

Knowledge, Attitude and Practice of Testicular Self-Examination among Male Students of Faculty of Health Sciences, Imo State University, Owerri, Nigeria

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ABSTRACT

Background: Testicular cancer is the most common malignancy affecting men between the ages of 15-35 years, although, if detected early is one of the most curable cancers. Despite the increasing incidence of testicular cancer, many studies have noted that young men are uninformed about this tumour and its dominance in their age group, unaware of symptoms and hardly ever practice testicular self-examination, and it is the basis for this study which assessed the knowledge, attitude and practice of testicular self-examination (TSE) among male students of faculty of Health Sciences in Imo State University (IMSU), Owerri. **Methods:** A cross-sectional descriptive survey design and a sample of two hundred and thirty four (234) selected through a cluster and simple random sampling techniques were employed for this study. The target population comprised of male students of faculty of Health Science, IMSU, Owerri. Self-constructed questionnaire was used to collect quantitative data and analysis of findings was done using descriptive statistics of frequency, percentages and mean; and was presented using tables. **Results:** The findings from the study showed that 40.6% of the respondents have knowledge of TSE. The respondents had negative attitude towards TSE with an average mean score of 2.3. Most of the respondents opined that they are not willing or to advice a relation/friend to perform TSE, there is no need to make TSE a routine check for males in the doctor's clinic and they feel embarrassed performing TSE. They also affirmed that TSE is not important. Majority (63.7%) of the respondents had never practiced TSE. **Conclusion:** The male students of Faculty of Health Sciences, IMSU, Owerri have low theoretical knowledge of testicular self-examination. They have negative attitudes towards testicular self-examination and equally exhibited low practice of testicular self-examination. **Recommendation:** The National Ministry of Health (Nigeria) should conduct a massive public awareness on male sexual health and that testicular examination should be included as part of routine medical examination for males in clinics and for school entry.

Keywords: Knowledge, Attitude, Practice, Testicular Self-Examination

INTRODUCTION

Testicular cancer is an abnormal growth (tumour) that occurs in the testes and usually in young males. Testicular cancer is the third leading cause of cancer deaths among young men [1, 2]. The incidence rates of testicular cancer have been rising since the 20th century, especially among white males [3] while the rates of many other cancers have been decreasing. As there have been focus on early detection of cancers in order to intervene at the earliest opportunity to improve treatment outcomes, testicular cancer, not only that it can be detected early, is one of the most curable cancer [2]. Testicular self-examination is a medical practice by which external feeling of the testicles can act as a first warning for testicular cancer. The testicles (or testes) are two shaped glands inside the scrotum (the bag under the penis in men that makes hormones and sperm) [4]. Testicular self-examination (TSE) refers to the procedure, in which a man checks the appearance as well as the consistency of his testicles. It is an important clinical tool for early detection of testicular cancer [5]. Despite improved treatment modalities,

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TC still remains the third leading cause of cancer deaths among young men aged 18–50 years [1]. Testicular self-examination is recommended to be done while standing and after a warm shower when the scrotum is relaxed and the testes are lower [6]. Abnormal results of the testicular self-examination may include, limp, pain or tenderness in the testicle (possibly

feeling of fullness or pain in the scrotum, penis or groin/abdomen), build-up of fluid in the scrotum a change in size, etc [7]. Testicular self-examination has generally low rates of practice in part because male are poorly informed, but also because of psychological aversion. Comparatively women are more diligent in performing breast self-examination than men. A person likelihood to perform self-examination is related to their fear of developing cancer. In addition to sex there is some reason to believe that socioeconomic factors also relate to frequency of examination [8]. Sometimes, if a young adult male has a spouse or partner, the spouse/partner will perform or assist in the examination, which can be done as a form of sex play or foreplay. The spouse or partner often is the one that spots testicular changes without formal screening [9].

A study was conducted using 203 male undergraduate and post graduate students at the University of Huddersfield aimed to establish the knowledge of testicular cancer and prevalence of testicular self-examination practice amongst young men. Results indicated that the majority of the respondents were either uninformed about the risks and symptoms of testicular cancer. Only 32% had prior knowledge of testicular self-examination, and only a single respondent was able to recognize the correct procedure and indicated he regularly practiced self-examination. The students also had negative attitudes to testicular self-examination [4]. A descriptive cross-sectional quantitative study among 165 students in which a simple random sampling technique was employed in selecting respondents and questionnaire was the instrument of data collection. The objective of the study was to assess the knowledge and practice of TSE among secondary students at Ntare school, Mbarara District in South Western Uganda. The results showed that of the male students, 41.8% reported to have knowledge about TSE, and only 23.6% practiced TSE. Of the 39 students who admitted performing TSE, only 16 did so as recommended (monthly). It was concluded that the knowledge and practice of TSE were low among adolescent secondary school boys in Ntare school in Mbarara District, South Western Uganda is low [10].

The practice of TSE was investigated amongst a sample of 170 British and 153 Zimbabwean male undergraduates using questionnaire based on health belief model. Knowledge of testicular cancer and of testicular self-examination was found to be low in both groups, though they showed high general health awareness and a perception that the benefits of TSE would be great [11]. Best, Davis, Vaz&Kazier affirmed that knowledge of testicular cancer is poor (31%) among males in the high risk age group, the respondents had poor attitude and testicular self-examination performance (18%) is also poor [8]. McClenham, Shevlin, Adamson, Bennett& O'Neil opined that lack of knowledge could be due to lack of attention from the professional health care providers towards providing testicular self-examination education to their students [12]. They recommended an urgent need for the distribution of more information to the general public and strong efforts should equally be made for propagation of testicular self-examination to reduce increasing incidence of testicular cancer.

It has been observed that if men were informed of the disease, its risks and options for prevention and if they have a more sense of self-efficacy, peer group support and higher value of health promotion methods, they are more likely to perform testicular self-examination [2]. It can be argued that if testicular self-examination is to be encouraged, it should be stimulated at an early stage [2, 7]. Since most young men aged 17-24 years still attend tertiary school, the school environment provides a good setting for teaching young men about testicular cancer and the practice of testicular self-examination. This is also because many of the behaviours that lead to health problems in adulthood emerged from patterns learned in childhood and adolescence. These observations warranted the researcher to assess knowledge, attitude and practice of testicular self-examination among male students of faculty of Health Sciences in Imo State University, Owerri.

MATERIALS AND METHODS

They study adopted a cross sectional descriptive survey design. The study was conducted in Imo State University, Owerri, precisely at Faculty of Health Science from April to October, 2019 (7 months). The Imo State University (IMSU) in Owerri, Imo State, Nigeria is the only state university of the state and is located at Okigwe Road, Ugwu Orji, Owerri. Imo is one of the 36 States of Nigeria and is in the south east region of Nigeria. Owerri is its capital and among the largest town in the State. Imo State is bordered by Abia

State on the East, River Niger and Delta State to the West, Anambra State on the North and Rivers State to the South. The state lies within latitudes 4°45'N and 7°15'N, and longitude 6°50'E and 7°25'E with an area of around 5,100 sq. km. The university was established in 1981. All the programmes of the university have obtained full accreditation from National Universities Commission of Nigeria. The result of the 1999/2000 accreditation exercise of the National Universities Commission (NUC) confirmed the high rate and acceptance of the university by the Nigerian public. The university was ranked first among all state universities in Nigeria and the 10th overall among both state and federal universities. Currently, the University has 11 Faculties and offering series of postgraduate and undergraduate courses. Faculty of Health Sciences in Imo State University comprises of five (5) departments; namely, Nursing Science, Medical Laboratory Science, Optometry, Nutrition and Dietetics, and Public Health. The study population was 564 with a sample of 234 determined by Taro Yamane and were selected through a cluster and simple random sampling techniques. A self-developed close ended questionnaire was used which gave a reliability index of 0.87. The copies (234) of the questionnaire were administered on face to face basis by the researcher and were adequately filled and retrieved thereafter. The data were analyzed using frequency distribution and percentages and were presented using tables. The respondents gave verbal/oral approval before the questionnaire was given.

RESULTS

Table 1: Demographic characteristics of the respondents

Variable	Category	Frequency (f)	Percentage (%)
Age	Below 20 years	11	4.7
	20 – 24 years	73	31.2
	25 – 29 years	99	42.3
	30 – 34 years	34	14.5
	35 years and above	17	7.3
Department	Nursing Science (NSC)	18	7.7
	Medical Laboratory Science (MLS)	91	38.9
	Optometry	95	40.6
	Nutrition and Dietetics	19	8.1
	Public Health	11	4.7

Table 1 above indicated that more respondents (42.3% and 31.2%) fall under the age brackets of 25-29 years and 20-24 years respectively whereas few (4.7% and 7.3%) were under the age brackets of below 20 years and 35 years and above respectively.

Most respondents (40.6% and 38.9%) were in Optometry and Medical Laboratory Science departments respectively whereas few (4.7%, 7.7% and 8.1%) were in Public Health, Nursing Science and Nutrition and Dietetics departments respectively.

Table 2: Knowledge of testicular self-examination (TSE) among the respondents

Knowledge of TSE	Frequency (f)	Percentage (%)
Having heard of testicular self-examination	136	58.1
Having understanding of testicular self-examination	101	43.2
Knowledge on aim of performing testicular self-examination	87	37.2
Knowledge on frequency of performing TSE	56	23.9
Grand Total	380	
Average/Mean	95	40.6

From table 2 above, of 234 respondents, 136 (58.1%) reported that they have heard of testicular self-examination but only 101 (43.2%) was able to define testicular self-examination, 87 (37.2%) have knowledge of the aim of performing TSE and 23.9% were able to note when to perform TSE which is once every month. Summarily, only 95 (40.6%) had knowledge of testicular self-examination.

Table 3: Respondents' attitude to testicular self-examination (TSE)

Statements	S · A	A	D	S · D	Total	Mean	Remark
I am willing to perform TSE	1 8 0	1 5 9	9 8	8 7	52 4	2. 2	Negative
I am willing to advice a friend/relation to perform TSE	1 6 0	1 2 9	1 0 2	1 0 0	49 1	2. 1	Negative
It is important to perform TSE	2 4 0	1 9 8	8 6	6 5	58 9	2. 5	Positive
It is important to include TSE in secondary school curriculum	2 4 4	1 9 8	1 1 2	5 1	60 5	2. 6	Positive
It is important to include TSE as routine check for males in doctor's clinic	1 7 6	1 5 6	9 4	9 1	51 7	2. 2	Negative
It is never a waste of time to perform TSE	2 0 4	1 8 0	9 8	7 4	55 6	2. 4	Negative
My chances of getting testicular cancer will increase if I don't perform TSE	1 6 0	1 2 3	9 8	1 0 4	48 5	2. 1	Negative
TSE can help to find lump in the testicles	2 4 8	1 8 9	1 0 4	5 7	59 8	2. 6	Positive
TSE is never time consuming exercise	1 9 6	1 8 6	8 8	7 9	54 9	2. 3	Negative
I wouldn't feel embarrassed to perform TSE	1 5 2	1 1 1	1 1 6	1 0 1	48 0	2. 1	Negative
Testicular cancer can be prevented through TSE	2 3 2	1 8 0	1 0 8	6 2	58 2	2. 5	Positive
Total	2 1 9 2	1 8 0 9	1 1 0 4	8 7 1	59 76	25 .6	
Average/Mean	1 9 9 .3	1 6 4 .5	1 0 0. 4	7 9 .2	54 3.3	2. 3	Negative

Table 3 revealed that the respondents have positive attitudes to the following statements in order of hierarchy: TSE can help to find lump in the testicles, it is important to include TSE in secondary school curriculum, it is important to perform TSE, and testicular cancer can be prevented through TSE. They equally have negative attitudes to most of the statements that were state herein. They reported that they are not willing to perform TSE, they are embarrassed to perform TSE, TSE is time consuming and a waste of time, they are not willing to advice a friend/relation to perform TSE, TSE should not be included as a routine check for males in doctor's clinic, and they equally believed that not performing TSE cannot increase their chances of getting testicular cancer. The average mean of the respondents' attitudes towards testicular self-examination is 2.3 which show that the respondents generally have negative attitudes towards TSE.

Table 4: Extent of practice of testicular self-examination among the respondents

Practice of TSE	Frequency (f)	Percentage (%)
Yes	85	36.3
Extent of practice		
Always	19	8.1
Sometimes	54	23.1
Rarely	12	5.1
Never	149	63.7

Table 4 indicated that few 85 (36.3%) of the respondents perform TSE. Very few 8.1% of the respondents opined that they practice TSE always, 23.1% and 5.1% affirmed that they practice TSE sometimes and rarely respectively. Majority, 63.7% do not practice TSE.

DISCUSSION

The most common cancers that can be detected by regular self-examination are breast cancer for women and testicular cancer (TC) for men. While breast self-examination is gaining much attention among women in the Sub-Saharan region, knowledge of TSE in men in the same region remains very poor. Although TC is far less prevalent than breast cancer, it is the most frequent cancer for men aged 18–50 in high-risk groups [13]. In this study, knowledge, attitudes and practice of testicular self-examination among male students in Faculty of Health Sciences, Imo State University, Owerri, Nigeria was assessed.

The demographic variables in table 1 revealed that majority (31.2% and 42.3%) were from the age brackets of 20-24 and 25-29 respectively. This indicates that younger people are gaining admission into the university than older ones (35 years and above) which were 7.3% in the study group. Fewer males (7.7%) were in nursing department than optometry (40.6%) and Medical Laboratory Science (38.9%). This shows that nursing profession in Nigeria is still having less male compared to female despite the long existence of nursing as a profession in the country.

Knowledge of testicular self-examination among male students in Faculty of Health Sciences, Imo State University, Owerri

The result in table 2 revealed that 40.6% of the respondents have good theoretical knowledge of TSE as positive response were obtained in almost all the items on knowledge of TSE. This conforms to a study (4) which revealed that only few (32%) had adequate knowledge of TSE. More so, this study is in line with the study made by Atuhaire, Byamukama& Cumber and that of Best, Davis, Vaz&Kazier whose findings revealed 41.8% and 31% knowledge of TSE respectively [10, 8].

Attitudes to testicular self-examination among male students in Faculty of Health Sciences, Imo State University, Owerri

The findings of this study in table 3 revealed that generally, the students have negative attitudes to testicular self-examination with a mean score of 2.3. This is in line with the findings of Best, Davis, Vaz&Kazier which revealed a poor attitude to TSE [8].

Practice of testicular self-examination among male students in Faculty of Health Sciences, Imo State University, Owerri

The findings in table 4 revealed that most of the students do not practice TSE as only 36.3% perform TSE. On extent of practice, just very few (8.1%) of the students affirmed that they always practice whereas 23.1% and 5.1% opined that they sometimes and rarely practice TSE respectively. This finding agreed with the studies of Best, Davis, Vaz&Kazier and Atuhaire, Byamukama& Cumberwhich revealed that their respondents (18% and 23.6%) practice TSE respectively (8,10). The study also conforms to a study in Ethiopia by Alemu&Baih which revealed poor practice of TSE [14].

CONCLUSION

The study comprehensively assessed the knowledge, attitudes and practice of testicular self-examination among male students of Faculty of Health Sciences, Imo State University, Owerri, Nigeria. Findings of this study have shown that male students of Faculty of Health Sciences, IMSU, Owerri have low theoretical knowledge of testicular self-examination. They have negative attitudes towards testicular self-examination and equally exhibited low practice of testicular self-examination. Based on the findings in the study, the researcher suggest that policy makers in Nigeria need to package health education sessions in secondary school and university/polytechnic curriculum about testicular self-examination. Teachers also need to organize seminars and conferences to enlighten students on the importance and practice of TSE. The Nigeria Federal Ministry of Health should consider to incorporating TSE as counseling parts in health institution and university.

Knowledge of TSE would largely bridge the gap of global TC inequality, given that the most important tool for bridging this gap is initiating early detection of TC among the university students. This group of men will probably respond best to objective information that emphasizes the benefits of TSE, provides useful tips that help them keep up with regular TSE, and reinforces the importance of detecting TC at a preventable stage. Improving information dissemination about TSE may help to reduce the presentation of patients at advanced stages of TC and may reduce costs incurred in their management.

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