

## To Assess the Effectiveness of Planned Teaching on Knowledge Regarding Testicular Self Examination among Male Undergraduate Students in Selected Colleges of Wardha District

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### Abstract

**Background:** Testicular self-examination is the regular inspection and palpation of the testicles in order to detect any changes which might indicate testicular disease. Lack of knowledge of testicular cancer and Testicular self-examination (TSE) is a major problem in early detection and screening. Adolescent and young adult males must be taught to perform TSE as a normal routine health promotion activity. Training may ideally start at home and continue in schools and the workplace. **Objectives:** 1) Assess the knowledge regarding testicular self examination among male undergraduate students. 2) Evaluate the effectiveness of planned teaching on knowledge regarding testicular self examination among male undergraduate students. 3) Associate post test knowledge score with selected demographic variables. **Materials & methods:** A non experimental study one group pretest and post test design with structured knowledge questionnaire. Nonprobability purposive sampling technique was used. Sample size was 60. This study was conducted in higher secondary school in Seloo. **Results:** The pre test findings shows that 30% of the undergraduate students in pretest had poor level of knowledge score, 61.67% had average knowledge, 8.33% and in post test 25% had good level of knowledge score and 75% of the undergraduate students in post test had excellent level of knowledge score, thus it indicate that after post test the knowledge score was increased. **Conclusion:** the main aim of the study was to assess the effectiveness of planned teaching regarding regarding testicular self examination among male undergraduate students. After post test, the male undergraduate students had very good knowledge regarding testicular self examination. It was found that the planned teaching was effective.

**Keywords:** Knowledge; Undergraduate students; Testicular self examination; Planned teaching.

### Introduction

Testicular self-examination is the regular

inspection and palpation of the testicles in order to detect any changes which might indicate testicular disease. As with breast self-examination, some people argue that the increased anxiety engendered by self examination outweighs the benefits of the few cases of early disease detected this argument fails in the light of the treatability of these tumors.<sup>1</sup>

Testicular self-examination (TSE) can be characterized as a preventive, screening, or detection behavior. Self-screening behaviors are safe, simple to perform, non-invasive. and only cost. The individual the time needed to perform the examination. Self-examination does require individual commitment to maintaining health. Katz, R., Meyers, K., & Walls, J. (1995) Clearly

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differentiated health protection from health promotion characterizing health protection as "motivated by the desire to actively avoid illness, detect it early, or maintain functioning within the constraints of illness".<sup>2</sup>

Mackey MNacey J., & DeLahunt B. (1994) reported studies of the last 20 years have suggested that men at the most vulnerable ages for testicular cancer. 20-35 tends to be unaware of their risk for the disease and how to perform testicular self-examination. Studies have found that men in this age group did not know about testicular cancer or TSF. Many participants in these studies indicated they wanted more information on TSF and were interested in learning how to do it. Some research suggests that educational programs can significantly increase the knowledge and performance levels of TSF. Only about one-half of the participants in these studies persisted in performing testicular self-examination. Walker suggested that information regarding the importance of testicular self-examination has not been widely communicated. A number of factors in addition to lack of information may be barriers to the establishment of testicular self-examination as a lifelong health behavior.<sup>3</sup>

Early detection of testicular cancer is of paramount importance. The survival rate for early stage testicular cancer approaches 100%; however, the prognosis is poor for individuals with an advanced stage of the disease, with cure rates as low as 44%. Population screening as a method of early detection of testicular cancer is not justified due to the low incidence and low mortality rates. However, Testicular Self-Examination (TSE) is a cost-effective alternative, which is simple to perform and effective in detecting abnormalities. Cancer groups recommend that men perform TSE once per month from the onset of puberty through to 40 years of age.<sup>4</sup>

Primary care providers should perform testicular exams when they conduct physical exams on male patients. At that time, education also should be offered concerning testicular self-exam. Many studies have shown that primary care providers do not examine or educate their patients regarding the occurrence and early detection of testicular cancer. Genetics may play a role in early detection of testicular cancer. Significantly higher levels of an overactive kiwi gene have been discovered in men with testicular cancer. Early detection of this gene and development of a means to inactivate the gene may be beneficial in eliminating testicular cancer (NCI, 2008b). At this time, genetic testing is being evaluated.<sup>5</sup>

### **Statement**

To assess the effectiveness of planned teaching on knowledge regarding testicular self examination among male undergraduate students in selected colleges of Wardha district.

### **Aim**

The study aims at assessing knowledge regarding testicular self examination among male undergraduate students.

### **Objectives**

- 1) Assess the knowledge regarding testicular self examination among male undergraduate students.
- 2) Evaluate the effectiveness of planned teaching on knowledge regarding testicular self examination among male undergraduate students.
- 3) Associate post test knowledge score with selected demographic variables.

### **Materials and Methods**

#### **Research Approach**

Non experimental research approach

#### **Research design**

One group pretest post test study.

#### **Setting of the study**

The selected colleges of Wardha district.

#### **Population**

The undergraduates studying in selected colleges of Wardha district.

#### **Sample size**

60 undergraduates

#### **Sampling technique**

a purposive sampling technique is used to select male undergraduate students studying in various colleges of wardha district who were able to speak and write English. They were asked for their willingness to participate in the study.

**Development of the tools**

Structured knowledge questionnaire was prepared to assess the knowledge of male undergraduate students regarding testicular self examination. A planned teaching has given to assess the effectiveness of planned teaching on knowledge score. The experts from the fields validated the tools. The reliability of the knowledge tool was established by using K.R.20 and found to be 0.78.

**Method of data collection**

Formal permission was sought from the concerned authority to conduct a final study at selected colleges in wardha district. Structured knowledge questionnaire and attitude scale were administered to the subjects to complete both the tools. All the participants were gathered in a classroom of the selected school at scheduled time. The participants were explained about the study. An informed consent from each participant was taken. Any doubts raised by the participants were cleared before they were recruited for the study.

Descriptive statistics were used to describe the sample. Analysis using t-tests.

Joint	28	46.6
<i>Residence</i>		
Urban	21	35
Rural	39	65
<i>Religion</i>		
Hindu	47	78.3
Muslim	5	8.3
Buddhist	5	8.3
Others	3	5.0
<i>Type of diet</i>		
Vegetarian	10	16.7
Mixed	50	83.3

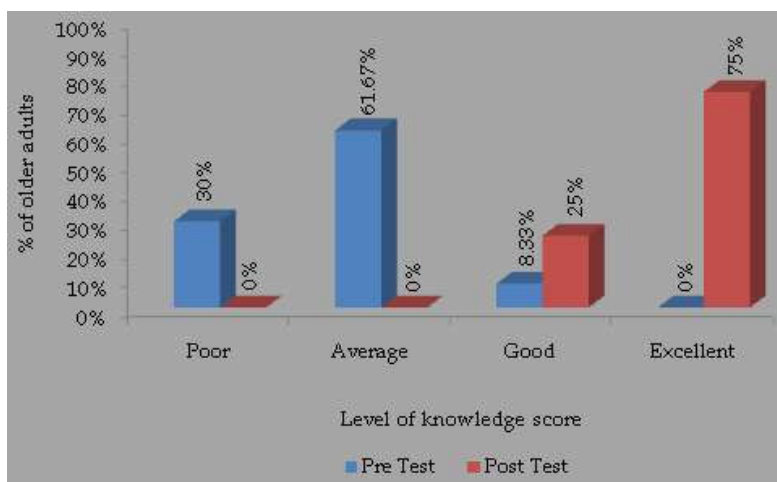
The above table 1 demographic data shows that majority of the undergraduate students belongs to the age group of 19-20 years were 30%, 17-18 years were 28.3% and 21 and above were 25%. As per types of family 53.3% living in nuclear family and 46.6% were living in joint family .35% were living in urban area and 65% were residing in rural area. As per religion 78.30% were Hindus, each 8.30% of them were Muslim and Buddhist and 5% of them were belongs to other religion. As per dietary pattern 16.70% were vegetarian and 83.30% of them were consumes mixed diet.

**Table 1:** Percentage wise distribution of undergraduate students according to their demographic characteristics. n=60

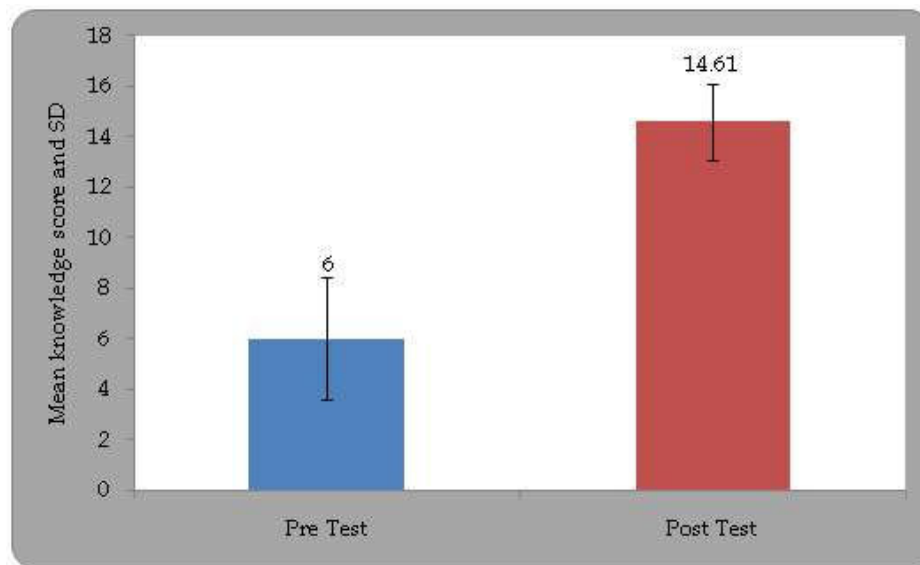
Demographic Variables	No. of older adults	Percentage (%)
<i>Age (yrs)</i>		
17-18 yrs	17	28.3
19-20 yrs	18	30
21 yrs and above	15	25
<i>Type of family</i>		
Nuclear	32	53.3

**Table 2:** Assessment with level of knowledge n=60

Level of knowledge	Score Range	Level of Knowledge Score	
		Pre-test	Post-test
Poor	0-25%	18 (30%)	0 (0%)
Average	26-50%	37 (61.67%)	0 (0%)
Good	51-75%	5 (8.33%)	15 (25%)
Excellent	76-100%	0 (0%)	45 (75%)
Minimum score		1	12
Maximum score		10	18
Mean knowledge score		6 ± 2.42	14.61 ± 1.50
Mean % Knowledge Score		33.33 ± 13.45	81.20 ± 8.37



**Graph 1:** Assessment with knowledge score



**Graph 2:** Significance of difference between knowledge score in pre and post test of undergraduate students

The table 2 shows that 30% of the undergraduate students in pretest had poor level of knowledge score, 61.67% had average, 8.33% in pre test and 25% in post test had good level of knowledge score and 75% of the undergraduate students in post test had excellent level of knowledge score.

Minimum knowledge score in pretest was 1 and in post test it was 12, maximum knowledge score in pretest was 12 and in post test it was 18.

Mean knowledge score in pretest was  $6 \pm 2.42$  and in post test it was  $14.61 \pm 1.50$  and mean percentage of knowledge score in pre test was  $33.33 \pm 13.45$  and in post test it was  $81.20 \pm 8.37$ .

**Table 3:** Significance of difference between knowledge score in pre and post test of undergraduate students n=60

Overall	Mean	SD	Mean Difference	t-value	p-value
Pre-test	6.00	2.42	$8.61 \pm 2.89$	23.01	0.0001
Post-test	14.61	1.50			$S_1$ $p < 0.05$

This table 3 shows the comparison of pretest and post test knowledge scores of undergraduate students regarding testicular self examination. Mean, standard deviation and mean difference values are compared and student's paired 't' test is applied at 5% level of significance. The tabulated value for  $n=60-1$  i.e 59 degrees of freedom was 2.00. The calculated 't' value i.e. 23.01 are much higher than the tabulated value at 5% level of significance for overall knowledge score of undergraduate

students which is statistically acceptable level of significance. Hence it is statistically interpreted that the Planned Teaching Programme on overall knowledge regarding testicular self examination among undergraduate students was effective. Thus the  $H_1$  is accepted.

## Results

The present study aims at assessing the knowledge and effectiveness of planned teaching regarding testicular self examination among undergraduate students studying in the schools of wardha district. The demographic characteristics reveals that majority of the undergraduate students belongs to the age group of 19-20 years were 30%, 17-18 years were 28.3% and 21 and above were 25%. As per types of family 53.3% living in nuclear family and 46.6% were living in joint family .35% were living in urban area and 65% were residing in rural area. As per religion 78.30% were Hindus, each 8.30% of them were Muslim and Buddhist and 5% of them were belongs to other religion. As per dietary pattern 16.70% were vegetarian and 83.30% of them were consumes mixed diet. 30% of the undergraduate students in pretest had poor level of knowledge score, 61.67% had average, 8.33% in pre test and 25% in post test had good level of knowledge score and 75% of the undergraduate students in post test had excellent level of knowledge score.

Minimum knowledge score in pretest was 1 and in post test it was 12, maximum knowledge score in pretest was 12 and in post test it was 18.

Mean knowledge score in pretest was  $6 \pm 2.42$  and in post test it was  $14.61 \pm 1.50$  and mean percentage of knowledge score in pre test was  $33.33 \pm 13.45$  and in post test it was  $81.20 \pm 8.37$ .

The comparison of pretest and post test knowledge scores of undergraduate students regarding testicular self examination. Mean, standard deviation and mean difference values are compared and student's paired 't' test is applied at 5% level of significance. The tabulated value for  $n=60-1$  i.e 59 degrees of freedom was 2.00. The calculated 't' value i.e. 23.01 are much higher than the tabulated value at 5% level of significance for overall knowledge score of undergraduate students which is statistically acceptable level of significance. Hence it is statistically interpreted that the Planned Teaching Programme on overall knowledge regarding testicular self examination among undergraduate students was effective. Thus the  $H_1$  is accepted. Statistically the post test knowledge score was not associated with their demographic variables as the calculated "p" value was much higher than the acceptable "p" value i.e  $p= 0.05$ . There was no association of post test knowledge score with demographic variables.

### Discussion

This study was supported by the results of studies conducted worldwide. Men's health has taken a back seat.

Blesch KS (1986). Using a mailed questionnaire, evaluated self-reported testicular cancer detection behaviors among primary care physicians (N = 116). Forty-nine percent of the physicians reported routinely performing age-appropriate testicular exams on patients, in contrast to the performance of breast (83%) and colorectal exams (68%). Rather than waiting for the practice to change in the physician's office, professional nurses must take responsibility for educating themselves, their colleagues, and the public. The role the professional nurse can play in cancer prevention is vital.<sup>6</sup>

Rudberg L, 2005 stated that Nurses are more accessible to patients than physicians for individualized instruction. Motivation and awareness of cancer may be increased if men are taught about disease incidence. The curability of testicular cancer in its early stages substantiates

the importance of the professional nurse's role in secondary prevention and early detection. Training has been initiated in the schools but needs to be reinforced in the primary care setting. Testicular cancer can be a devastating diagnosis for the patient and family. The majority of patients with testicular cancer are young men with a variety of physical, psychological, and spiritual needs that can be addressed by the nurse through individualized, holistic care. In particular, appropriate education and support along the cancer and survivor continuum are important.<sup>7</sup>

### Conclusion

The aim of this study is to determine if adolescent boys are aware of Testicular cancer (TC) and TSE procedures. The specific purpose is to explore levels of their knowledge of the symptoms and causes of TC as well as their risk and to establish the awareness of testicular self examination (TSE). The media must be as involved in the promotion of TSE as it has been with Breast self examination (BSE). The public needs to be educated that early detection may reduce the serious and potentially fatal consequences of malignancy.

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