



PRIMARY PREVENTION THROUGH THE EYES OF THE STUDENTS AT A MEDICAL UNIVERSITY

B. Kavaldzhieva*, D. Naidenova, St. Porojanova

Department of Hygiene and Emergency, Medical University, Varna

ABSTRACT

Prevention has a great importance for the increase in the effectiveness of healthcare. Our society needs well prepared specialists, convinced in the advantages of prevention to treatment.

The objective of the current study is to research the attitudes of medical students towards the issues of primary prevention and its place in contemporary healthcare.

One hundred and seventy-seven students of medicine, healthcare management and healthcare services have completed an anonymous questionnaire. According to the results from such questionnaire, approximately one half of the students believe that primary prevention does not have its proper place in contemporary healthcare. The reason, they point out, could be two-fold – it could be either because of the societal dissatisfaction with medical workers in the area of prevention, as well as the media's insufficient appreciation of leading a healthy lifestyle. Even though the students appreciate the knowledge that they obtain with respect to the principal preventative discipline - hygiene, only a quarter (23.7%) consider their own behavior as an example of a healthy lifestyle and preventative care for their health. The issues arising from the lack of appreciation of primary prevention by modern society require a more attentive, credible and focused approach in the education of medical students.

Key words: primary prevention, healthcare, hygiene, healthy lifestyle

The development of the study of prevention is of particular importance for the increase in the effectiveness of healthcare. We hardly need to quote Hippocrates in order to support such a statement. Primary prevention, based on the achievements of the principal preventative discipline – hygiene, is called upon to protect human health from factors which would lead to the start of a pathological process. In textbook literature there is extensive information about the particularity of different factors and their impact on the human body. A great many of the medical professionals from clinical specializations, however, do not pay sufficient attention to the discovery of the factors in the etiology of a health condition, which would find a proper place in the advice such professionals provide with respect to the prevention of such health condition.

The study of prevention, of which N.I. Pirogov speaks, is ignored. In addition to certain socio-economic issues concerning the ignorance of some basic principles of prevention, the role of education in hygiene and the attitudes of medical students towards prevention are of importance.

The **objective** of the current study is to research the opinion of medical students concerning the issues regarding primary prevention and its application under the current conditions in Bulgaria.

METHODOLOGY

An anonymous questionnaire has been conducted amongst 177 students from the Medical University – Varna, with average age of $25,23 \pm 0,5$ years. Amongst those students, 76,8% were women and 23,7% were men. The breakdown according to area of study is as follows: 113 (63,8%) were medical students in their third year of study and interning doctors, and 64 (36,2%) were students of healthcare management and healthcare services.

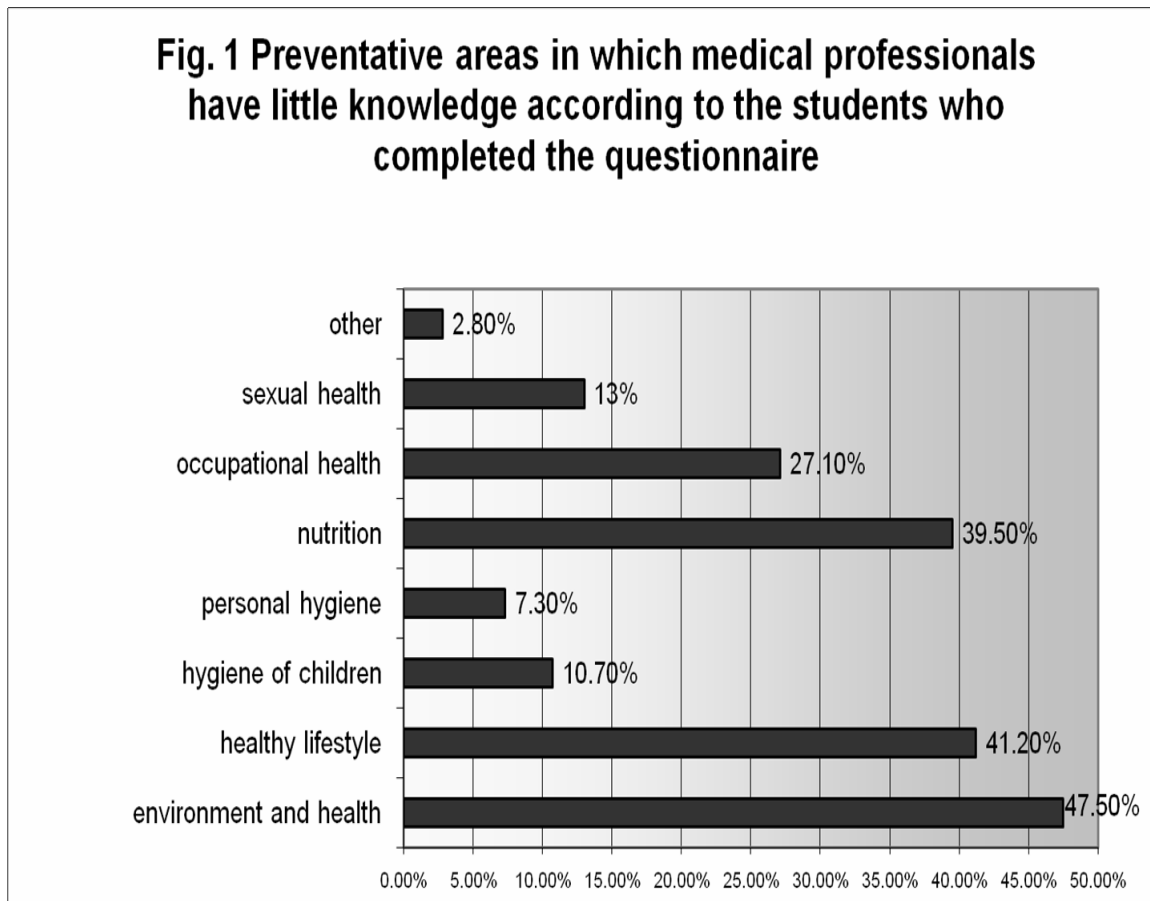
*Correspondence to: B. Kavaldzhieva,
Department of Hygiene and Emergency, Medical
University, Varna

The results from the study have been statistically analyzed using variable and alternative analysis, and compared with criteria of Student-Fisher with statistical significance of $p < 0,05$.

RESULTS AND DISCUSSION

The results from the study show that approximately half of the students (45,7%) believe that primary prevention does not have its proper place in contemporary healthcare.

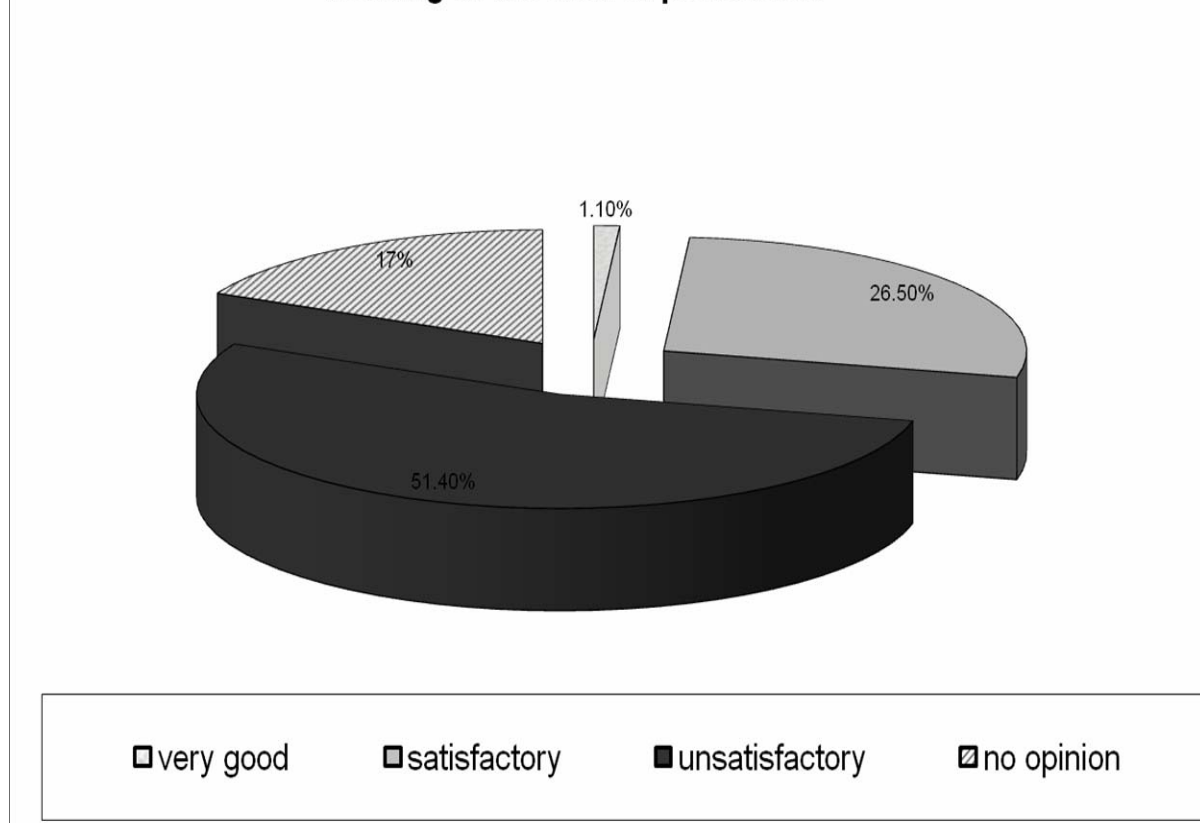
According to the results from the questionnaire, the knowledge of medical professionals is most inadequate in the area of the environment and health (47,5%), healthy ways of life (41,2%) and hygiene of nutrition (39,5%). This is so despite the fact that the leading role of the harmful effects of the environment, an unhealthy lifestyle and a bad nutrition (1,2) have been known for a while. (Fig. 1)



According to the Bulgarian Health Law (3), art. 2, paragraph 3 and 4, the protection of the health of the citizens of Bulgaria, in the context of primary prevention, takes place through “the priority of the promotion of health and integral prevention of diseases” and through “the prevention and reduction of the health risk of the citizens from the unfavorable influence of the factors of the environment.” Medical professionals, who practice primary prevention, are mostly from the Regional

Inspectorate for the Protection and Control of Public Health (RIOKOZ), who perform the “state health control for the compliance and fulfillment of the established, through a regulatory act, health requirements of public areas, products, goods and activities with health importance and factors of the environment.” According to half of those who completed the questionnaire (51,4%), however, the attitude of society towards those kinds of medical professionals is unsatisfactory. (Fig. 2)

Fig. 2 Attitude of society towards medical professionals working in the area of prevention



This fact is reinforced by the admission which 67,7% of the students make that in our society the principle of Hippocrates that “it is more rational to prevent than to treat” is not applied and only 19,2% consider that such principle is applied in practice ($p < 0,001$). (**Fig. 3**) According to 79% of the students who completed the questionnaire, for this perception to persist adds also the media, which does not inform and advertise enough the preventative area of medicine. Only 12,9% hold the opposite belief ($p < 0,001$). While it is well known that the success of health promotion and primary prevention does not depend solely on medical professionals (4). More than half of the students (55,3%) consider advertisements in the media insufficient with respect to their promotion of a healthy lifestyle. (**Fig. 4**)

Even though the students who completed the questionnaire have not yet entered medical establishments as professionals, 45,7% of them believe that prevention does not have its proper place in medical practice. According to those students, the following have the greatest

relevance to clinical practices: a healthy lifestyle (74,5%), nutrition (63,3%), disease prevention (54,2%); and the following have the least relevance – prevention of work disabilities (27,7%). (The sum of the percentages exceeds 100% because those who completed the questionnaire provided more than one answer.)

Primary prevention concerns the elimination of the causes to health deterioration. This is why medical education, according to the European directive (5), which has been adopted in relation to the convertibility of the degrees granted by medical universities in Bulgaria, includes the study of “the influence of the natural and social environment on human health”. It is no news, however, that information and education not always lead to behavioral changes. Almost one half of the students who answered the questionnaire strongly believe that the medical professional has to be an example for society when it comes to leading a healthy life and care preventatively for her health, 38,4% are uncertain about their beliefs, and only 9%

hold the opposite view. The self-assessment of the students as themselves being an example of a good taking care of their health, however, is

more critical: 23,7% have given a categorically positive answer. (Fig. 5)

Fig. 3 Opinion of the students who completed the questionnaire regarding the applicability of the principle of Hippocrates in today's society

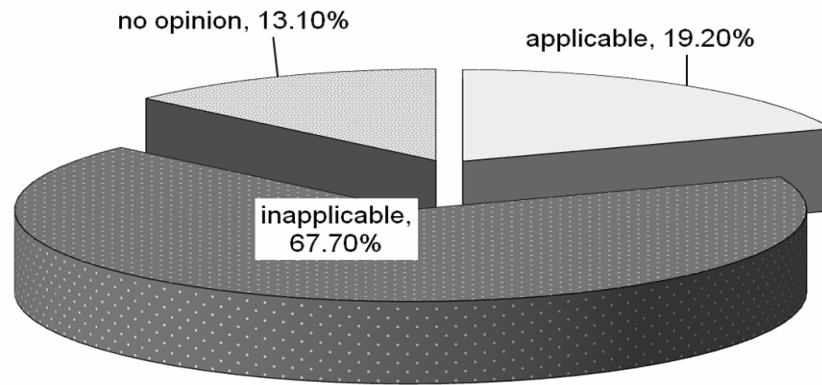


Fig. 4 Assessment of the presence of information regarding the preventative area of medicine in the media

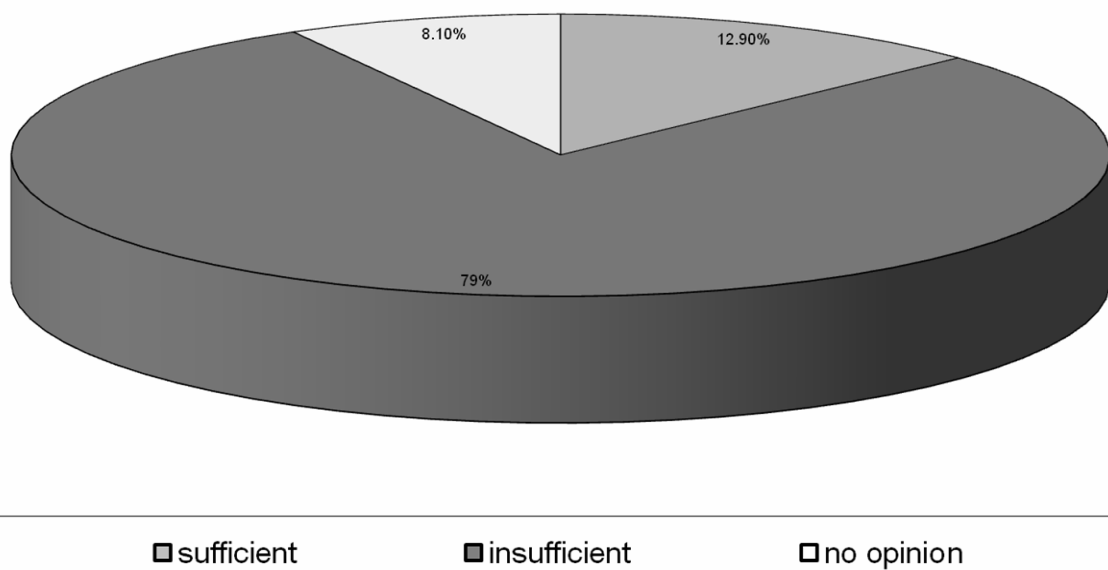
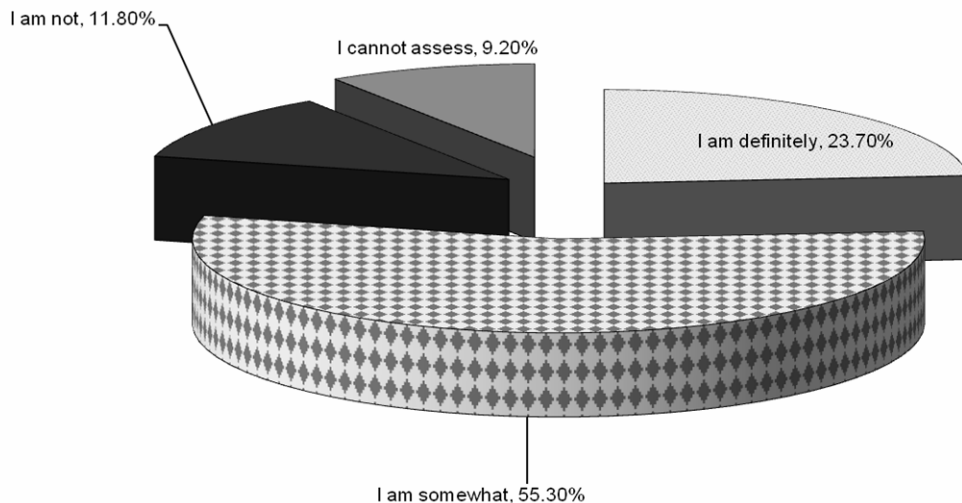


Fig. 5 Self-assessment of the students who completed the questionnaire regarding the extent to which they are themselves an “example” for a healthy way of life



Education is the highest form of dissemination of scientific knowledge. For health to prosper there is a need for scientific knowledge which can be applied in everyday life. The directive of the European Union (5) for mutual recognition of the degrees from medical universities from EU countries requires that medical doctors have knowledge of “the influence of the natural and social environment on human health” and of “medicine in its preventative aspects.” These principles are found in one form or another in the qualification characteristics of the specialists from medical universities.

Over 2/3 of the students who answered the questionnaire give a positive or almost positive assessment of the education they receive with respect to the principal preventative discipline – hygiene, and only 5% give a negative assessment. A little less favorable is the assessment with respect to whether the education of hygiene has contributed towards the development of preventative thinking: 36,7% give a positive assessment, 54,2% are uncertain, while 11,8% disagree. These results should make us re-think and re-visit the contents of the academic material taught and the forms of education used.

Prevention has a great importance for the increase in the effectiveness of healthcare (6). Most important and most effective is primary prevention, however at the current stage of socio-economic development it receives the least attention.

The reasons, which today have lead to the diminished importance of primary prevention are numerous (4). Most of them are beyond the capacity of medical universities to deal with them. However, one must start somewhere, and for us that is through education. In hygiene, the principal medical preventative discipline, most often the issues are limited to the assessment of the environmental factors, and the healthy person and the person in the “third condition”, *i.e.*, the one who does not have any clinically significant symptoms, are “outside the sphere of medical interest.” Greater importance must be placed on the mechanisms of health, the issues relating to its protection and strengthening (7). This is also the message of the Bangkok Charter of Health Promotion adopted in 2005 (8). An important factor for health strengthening is the spiritual and moral upbringing – focused influence over the consciousness and behavior through hygienic principles, orientation of the values of

the individual, and the formation of a healthy lifestyle, *i.e.*, the behavior responsible for the protection and strengthening of the health. A medical doctor, whose most important professional determinant is the protection and strengthening of the health, can and must be an example and an active promoter of a healthy way of life and preventative care for her health.

In conclusion, the results from our study allow us to make the following observations:

- Almost half of the students who have completed the questionnaire are not convinced that primary prevention has its proper place in contemporary medicine. Approximately 2/3 of them believe that the principle of Hippocrates is not valid today;
- Even though the students consider themselves familiar with the principal preventative principles concerning the protection and strengthening of health and believe that medical doctors must be an example for society with respect to leading a healthy way of life and taking a preventative care of their health, only 23,7% consider themselves meeting such standard;
- Despite the good knowledge of prevention, which students receive through their education in hygiene, according to the admission of the students who completed the questionnaire, it could not be concluded that an internal conviction is fostered which stimulates them to apply such knowledge in their own lives;
- The issues arising from the lack of appreciation of primary prevention by

modern society require a more attentive, credible and focused approach in the education of not only medical students studying hygiene, but also of those studying other medical disciplines.

REFERENCES

1. Гребняк, Н. П. Руководство по первичной профилактике заболеваний у детей и подростков, Донецк, ООО "Либідь", 2000, стр.243
2. Княжев, В.А. Научно-техническая политика в области здорового питания. *Вопр. Питания*,1977,№5,40-43.
3. Закон за здравето , обн. Д.в.бл.70/2004 г. с изм. и доп.
4. Кавалджиева, Б., Д. Томов, Е.Генева. Състояние на първичната профилактика според лекари от извънболничната и болничната помощ. *Социална медицина*, 2008, №4, 29-31
5. Директива на Съвета 93/16/ЕИО/05.04.1993
6. Integrating prevention in health care,WHO,2002,N172,X.
7. Уманский, В.Я. и др. Методологические аспекты преподавания гигиены на медицинском факультете. *Вестник гигиены и эпидемиологии*,т.5, №2,2001, 262-264.
8. The Bangkok Charter for Health Promotion in a Globalized World (2005), http://www.who.int/healthpromotion/conferences/bangkok_charter/en/index.html