



SELF-PERCEPTION OF PRIMARY HEALTH CARE GENERAL PHYSICIANS' PREPAREDNESS FOR PRACTICE: IN EASTERN PROVINCE CAPITAL OF SAUDI ARABIA

Medicine

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ABSTRACT

General physicians, who play a fundamental role in health care, lack sufficient experience when beginning their post-graduate career. This cross sectional study on PHC general physicians in Dammam aims to assess the self-perception of PHC general physicians' preparedness for practice and evaluate its correlation to their self-satisfaction. Among the 96 PHC GPs invited to participate, 85 responded to a validated, self-administered questionnaire (response rate 88.54%). Only 42.4% of the respondents agreed that medical schools prepared them a little to be excellent residents, with a good foundation of knowledge; however, they overlooked preparing the residents for job skills, self-management, and communication skills. A moderately significant positive correlation was seen between overall perception of university preparation score and self-satisfaction score ($R=0.359$, $p\text{-value}=0.001$). Findings suggest that junior physicians feel underprepared in essential job skills, self-management, and communication skills, crucial for daily practice. Universities must consider these gaps and provide prior experience before post-graduation practice.

KEYWORDS

Primary health care (PHC), physician preparedness, job readiness

General practitioners have a fundamental role in the health care process, particularly in the primary health care centres, which are the first entry points for patients into the health care system for availing care and services. Therefore, it is crucial that general physicians are fully prepared for the different challenges of post-graduate medical practice, including clinical and psychosocial aspects, to provide secure and premium quality care to patients.

Literature Review

A national survey of US residents for a study showed that medical school graduates feel well-prepared start to work as physician-trainees, but less prepared to face important psychosocial, personal, cultural, and professional challenges such as end-of-life care, dealing with angry patients, cost-effective decision-making, and debt management (Chen et al., 2015). "Although the United States Medical Licensing Examinations assess scientific and clinical knowledge using standardized testing, other professional and psychosocial competencies that are necessary for graduates to succeed as residents in the complex health care system are largely neglected by these exams" (Chen et al., 2015, p. 182). A survey of newly qualified doctors in the UK in 2000/2001 found that 42% of them felt unprepared for the first year of their postgraduate term in clinical practice (Cave et al., 2007). Another multi-centre qualitative study was conducted among UK medical graduates to reflect the importance of a post-graduate study on the job training; they found that junior doctors felt prepared regarding communication skills, clinical and practical expertise, and teamwork. However, they felt less prepared after learning for experience in clinical practice, for example, hard work, being on call, management of acute clinical situations, prescribing, clinical prioritisation and time management, and dealing with paperwork (Illing et al., 2013). A systematic review was also conducted to evaluate the effects of residency training on patient outcomes, which searched the literature from December 2004 to February 2011 using different databases and concluded that there was only one study addressing the quality of patient care throughout the university training of physicians (van der Leeuw et al., 2012). The study proposed that adequate supervision, evaluation, and attention to the individual needs of residents throughout residency training could positively serve patient outcomes (van der Leeuw et al., 2012).

In 2005, a study in the UK assessed students' work preparedness by understanding how medical schools helped in the transition from students to doctors. This study determined the factors associated with preparedness and found that only one-sixth of the students felt they received poor medical-school job preparation. The study concluded that improvement in the preparedness of UK medical school graduates was probably due to increased relevance of undergraduate teaching to life as a junior doctor, and to improved support in the workplace (Cave et al., 2009). Another study evaluated graduates' perceptions about the

quality of the educational programme in their medical schools. Around 70% of the respondents reported that they had not been taught sufficient clinical skills in preparation for their future clinical practice (Jalili et al., 2008). In 2010, a questionnaire survey on junior doctors to measure their level of agreement with the statement that medical school had prepared them well for work in the three years of post-graduation revealed that doctors in years one and three specified that feeling unprepared was a serious or medium-sized problem for them (Goldacre et al., 2010). Another study in 2009 shows that junior doctors were well prepared neither regarding specific background knowledge nor in terms of skills to successfully perform the tasks awaiting them. However, the level of preparedness gave rise to important issues for them about medical training and the transition from being medical graduates to first-year junior doctors (Matheson & Matheson, 2009). It was also found that cross-cultural care skills training is associated with increased self-preparedness to provide health care (Weissman et al., 2005).

No matter to which medical university they belonged, junior doctors do not have the necessary experience to practice medicine on their own at the very beginning of their post-graduate career. The literature shows that limited studies are addressing junior doctors' perception about their universities' efforts in preparing them for the job. These studies revealed a negative assessment of preparedness in medical schools (Cave et al., 2007). Assessing junior doctors' preparedness for job and self-satisfaction has never been investigated in the Middle East or Arab countries.

According to the statistical book of the year 2013 brought out by the Ministry of Health in Saudi Arabia, the total number of PHC centres is 2,281, of which 136 is in the eastern province of the kingdom. A total number of 5954 junior general practitioners work at PHC centres, with 222 of them in the eastern province of the kingdom, and among them, 145 are Saudis. All of them had fulfilled the Ministry of Health eligibility and passed the Saudi Licensing Examination. So far, there is no evidence that all the candidates will succeed in their post-graduate career since those exams omit the professional and psychosocial aspects essential for their clinical practice. This large slice of general physicians working at the primary health care centres needs more attention in term of raising awareness about factors that affect their preparedness for the job to improve the quality of health care and to provide optimal care for their patients in the future.

In a systematic review of quality of care in Saudi Arabia, it was found that with the increase in the population of Saudi Arabia, medical technology has become more advanced and costly, which has in turn led to an increase in patients' demands and expectations. Moreover, poor quality health care causes patient suffering, institutional waste, and misuse of community resources (Almutairi & Moussa, 2014).

Another study conducted in the Aseer region in Saudi Arabia revealed that primary health care physicians have a positive attitude towards patient safety. Most of them need more training on patient safety as the undergraduate education on patient safety, which is a priority for making future doctors' work effective, was found to be insufficient (Alsafi et al., 2015).

A review of the medical education in Saudi Arabia showed that "the number of medical colleges has increased from 5 medical schools with traditional disciplined-based curricula to 21 medical colleges with varied curricula ranging from the traditional to more innovative, problem-based, community oriented programs" (A. Telmesani et al., 2015, p 703). This difference in the under-graduation medical curricula needs a comprehensive consolidated evaluation upon post-graduation. The Saudi Health Commission, through the Saudi license exam, focuses mainly on physicians' basic and clinical knowledge. Other essential competencies required are ignored in this exam, and there is no standardized job training for new general physicians across the multiple medical sectors in Saudi Arabia. This study is imperative to shed light on the status of our general physicians' preparedness for practice and to assess and examine the factors affecting it because no such study has been undertaken before in Saudi Arabia regarding this issue.

Statement of the Problem

The aim of this study

To evaluate the self-perception of primary health care general physicians' preparedness for practice in Dammam, Eastern Province, Saudi Arabia.

Objectives:

1. To determine the perceived job preparedness of general physicians working in primary health care centres, Dammam, Saudi Arabia.
2. To evaluate the self-satisfaction of general physicians in their job at primary health care centres, Dammam, Saudi Arabia.
3. To measure the relationship between primary health care general physicians' perceptions of their job preparedness and their level of satisfaction, Dammam, Saudi Arabia.

Research Questions:

What is the perception of general physicians in Dammam about how their university has prepared them for practice in primary health care centres?

What is the level of self-satisfaction of primary health care general physicians' in Dammam, Saudi Arabia?

Methodology

This cross sectional descriptive study was conducted in primary health care centres in Dammam, Eastern Province, Saudi Arabia. In the year 2017. All primary health care general physicians working in primary health care centres in Dammam during the period from March to April 2017 were included. Following approval by the Institutional Review Board of Saudi Ministry of Health, a self-assessment questionnaire that included various aspects of training such as knowledge, job skills, self-management, and communication skills was distributed to 96 primary health care general physicians; 85 general physicians completed the questionnaire with a response rate of n = 85 (88.54%).

Data were manually verified, then coded, and entered into the computer. The analysis was conducted using SPSS software version 21. Continuous variables were presented as the mean and standard deviation (SD), while categorical variables were represented as frequency and percentage. ANOVA and regression analysis were used to compare the two independent quantitative variables. Significance was determined at p value < 0.05 and a confidence interval of 95%. Other appropriate statistical measures were used as indicated.

Results

The mean age of the participants is 33.69; female doctors comprised a majority in the sample (68.2%), and most of them were Saudis (89.4%). Around half of the respondents were Imam Abdulrahman Bin Faisal University graduates (49.4%). A majority of them were junior physicians (89.4%), and more than half of them were residents (89.4%). Almost two-thirds of the total number of participants had received an on-job communication skills course (61.2%). Nearly one-quarter of the number of participants had been given a course in professionalism and mental health, respectively (24.7%, 25.9%). Only 11.8% of the

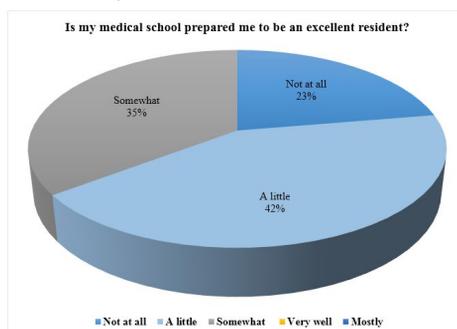
participants had received other on-job courses (See Table 1, Appendix A). Among the respondents, 42.4% agreed with the statement 'medical school prepared me a little to be an excellent resident'. However, the respondents did not agree on the university's role in preparing them for the job (very well and mostly) (Figure 1).

Table 1 Data description for demographic characteristics of respondents, (n= 85)

Quantitative data description	μ	Sd
Age	33.69	6.88
Qualitative data description	Frq.	%
Sex	27	31.8
Male	58	68.2
Female	85	100.0
Total		
Nationality	76	89.4
Saudi	9	10.6
Non-Saudi	85	100.0
Total		
Place of graduation	42	49.4
IAFU	8	9.4
KFU	6	7.1
KSU	6	7.1
KAU	23	27.1
Other	85	100.0
Total		
Classification by SCHS	76	89.4
Resident	5	5.9
Specialist	4	4.7
Consultant	85	100.0
Total		
Years of experience	51	60
0-5	15	17.6
6-10	6	7.1
11-15	13	15.3
>=16	85	100
Total		
On job courses		
Communication skills courses	52	61.2
Yes	33	38.8
No	85	100.0
Total		
Professionalism courses	21	24.7
Yes	64	75.3
No	85	100.0
Total		
Mental health courses	22	25.9
Yes	63	74.1
No	85	100.0
Total		
Other on-job courses	10	11.8
Yes	75	88.2
No	85	100.0
Total		

Note. μ=mean, Sd=Standard deviation, Frq.=Frequency, %=Percentage, IAFU=Imam Abdulrahman Bin Faisal University, KFU= King Faisal University, KSU=King Saud University, KAU= King Abdulaziz University. KAU= King Abdulaziz University

Figure 1 Junior doctors' overall perception about their university preparedness for the job



General physicians' perception of their university preparedness for practice is based on the following

laboratory diagnosis (69.5%), pharmacology (64.7%), and pathophysiology (54.2%).

1. Job skills results:

Nearly one-third of the participants agreed that they were well prepared for the job skills in the matter of consulting resources (35.3%) and addressing medicolegal (27.1%) issues. Around 40% of the participants agreed that they were well prepared for social or cultural issues and cost-effectiveness and doctor's safety (38.8% and 38.8%), respectively.

3. Self-management and communication skills results:

Appreciably fewer general physicians felt well prepared for the varied practice of self-management and communication skills in their job, including dealing with an angry patient (28.3%) and dealing with patient death (20%). Additionally, many of them felt underprepared for financial-, fatigue-, and time management (12.9%, 24.7%, and 25.9%), respectively. Most of them felt mostly or very well prepared for developing a rapport with patients (41.2%).

2. Knowledge results:

A majority of general physicians felt well prepared in terms of medical knowledge and clinical skills such as collecting history (88.3 %), presenting a physical exam (85.8%), physical diagnosis (82.4%),

In conclusion, physicians' perception revealed that universities provided good knowledge preparation when compared to preparation for job skills, self-management, and communication skills. (Table 2)

Table 2 Data description for factors affecting general physicians' preparedness for practice (n=85)

Statement	Not at all Frq. (%)	A little Frq. (%)	Somewhat Frq. (%)	Very well Frq. (%)	Mostly Frq. (%)	Total Frq. (%)
1. University preparedness for job skills (How well did medical school prepare you for the following skills?)						
1. Consulting resources e.g., published articles, textbooks, learning portfolio or clinic manual	13 (15.3)	10 (11.8)	32 (37.6)	26 (30.6)	4 (4.7)	85 (100)
2. Addressing medicolegal issues	16 (18.8)	16 (18.8)	30 (35.3)	17 (20)	6 (7.1)	85 (100)
3. Addressing social or cultural issues in providing care	7 (8.2)	16 (18.8)	27 (31.8)	22 (25.9)	12(14.1)	84 (98.8)
4. Considering cost-effectiveness	12 (14.1)	12 (14.1)	28 (32.9)	24 (28.2)	9 (10.6)	85 (100)
5. Doctor's safety and rights	15 (17.6)	13 (15.3)	24 (28.2)	18 (21.2)	15 (17.6)	85 (100)
2. University preparedness for knowledge (How well did medical school prepare you for the practical application of the following knowledge or skills?)						
6. Pathophysiology	3 (3.5)	8 (9.4)	28 (32.4)	27 (31.8)	19 (22.4)	85 (100)
7. Collecting history	0 (0)	2 (2.4)	8 (9.4)	31 (36.5)	44 (51.8)	85 (100)
8. Physical diagnosis	0 (0)	1 (1.2)	14 (16.5)	35 (41.2)	35 (41.2)	85 (100)
9. Presenting a history and physical	0 (0)	0 (0)	12 (14.1)	32 (37.6)	41 (48.2)	85 (100)
10. Laboratory diagnosis	0 (0)	6 (7.1)	20 (23.5)	40 (47.1)	19 (22.4)	85 (100)
11. Pharmacology	0 (0)	6 (7.1)	24 (28.2)	37 (43.5)	18 (21.2)	85 (100)
3. University preparedness for self-management and communication skills (How well did medical school prepare you for)						
12. Dealing with an angry patient	19 (22.4)	16 (18.8)	26 (30.6)	14 (16.5)	10 (11.8)	85 (100)
13. Dealing with patient death	24 (28.2)	19 (22.4)	25 (29.4)	11 (12.9)	6 (7.1)	85 (100)
14. Debt and financial management	29 (34.1)	17 (20)	28 (32.9)	8 (9.4)	3 (3.5)	85 (100)
15. Developing a rapport with patients	12 (14.1)	17 (20)	21 (24.7)	22 (25.9)	13 (15.3)	85 (100)
16. Fatigue management	25 (29.4)	17 (20)	22 (25.9)	14 (16.5)	7 (8.2)	85 (100)
17. Time management	18 (21.2)	18 (21.2)	27 (31.8)	14 (16.5)	8 (9.4)	85 (100)

Key: Frq. = Frequency, %=Percentage

Nearly half the number of general physicians said they were well satisfied with their job (56.5%), their quality of life (45.9%), and day-to-day happiness (45.8%). Nearly 40% reported that they were well satisfied with their lifestyle outside of work, control of personal time (27%), and income (37.6%). (Table 3) There was a statistically

significant relation between perception regarding university preparation score and self-satisfaction. There is a moderate positive significant correlation between overall perception of university preparation score and self-satisfaction score ($\beta=.359$, p value=.001). (Table 4)

Note. Frq. = Frequency, %=Percentage

Table 3 Data description for factors affecting general physicians' self-satisfaction (n = 85)

Statement	Not at all Frq. (%)	A little Frq. (%)	Somewhat Frq. (%)	Very well Frq. (%)	Mostly Frq. (%)	Total Frq. (%)
On most days, how satisfied are you with						
1. Your choice to become a physician	7 (8.2)	10 (11.8)	20 (23.5)	26 (30.6)	22 (25.9)	85 (100)
2. Your lifestyle outside of work	12 (14.1)	15 (17.6)	24 (28.2)	20 (23.5)	14 (16.5)	85 (100)
3. Control of your personal time	13 (15.3)	19 (22.4)	30 (35.3)	15 (17.6)	8 (9.4)	85 (100)
4. Your income	9 (10.6)	14 (16.5)	30 (35.3)	24 (28.2)	8 (9.4)	85 (100)
5. Your overall quality of life	6 (7.1)	10 (11.8)	30 (35.3)	31 (36.5)	8 (9.4)	85 (100)
6. Your day-to-day happiness	8 (9.4)	11 (12.9)	27 (31.8)	28 (32.9)	11 (12.9)	85 (100)

Table 4 Mean total of the perception of university preparation score for general physicians by self-satisfaction score (n=85)

Perception of university preparation score	self-satisfaction score					
	μ	Sd	Test		Regression	
			ANOVA	Sig.	r	Sig.
Job skills	15.02	4.88	8.29	.005	.303	.005
Knowledge	24.17	3.77	4.19	.044	.219	.044
Self-management and Communication skills	15.87	6.14	8.04	.006	.297	.006
Total	55.03	11.50	12.16	.001	.359	.001

Note. μ =mean, Sd=Standard deviation, Sig.=Significant, r.=Regression

Discussion

The current study aims to assess the perception of primary health care general physicians' regarding the preparedness for practice provided by their university and their self-satisfaction. The current cross-sectional study was conducted among 85 primary health care general physicians who participated in the study with a response rate of $n = 85$ (88.54%).

In the current study, we found that 42.4% of the respondents agreed that medical school prepared them a little to be an excellent resident. In contrast, in a study conducted in the US, Chen found that more than half the number of residents (53.8 %) agreed that medical school prepared them well to become residents (Chen et al., 2015). Lachish et al. (2016) compared two recent cohort studies with earlier cohorts and concluded that changes are required in medical education improve preparedness for practice. Similarly, a hospital-based study by Hamed Al Sinawi in Oman used a PHPQ Questionnaire to compare PHPQ domains (Interpersonal skills, Confidence, Management, Science, Self-directed learning, etc.) and different participant characteristics. They found that 'Ninety-nine per cent of the graduates were either "well prepared" or "fairly well prepared" for hospital practice.' This could be due to residents' training in the hospital setting unlike the setting in our PHC (Al Sinawi et al., 2017). This contrast in perception between the current study and other studies could be due to university policies, curriculum, training methods, and lack of communication between stakeholders in the universities and the Ministry of Health in KSA.

With regard to university preparedness for job skills, the questions assessed the preparedness of the junior doctors in consulting resources, and 35.3% agreed that they are well prepared. These results corresponded with Chen's results (68.9%) (Chen et al., 2015). Similarly, correspondence was established about preparedness for medico-legal issues as well between our study and Chen et al. (2015)'s, with 27.1% and 31.3%, respectively, agreeing that they were prepared to deal with such issues. A systematic review to assess the effects of residency training programs on patient outcomes concluded that "adequate supervision, room for extra operation time, and evaluation of and attention to the individual competence of residents throughout residency training could positively serve patient outcomes" (van der Leeuw et al., 2012, p. 7). Another study by Dickson et al. (2013) found that pre-graduation assessment of medical school students or assessment at the beginning of post-graduation training might be helpful to identify gaps and thus ensure patient safety. This highlighted the importance of gaining adequate job skills while in undergraduate medical school. Therefore, we believe it will be worthwhile to focus on postgraduate competencies by universities. Furthermore, undergraduate preparation could improve resident practice, and this could have a positive impact on patient safety and satisfaction. Moreover, 40% of the participants in our study agreed that they were well prepared for social or cultural issues. Lopez et al., (2008) found that "cross-cultural care skills training is associated with increased self-perceived preparedness to care for diverse patient populations providing support for the importance of such training in graduate medical education". Hence, it is important to consider these gaps and provide exposure to these skills longitudinally during undergraduate medical education. We also found that the majority of general physicians feel sufficiently well prepared with regard to medical knowledge, which was assessed before graduating. These results corresponded to Chen et al. (2015)'s findings in which a large majority of the residents reported being very well prepared in medical knowledge and clinical skills.

Regarding efforts by the university to prepare residents in self-management and communication skills, the junior doctors reported not being well prepared either to deal with angry patients or to deal with fatigue management, respectively (41.2%, 49.4%). Similar results were found by Chen et al. (2015). Such competencies need to be addressed by universities and a job induction period should be established to enhance the transition of a resident from a medical student to a junior physician fit for clinical practice.

Overall, more than half the number of general physicians were well satisfied with their career (56.5%); nearly half of them were well satisfied with their overall quality of life and day-to-day happiness (45.9%, 45.8%, respectively), despite little satisfaction in matters of

lifestyle outside of work, personal time, and income (40%, 27%, and 37.7% respectively). These results too corresponded with Chen et al. (2015). This might be a consequence of the impact of university preparedness for their self-satisfaction as we found from the current study, which revealed a positive moderate significant correlation between university preparedness and self-satisfaction ($r=.359$, p value=.001).

Limitations

The small sample size despite a good response rate is one of the limitations of this study. It is moreover limited to one geographical area although it supports other studies, which helps in generalizing the study results. However, including other cities in Saudi Arabia will provide more representative findings.

Conclusion

Based on this descriptive study, nearly half the number of general physicians agreed that they are not sufficiently prepared to be excellent residents. Moreover, the respondents did not agree on university preparation for the job (very well and mostly). Data suggest that junior physicians feel underprepared for essential job skills, self-management, and communication skills, which are crucial for daily practice. Finally, universities should consider highlighting these gaps to provide the essential experience to undergraduate medical students before post-graduation practice. This improvement may enable future physicians to feel more confident about the challenges they may face in practice.

Recommendations

Our study results reveal the need for increasing pre-graduate training as well as on-the-job training to achieve self-satisfaction in medical practice and to enhance the quality of patient care. This may best be accomplished by improving the structure of medical schools to ensure greater affinity and efficacy in medical student experience upon graduation to have qualified future doctors who are more prepared for practice. It also involves reviewing and improving the study curriculum to enhance medico-legal, professional, and communication skills. It would also require increasing the efforts and collaboration between universities and the Saudi Ministry of Health.

The core finding of our study is that self-satisfaction is directly related to university preparedness, which should be enhanced further by comparison with other medical schools. Ideally, students should be evaluated to identify whether preparedness for practice has improved. A detailed study on university's efforts to prepare residents for job skills, self-management, the stressors of being a junior doctor, and to develop communication skills should be undertaken. Particularly, interventions to improve, for example, skills to deal with medicolegal issues, angry patients, and financial-, fatigue-, and time management should be considered along with exploring primary a health care service of their own.

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Competing interest:

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