PERCEPTIONS OF MEDICAL STUDENTS ABOUT FAMILY MEDICINE IN GHANA

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SUMMARY

Objectives: To determine the perceptions of medical students in Ghana about family medicine with regard to knowledge and relevance as well as specialty preferences.

Design: A descriptive study.

Method: The study was conducted on first clinical year students of the University of Ghana Medical School (first group of students introduced to the specialty of family medicine) in July 2008, using structured questionnaire. Data was analyzed by descriptive statistics.

Main outcome measures: The respondents' awareness of family medicine, their views on the relevance of family medicine and their specialty preferences.

Results: Level of awareness of the specialty was high among the students (88.0%, [95% CI 80.2-93.6]). Information from friends and relations was the major source of awareness (29.5%, CI 20.2-40.3). Majority of the students perceived that family physicians are capable of providing total health care for 85-95% of their clients (54.4%, CI 44.1-64.5) and also reduce overall cost of health care (79.8%, CI 70.5-87.2). However, only 2.4% (CI 0.4-7.6) were considering postgraduate training in family medicine. The major factor for specialty choice was personal interest (75.6%, CI 65.9-83.6) and the main reason for not choosing family medicine was inadequate understanding of the specialty (79.3%, CI 69.5-87.0).

Conclusion: There is high level of awareness of family medicine among medical students in Ghana however very few students want to choose it as a specialty because of inadequate understanding of the specialty.

Keywords: Family medicine, perceptions, medical students, postgraduate, residency.

INTRODUCTION

The World Organization of Family Doctors (Wonca) describes the family physician as the physician who is primarily responsible for providing comprehensive health care to every individual seeking medical care, and arranging for other health personnel to provide services when necessary.[1] The family physician therefore functions as a generalist who accepts everyone seeking care whereas other health providers limit access to their services on the basis of age, gender and/or diagnosis.

Family medicine training in Ghana is credited to some members of the Society of Private Medical and Dental Practitioners of Ghana. By 1991 when the specialty extended from Nigeria to the West African sub-region,[2] some of these experienced practitioners had been elected as foundation fellows of the Faculty of Family Medicine (then known as General Medical Practice) of the West African College of Physicians (WACP). Together with later foundation fellows, they were charged with the responsibility of initiating postgraduate training in general medical practice in Ghana *(Personal communication with Caiquo TK., Vice-President, WACP-Ghana chapter and foundation fellow, Accra, 10th July 2012).*The residency programme officially began in April 1999 with three candidates (author inclusive) in two training sites.

In 2005, the Ghana College of Physicians and Surgeons (GCPS) began a national programme in family medicine with two candidates in the two main Teaching Hospitals in Ghana. In early 2007, the two pioneer fellows of the specialty were appointed as lecturers in the University of Ghana Medical School (U.G.M.S.) to begin the process of establishing a family medicine department for undergraduates. The discipline functions as a unit under the Department of Community Health of the UGMS which is currently the only medical school in Ghana with an undergraduate family medicine programme.

This relatively young specialty is confronted with a number of challenges i.e. the concept of family medicine is still confusing and probably irrelevant to most doctors in other specialties; too few family physicians are being produced at too slow a pace; the Ministry of Health/Ghana Health Service is yet to formulate a policy regarding the placement of family physicians.

Medical schools in the country are also yet to include family medicine in their undergraduate curriculum except the University of Ghana Medical School that has shown some level of interest. These challenges notwithstanding, there is a growing enthusiasm for the specialty evidenced by the increasing number of admissions into the residency programmes of both WACP and GCPS.

Studies in the United States of America (USA), Canada, Australia and the United Kingdom (UK) over the past decade indicate a declining interest in family medicine by medical school graduates.[3-6] Students and medical graduates interviewed in a number of studies mentioned several factors which have contributed to the decline.[4,7-9] Among these are lack of recognition by medical schools and health care systems, subtle advice from other specialists suggesting that family medicine is a less prestigious career with a low intellectual content; that family physicians cannot master the content of the specialty and that they are not as smart as other physicians. The wide scope of the content area is another deterrent. In addition, there are complaints from family doctors about excessive workload, poor remuneration for equal work as done by other primary care specialists and lack of support.

In the light of these findings, attempts are being made world-wide to reposition family medicine in a more attractive manner. Some evidence-based recommendations to rekindle student interest in generalist careers have been made.[6,10-14] They include the fact that previous and on-going exposures to role models are most important factors in specialty choices. It is therefore important to improve the level of satisfaction and enthusiasm among generalist physician role models. Public and institutional policies influence students' choice of generalist careers, the most influential being the medical school's admission policy and design of curriculum.

Besides providing generalist physicians as faculty role models, medical schools are also being encouraged to redouble their efforts to produce primary care physicians by facilitating the pathway from medical school to generalist residency programmes. Furthermore increased funding from government for primary care research and research training will make generalist careers attractive.[10] A recognized factor by a number of authors is that early exposure of medical students to family medicine curriculum at the undergraduate level has significant influence on their choice of the discipline for residency.[6,11,12] Elective or required family medicine clerkships in the clinical years contributes immensely to the changing of negative perceptions that students have about the specialty and provides a true and positive portrayal of the specialty.[13] Personal social values were also found to be characteristically strong in influencing a graduate's career choice of family medicine. For example some preferred a specialty with broad clinical competence while others considered a guaranteed employment on completion of residency as attractive enough.[11,14]

The picture in Africa is that of a growing enthusiasm and opportunity for progress of the specialty. Studies on the subject are mainly from South Africa and Nigeria.[14-17] In Nigeria, earlier studies indicated that General Practice then a new specialty enjoyed the support of a national postgraduate training programme. A shift towards general practice was seen compared with previous studies of career preference among Nigerian medical graduates and students.[15] In South Africa, the formation of the Family Medicine Consortium (FAMEC) by the departments of family medicine in the constituent universities made a great contribution to the establishment and growth of the discipline.[18]

There are challenges however and those identified include the definition of the exact role of family medicine and the family physician in the health delivery system, appropriate positioning of the specialty, recognition and support by government, acceptability by medical schools, and requirements for training and research.[19,20] More current studies are needed on the situation in Africa. In Ghana there is a mixture of both enthusiasm and some scepticism among proponents and opponents respectively; however there are no studies to assess the perceptions of stakeholders like medical students, doctors, academic and government health authorities.

The main objective of this study therefore, was to determine the perceptions of medical students in Ghana about family medicine with regard to knowledge and relevance of the discipline as well as their specialty preferences. The University of Ghana Medical School has plans to establish a Department of Family Medicine and Primary Care in the near future. The outcome of the study forms part of stakeholder surveys to inform implementers of the programme on the course of action. Secondly, the outcome would be a source of accurate information for the primary targets of the study i.e. medical students, thus hopefully generate interest in the specialty. Thirdly, in view of the fact that family medicine at the undergraduate level is still largely undeveloped in sub-Saharan Africa (*Unpublished reports of Primafamed Edulink ACP EU project-P-ACP-RPR-12 #6, 2008-2011),* the results of this study would contribute immensely to the development of the undergraduate programme on the continent.

METHODS

Study Population

The target population for this study were first year clinical students (i.e. level 400) with a class population of 152 (*Source: List of students: Class of 2010; 2007-2008 Academic Year. Academic Affairs Office, UGMS).* This was the pioneer class to be exposed to a family medicine curriculum in any medical school in Ghana. The study was proposed to the entire class after an explanation of the purpose of the study at a previous meeting. They were informed that the study was confidential and that information provided will not affect their student status.

Design and setting

This was a descriptive study conducted during the first clinical year course in July 2008 at the University of Ghana Medical School (UGMS), Korle-Bu, Accra. All the 92 students who were present in class on the day of the study consented and were interviewed. The study was approved by the Ethical and Protocol Review Committee of the University of Ghana Medical School. Questionnaires were administered 15 minutes before the first lecture in family medicine was delivered in class. The study was conducted in a confidential manner and unique codes (not including the names of the students) were assigned to participants to link the questionnaires.

Data collection

Participants were interviewed using an anonymous structured questionnaire assessing socio-demographic characteristics, level of awareness of family medicine, knowledge of the practice of family medicine and issues related to training and specialty choices. The questionnaire was pre-tested among volunteers in final year medical school to ascertain the consistency of answers given for each test item.

Statistical Analysis

The Statistical Package for Social Sciences (Spss) version 16 was used for data analysis. Descriptive statistical analysis was employed for all the three research questions. Tables depicting frequencies and percentages were constructed in relation to the research questions. Confidence intervals were assessed for proportions.

RESULTS

Ninety-two students out of a class population of 152 participated (i.e. 60.5%). The male: female ratio was 1.6:1 (male 61.8%) and the mean age was 23.3±1.6 years (95% Confidence- interval [CI], Range 19 – 31). The level of awareness of the specialty was high among the students (88.0%, 80.2- 93.6). Information from friends and relations was the major source of awareness (29.5%, CI 20.2-40.3).

Table 1 Awareness of family medicine among medical students in Ghana

Category of Awareness	Response	Respondents		
		Number [n]	**Percentage [%]**	**(95% CI)**
Level of awareness (n = 92)	Aware	81	88.0	[80.2-93.6]
Sources of awareness (n = 78)	Preclinical training	17	21.8	[13.7-32.0]
	Private reading/internet	17	21.8	[13.7-32.0]
	Friends & relations	23	29.5	[20.2-40.3]
	Promotional seminar	10	12.8	[6.7-21.6]
	Other	11	14.1	[7.6-23.2]
Awareness as a medical specialty (n = 92)	Yes	65	70.5	[60.8-79.3]
Awareness of postgraduate training in Ghana (n = 88)	Yes	26	29.5	[20.7-39.7]

Majority of the students perceived that family physicians are capable of providing total health care for 85-95% for their clients (54.4%, CI 44.1-64.5) and also reduce overall cost of health care (79.8%, CI 70.5-87.2), Table 2.

As indicated in Table 3, the major factor for specialty choice was personal interest (75.6%, CI 65.9-83.6). Students considering family medicine for postgraduate training were 2.4% (CI 0.4-7.6) and the main reason for not choosing family medicine was inadequate understanding of the specialty (79.3%, CI 69.5-87.0).

Table 2 Views of medical students in Ghana about relevance of family medicine in health delivery

Statement	Response	Respondents		
		Number [n]	**Percentage [%]**	**(95% CI)**
Knowledge of practice location of family physicians (n = 91)	Private clinics / hospitals only	5	5.5	[2.0-11.8]
	Polyclinic / public hospitals only	1	1.1	[0.1-5.3]
	Both private & public health facilities	83	91.2	[84.0-95.8]
	None of the above	2	2.2	[0.4-7.1]
Focus of care by family physicians (n = 91)	Families only	3	3.3	[0.8-8.7]
	Individuals and their families	66	72.5	[62.7-81.0]
	Families and communities	18	19.8	[12.6-28.9]
	Don't know	4	4.4	[1.4-10.3]
Family physicians provide total healthcare for 85%-95% of clients (n = 90)	Agree	49	54.4	[44.1-64.5]
Availability of family physicians at the periphery will reduce cost of care and improve overall health delivery (n = 89)	Agree	71	79.8	[70.5-87.2]

Table 3 Preference for family medicine specialty among medical students in Ghana

Item	Response	Respondents		
		Number [n]	Percentage [%]	(95% CI)
Specialty preference for postgraduate training (n = 85)	Internal medicine	10	11.8	[6.1-20.0]
	General surgery	18	21.2	[13.5-30.8]
	Obstetrics & gynaecology	11	12.9	[7.0-21.4]
	Paediatrics	8	9.4	[4.5-17.1]
	Community/Public health	7	8.2	[3.7-15.6]
	Family medicine	2	2.4	[0.4-7.6]
	Other	18	21.2	[13.5-30.8]
	Undecided	11	12.9	[7.0-21.4]
Factors influencing specialty preference for postgraduate training (n = 90)	Personal interest	68	75.6	[65.9-83.6]
	Popularity and prestige of specialty	2	2.2	[0.4-7.1]
	Demands of the specialty	13	14.4	[8.3-22.9]
	Duration of training	2	2.2	[0.4-7.1]
	Other	5	5.6	[2.1-11.9]
Reasons for not choosing family medicine as a specialty (n = 82)	I do not know much about the discipline	65	79.3	[69.5-87.0]
	It is not intellectually challenging enough	4	4.9	[1.6-11.4]
	Demanding rotations & wide breadth of knowledge	2	2.4	[0.4-7.8]
	I have no interest in it	7	8.5	[3.5-16.8]
	Other	4	4.9	[1.3-12.0]

DISCUSSION

Although a high level of awareness was recorded in the study (88.0%), most of the information acquired were from sources other than the faculty of family medicine itself. In other words, as promoters of family medicine in Ghana, the faculty had not done enough to inform and educate medical students about the specialty. This is evidenced by the fact that only 12.8% of respondents

had attended a family medicine promotional seminar organized annually by the faculty to create awareness for medical students and medical officers. Moreover 70.5% were not aware of an existing postgraduate programme in family medicine. Similar findings were recorded among larger study populations of students in Japan and Greece.[21, 22]

In the Japanese study comprising of over 3300 medical students, 54.9% of the participants indicated that they had some, or great, interest in primary care, however it was found that their understanding of primary care was inadequate. In the Greece study involving 1021 students, over 95% of medical students claimed to be aware of General Practice/Family Medicine (GP/FM) as a medical specialty. Their main sources of information were their fellow students (76.8%). The other sources of information were the University (8.2%), parents/relatives (6.4%), medical journals (4.8%) and the internet (2.4%). These sources are similar to the experiences of the students in Ghana except that private reading/internet sources (21.8%) played more significant roles in Ghana. The majority of medical students in Greece (77.3%) stated that medical student experience in General Practice was either nonexistent or inadequate and the role of the University was rather limited. In this study, 21.8% of students claimed their source of information as due to part of their undergraduate (preclinical) training. This response was unexpected because no aspect of family medicine had been introduced at the pre-clinical level. Further exploration of the response is needed in subsequent studies.

Majority of the students (91.2%) had correct knowledge of where family physicians can practice i.e. in both public and private health facilities. The background of family practice in Ghana has given the impression that it is synonymous with private practice. This is because family physicians / general practitioners are mostly based in the community and practice privately. The trend is however changing as newly trained family physicians are being posted to provide service in community-based public health facilities as well. The primary recipients of care from family physicians being individuals and their families were also correctly identified by almost three-quarters (72.5%) of the students. More than half (54.4%) of the students recognized the capability of the family physician to manage completely between 85-95% of patients presenting at the primary care level. This conforms to available evidence from studies in the USA which showed referral rates between 5% – 15%. [23,24]

Majority of the students (79.8%) were of the view that availability of family physicians at the peripheral health facilities will reduce cost of care and improve health delivery at the primary care level. The responses regarding the competence and over-all cost-effectiveness of family physicians agree with findings in literature.[25-27] It has been demonstrated that internists were more likely to hospitalize patients and also to refer compared to family physicians.[25] In another study comparing the hospital care given by family physicians with that of other specialties, effectiveness of care was found to be comparable but the cost of care by family physicians was relatively less.[26] Countries with strong primary care have been found to have lower overall health care costs, improved health outcomes, and healthier populations.[27]

As regards specialty preference for postgraduate training, the traditional disciplines like internal medicine, general surgery and obstetrics and gynaecology were mostly preferred. Family medicine was the least preferred medical specialty for postgraduate training (2.4%). This compares with an equally low proportion of students in Greece (4.3%) who considered GP/FM as a possible future specialty.[21] Although the low preference in this study was not statistically significant, it is an important finding in that by implication, a significant majority of students (97.6%, CI 92.4 – 99.6) did not consider family medicine as specialty choice. The major reason for the low preference was inadequate knowledge of the specialty (79.3%).

This finding contrasts with previous studies from other countries where the reasons mostly stated for rejecting family medicine were lack of prestige compared to other specialties, perceived low intellectual content, difficulty in mastering the content of the specialty and negative comments about family physicians by other specialists.[3-9] The choice of a specialty in this study was influenced by personal interest in three-quarters of the students (75.6%). This interest is influenced by more than just an awareness of a specialty; it usually requires a deeper understanding of the nature of the specialty. Family medicine had not as yet been formally introduced to the students; they therefore lacked that understanding. Another contributing factor to the low preference may be the relatively shorter period of existence of the specialty compared to the more established traditional specialties as indicated earlier.

The findings of the study present challenges to the current group of family medicine teachers in the teaching and practice of the specialty, so as to attract graduating medical students into the residency programme. On a brighter note, promoters of family medicine can take advantage of the current high level of awareness among the medical students no matter how inadequate, to bring them to a better understanding of the specialty.

It is pertinent that as early as possible, students are made aware of the scope and domain of practice for family physicians; who their primary clients are and the relevance of their practice at the primary care level. These steps could bridge the wide gap between awareness of the specialty and its preference for postgraduate training.

The University of Ghana Medical School will have to expedite the full inculcation of the family medicine curriculum into its undergraduate programme. This will ensure early exposure of the discipline to medical students thus offering them an opportunity to decide on family medicine as a residency programme. The postgraduate colleges i.e. West African College of Physicians and Ghana College of Physicians and Surgeons will have to step up the promotion of the discipline by engaging and assisting the various medical schools in the country to begin undergraduate programmes in family medicine as it pertains with the traditional disciplines. The colleges can also assist in capacity building of community-based private family physicians to take on medical students for community-based rotations. This will expose students very early to the actual epidemiology of diseases in the community in contrast to diseases seen in the teaching hospitals.

The study was limited to only one medical school in Ghana so the findings may not be truly representative of all level 400 medical students in Ghana. Also, literature on similar studies is non-existent in Ghana and very scanty in the African region. The basis for comparing the outcome of this study with those of similar studies was therefore limited. In conclusion, the study showed a high level of awareness of family medicine as a medical specialty among the first clinical year students of the University of Ghana Medical School. The main source of information about family medicine was through friends and relations. The students recognized the capability of the family physician to improve health delivery at the primary care level by providing total healthcare for majority of patients and enhancing efficiency in terms of cost of delivery. Regarding specialty preference, the traditional disciplines were the most preferred. The most important factor determining specialty choice was personal interest in contrast to popularity and prestige. Family medicine was the least preferred specialty. The major reason for not choosing it was inadequate understanding of the specialty. There is the need for trainers and promoters of family medicine in Ghana to double their efforts in enhancing the in-depth knowledge of the specialty among medical students.

A similar study should be conducted in the final clinical year to determine any significant change in the gap between awareness of family medicine and its preference as a specialty. Successive classes of medical students shall also be studied in similar fashion.

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