, maximum, 36(60%) of earning 10000-25,000 per month, 12(20%)were earning 4000 per month, 6(10%) were gaining 25,000-50,000 per month and rest 6 (10%) were gaining more than 50,000 per month. bread winner of the family, maximum 26(42.7%) husband is the bread winner, 19(31.7%) some elders, 8(13.3%) of family wife is the bread winner, remaining 2(3.3) both of them are bread winners. While assessing religion, merely 26 (43.3%) were Hindu, 20(33.3%) were Christian, remaining 4(6.7%) were Muslims.

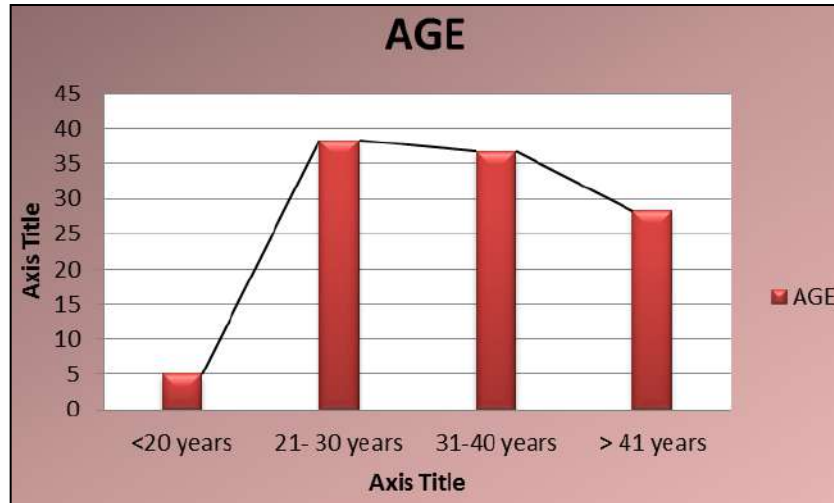


Fig 1: Percentage distribution of age

The present study is supported by Jimei Cong, *et al.*, (2016) conducted a face-to-face questionnaire survey involving 5,131 women who were at childbearing age in Suizhong, a medium-sized, representative county located in Northern China. Data from 4,232 valid questionnaires were analyzed. Infertility prevalence in Suizhong County was 13.09% (95% CI, 12.09%-14.1%), of which the primary infertility incidence was 0.99% (95% CI, 0.72%-1.34%), and the secondary infertility incidence was 12.10% (95% CI, 11.13%-13.12%). For women, the infertility incidence of underweight women (Body Mass Index, BMI<18.5 kg/m²) was 1.5-fold higher than that of women with moderate BMI (18.5–24.9 kg/m²). The infertility incidence of women with little exercise was 4 times more than that of women with regular exercise, and 2 times more than that of women with heavy exercise [8].

Section B: Factors associated with infertility among the couples attending infertility clinic

Results shows that menstrual cycle pattern, 36 (60%) of the women had once in between 32-45 days flow, which is a significant factor associated with infertility (grade 2). About 36 (60%) of the couples were of consanguineous marriage which also has significant factor associated with infertility. factors such as dysmenorrhea and abdominal cramps 32 (53.3%), marital life 32 (53.3%), diagnostic cause for infertility 36 (60%) of them assured about ovarian cyst and tumor, frequency of ovulation 36 (60%), common feeling of infertility 36(60%), cause for female infertility 36(60%), and other option for infertility beside treatment 36(60%) has

grade 2 association with infertility. This also despites that age of menarche 43 (71.1%) has grade 3 association with infertility.

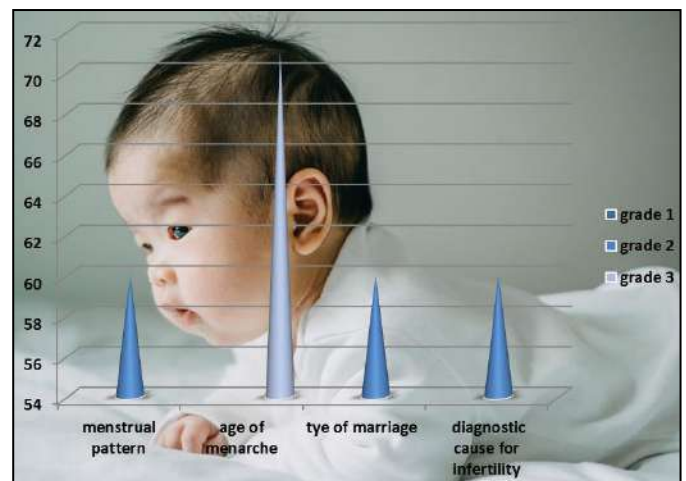


Fig 2: Grades of factors associated

The present study is supported by Madonna Ogechukwu Emmanuel, Joseph *et al.* (2021) conducted a study to determine the risk factors associated with secondary infertility in women attending the obstetrics and gynecology clinics of a tertiary hospital in Lagos, Nigeria. A total of 160 cases were recruited from the gynecology clinic and 160 matched controls were recruited from the antenatal clinic. Data were collected using a structured interviewer

administered questionnaire. The information collected included sociodemographic characteristics, social history, and obstetric and gynecological history. A conditional logistic regression analysis controlling for possible confounders, which included variables significant at the univariate level, was undertaken. Association with secondary infertility was found with a history of unsafe abortion (adjusted odds ratio [AOR] = 9.3607, confidence interval [CI] = 3.7664–23.2645), alcohol use (AOR = 16.8102, CI = 1.3972–202.2487), family history of secondary infertility (AOR = 4.7346, CI = 1.4892–15.0523), and history of sexually transmitted infections (AOR = 4.5428, CI = 1.7658–11.6866). Contrariwise, a history of regular menses and normal vaginal delivery, respectively, were found to be protective. No statistically significant relationship was observed between educational level or alcohol use of partners and secondary infertility in this study. The study concluded that the extrinsic risk factors identified in this study should be taken into consideration when designing preventive and treatment programs toward reducing the burden of secondary infertility^[9].

The present study is also supported by Achamma Chandy, *et al.*, (2019) conducted a study to evaluate the knowledge and attitudes of sub fertile couples from the Indian subcontinent regarding the fate of their excess cryopreserved embryos, a cross-sectional study were planned at a university-level infertility unit. A two stage structured interview was conducted with the couples. Some questions in the interview were hypothetical in nature. In total, 87 couples were interviewed, of which 33 (37.9%) were unaware of the options for disposition of supernumerary embryos. Forty (46%) couples indicated a preference to donate their embryos to other sub fertile couples, while 10 (11.5%) couples preferred donation to research. Twenty-four (27.6%) couples opted for donation to both other couples and research, while three (3.4%) couples indicated a preference to discontinue storage. Penalized bivariable logistic regression showed that none of the factors examined (i.e. age, education, income or presence of a living child) influenced the couple's decision regarding embryo donation. The majority of sub fertile couples preferred to donate the embryos rather than discontinue storage. The donation of embryos to other sub fertile couples was the most preferred option for disposition of embryos^[10].

Section C: Association of the factors associated with infertility among couples with their selected demographic variables.

Table despite that demographic variables such have occupation has significant association with factors associated with infertility. Others variables had no association with factor associated with infertility.

Conclusion

Patients who have expressed a desire to become parents, but who are in a high-risk group for infertility based on their age, should have a basic fertility evaluation and be referred to a specialist in a timely manner in order to maximize their fertility potential.

Acknowledgement

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Conflict of Interest

Author's declare no conflict of interest.

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