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Research Article

EFFECTIVENESS OF A PLANNED TEACHING PROGRAM IN A NURSING SCHOOL, INDIA

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ABSTRACT

Objectives: To study the effectiveness of a teaching program on assisted reproductive technology in Diploma in Nursing and Midwifery (DNM) students through a structured knowledge questionnaire measured by gain in knowledge scores in posttest evaluation.

Methods: This was a prospective study conducted on a total of 55 students in city school of nursing in 2011 in Mangalore, India. A set of questions based on the basic knowledge on Artificial Reproductive Technology was given to each student. This was followed by the teaching program on Artificial Reproductive Technology (ART). The students were evaluated on the basis of the scores attained by them in the pretest and posttestquestionnaire. Results were noted and statistical evaluation was performed using paired t-test.

Results: The study results revealed that the teaching program in ART had a notable impact in the knowledge of the students. In the study, before the teaching program the maximum scores of the students were in the range of 15-19. However there was significant improvement after the teaching program. Posttest score were improved to a maximum range of the 35-40 marks. 69% of the DNM III year students scored between 15-19 marks in the pretest and no one scored above that. However the minimum score posttest was 25 and 58.18% students scored above 30. The values were statistically significant ($p<0.01$)

Conclusion: The study findings revealed that the students had lack of knowledge on different methods of ART at the beginning of their teaching program and a significant improvement in knowledge was noted after this teaching program. We therefore recommend that , teaching programs should be conducted to provide the basic knowledge in ART to Students undergoing a Diploma in Nursing and Midwifery program. . Realizing how instrumental nurses can be in patient education, should be a future incentive for fertility centers to view the training and education of their nursing staff. If the assisted reproductive technology is included in their teaching program, it may lead to effective communication with patients, better treatment outcomes of ART and patient satisfaction.

INTRODUCTION

Counseling and management of infertility patients is a challenge both for physiciansand nurses. With the advancements in artificial reproductive technologies, the role of the staff nurse in infertility units has evolved[1]. There are multiple roles of nurses in counseling and managing patients with infertility .This multidimensional task encompasses skills as a manager, educator, counselor, researcher and health professional. To attain effective communication with the patients, there is a need to train the nurses to attain a minimum knowledge base in reproductive endocrinology and infertility[2]. Teaching programs in medicine have played a vital role in educating the medical students, nurses and other staffs. In infertility units, thorough knowledge of the management plans is obligatory for effective communication with patients. It can be attained only through knowledge in methodology of artificial reproductive techniques[3].

The lack of information can be misleading about success rates, the risks and benefits of treatment alternatives. This may prevent the couples from making informed decisions. Nurses can provide information so that couples can have an understanding of their chance for a successful pregnancy and live birth. Studies on teaching programs have revealed quality service and effective treatment outcomes with excellent patient satisfaction rates. Multiple studies have underscored the range of public misunderstanding regarding reproductive health. However due to limited studies on benefits of teaching program in infertility units, the roles of nurses have often been underestimated[4].

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Our study was conducted to determine the knowledge of students of III year diploma in nursing and midwifery regarding assisted reproductive technology before the planned teaching program. The results were compared with evaluation of students after the training program to understand the effectiveness of planned teaching program.

Realizing how instrumental nurses can be in patient education, should be a future incentive for fertility centers to view the training and education of their nursing staff. If the assisted reproductive technology is included in their teaching program, it will eventually lead to effective communication with patients, better treatment outcomes of ART and patient satisfaction[5].

METHODS

Study Design and Participants

In order to conduct the study in the City school of Nursing a written permission was obtained from the principal of City School of Nursing, Mangalore, India. Informed consent was obtained from all students who participated in this study. We conducted an evaluative research that is quasi-experimental pretest, posttest design. The main goal was to assess or evaluate the success of a teaching program. The study was conducted in city school of nursing, Mangalore in India. The participants were diploma in nursing and midwifery third year students. A total of 55 students participated in the study. The sample was selected through purposive sampling technique and the inclusion criteria are students present at the time of data collection; exclusion criteria are the students who have not completed II year student examinations and also those students who declined to take part in this study. Structured knowledge questionnaire on assisted reproductive technology were used for the assessment of the students.

Data Collection

The data collection period was from 1-08-2011 to 23-08-2011. On 11.08.2011 seminar hall, City School of Nursing at 10 a.m, the Pretest was conducted from 10.00 a.m. to 10.30 a.m. Before pretest the purpose of the study was explained and the confidentiality of the subjects was assured. A Planned Teaching Program was conducted after the pretest for an hour. A post test was conducted a week later using the same set of questionnaire. All respondents co-operated well with the investigator during data collection period.

Data Analysis

Data was analyzed on the basis of objectives and hypotheses of the study. Demographic data was analyzed in terms of frequency and percentage. The knowledge scores of the students before and after planned teaching program were analyzed in terms of frequency, percentage, mean, median standard deviation and were presented in the form of Ogives, bar, pie and cylindrical diagrams. The significant difference between the mean pretest and posttest knowledge scores was determined by paired‘t’ test. The association between the knowledge scores and the selected demographic variables was tested by using chi square test.

RESULTS

In the study most of the participants were male accounting for 63.6 percent. Average age of the students was between 21 to 22 years. Most of the students had studied about ART through their textbooks (60 percent) and most of the other students had acquired knowledge through mass media. The demographics of the study population is given in table 1. Data was analyzed by using descriptive and inferential statistics. The software used was SPSS version 15 (2010) Date of the software). Frequency and percentage of knowledge score were calculated. The effectiveness of Planned Teaching Program was tested using paired‘t’ test and association of selected variables (gender, sex, religion, source of information on ART) with pretest knowledge score was assessed using Chi- square test, at 0.05 level of significance.

In our study, before the teaching program the maximum scores of the students were in the range of 15-19. However there was significant improvement after the teaching program. Posttest score were improved to a maximum range of the 35-40 marks. 69% of the students scored 15-19 in the pretest and no one scored above that. However the minimum score posttest was 23 and 58.18% students scored above 30. Table 2 represents the frequency and cumulative frequency of the pretest and post test scores.

Most of the students (34) scored 61.8 percentages in the post test, whereas 28 students obtained scores 50.9% in the pretest. It indicates considerable gain in knowledge scores after the PTP which is represented in Table 3. Figure 2 represents the diagrammatic representation of the knowledge scores.

The posttest Ogive lies right to the pretest Ogive over the entire range, showing that the posttest knowledge scores are higher than the pretest knowledge scores. Differences in achievement between pre and posttest knowledge scores are shown by distance separating the two cumulative frequency curves at 27.5^{th} percentile. This implies that most of the students achieved high score in posttest. The results are shown in figure1.

The mean posttest knowledge score (X_2=30.50) were higher than the pretest knowledge score (X_1 = 15.25). The computed‘t’ value showed a significant difference between the pretest and posttest mean knowledge scores. (t_{54}=1.673$_1$ P<0.01). Chi-square was computed to test the hypothesis. The data is presented in Table 4. There was no significant association between the level of pretest knowledge scores and selected variables like gender, age and information on ART. The study clearly demonstrated the effectiveness of teaching program as revealed by improvement in posttest scores of the students.

DISCUSSION

The study assumed that students have minimum knowledge on assisted reproductive technology and aplanned teaching program could improve the knowledge of students on assisted reproductive technology. The independent variable of this study was planned teaching program and dependent variable was knowledge of students. This study proved that there was a significant change in the knowledge scores of the students after theteaching program (p+<0.01).

Table 1 Demographic information of students

N=55

Ssl. no	Variable	Frequency	Percentage
	Gender		
11	- Male	35	63.6
	- Female	20	36.4
	Age of the students		
	19-20	12	21.8
2	21-22	30	54.6
	23-24	12	21.8
	25-26	1	1.8
	Religion		
3	Hindu	7	12.8
	Muslim	2	3.6
	Christian	46	83.6
	Information about ART		
4	Journal	10	18.2
	Text book	33	60
	Mass media	11	20
	Work shop/Seminar	1	18

Table 2 Frequency and cumulative frequency distribution of pre and post test knowledge score

Knowledge score	Pre test		Post test	
	Frequency	Cum frequency	Frequency	Cum frequency
10-14	17	17	--	--
15-19	38	55	--	--
20-24	--	--	--	--
25-29	--	--	23	23
30-34	--	--	24	47
35-40	--	--	8	55

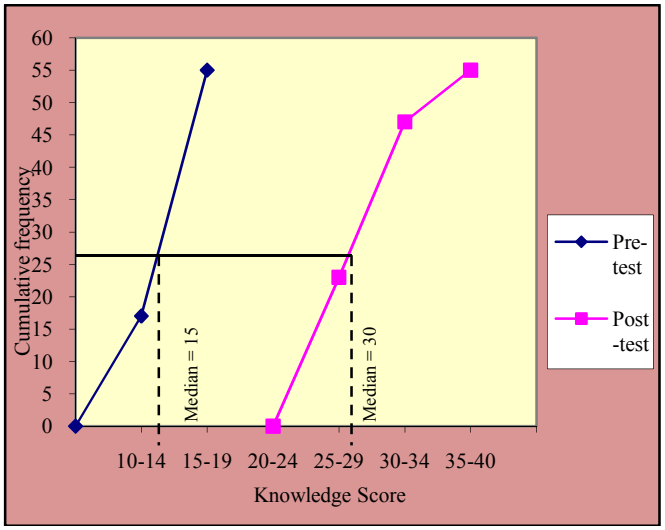

Fig 1 Ogive representing cumulative frequency of pre and posttest knowledge scores of DNM III year students on ART

Table 3 Grading of pretest and posttest knowledge scores

Score	Percentage	Grade	Pre test		Post test	
			F	Percentage	F	Percentage
>32	>80%	Excellent			21	38.18
24-31	60-79%	Good			34	61.8
16-23	40-59%	Average	27	49.09		
< 16	< 40%	Poor	28	50.9		

Table 4 Mean, mean difference, standard deviation and 't' value between pre and post test knowledge scores

Group	Mean knowledge score		Mean difference	SD	D.E (d)	Df	't' value
	Pre test	Posttest					
Students	15.25	30.50	15.25	3.66	0.49	54	30.9

$t_{54} = 1.673$ ($P<0.01$)

Reviewing the literature on the impact of teaching program on the medical staff and students, several studies had revealed a positive impact.Janjua *et al* in 2017 did a study on the effectiveness of gynecology teaching associates in teaching pelvic examination to medical students. The study revealed that to assess whether teaching female pelvic examinations using gynecological teaching associates (GTAs); women who are trained to give instruction and feedback on gynecological examination technique, improves the competence, confidence and communication skills of medical students compared to conventional teaching and their results were 407/492 (83%) students completed both the intervention and outcome assessment. Self-reported confidence was higher in students taught by GTAs compared with those taught on manikins (median score GTA 6.3; vs. conventional 5.8; p=0.03). Competence was also higher in those taught by GTAs when assessed by an examiner (median global score GTA 7.1 vs. conventional 6.0; p<0.001) and by a GTA (p<0.001). as they concluded that GTA teaching of female pelvic examination at the start of undergraduate medical student O&G clinical placements improves their confidence and competence compared with conventional pelvic manikin based teaching. GTAs should be introduced into undergraduate medical curricula to teach pelvic examination[12]. Another study in 2017 by Hammaberga *et al* on the effectiveness of gynecology teaching associates in teaching pelvic examination to medical students demonstrated that developing and maintaining an internationally renowned website that experiences high growth and demand for fertility-related information; by 2016, over 5 million users had viewed more than 10 million webpages, and over 96,000 users had engaged in program messages across social media. Program messages have reached more than 4 million Australian social media users and a potential audience of 150 million through media coverage across more than 320 media features. More than 4200 education and health professionals have completed online learning modules, and external partnerships have been established with 14 separate organizations. Data collected over 5 years indicate that the Your Fertility program meets a need for targeted, evidence-based, accessible fertility-related information[14].

A descriptive cross-sectional study was conducted to evaluate the knowledge and attitude of infertility couples about assisted reproductive technology at Tehran Iran University. The study finding shows that 74.6% of patients were with advanced education & 30.3% of patients were without advanced education 45.6% of men, 43.4% of women and 64% patient with a history of passing previous assisted reproductive technology cycles had a good knowledge. The study concluded that less than half of patient presented were knowledgeable about ART[8 12] .A study was conducted on assessment of attitude towards assisted reproductive technology among medical students & parous women in Kuopio University .The study results shows that overall response was 45% at the level of P < 0.001. This clearly shows that the results were statistically significant[13].

In literature, studies have been done where significant improvement in knowledge has been noted after the teaching programs. The findings of this study show that there is a need to educate the diploma nursing and midwifery students on assisted reproductive technologies. By providing knowledge to

the students they can educate the infertile couples which they may come across in hospital, community and infertility clinics[10 14]. This study provided on enriching experience for the investigator. It also made the investigator realize that assisted reproductive technology is an alternative treatment for infertile couple.

Realizing how instrumental nurses can be in patient education, should be an incentive for fertility centers to view the training and education of their nursing staff. If the assisted reproductive technology is included in their teaching program, it may lead to an effective communication with the patients, better treatment outcomes of ART and patient satisfaction.[6] the experiences gained during this study have motivated the investigator to take up other research studies in different teaching programs in medical education.

References

1. Neelakshi G, Vaidhyanadan R. infertility-is if stress related. A world wide problem. *Nightingale nursing time*. 2006 July; 2(4) , 46.
2. G. Nargund Why Fertility Education is needed in schools Facts Views Vis Obgyn. 2015; 7(3): 189–191.
3. ALundsberg LS, Pal L, Gariepy AM, Xu X, Chu MC, Illuzzi JL. Knowledge, attitudes, and practices regarding conception and fertility: A Population-based survey among reproductive-age United States women. FertilSteril. 2014; 101(3):767-774.
4. Assisted reproductive technology/CDC reproductive health. [Online]. (Cited 2007 June 6). Available from: www.cdc.gov/reproductive health /-34k: 1-4.
5. Reynolds M A, Schieve L A, Martin J A,Jeng G, MacalusoM.Trends in multiple birth conceived using assisted reproductive technology, UnitedStates, 1997-2000.Pediatrics 2003 May;111(5 part 2):1159-62.
6. Vonsteirteghem Ac, Nagy Z, Jaris H, *et al*. High fertilization and implantation rated after intracytoplamics sperm injection Human Reproduction. 1998; 8:1061-1066.
7. Cryopreservation an adjunct to assisted reproduction. *OBS &Gynae today* 2006 December; XI (12): 674-677.
8. Sohrabvand F, Jafarabadi M. Knowledge and attitude of infertility couples about assisted reproductive technology. *Iranian Journal of Reproductive Medicine* 2000; 3(2): 90-94.
9. Heikkeila K, Lansimies E, Hippelainen M, Heinonen S. Assessment of attitude towards assisted reproductive: a survey among medical students and parous woman. *Gynecolendocrinol* 2006 Nov; 22(11):613-9.
10. Dutta DC. Text book of Gyneacology.4thed: Calcutta New central book Agency; 2015.
11. Grace S, Innes E, Patton N, Stockhausen L. Ethical experiential learning in medical, nursing and allied health education: A narrative review, *Journal of Obstetrics & Gynecology and Reproductive Biology* 2017; 210.
12. JanjuaA,SmithP,Chu b, Raut N, Malick D, Gallos B, Singh R,IraniS,Gupta K, Parle J, Clark T. The effectiveness of gynaecology teaching associates in teaching pelvic examination to medical students: a randomised controlled trial. *Journal of Obstetrics & Gynecology and Reproductive Biology.*2017.
13. Crane R, Brewer J, Feldman C, Kabat J, SantorelliS,Williams J, Kuyken W. What defines mindfulness-based programs? The warp and the weft. Nurse Education Today .2017(47).
14. Hammarberga K. Normanc R, Robertsonc S. McLachl and R. Michelmoree J.Johnson L. Development of a health promotion programme to improve awareness of factors that affect fertility, and evaluation of its reach in the first 5 years. *Reproductive BioMedicine and Society Online.2017;4.*

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