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## RESEARCH ARTICLE

# Knowledge of adolescent girls on female infertility: a descriptive survey approach

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Knowledge, adolescent girls, female infertility, information booklet.

### ABSTRACT

#### Background of the study

Adolescence is the period of transition characterised by rapid physiological change and demand for new social roles. WHO defines infertility as failure to conceive a child after 12 months of attempted conception. Reducing female infertility rate is of prime importance for the happy family life. In order to lead healthy, responsible and fulfilling lives and protect themselves from reproductive health problems, young people need to be knowledge about themselves and the people they relate to and need sound information about female infertility as they have least knowledge regarding the aspect.

Objectives of the study

- To determine the knowledge of adolescent girls regarding female infertility in selected pre university colleges in Mangalore.
- To find out the association between knowledge score of adolescent girls on female infertility with selected demographic variables.
- To develop and distribute an information booklet about female infertility among adolescent girls

#### Methods

Descriptive research approach has been adopted for this study. The sample consisted of 100 adolescent girls between the age group of 16 to 18 years, selected by non-probability purposive sampling technique. Data was collected by administering structured knowledge questionnaire on female infertility prepared by investigators. The collected data was analysed using descriptive and inferential statistics.

#### Result

The study reveals that 67% of the adolescent girls had good knowledge, 32% of the adolescent girls had average knowledge, 1% of the adolescent girls had poor knowledge. The mean percentage of knowledge of the adolescent girls regarding female infertility was 52.19%. The association of the knowledge score with demographic variable that is occupation of the sample's mother ( $\chi^2=22.321$ ,  $p<0.05$ ). The result of the study shows that there is no significant association between the knowledge score with selected demographic variables.

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## INTRODUCTION

Adolescence is the period of transition between childhood to adulthood. It is a period of rapid physiological change and demand for new social roles which takes place. Adolescence is considered to start with the onset of puberty. Puberty is defined as a period of transformation from a stage of reproductive immaturity to a stage of full reproductive competence<sup>1</sup>. In today's society, we tend to assume that individuals in committed relationships have the goal of procreation. Women are often identified with their ability to give birth<sup>2</sup>. About 84 percent of couples having regular coitus (2-3 day/week) and who do not use contraception will get

pregnant within a year. About 92 percent of couples trying to get pregnant do so within 2 year.<sup>3</sup> The WHO estimate the overall prevalence of primary infertility in India to be between 3.9 and 16.8 percent. Estimates of infertility vary widely among Indian states from 3.7 percent in Uttar Pradesh, Himachal Pradesh and Maharashtra to 5 percent in Andhra Pradesh and 15 percent in Kashmir<sup>4</sup>. The treatment modalities are donor insemination, in vitro fertilisation, intracytoplasmic sperm injection (ICSI), sperm donation, surrogacy etc.<sup>5</sup> Reducing female infertility rate is of prime importance for the happy family life. Hence, the researcher felt to assess the knowledge of adolescent girls regarding female infertility and thereafter the distribution of information booklet on the same.<sup>6</sup>

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### METHODOLOGY

Descriptive research approach has been adopted for this study. The sample consisted of 100 adolescent girls between the age group of 16 to 18 years, selected by non-probability purposive sampling technique. Data was collected by administering structured knowledge questionnaire on female infertility prepared by investigators. The collected data was analysed using descriptive and inferential statistics.

#### Inclusion criteria

##### Adolescent girls

- who are in the age group of 15-18 years.
- who are studying in pre university college; first and second year classes.
- those who are willing to participate.
- who are able to understand English.

#### Exclusion criteria

##### Adolescent girls

- who have any medical conditions or complications.

### Data Collection And Analysis

- The data was analysed in terms of objectives of the study using both descriptive and inferential statistics.
- The data obtained was plotted in the master sheet.
- Demographic data was analysed by computing frequency and percentage.
- Knowledge level of adolescent girls regarding female infertility was calculated by mean standard deviation and mean percentage.
- Associated between the knowledge levels with selected variables was calculated using chi-square formula.
- Analysed data was presented in the form of tables and figures.

### RESULTS

#### Part I: Description of the demographic characteristics of the sample.

Highest percentage (68%) of the sample belongs to the age of 17 years, 28% belongs to the age of 16 years and 4% belongs to the age of 18 years. Majority of the subjects (88%) were Muslims, 11% were Hindus and only 1% was Christian. Educational status of subject's mother reveals that the highest percentage (72%) had primary education, 21% secondary education, 5% no formal education and 2% had other

**Table 1** Frequency and percentage subjects according to the demographic variables  
n=100

Sl. No.	Variables	Frequency	Percentage
<b>Age in years</b>			
1	a. 16 years	28	28
	b. 17 years	68	68
	c. 18 years	4	4
<b>Religion</b>			
2	a. Hindu	11	11
	b. Muslim	88	88
	c. Christian	1	1
<b>Education of the mother</b>			
3	a. No formal education	5	5
	b. Primary education	72	72
	c. Secondary education	21	21
	d. Others	2	2
<b>Occupation of the mother</b>			
4	a. Government employee	4	4
	b. Private employee	1	1
	c. Self employee	32	32
	d. Others	63	63
<b>Type of family</b>			
5	a. Nuclear	81	81
	b. Joint	15	15
	c. Extended	4	4
<b>Family income per month</b>			
6	a. Rs. 5000 or less	22	22
	b. Rs.5001 - 7500	18	18
	c. Rs. 7501 – 10,000	30	30
	d. Above Rs 10,000	30	30
<b>Have you heard about infertility</b>			
7	a. Yes	100	100
	b. No	0	0
<b>If yes, the sources of information</b>			
8	a. Elders and relatives	24	24
	b. Health personnel	14	14
	c. Mass media	36	36
	d. Others	26	26

education. Majority of the adolescent's mothers were house wives (63%), 32% were self employees, 4% were government employees and 1% was employed in private sectors. Highest percentage (81%) of the sample belongs to nuclear family, 15% belongs to joint family and 4% belongs to extended family. Majority (30%) of the adolescent had a family income Rs. 7501-10,000 and above Rs. 10,000, remaining had 22 % comes in Rs.5000 or less and the minority were (18%) in 5001-7500. All the adolescent girls had (100%) previous information about infertility. The source of information about infertility shows that majority (36%) from mass media, 26% were other sources, (24%) from elders and relatives and only 14% from health personnel.

#### Part II: Analysis of the knowledge regarding female infertility among adolescent girls

**Table 2** Level of knowledge score of adolescent girls regarding female infertility  
n=100

Category	Score	Percentage (%)	Frequency	Percentage of sample (%)
Poor	1-6	1-23	1	1
Average	7-12	24-46	32	32
Good	13-19	47-73	67	67
Very good	20-26	74-100	0	0

Assessment of level of knowledge of adolescent girls reveals that 67% of sample had good knowledge. 32% of sample had

average knowledge. And 1% of sample had poor knowledge on female infertility.

The mean score of knowledge regarding female infertility was 52.192 with the standard deviation of  $\pm 2.789$  and mean 13.57.

**Part III: Association between total scores and selected demographic variables will be analysed by using chi-square test**

**Table 3** Knowledge of adolescent girls regarding the female infertility in terms of mean, standard deviation and mean percentage  
n=100

	Mean	Standard deviation	Mean percentage
Knowledge of adolescent girls	13.57	2.789	52.192

The above table shows that there was significant association between knowledge and occupation of the sample's mother of the adolescent girls. There was no association between knowledge of adolescent girls and demographic variables such as age, type of family, religion, education of mother, type of family, family income, previous knowledge of infertility and source of information.

**Table 4** Association between total scores and selected demographic variables  
n=100

Sl. No.	Variable	Calculated $\chi^2$ Value	df	P value	Inference
	Religion	0.790	4	0.940	P>0.05(NS)
	Education of the mother	3.500	6	0.744	P>0.05(NS)
	Occupation of the mother	22.321	6	0.001	P<0.05(S)
	Type of family	7.944	4	0.094	P>0.05(NS)
	Family income	5.206	6	0.518	P>0.05(NS)
	Source of information	7.415	6	0.284	P>0.05(NS)

Key: NS = Not significant, S = Significant

**DISCUSSION**

The findings of the study are discussed under the following sections:

**Part I:** Demographic characteristics of sample.

**Part II:** Analysis of knowledge of adolescent girls regarding female infertility.

**Part III:** Association between a knowledge score with selected demographic variables.

**Major findings of the study**

**Part I: Demographic characteristics of adolescent girls**

Highest percentage (68%) of the sample belongs to the age of 17 years, 28% belongs to the age of 16 years and 4% belongs to the age of 18 years. Majority of the subjects (88%) were Muslims, 11% were Hindus and only 1% was Christian. Educational status of subject's mother reveals that the highest percentage (72%) had primary education, 21% secondary education, 5% no formal education and 2% had other education. Majority of the adolescent's mothers were house wives (63%), 32% were self employees, 4% were government employees and 1% was employed in private sectors. Highest percentage (81%) of the sample belongs to nuclear family, 15% belongs to joint family and 4% belongs to extended family. Majority (30%) of the adolescent had a family income Rs. 7501-10,000 and above Rs. 10,000, remaining had 22 %

comes in Rs.5000 or less and the minority were (18%) in 5001-7500. All the adolescent girls had (100%) previous information about infertility. The source of information about infertility shows that majority (36%) from mass media, 26% were other sources, (24%) from elders and relatives and only 14% from health personnel.

**Part II: Analysis of knowledge of adolescent girls regarding female infertility**

Finding showed that 67% of sample had good knowledge 32% of adolescent girls had average knowledge respectively, only 1% of sample had poor knowledge. This finding is supported by the study conducted by Quach S which depicted that 79 percent students were familiar with the infertility. 11 percent students are unfamiliar with the infertility<sup>7</sup>.

The mean score of knowledge regarding female infertility was 52.192 with the standard deviation of  $\pm 2.789$ . This result opposes the result of study conducted Quach S in which the findings says that the knowledge among students is  $17.5 \pm 0.98^7$ .

**Part III: Association between knowledge of adolescent girls regarding female infertility with selected demographic variables**

Chi-square test was used to find the association between knowledge of the adolescent girls and the demographic variables which revealed that there was only occupation of the sample's mother had the significant association between knowledge of the adolescent girls. There was no association between knowledge of adolescent girls and demographic variables such as age, type of family, religion, education of mother, type of family, family income, previous knowledge of infertility and source of information.

**Delimitations**

- The study was confined to a specific geographical area which is the limitation for generalization.
- The study was confined to small number of sample. However it could be done on more samples for generalization.

**Recommendations**

- The same study could be undertaken in large samples where findings can be generalized.
- A comparative study can be conducted among adolescent girls and adolescent boys regarding female infertility.

**CONCLUSION**

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