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Nursing

KNOWLEDGE AND ATTITUDE REGARDING INFERTILITY AMONG STUDENTS IN SELECTED COLLEGES OF GUWAHATI, ASSAM: A DESCRIPTIVE STUDY

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ABSTRACT Infertility is considered as a global concern which affects many aspects of life in both genders. The rates even go up to 186 million people around the world. According to the Maternal Health Task Force 2010, 50 million couples worldwide are infertile. Infertility affects roughly 10% of the world's population.
Objectives:
1. To assess the level of knowledge and attitude regarding infertility among students of selected colleges in Guwahati, Assam.
2. To find out the co-relation between the level of knowledge and attitude regarding infertility among students of selected colleges in Guwahati, Assam.
3. To find out the association between the level of knowledge and attitude regarding infertility among students with the selected demographic variables.
Method And Material: A descriptive survey research design was used in the study to accomplished the objectives. Purposive sampling technique was used to obtaining adequate sample for the study. Study was untaken on 107 sample of students studying in selected colleges, Guwahati, Assam. Respondents were selected on the basis of inclusive and exclusive criteria. Self structured knowledge questionnaire and 5 point Likert scale was used as tool for the study. **Results:** Study findings showed that majority i.e, 57 % respondents have moderately adequate knowledge, 29.9% have adequate knowledge, and 13.1% respondents have inadequate level of knowledge. Also majority i.e, 65.4% respondent have desirable attitude, 34.6% have moderately desirable attitude and none of them had undesirable attitude towards infertility. There is positive correlation between knowledge and level of attitude among students towards infertility (r= 0.701). There was significant association of knowledge with gender, educational stream, educational status of the student and previous information about infertility and also attitude with gender, educational stream, type of family and previous information about infertility.

INTRODUCTION:
Reproductive health implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so.[1] Infertility is considered as a global concern which affects many aspects of life in both genders. The rates even go up to 186 million people around the world.[2] According to the World Health Organization (WHO), most infertile couples around the world suffer from primary infertility, which means that the woman has never conceived. On the other hand, secondary infertility may occur at any time in a woman's life after the first pregnancy.[3] Infertility affects roughly 10% of the world's population. The WHO ranks infertility in the young population as the fifth highest serious global disability. According to the Maternal Health Task Force 2010, 50 million couples worldwide are infertile.[4] Although both women and men are the reason of infertility, women in a relationship with a man are often made responsible to suffer from infertility, regardless of whether they are infertile or not. Infertility has significant negative social impacts on the lives of infertile couples and particularly women, who frequently experience violence, divorce, social stigma, emotional stress, depression, anxiety and low self-esteem.[5]

Infertility is a serious health issue worldwide, affecting approximately 8%–10% of couples worldwide. Of 60–80 million couples suffering from infertility every year worldwide, probably between 15 and 20 million (25%) are in India alone. According to a report by the World Health Organization (WHO), one in every four couples in developing countries is affected by infertility.[6]

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Review Of Literature:
Section A: studies related to prevalence of infertility

Mahmood A A, Ajeely I M (2020) conducted a cross sectional study on Epidemiology of Female Infertility among Reproductive Age Women in Tikrit City. A total 600 reproductive age group women between 20-49 years attending gynecological outpatient clinic in Salahuldd in teaching hospital during the period from 15th October 2018 -15th April 2019 were taken as a sample. The tool used to collect the data for this study was a structured designed questionnaire. The study revealed that frequency of female infertility was 25% with a highest percentage of primary infertility 57%. PCOS where the main ovulatory causes of female infertility constituted about 41% followed by other risk factors as tubal, uterine, and cervical factors. The study concluded that routine laboratory screening of women of reproductive age may reduce the high prevalence of infertility in the study area.[7]

Section – B: studies related to knowledge and attitude regarding infertility among students
Annamalai A, Kamalakkannan J, Jose C (2022) conducted a Cross-sectional study on Knowledge, Attitude and Perceptions Regarding Infertility Among General Public in Tamilnadu. A total 583 both males and females of age group 18 to 60 years were taken as a sample over a period of 6 months from (April 2021 to September 2021) by using an online survey questionnaire. The results revealed that among 583 responses, majority were females (60.21%), and non-medical/paramedical educational background (51.46%). 64.84% of the participants had above average knowledge about infertility. However, respondents lacked adequate knowledge about the influence of moderate and intense exercise, menstrual cycle and contraceptive pills on fertility. Majority of the participants (66.38%) had a positive attitude regarding infertility. Majority of the respondents believed that infertility is 100% curable (43.22%) and that it is socially acceptable to have a test-tube baby (68.26%). The study concluded that various measures should be taken to give a proper education regarding sex and reproductive health, from adolescence, so as to encourage the young generation to be conscious about their reproductive health.[8]

Research Methodology
Research Approach: Quantitative research approach

Research Design: Descriptive survey research design

Research Variables: knowledge and attitude regarding infertility among students in selected colleges of Guwahati, Assam.

Demographic Variables:
Age, gender, educational stream, educational status of student, religion, place of residence, type of family, occupational status of father, occupational status of mother, monthly family income, marital status, previous information about infertility, source of information, family history of infertility.

Setting Of The Study:
Cotton University, Guwahati College, B Borooah College.

Population: Students.

Target Population:
Undergraduate Students of age group 18 years and above.

Accessible Population:
Undergraduate students of age group 18 years and above who are studying in selected colleges of Guwahati, Assam (Cotton University, Guwahati College, B Borooah College).

Sample:
Sample were the undergraduate Students of age group 18 years and above who are studying in selected colleges, Guwahati, Assam and who fulfills the inclusion criteria.

Sampling Technique: Purposive sampling technique.

Sample Size: 107

Sample Criteria
Inclusion Criteria:
• Undergraduate students of age group 18 years and above who are studying in selected colleges, Guwahati, Assam
• Who will be available during the time of the study

Exclusive Criteria:
• Undergraduate students who are not willing to participate in the study.

Tools:
1. Demographic tools
2. Self structured knowledge questionnaire was used to assess the knowledge
3. 5 point Likert Scale was to assess the attitude

Technique:
1. Self reporting technique

Content Validity Of The Tool:
To ensure content validity, the tool along with blueprint, criteria checklist, scoring key and correct answers were submitted to 3 Nursing experts in the field of Obstetrics and Gynecological, 1 Community Health Nursing and and 1 medicine expert in the field of Obstetrics and Gynecological.

Reliability Of The Tool:
The reliability was found to be 0.83 for self-structured knowledge questionnaire and 0.7 for assessing level of attitude respectively which indicate that the tool was reliable for the study.

Pilot Study:
The pilot study was conducted from 29/22 to 4/9/22. Sample were selected using purposive sampling technique and the study was found to be feasible.

Main Study:
The data collection period was scheduled from 4/12/22 to 16/12/22 and 2/2/23 to 8/2/23 for a period of 3 weeks. The study was conducted after obtaining permission from the respective principal of the selected colleges. A brief introduction and purpose of the study were explained to the sample prior to data collection, keeping in mind the ethical aspect of research, the data was collected after obtaining the informed consent of the sample for their willingness to participate in the study. The samples were assured anonymity and confidentiality of information provided by them. The knowledge of the study was assessed through self-reporting questionnaire. The attitude level was found out through 5 point likert scale. On completion of the data, the investigator provided leaflet which contain basic information regarding infertility to each respondents.

RESULT:
**Table I: Frequency and percentage distribution of students according to demographic variables.** n=107

Demographic Variables	Frequency (f)	Percentage (%)
Age in years		
18 – 21	91	85
22 – 25	16	15
26 – 29	-	-
30 years & above	-	-
Gender		
Male	48	44.9
Female	59	55.1
Educational status		
Arts	37	34.6
Science	53	49.5
Commerce	17	15.9
Educational status of the student		
1st year student	17	15.9
2nd year student	36	33.6
3rd year student	54	50.5
Religion		
Hindu	91	85
Islam	13	12.1
Christian	3	2.9
Others, specify	-	-
Place of residence		
Urban	77	72
Rural	30	28
Type of family		
Joint	32	29.9
Nuclear	68	63.6
Extended	7	6.5
Occupational status of father		
Unemployed	8	7.5
Daily wage worker	7	6.5
Private service	47	43.9
Government service	45	42.1
Occupational status of mother		
Housewife	80	74.8
Daily wage worker	1	0.9
Private service	12	11.2
Government service	14	13.1
Monthly family income (Rs.)		
≤9226	13	12.1
9232 – 27648	23	21.5
27654 – 46089	35	32.7
46095 – 68961	22	20.6
68967 – 92185	6	5.6
92191 – 184,370	5	4.7
>184,376	3	2.8
Marital status		
Married	2	1.9
Unmarried	105	98.1
Previous information about infertility		
Yes	75	70.1
No	32	29.9
If yes, from where are you getting the source of information		
Family	7	6.5
Friends	2	1.9
Mass media	61	57.0
Teachers	5	4.7
Conference and workshop	-	
Others	-	
Is there any family history of infertility		
Yes	10	9.3
No	97	90.7

Table II: Frequency And Percentage Distribution Of Knowledge Among Students Towards Infertility n=107
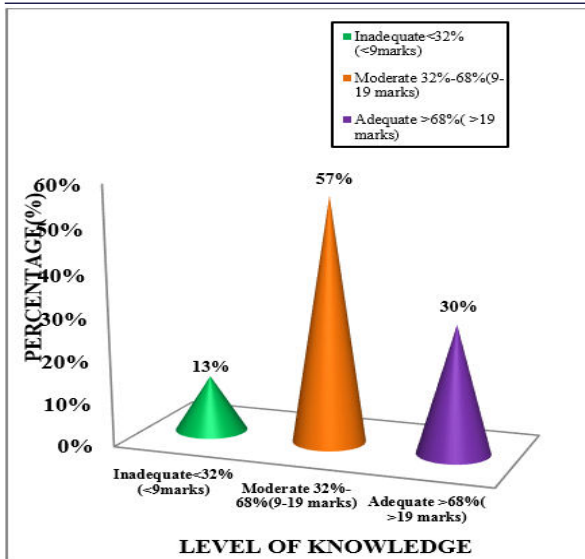
The data represented in Table II depicts that out of 107 students, majority of the respondents i.e, 61 (57 %) had moderately adequate knowledge, 32 (29.9%) had adequate knowledge, and the rest 14 (13.1%) respondents had inadequate knowledge towards infertility. The overall mean is 15.42 and standard deviation of knowledge is 6.08 respectively,

Table III: Frequency And Percentage Distribution Of Level Of Attitude Among Students Towards Infertility   n=107
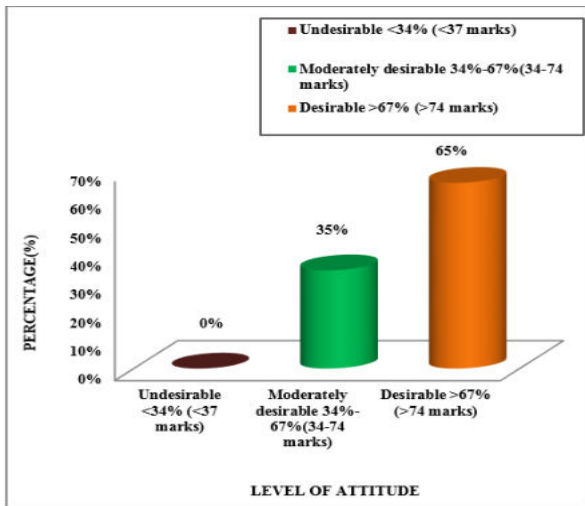
The data represented in Table III depicts that out of 107students, majority of the respondents i.e, 70 (65.4%) had desirable attitude, 37 (34.6%) had moderately desirable attitude and none of them had undesirable attitude towards infertility. The overall mean is 80.85 and standard deviation of attitude level is 13.36 respectively

Table IV: Correlation Between Knowledge And Attitude Scores Among The Students Towards Infertility   n = 107

Variables	Mean	S.D.	'r' value	'p' value
Knowledge	15.42	6.08	0.701	**0.0001, S*****
Attitude	80.85	13.36		

***p<0.001, S – Significant

Data from table IV reveals that the 'r' value is 0.701 and 'p' value is p = 0.0001 which is significant at p<0.001 level of significance. There is a positive correlation between knowledge and level of attitude among students towards infertility. It clearly infers that although there were moderate knowledge of students regarding infertility but, their attitude were desirable.

Table V: Association Between Level Of Knowledge Regarding Infertility Among Students With Selected Demographic Variables N=107

Sl.no	Demographic variable	Fisher Exact test p-value	Remark
1	Age in years	p=0.052	N.S
2	Gender	p=0.0001	S***
3	Educational stream	p=0.0001	S***
4	Educational status of the student	p=0.032	S*
5	Religion	p=0.053	N.S
6	Place of residence	p=0.618	N.S
7	Type of family	p=0.051	N.S
8	Occupational status of father	p=0.178	N.S
9	Occupational status of mother	p=0.314	N.S
10	Monthly family income (Rs.)	p=0.159	N.S
11	Marital status	p=1.000	N.S
12	Previous information about infertility	p=0.013	S*
13	If yes, from where are you getting the source of information	p=0.865	N.S
14	Is there any family history of infertility	p=0.102	N.S

***p<0.001, *p<0.05, S – Significant, p>0.05, N.S – Not Significant
The data presented in the above Table V depicts that demographic variables gender (p=0.0001), educational stream (p=0.0001), educational status of the student (p=0.032) and previous information about infertility (p=0.013) had shown statistically significant association with level of knowledge among students regarding infertility at p<0.001 and p<0.05 level respectively.

Table VI: Association Between Level Of Attitude Regarding Infertility Among Students With Selected Demographic Variables. N=107

Sl.no	Demographic variable	Fisher Exact test p-value	Remark
1	Age in years	p=0.084	N.S
2	Gender	p=0.040	S*
3	Educational stream	p=0.0001	S***
4	Educational status of the student	p=0.345	N.S
5	Religion	p=0.714	N.S
6	Place of residence	p=0.263	N.S
7	Type of family	p=0.018	S*
8	Occupational status of father	p=0.282	N.S
9	Occupational status of mother	p=0.334	N.S
10	Monthly family income (Rs.)	p=0.111	N.S
11	Marital status	p=0.543	N.S
12	Previous information about infertility	p=0.014	S*
13	If yes, from where are you getting the source of information	p=0.121	N.S
14	Is there any family history of infertility	p=1.000	N.S

***p<0.001, *p<0.05, S – Significant, p>0.05, N.S – Not Significant
The data presented in the above Table VI depicts that demographic variables gender, educational stream, type of family and previous information about infertility had statistically significant association with level of attitude regarding infertility at p<0.001, p<0.05 level respectively.

CONCLUSION:
Through this study, the investigator concluded that although there was a moderate level of knowledge regarding infertility among students but there was a desirable attitude so an information leaflets were distributed to all the students to made them aware regarding infertility. After this study, it is recommended that to conduct seminars, workshops and conference in the colleges for the students regarding the recent advancement in infertility management in order to provide upto date information to enhance their knowledge.

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