ORIGINAL ARTICLE

Awareness among Medical and Non-Medical Students About the Practice of Periodic Medical Examination

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ABSTRACT

Objective: To compare the Awareness among Medical and non-medical students about the practice of Periodic Medical examination.

Study Design: Cross sectional descriptive study.

Place and Duration of Study: The study was conducted between 1st February 2016 to 30th April 2016 among the students enrolled in universities and colleges of Rawalpindi and Islamabad.

Materials and Methods: It was a cross-sectional comparative study. Data was collected through structured, pre-validated questionnaire. Eight colleges of Rawalpindi and Islamabad were selected, four were related to medical profession and four were non-medical. On the basis of simple random sampling, 271 students enrolled in bachelor program were selected among these institutes. The data was analyzed through SPSS version 20.

Results: Overall 63 % of the students, both from medical and non-medical institutions, had awareness about the knowledge and practice of periodic medical examination. Among medical students 68% and 61% among non- medical students had knowledge about periodic medical examination. No major difference was found in knowledge and practice among medical versus non-medical students.

Conclusion: This study concludes that Medical and non-medical students are aware about the importance of periodic medical examination with trivial difference and lack of practice and reasons of not following the medical advice are busy schedules and heavy costs of investigations. From public health perspective there is a great need to raise health awareness amongst those who do not have awareness about periodic medical examination to prevent our future generation from chronic illnesses.

Key Words: *Awareness, Medical examination, Medical Students, Non-Medical Students.*

Introduction

Healthy environment, good knowledge, practicing attitude and approachable availability of health services for all individuals are essential for prevention of diseases. It is progressively more recognized now a days that health is preserved and enriched not only through the development and application of health advancements but also through the efforts adopted for intelligent lifestyle choices by the individuals and community. Staying physically active and conscious about health can help prevent or delay certain diseases, including some cancers, heart diseases and diabetes.[1] In 2005 World Health Organization emphasized on chronic diseases and highlighted their role in global health issues, including High Blood Pressure, Stroke, Diabetes and Cancer.[2] Notably 60% of deaths were observed due to these diseases worldwide. However 80% of these deaths emerged in developing countries including Pakistan.

In 2020 approximately 13.9 million people with diabetes will drag up Pakistan to 4th most populous country in the world.[3] In the present world, Pakistan is ranked 6th among countries, who have high burden of diseases. Communicable diseases have share of 40% in Pakistan which means every 3rd individual has some sort of communicable disease.[4] Childhood infectious diseases were responsible for two thirds of the burden of disease in Pakistan.[5] These statistics emphasize to save future through raising awareness about health seeking behavior and practicing periodical medical examination. That will lead a developed society because of the availability and productivity of workable human resources. It will reduce medical expenditure in household bucket and will increase economic productivity of workable adults accordingly.

Periodic medical examination (PME) is essential for

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early detection of an illness.[6] It plays vital role to keep human resource healthy and productive. As individual are considered basic entity in any society, they should give priority to health and allocate time for health facilities and for this purpose two utmost aspects are good healthy food and regular checks on health conditions.[7] Periodic medical examination is defined as a thorough study or examination of the health of an individual.[8] Some studies have also shown in their results that people who undergo regular medical examinations have decreased the rates of invasive cancers and mortality respectively.[9] It shows that developing societies should be more concerned and sensitive towards the health needs of its members. In modern day life, health care has made significant improvement in management of various diseases but it is still hard to understand the rise of mortalities and morbidities.

According to 1998 census Pakistan has placed sixth populous country with 180 million individuals. If percentage who suffered with different diseases translated into figures then estimation will be alike 40 million individuals suffer from high blood pressure, 32 million cardiovascular diseases, 24 million from obesity, 18 million from high cholesterol, 8 million from diabetes and about 50 million from mental health disorders respectively.[10] This is the reason that life expediency in Pakistan is still low if we compare it with developed countries.[11]

Main goal of Periodic medical examinations is to diagnose treatable asymptomatic diseases. In Pakistan researches on periodic medical examination are done mainly on workers in different industries, hospital workers and food handlers.[12,13] Limited work is available on students especially who have strong educational background and studying in renowned medical and non-medical fields.

Purpose of this study was to raise awareness about health through addressing the gap between knowledge and practice of periodic medical examination. Youth considered as cream of the nation is expected to be more conscious about health seeking behavior and practices as compared to other age groups, especially medical students who are the future health care providers. It is therefore important to raise awareness on periodic medical examination so that diseases can be detected and managed at early stages to reduce morbidity and mortality. This study will highlight the level of awareness among Medical and non-medical students about the practice of Periodical Medical examination and the factors which are considered as causes for not practicing would be the future recommendations.

Materials and Methods

This cross-sectional descriptive study was conducted in three months duration from 1st February 2016 to 30th April 2016 among the students enrolled in 8 colleges and universities of Rawalpindi and Islamabad. Four institutes selected from public sector and four from private sector were included in the study. Wherein four were related to medical profession and remaining four were related to non-medical profession. Sample size was based on WHO calculator by using following figures. CI 95%, anticipated population proportion (P value) was 0.20, absolute precision required was 0.05 so the sample size turned out 246 and the actual sample size for the current study was 271. Sampling technique used was simple random sampling. A structured, pre validated questionnaire was used for data collection. After the validation of questionnaire, pilot testing was done at Riphah International University Islamabad, before the actual study was carried out. Questionnaire had different variables about periodic medical examination like knowledge, practice, source of information, and gap between PME, trends in family regarding PME and finally identifying the reason in those students who don't practice it. Data was collected by Authors themselves. Statistical analysis was done through Chi Square test (non-parametric). P value less than 0.05 was considered as significant.

Results

A total of 271 Students from Medical and non-medical profession were included in the study. 131 were male and 140 were female students. A total 132 (48.7%) respondent were between age interval of 18-21, 116 (42.8%) were of 21-23 and 23 (8.5%) were of 24-26. Total 127 respondents were from the medical colleges and 144 from non-medical institutes. 246 (90.7 %) were single, only 21 (7.8%) were married and Four (1.5%) were separated. Among all 81% of respondents marked PME important for health, whereas others think that it is wastage of resources as well as time. Respondents

who practice regular periodic medical examination, 89% of their family members also practice it.

Table I highlights the fact that the 170 respondents including medical and non-medical were aware of the periodic medical examination. 101 respondents including 53 males and 48 females had no knowledge about it.

Table I: Knowledge about Periodic Medical Examination according

Knowledge of respondents	Male	Female	Total
Yes	78	92	170 (63 %)
No	53	48	101 (37 %)
Total	131	140	271 (100%)

Table II highlights the differences between knowledge of Periodic medical examination and its practice. Most of the respondents who know the importance of Periodic medical examination, actually practice it.

Table II: Difference between knowledge and practice of Periodic Medical Examination

Level of knowledge and practice	Knowledge about significance of PME	Practice of self PME among those who know the significance of PME	Practice of self PME among those who don't know the significance of PME
Yes	63 %	54 %	18 %
No	37 %	46 %	82%

Table III highlights the comparison of knowledge of periodic medical examination among medical and non-medical students. There is no major difference but still medical students are more knowledgeable then non-medical students. This difference could be because of their study fields.

Table III: Comparison of knowledge about Periodic Medical Examination in Medical vs Non-Medical students

Comparison of Knowledge	Knowledgeable	Not knowledgeable
Medical Students	68 %	32 %
Non-Medical Students	61 %	39 %

P value = < 0.01

In figure 1, 76 (28 %) respondents reported internet as their source of information about medical examination, while 60 (22 %) respondents reported peers and friends as their source of information.

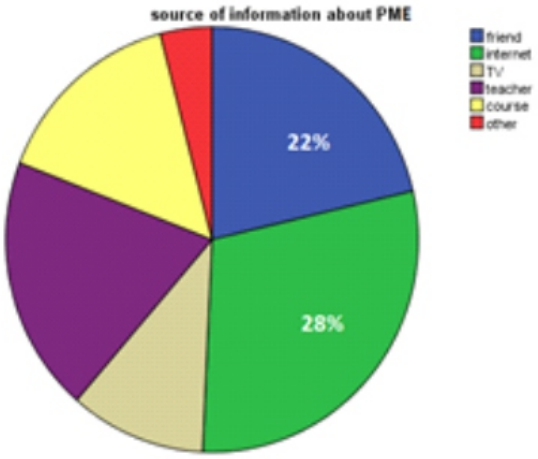

Fig 1: Sources of information about periodic medical examination

In figure 2, important reason among those who don't practice PME is ignorance (33%). Some others are not practicing because of their busy schedules (25%) and cost of investigations (20%)

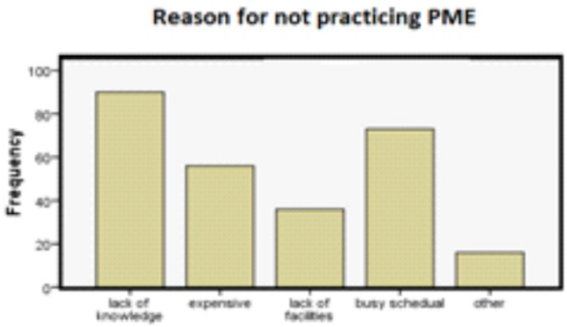

Fig 2: Reasons for not practicing periodic medical examination

Discussion

Developing world is facing double burden of diseases. It is need of the time as well as cost effective measure to prevent chronic illness by raising awareness of periodic medical examination. Current study shows that 62 % respondents had the knowledge of periodic medical examination. Among those, 54% practice and 46 % don't practice, although they know the importance of periodic medical examination. There is no significant difference in their knowledge due to their educational profession. As per figure 3 health education alone is not sufficient if health behavior is not changed.[14] The female respondents knew about periodical medical examination, but were not

practicing it. However these findings were not similar to other researches done with different prospective in world wide.[15] There are multiple reasons mentioned by respondents not to have periodic medical examination. 33 % respondents marked in appropriate knowledge about PME and few mentioned reasons like lack of facilities and cost of investigations. World health organization's annual reports support this data.[16] Most of the respondents gave credit of knowledge for PME to the internet and friends. Medical students seem more knowledgeable (68%) then non-medical students (61 %). Although the medical students should be more aware of health behavior and risk awareness, as concluded in other studies.[17] It is clear sign that curriculum of all profession is lacking in providing knowledge on periodic medical examination. Current study suggests that the periodic medical examination serves a purpose of screening for diseases and the awareness and practice of proven beneficial components of such examinations be increased among students.

Conclusion

The present study concludes that awareness is present among medical and non-medical students, however the practices are low. There is no major difference between medical and non-medical students in terms of their knowledge and practice. Periodic medical examination being a cost effective measure as compared to actual treatment expenses, should be practiced in routine by youth. Efforts should be made by the government and other health agencies, especially students/youth representative societies to educate them on the periodic medical examination on regular basis especially for newly enrolled students.

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