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# The assessment of the attitude of the students of the 5th year of the medical faculty concerning the specialization in family medicine and the state of knowledge on the functioning of Primary Health Care

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# **ABSTRACT**

#### Introduction:

Family Medicine is a relatively new specialisation in Poland, that was created to increase availability of comprehensive medical care near the place of residence. Due to the major deficiency of human resources there is a huge need of educating medical personnel.

#### Objectives:

This study is an evaluation of knowledge level and attitudes towards family medicine specialisation of The Lublin Medical University Medical Faculty 5th year students, starting their family medicine classes.

# Results:

Among the respondents 1.49% declared willingness to start family medicine specialisation, 40.89% is considering this career path, 39.03% is not considering this career path, 18.59% is definitely not considering this specialisation. Main factors, which are the reasons why students consider undertaking family medicine specialisationwere: flexible working hours (79.82%), wide range of patient's ailments (78.07%), no on-call time (73.68%). On the other hand, students consider job in PHC as monotonous and hardly prestigious and 94.1% of respondents assessed that cooperation of family physicians with other specialisations is average at best. Only 13% correctly indicated what are the factors the amount of money per patient depends on. Majority of students correctly named family physicians' responsibilities and medical examinations that family physician can perform under the agreement with National Health Fund.

### Conclusion:

Research gathered in this document indicate on little interest in family medicine specialisation among students and at the same time on lack of certain knowledge about job in PHC. Thus, there is a need to create relevant educational programmes which would turn future doctor's attention to general practice.

Key words: Primary Health Care, Medical Students, Family Physicians

### INTRODUCTION

Family Medicine is a relatively new specialisation in Poland. Its origins date back to year 1992 when The Collage of Family Physicians was created. The main idea of the creation of this specialty was to increase comprehensive medical care availability near the place of residence. In 2017 the amount of family physicians specialists equalled 10787 (9.5% of all specialists), the amount of doctors in the course of specialisationequalled 1362 (5,83% of all doctors during the course of specialising training). Considering big amount of responsibilities and the leading role in the medical care system this data can be regarded as alarming. There is a need to increase number of specialists from the area of family medicine by encouraging students and young doctors to choose such career path. By analyzing their knowledge and attitudes, we can get to know and understand their expectations towards their future job and that would allow to create environment which would encourage them to choose family medicine specialisation.

#### AIM OF RESEARCH

The aim of this survey was to asses level of knowledge on the functioning of Primary Health Care of 5th year medical students of Medical University of Lublinstarting their family medicine classes and their attitudes on specialization in family medicine.

# MATERIAL AND METHODS

Study was carried out in all student groups of 5th year medical students in Medical University of Lublin, in February 2019. Participation in the study was voluntary and anonymous. The study group consisted of 290 students present at the first family medicine seminar. 21 questionnaires were rejected due to incomplete answers. 63.94 % of the respondents were women, and 36.06 % were men. The age structure of the study group was as follows: 23-24 years - 57.25% , 25-26 years - 38.66% , 27-28 years - 2.97% , 29 years and more - 0.74% . 28.25% of the surveyed students came from the village, 34.57% from the city to 100,000 of residents, and 37.17% from the city above 100,000 of residents. The study used the method of a diagnostic survey using a questionnaire constructed by the authors. The questionnaire contained 27 questions and consisted

of two parts. The first part allowed for obtaining socio-demographic data (age and sex of the participant, place of origin). The second part concerned the attitude of students to the specialization in family medicine and knowledge about the functioning of Primary Health Care . The questionnaire contained closed - alternative, disjunctive and conjunctive questions. The obtained results were subjected to statistical analysis using the STATISTICA 12.5 program.

# **RESULTS**

In our study,40.89% of respondents considered taking up specialization in family medicine, while 1.49% gave answer "yes, I am determined ". On the contrary, 39.03% were rather not considering this branch of medicine as their future way and 18.59% definitely were convinced not to start this specialization. In the multiple choice question about the main factors for which students consider taking specialization in family medicine were: flexible work hours (79.82%), wide spectrum of medical cases (78.07%), no need of providing medical service in night hours (73.68%), earnings (43.86%), deficit specialization (39.47%), possibility of having influence on patient and his family (37.72%), long-term care above patients (27.19%), shorter time of training (19.3%).

Among other reasons were more time for family life, chance to work far from large urban centers, opportunity to find job in many locations, possibility to promote vaccinations and to coordinate treatment conducted by many specialists. For students tempting was also smaller risk of court claims, compared to other specialties and experiencing less stress.

58% of students believe that the work of a general practitioner is definitely responsible, and 36% that it is rather responsible.

Near every one in ten students (10.4%) thought that work of family doctor is definitely monotonous, 48,7% assessed it as "rather monotonous". Near one third (30.1%) were opposite, and 5.6% assessed it as "definitely not momotonous".

The majority of respondents (63.2%) believed that family medicine doctor should have wide knowledge. 31.2% rather agreed with this statement, 4.8% rather not, and 0.4% definitely not.

The vast majority of students assessed specialization in family medicine as not prestigious - rather no - 58.74% and definitely no 13.01%.

Similarly, the answers to the question about respectability of general practitioners by specialists in other fields: 63.57% believed that they not enjoy this respect and 17%% definitely not. Respondents were asked to grade correctness of other specialists and family doctors cooperation in scale from 1 to 5 on basis their experience from medicine studies, where " 1 " is total lack ofcooperation and " 5 " - full cooperation and understanding . Results were as follows : "1" - 6.7%, "2" - 37.2%, "3" - 50.2%, "4" - 5.6%, "5" - 0.4%.

17.48% of students believe that POZ doctors deal mainly with patients who are not sick, 58.36% disagree, and 20.07% definitely disagree.

Gross of students felt that dialogue and good communication skills are the main tool in general practitioner's work(39% definitely yes, 51.3% rather yes).

The majority of students estimated that time needed for visit of single patient is relatively higher than met in real everyday functioning of primary health care.

36.8% assessed that visit lasting 20-30 minutes can be safe and effective, 42.8% - 15-20minutes, 15.2% - 10-15mins. Only 1.1% of respondents answered that secure time for medical consultation is 5-10mins, on the contrary 4.1% thought that it is above 30min.

56.5% of students assessed the responsibility of primary care physicians for issuing medical prescriptions and determining reimbursement of medicines comparable to specialist in other branches of medicine, 29.7% appraised it as greater, 5.6% as less, and 8.2% had no opinion.

Preponderance of students recognized family medicine specialization as well-paid occupation (16.4% answered that definitely yes, and 53.5% rather yes)

The respondents emphasized the large role of primary care physicians in managing and prevention of the most common diseases and promoting a healthy lifestyle (90.2% - rather large and definitely large role).

In the question about the method of financing Primary Health Care, only 37.2% of patients gave a correct answer - depending on the number of patients registered on a list of patients of particular doctor. 32.7% believed that the financing depends on the number of persons to be treated and the number of visits and services provided to patients, and 10% responded that it depends on the number of persons to be serviced, the number of visits and benefits provided, and on the dispersion of the population. Near one fifth of respondents (18.6%)did not have any idea on way primary health care is financed.

When asked about the number of people covered by the care of one primary healthcare doctor, which should not be exceeded in accordance with the limits of the National Health Fund, students gave divergent responses. 26% answered that it is about 1000 patients, 18.2% about 1700, 33.1% about 2200, 13.8% about 2800, 8.9% about 3500.

63.6% of respondents believed that the rates paid to Primary Health Care Clinics for one patient are always equal, 19% thought that it depends on diagnosed chronic diseases, 4.5% on the patients' attendance to medical consultations, and only 13% knew that the rates paid for one patient depend on his age.

The majority of students (64.3%) were aware that general practitioner takes care of all age groups from birth to death, 9.7% think that it does not include newborns, 12.3% - newborns and infants, 13,8% felt that he can only lead patients after the age of 18.

According to students, home visits (83.3%) and issuing a death certificate (67.7%) are among the duties of the family doctor.

In the question about staffing requirements in primary healthcare clinic students most often indicated it has obligation to employ a minimum of 1 nurse and 1 midwife (52.8%), on the opposite opinion was 14,1% and 33.1% did not know how to answer this question.

On the end of the survey students were asked to indicate laboratory tests that may be ordered by a POZ doctor free of charge to their patients under the National Health Fund contract. The most commonly chosen were: blood cell count (100%), creatinine (97%), fasting glucose (97%), CRP (96.6%), urinalysis (96.2%), ESR (95.5%) ), urea (95.5%), total cholesterol (94.4%), TSH, fT3, fT4 (93.6%), sodium and potassium (92.9%), HDL, LDL (92.1%) ), triglycerides (91.4%), transaminases (91.4%). Among the most often incorrectly selected were: lipase (80.6%), ferritin (66.9%),procalictonin (63.2%), vitamin D3 level (61.3%), anti-HBs Ig (45.7%), anti-HCV Ig (40.5%), anti-HIV Ig (36.4%), anti-Borrelia spp. Ig (35,7%), antibodies to celiac disease (31.6%). In an analogous question of multiple choice regarding free-of-charge examinations under the National Health Fund agreement students usually chose: ECG (100%), chest X-ray (97%), abdominal ultrasound (91%), lateral chest X-ray (88%), X-ray of the abdominal cavity (80%), X-ray of the skull and paranasal sinuses (67%), thyroid ultrasound (65%), ultrasound of

the lymph nodes (62%). Among the incorrectly responses were: CT of the chest (40%), CT of the abdomen (38%), CT of the head (33%), CT of the spine (30%) and MR of the spine (25%). DISCUSSION

Only 1.49% of respondents is decided to choose family medicine specialisation, 40.89% is considering this career path. In the related studies, percentage of respondents who explicitly declared family medicine as their specialisation was ranging from 5.8% to 8.8% [3,4], whereas 30.8% to 41.2% was the percentage of respondents who were very likely to declare it as their future specialisation [4,6]. When analysing factors that make students undertake this specialisation the most common were flexible working hours, no on-call time, short specialisation duration, wide scope of patient's ailments. In comparison with other Polish studies one fact that draws attention is that choosing this specialisation is mainly motivated by comfortable working conditions in the future. To compare, the analysis of Pawełczyk and associates from 2007 indicates that choice of specialisation is mainly motivated by the huge variety of patients as well as possibility of working with patient and his family[13]. However, the study of Krztoń-Królewicka clearly indicates that quality of the family medicine course that takes place during studies has a huge influence on students' decision[7]. Thus, our study conducted during the first family medicine classes has one limitation – following part of the course can influence on students attitudes. In the foreign studies students also show favourable working conditions, close patient-physician relationship and large scope of clinical cases[6]. Vast majority of respondents consider job as a family physician as well paid and responsible. Besides, majority of students notice huge role of family medicine specialists in this field in disease prevention and in promotion of a healthy lifestyle. At the same time, analysis presents medical students' negative attitude towards family medicine specialisation. Vast majority the respondents consider family medicine specialisation as hardly prestigious (71.75%) and monotonous (59.1%). In some foreign studies, students also assessed this kind of medical profession as job with little prestige [8,9,10,12]. Vast majority of students think that PHC physician should have wide knowledge, similarly as in other studies, where it is assessed as wide but superficial [10]. Vast majority of respondents thinks that doctors working in a hospital do not hold in much regard PHC physicians. In addition, students assess cooperation between this two groups as average. On the other hand, majority of students denied the claim that family medicine specialists are mostly dealing with healthy patients. Osborn et al. underline medical community's negative opinion about family medicine specialisation and considering it as a "default". At the same time it draws the attention to the fact that students are of the opinion that family medicine is not equal to other specialisation [11]. It causes that interest in choosing family medicine as a future specialisation is still at a low level.

The next part of the study was the assessment of students' knowledge about functioning of Primary Health Care in Poland. Majority of students state that they do not know or state incorrect way of financing PHC and do not know rules of setting the amount of money dedicated to each clinic's patient. Only about 9% correctly indicates the right amount of patients per one family physician specialist. On the other hand respondents correctly answered the question about the range of responsibilities (house calls, confirmation of death) and about age groups that are within the care of PHC. Over half of students know that in every clinic there has to be a midwife and a nurse. Majority of respondents correctly indicated medical examinations that PHC physician can do under the agreement with National Health Fund. However, there was a huge group of students who incorrectly assessed the right to indicate lipase, ferritin, procalcitonin, and a level of vitamin d3. Less than a half of the respondents knew that family physician cam perform RF, CK and VDRL indications. In case of additional examinations majority of students incorrectly assessed

the right to perform computed tomography (abdomen, chest, spine, head). About 40% of the respondents did not know that family physician can order salivary glands USG examination and endoscopic test of digestive tract.

# **CONCLUSION**

Gathered data explicitly indicate that there is a low level of interest in choosing family medicine specialisation among future doctors. Main causes of this situation is considering this speciality as not prestigious and monotonous. Future doctors draw their attention to the role of family physicians in the whole medical care system and a responsibility of this profession. In addition they outline comfortable working conditions and remuneration. At the same time assessment of their knowledge indicate that there are certain gaps in their education especially in the area of functioning PHC and in the scope of services that family physician offers. In the light of scientific reports which show, that decision of undertaking family medicine specialisation is partly dictated by quality of classes at universities, and increasing need for family medicine specialists, it is necessary to introduce modern curricula. Syllabuses should be mainly oriented on teaching practical knowledge and outlining difficulties a family physician job but also educate students about prestige and the role of primary health care in medical care in Poland.

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