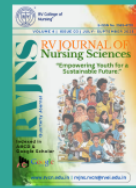




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“A Study to Assess the Effectiveness Of Structured Teaching Programme On Knowledge Regarding Premarital Counseling Towards Preventing Genetic Disorders Among Final Year Bachelor Of Commerce Students (B.Com) In Selected Degree Colleges At Hassan.”

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ABSTRACT

Premarital genetic counselling presents an opportunity for individuals to become informed about their genetic predisposition to disease, and for couples to be aware of the possible genetic characteristics of their unborn children. A quantitative research approach was conducted to determine the effectiveness of structured teaching programme on knowledge regarding premarital counselling towards preventing genetic disorders among final year Bachelor of commerce (B. Com) students in Hassan, by using one group of pre-test and post-test research design. 60 final year Bachelor of commerce (B. Com) students were selected non-probability convenient sampling technique method. The pre-test mean score is 13.67(45.57%) And post test mean score was 25.65 (85.50%) and enhancement mean was 11.98(39.94%). The paired t- value $P < 0.05$ shows 34.11. hence there is a significant difference between pre-test and posttest knowledge score regarding premarital counselling towards preventing genetic disorders. The significance was measured at 0.05 level. There was a significant association between educational status of the father and nonsignificant association between age, gender, religion, type of family, place of residence, educational status of mother, family income dietary habits and source of knowledge in the pretest knowledge related to premarital counselling towards preventing genetic disorders.

Introduction-

Premarital counseling, a form of couple's therapy, can help you and your partner prepare for married life together.¹ Premarital genetic counselling is assistance provided by the medical geneticist to individuals or couples who are planning to get married or are planning to have a baby. It aims to educate couples about the potential risk of passing on genetic disorders to their children, such as cystic fibrosis and sickle cell anaemia.²

India currently has one of the highest birth rates in the world with about 27 Million births annually. Research shows that Genetic and congenital abnormality in India is the second most common cause of infant and childhood mortality and occurs with a prevalence of 25-60 per 1000 births.

In India, every year, an estimated of 4,95,000 infants are born with congenital malformations, 21,400 with Down syndrome, 9,000 with thalassemia, 5,200 with sickle cell disease, and 9,760 with amino acid disorders. Currently the diagnostic and rehabilitation facilities are scarce and focused in certain limited locations but the effects of these diseases are immense. The best defences against genetic disorders is early diagnosis through genetic tests in a proactive strategy.³

Methodology

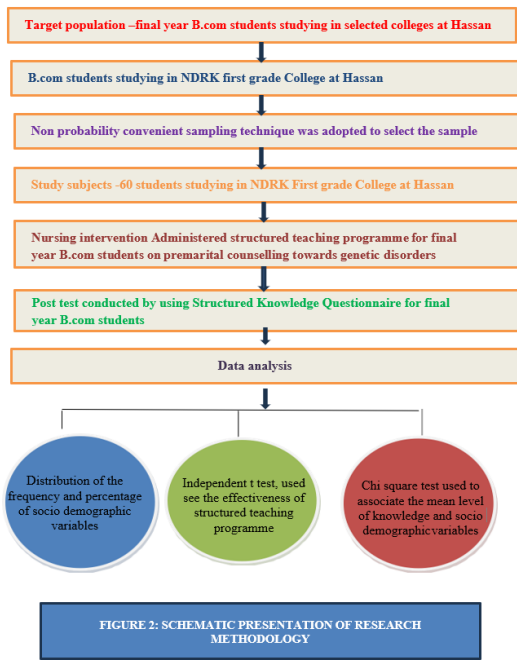
Research methodology is a way of systematically solving the research problems. It explains the steps that are

generally adopted by a researcher in studying the research problem along with the logic behind them. It includes steps, procedures and strategies for gathering and analyzing the data in research investigation.

Quantitative research approach is adopted for the present study. Based on the geographical proximity, feasibility of conducting the study and availability of the samples. The present study was conducted in NDRK first grade college, Hassan.

Objectives:

- To assess the existing knowledge of the students regarding premarital counselling towards preventing genetic disorders.
- To develop and administer structured teaching programme on knowledge regarding premarital counselling towards preventing genetic disorders among final year B.com students.
- To evaluate the effectiveness of structured teaching programme by comparing the mean pre-test and post-test knowledge scores of students.
- To associate the pre-test knowledge scores regarding premarital counselling towards preventing genetic disorders with selected socio-demographic variables.



Research hypothesis

H1: There will be a significant difference between the mean pre-test and post-test knowledge score on final year B.com students regarding premarital counselling towards preventing genetic disorders.

H2: There will be a significant association between the Knowledge scores of final year B.Com students with their selected socio –demographic variables

Setting

The present study was conducted in NDRK first grade college, Hassan.

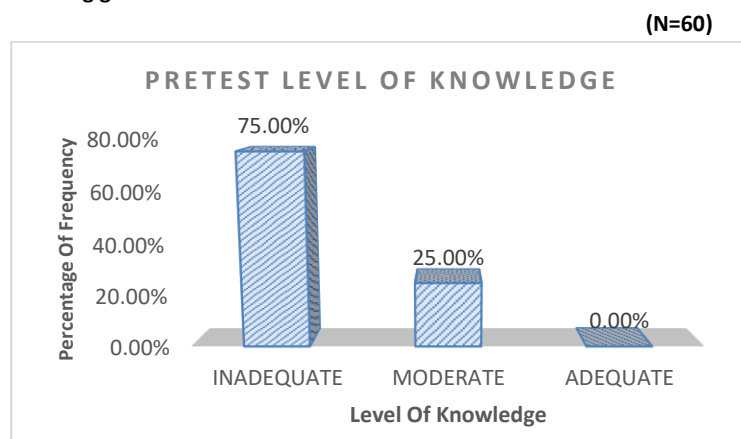
Sample

Final year Bachelor of commerce (B. Com) students in selected colleges at Hassan.

Sample size

The sample size of present study consists of 60 final year B. Com students in NDRK first grade college, Hassan.

Figure 1: Classification of final year B.Com. students based on their pre-test knowledge level regarding premarital counselling towards preventing genetic disorders.



Criteria for sample selection

1. Inclusion criteria.

Who are studying in final year B.com students.

Who are present at the time of data collection.

Who are willing to participate.

Both girls and boys

2. Exclusive criteria.

Students who are absent at the time of data collection.

Students who are not willing to participate.

Students who are ill on that time

Sampling technique

The sampling technique adopted for the study

Was Non-probability convenient sampling technique

Recommendations

On the basis of the finding of the present study the following recommendations have been made for the further study.

A similar study can be replicated on a large sample to generalize the findings.

A similar study may be conducted in different settings.

A similar study can be conducted with different intervention.

Results: -

Section 1:

PRETEST KNOWLEDGE AMONG FINAL YEAR B.COM. STUDENTS

Table-1: Pre-test level of knowledge regarding premarital counselling towards preventing genetic disorders among final year B.Com. students.(N=60)

Level Of Knowledge	Percentage Of Knowledge Scores	No. Of Study Participants.	Percentage Of Frequency
INADEQUATE	≤50%	45	75.0%
MODERATE	50-75%	15	25.0%
ADEQUATE	>75%	0	0.0%
Total		60	100.0

Table-2: Aspect wise and overall Mean, Mean %, SD, and CV of pre-test knowledge scores regarding premarital counselling towards preventing genetic disorders among final year B.Com. students. (N=60)

Aspects	No. Of Items	Minimum	Maximum	Range	Mean	Mean%	Standard Deviation	Co-Efficient Of Variation
Aspect 1: Definition and Types	5	0	5	5	2.07	41.40%	1.35	65.22%
Aspect 2: Genetic Disorders & Chromosomal Disorders	5	0	4	4	2.33	46.60%	1.05	45.06%
Aspect 3: Steps, Diagnostic Methods Used In Genetic Counseling	10	2	9	7	4.92	49.20%	1.68	34.15%
Aspect 4: Prevention And Treatment Of Genetic Disorders	10	1	8	7	4.35	43.50%	1.96	45.06%
Pretest Overall Knowledge Scores	30	9	20	11	13.67	45.57%	1.95	14.26%

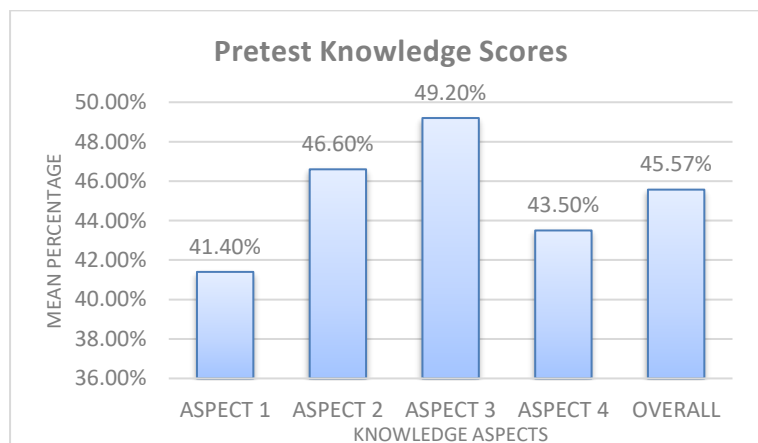


Figure 2: Bar diagram showing Mean% of pre-test knowledge scores regarding premarital counselling towards preventing genetic disorders among final year B.Com. Students

Post-test knowledge scores among final year B.com. Students

Table-3: Post-test level of knowledge regarding premarital counselling towards preventing genetic disorders among final year B.Com. students. (N=60).

Level Of Knowledge	Percentage Of Knowledge Scores	No. Of Study Participants.	Percentage Of Frequency
Inadequate	≤50%	0	0.0%
Moderate	50-75%	1	1.7%
Adequate	>75%	59	98.3%
Total		60	100.0

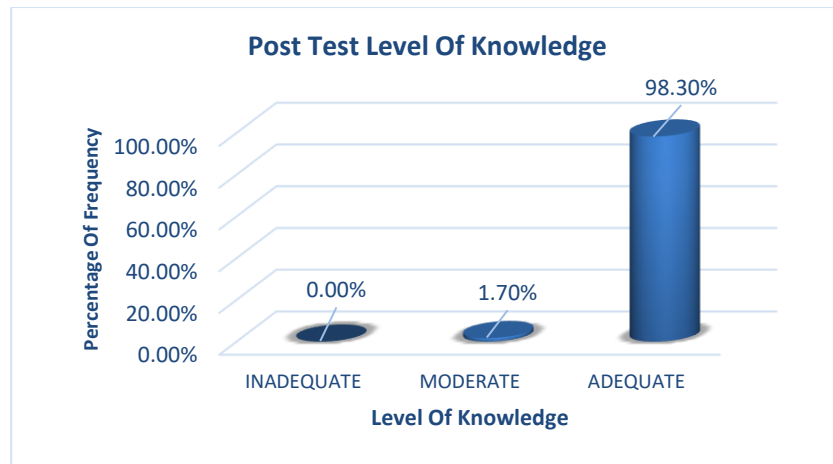


Figure 3: Cylinder diagram showing distribution of final year B.Com. students according to their post-test level of knowledge regarding premarital counselling towards preventing genetic disorders.

Section:2

Comparison of pre-test and post-test knowledge premarital counselling towards preventing genetic disorders among final year b.com. Students

Table-4: Comparison between pre-test and post-test levels of knowledge regarding premarital counselling towards preventing genetic disorders among final year B.Com. students. (N=60)

Level Of Knowledge	Percentage Of Knowledge Scores	No. Of Study Participants.		Percentage Of Frequency	
		Pre Test	Post Test	Pre Test	Post Test
Inadequate	≤50%	45	0	75.0%	0.0%
Moderate	50-75%	15	1	25.0%	1.7%
Adequate	>75%	0	59	0.0%	98.3%
Total		60	60	100.0	100.0

Section:3

Table :4assessment knowledge scores regarding premarital counselling towards preventing genetic disorders among final year B.Com. students. (N=60)

Aspects	Mean			Mean%			Calculated paired t-test value
	Pre test	Post test	Enhance ment	Pre test	Post test	Enhance ment	
Aspect 1:definition and types	2.07	4.57	2.50	41.40%	91.40%	50.00%	12.99 (s)
Aspect 2:geneticdisoredrs& chromosomal disorders	2.33	4.45	2.12	46.60%	89.00%	42.40%	14.24 (s)
Aspect 3:steps, diagnostic methods used in genetic counseling	4.92	7.77	2.85	49.20%	77.70%	28.50%	11.77 (s)
Aspect4:prevention and treatment of genetic disorders	4.35	8.87	4.52	43.50%	88.70%	45.20%	14.91 (s)
Overall knowledge scores	13.67	25.65	11.98	45.57%	85.50%	39.93%	34.11 (s)

(s)= significant at 0.05 level t (0.05, 59df) =1.

Section:- 4**Table5: Association between pre-test level of knowledge of study participants and their socio-demographic variables. (N=60)**

1	Educational status of father	illiterate	12	2	0	9.978 (S)	4	0.04
		Primary	14	2	0			
		Secondary	15	11	0			
		PUC	2	0	0			
		Graduate	2	0	0			
		Post graduate	0	0	0			

(NS)= NOT SIGNIFICANT(S) = SIGNIFICANT AT 0.05 LEVEL

Table 5 reveals the association between the socio-demographic variables and the pretest level of knowledge regarding premarital counselling towards preventing genetic disorders. The socio-demographic variables such as educational status of father are **significant** whereas all other demographic variables are not significantly associated with the pre test knowledge scores. The association was determined by using calculated χ^2

Cross-sectional study was conducted from January to March 2024, involving 460 young adults aged 18-35 years attending various health facilities in the Ahafo Region. Data were collected using a validated structured questionnaire, translated into the local dialect for clarity. Chi-square tests for associations, and logistic regression to identify significant predictors of KAP. The result was the study population was predominantly female (85.7%), with a mean age of 24.7 years. Only 15.4% (n = 71) of respondents demonstrated good knowledge of PMCS. Key factors influencing knowledge included female gender, age 26-35 years, tertiary education, and receiving information from healthcare services. Positive attitudes towards PMCS were observed in 66.7% of respondents, significantly associated with tertiary education, self-employment, unemployment, and cohabiting marital status. However, only 14.1% exhibited positive PMCS practices, with significant predictors being tertiary education and being married. These findings indicate a substantial gap between awareness and actual practice of PMCS.⁵

Conclusion

The final year degree students gained knowledge about Premarital counselling towards preventing genetic disorders. They gave free and frank responses regarding towards preventing genetic disorders. From the data analysis and findings of the present study it is concluded that there were significant differences between the pre-test and posttest knowledge scores.

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