ORIGINAL RESEARCH ARTICLE

AWARENESS REGARDING INFERTILITY AMONG WOMEN ATTENDING CHITWAN FERTILITY CENTER

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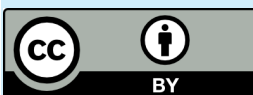
ABSTRACT

Background: Infertility is a condition where couple failure to conceive after 1 year of regular unprotected coitus. At least 50 million couples worldwide experience infertility. Several adverse consequences of infertility like tension, hostility, anxiety, depression, self-blame and suicidal ideation are now being increasingly recognized. This study was designed to assess the awareness regarding infertility among women attending Chitwan Fertility Center.

Methods: A cross sectional analytical study design was used and population for study includes those married women who had failure to conceive and visited to Chitwan infertility centre. The data was collected through semi-structured interview schedule. Collected data was coded and entered and analyzed in Microsoft office Excels and SPSS 20 version by using descriptive and inferential statistics.

Results: In present study, among 96 respondents, majority of the respondents 45.8% were from age group of 25-30 years. Most of the respondents 56.3% had completed bachelor level and above level education. Majority of women 87.5% had good awareness on infertility. There was no significant association between level of awareness and socio-demographic variables.

Conclusions: It can be concluded that the awareness about infertility among the participants attending Chitwan fertility center is relatively good. Most of the participants were educated, duration of marriage was also 5-10years and most of them came to the infertility center for the treatment and management of infertility that might be the reason they have good awareness regarding infertility. But there is still misconception in some of the participants.

INTRODUCTION

Parenthood is a fundamental human need. Every human being has a desire to become a parent and look after his or her children fertility or the ability to produce children has a positive social value.[1] Worldwide, 48.5 million couples are unable to have a child, of which 19.2 million couples are unable to have a first child, and 29.3 million couples are unable to have an additional.[2] An increasing trend of infertility in South Asia, 6% has been noticed recently in Nepal this prevalence is higher than (4%) Bangladesh and (5%) Pakistan.[3]

The total fertility rate has declined markedly in Nepal over time. The fertility decline in female already starts around 25-30 years of age.[4,5] In any given month; couple has a 20% chance of conceiving. In a lifetime, 10-15% of couples will experience infertility. This number increases to 33% than the womens age is above 35 years. In about 45% of cases there is a male-origin for the infertility, female-origin infertility accounts for 30% of cases, and in 20%, both partners are the source of difficulties.[6] Due to infertility several adverse consequences occur in the form of tension, hostility, anxiety, depression, self-blame and suicidal ideation too.[7] Very few studies have been conducted

awareness in infertility. It is important to examine the awareness to see to what extent there may be room for improvement in the light of current knowledge.

The study was aimed to assess the awareness regarding infertility among women attending Chitwan Fertility Center.

METHODS

A cross sectional analytical study design was adopted with the aim to assess the awareness regarding infertility among women. The data was collected in Chitwan Fertility Center of Bharatpur 10, from Jun 22 to July 4 ,2019. The study population included married women who had failure to conceive after one year of regular unprotected coitus. Non probability purposive sampling technique was used to select samples. Calculated sample size was 96. The questionnaire was developed by the researcher based on extensive literature review and consultation with subject expert. A semi-structured interview schedule was used as data collection tool. It consisted of two parts; part I was related to socio-demographic variables and Part II contained questions related to awareness. These questions were answered on a Yes/No basis with an additional "I don't know" option. A correct answer was assigned 1 point and an

incorrect/unknown answer was assigned 0 points. The total knowledge score ranged from 0 to 24, with a higher score denoting a better awareness of infertility. Prior to data collection ethical approval was obtained from the Institutional Review Committee SMTC-IRC-20190524-62. The principal investigator collected the data through interview method after taken written consent. Collected data was entered in excel, analyzed in SPSS 20 version and interpreted by using descriptive statistics (frequency percentage) and inferential statistics (chi-square).

RESULTS

Table 1: Sociodemographic characteristics of the respondent n=96

Variable	Frequency (%)
Age group (years)	
<20	2(2.1)
21-25	17(17.7)
26-30	44(45.8)
31-35	21(21.9)
>35	12(12.5)
Mean ±SD=29.29±4.516, Min 16 ,Max 38	
Education	
Literate	96(100)
Educational status	
Basic education	1(1)
Secondary level	41(42.7)
Bachelor level & above	54(56.3)
Occupation	
Business	32(33.3)
Service	31(32.3)
Agriculture	27(28.1)
Labor	6(6.3)
Family monthly income (NRs)	
<20000	25(26)
20000-35000	29(30.2)
35000-50000	21(21.9)
50000-65000	4(4.2)
65000-80000	11(11.5)
>80000	6(6.3)
Mean ± SD = 40020.8333 ± 4.51644, Min 9000, Max 90000	
Regular menstruation cycle	
Yes	69(71.9)
No	27(28.1)
Duration of marriage (years)	
1-5	35(36.5)
6-10	42(43.8)
11-15	16(16.7)
>15	3(3.1)
Commonly blamed for infertility	
Wife	68(70.8)
Husband	2(2.1)
Both	26(27.1)

Table 1 showed out of 96 respondents, majority of the respon-

dents 45.8% were from age group of 25-30 years. Concerning about education, all of them were literate. Most of the respondents 56.3% had completed bachelor level and above. In occupation, 33.3% were engaged in business, 30.2% respondents had monthly family income within Rs. 20000 to 35000. Majority of respondents 71.9% had regular menstruation cycle. Most of the respondents 43.8% had married 5-10 years ago. Maximum respondents 70.8% said wife was blamed for infertility problem.

The major problems faced by infertile women were remarriage 80 (83.3%) and rejection from society 79 (82.3), The source of information for most of the respondents were health personnel 85.4% and newspaper 76% (Table 2).

Table 2: Problem faced by infertile women and sources of information on infertility (multiple responses)

Variable	Frequency (%)
Problem faced by infertile women	
Physical violence	51(53.1)
Rejection from society	79(82.3)
Remarriage	80(83.3)
Suicide	25(26)
Mental violence	18(18.8)
Source of information	
Newspaper	73(76)
Health personnel	82(85.4)
Friends	55(57.3)
Television	41(42.7)
Mass media	22(22.9)

Table 3 showed that most of the respondent 87.50% had good awareness on infertility and 12.50% had poor level with mean score 21.2813 ±SD2.05556 awareness on infertility.

Table 4 showed that more than half of the respondents 66.7% knew the meaning of infertility. Most of the respondent 86.5% knew the meaning of primary infertility and 69.8% knew the meaning of secondary infertility. Maximum number of the respondents 90.6% said both male and female are responsible for infertility. Regarding the meaning of ovum and sperm, 89.6% knew the meaning of ovum as egg of female and 68.8% knew the meaning of sperm and responded it as male gamete. Regarding the period of ovulation occurrence, majority of the respondents 63.5% knew, Most of the respondents 86.5%gave correct response of conception as union of ovum and sperm. Most of the respondents 92.7% gave correct response regarding the causes of female infertility as stress. Likewise, 92.7% answered low sperm count as common causes of male infertility. Regarding the risk of female infertility, 54.2% of the respondents take age. Most of the respondents 97.9% take age group 20 to 30 years as fertile age, 95.8% preferred hospital as their first visit for treatment. Hormonal drugs were selected by 87.5% respondents for main treatment of female infertility and by 90.6%respondents for main treatment of male infertility.

Table 3: Respondents level of awareness on infertility   n=96

Level of awareness	Frequency (%)	Mean score ±SD	Minimum score	Maximum score
Good	84(87.50%)	21.2813± 2.05556	13.00	26.00
Poor	12(12.50%)			

Table 4: Distribution of respondents according to awareness regarding infertility   n=96

Awareness questions	Correct answer	Frequency (%)
Meaning of infertility	Failure to conceive in more than years of regular unprotected coitus	64(66.7)
Meaning of primary infertility	Couple who have never conceived.	83(86.5)
Meaning of secondary infertility	Previous pregnancy and have one child	67(69.8)
Responsible for infertility	Both male and female	87(90.6)
Meaning of ovum	Egg of female	86(89.6)
Meaning of sperm	Male gamete	66(68.8)
Ovulation occurrence	14 days after menstruation	61(63.5)
Meaning of conception	Union of ovum and sperm	83(86.5)
Common causes of female infertility	Lack of ovulation	89(92.7)
Common causes of male infertility	Low sperm count	89(92.7)
True about risk of female infertility	Age	52(54.2)
Fertile age to become pregnant	20-30	94(97.9)
Go first for the treatment	Hospital	92(95.8)
Main treatment for female infertility	Hormonal drugs	84(87.5)
Main treatment for male infertility	Hormonal drugs	87(90.6)

Table 5:Awareness on male risk of infertility and prevention of infertility (multiple responses)

Awareness questions	Correct answer Frequency (%)
Male risk of infertility	
STIs	60(62.5)
Smoking	93(96.9)
Alcohol	81(84.4)
Wearing Tight panty/pants.	55(57.3)
Working in hot environment	74(77.1)
Prevention of infertility	
Pre conception counseling	80(83.3)
Avoid smoking and alcohol	88(91.7)
Early screening	73(76.0)
Proper age of marriage	73(76.0)
Personal Hygiene	60.4(58)

Majority 96.9% of the respondents take smoking as the main risk of male infertility ,alcohol 84.4%,working in hot environment 77.1% ,STIs 62.5 and least on wearing tight panty/pants . Regarding the prevention of infertility, maximum number of the respondents 91.7% chooses avoiding smoking and alcohol for while (Table 5).

Table 6 showed that there was no statistically significant association between level of awareness and socio-demographic variables.

DISCUSSION

In this study awareness on infertility was assessed among married women and found mostly adequate. Out of 96 respondents, majority 87.50% had good awareness, 12.50% had poor awareness. This finding is comparable with the findings of the study conducted by Kaur et al.[1] where 79% had good knowl-

edge 15% had poor knowledge. However, the good awareness is not the only factor for better practices and prevention. Increasing the level of awareness may help to decrease the incidence of infertility by allowing couples to avoid certain risk factors that might lead to it.

To be able to achieve the desired number of children by spontaneous conception, couples should try to conceive no later than at the age of 32 years for a one-child family, at 27 years for a two-child family, and at 23 years for three children.[8] In present study, 45.8% of the respondents were in the age group of 25-30 years and 43.8% of the respondents have marriage duration of 5-10 year. Similar findings were found in the study of Dattijo et al.[9] Numerous factors such as age and duration of marriage have been associated with reduced fertility.[7] The fertility decline in female already starts around 25-30 years of age.[4] The risk factors for infertility include age, smoking, obesity, alcohol consumption menstrual cycle and current lifestyle

Table 6: Association between level of awareness on infertility and socio-demographic variable

Variable	Level of Awareness		χ² Value	p-Value
	Good	Poor		
Age Group (In years)				
≤20-30	54(85.7)	9(14.3)	0.534	0.465
31- ≥40	30(90.9)	3(9.1)		
Educational status				
Below bachelor	48(88.9)	6(11.1)	0.218	0.641
Bachelor & above	36(85.7)	6(14.3)		
Occupation				
Business	27(84.4)	5(15.6)	0.516	0.773
Services	28(90.3)	3(9.7)		
Agriculture and labor	29(87.9)	4(12.1)		
Family monthly income (NRs)				
≤9000-30000	43(86)	7(14)	0.234	0.889
31000-60000	26(89.7)	3(10.3)		
61000-90000	15(88.2)	2(11.8)		
Regularity of menstruation cycle				
Yes	62(89.9)	7(10.1)	1.244	0.216
No	22(81.5)	5(18.5)		
Duration of marriage (Years)				
≤10	60(87)	9(13)	0.066	0.797
>10	24(88.9)	3(11.1)		
Commonly blamed for infertility				
Wife	61(89.7)	7(10.3)	2.159	0.340
Husband	1(50.0)	1(50.0)		
Both	22(84.6)	4(15.4)		

habits (eg, alcohol consumption, smoking) are common.[10] In this study 71.9% of the respondents had regular menstruation cycle .This finding is also supported by the study of Kaur et al.[1] where 73% had regular menstruation cycle.

This study identified that, women 70.80%, were commonly blamed for the infertility problem. This finding is supported by the study of Dattijo et al.[9] where 73.60% respondents said wife are commonly blamed for the infertility problem. Infertility is not merely the health problem; it is also a matter of social in justice and inequality. It is also complicated marital dynamics, some time leading to marital inability and occasionally divorce, polygamy or remarriage because motherhood is considered a mandatory status, infertile women may be harassed and tormented. Women for often blamed for the infertility and men engaged in polygamy in an attempt to have children.[11] Awareness may also help wider society to understand and empathize with the infertile couple, which may lead to a decrease in the psychological burden to those affected.[10]

The source of information, 85.4% of the respondents had selected health personnel which contracts the similar study by Kaur et al.[1] where 64% had selected friend as their source of information. In this study most of the respondents have 5 to 10 years of married durations and were in the regular check up with health personnel that might be the reason to select health personnel as a source person.

The present study showed that, majority of respondents 66.70% stated the correct definition of infertility, regarding the ovulation occurrence period, 63.5% knows the time of ovulation occurrence, 86.5% of respondents knew the meaning of conception as union of ovum and sperm this finding is contracts with the study conducted by Ali, et al.[7] where only 36% choose the correct option. Only 32% were able to give the correct meaning of conception. In this study most of the respondents were educated bachelor and above.

Several studies have noted noxious effects of tobacco before and after conception, in both women and men, from the smokers' gametes to their offspring.[12] In this study finding, regarding risk of male infertility, 96.9% of the women take smoking as the main risk of male infertility while 84.4% said alcohol, 77.1% choose working in hot environment, 62.5% choose STIs and only 57.3% choose wearing tight panty/pants as risk of male infertility. The first place for treatment of infertility problem, most of the respondents 95.8% preferred hospital which contrasts the study of Dattijo et al.[9] where 42.10% of respondents choose traditional healer and only 28.3% preferred hospital for treatment. This might be due to most of the respondents of this study were aware, educated and on regular checkup with health personnel.

The study population was small and conducted in Fertility Centre Chitwan Bharatpur only, hence the study findings cannot be generalized.

CONCLUSION

It can be concluded that the awareness about infertility among the respondents attending Chitwan fertility center is relatively good. Most of the participants were educated, duration of marriage was also 5-10 years that might be the reason they posses good awareness. But there is still misconception in some of the participants. Women are facing problems like physical violence, rejection from society and family member, remarriage, and mental violence. So it is necessary to implement counseling, screening, education and information services to the couple about infertility.

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