

Assessing Medical Officers' Interest and Determinants for Enrolling in Postgraduate Diploma Program in General Practice: A Cross-Sectional Study

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Abstract — In Malaysia, primary healthcare plays a critical role in overall healthcare performance, provided by both the public and private sectors. However, many Medical Officers (MOs) and General Practitioners (GPs) lack postgraduate qualifications in general practice, which may affect the quality of primary care services. To address this gap, a Postgraduate Diploma Program in General Practice (PGDGP) was planned as an alternative to a master's degree in family medicine. This study aimed to assess MOs' interest in enrolling in the PGDGP and identify associated factors. A cross-sectional study was conducted from June to August 2022, involving 171 participants via an online Google platform. Results: The response rate was 85.5%, with most participants female (63.7%), predominantly Malay, with over five years of work experience, primarily from the central region, and mostly government doctors. A significant proportion (72%) were at the M20 level, and 69% expressed interest in pursuing higher education. Over 85% expressed a desire to upgrade their skills and knowledge, while over two-thirds considered their current skills and knowledge inadequate and were interested in the PGDGP. Factors such as personal monthly income, future job plans, desire for knowledge enhancement, interest in the field, family influence, and self-upgrading were significantly associated with interest in the PGDGP. Overall, these findings highlight practical implications for developing and promoting the PGDGP among MOs in Malaysia

Keywords—Postgraduate Diploma; medical officers; Primary care; determinants

I. INTRODUCTION

Primary healthcare in Malaysia represents a crucial component of the overall healthcare system, delivered through both public and private sectors. The primary care system is conceptualized as a multidimensional entity that significantly contributes to health system performance and population well-being [1]. Within this system, General Practitioners (GPs) serve as the cornerstone of primary care delivery, with approximately

8,000 private GPs currently practicing in Malaysia [2]. Despite this, a significant concern has emerged: many of these practitioners lack postgraduate qualifications in general practice, which may affect the quality of primary care services.

The pathway to general practice specialization in Malaysia currently offers multiple routes. Traditional avenues include master's programs offered by public universities, while alternative pathways comprise the Academy of Family

Physicians in Malaysia (AFPM) training programs and the Malaysian Ireland Training Programme (MinTFM). Despite these options, a critical challenge persists: less than 5% of 20,000 contract doctors have secured permanent positions, creating a significant barrier to career progression [3]. As a result, this situation necessitates developing alternative pathways for skills enhancement in general practice.

The role of GPs extends beyond managing acute illnesses and minor trauma to encompass comprehensive care including chronic disease management, maternal and child health, and emergency care. This expanded scope requires practitioners to maintain current knowledge, effective communication skills, and procedural competence [4]. While the Malaysian Society for Quality in Health (MSQH) provides accreditation for medical clinics, its focus primarily addresses basic skills and infrastructure rather than comprehensive quality of patient care.

The factors influencing healthcare professionals' pursuit of postgraduate education are multifaceted. Previous studies have identified job security, higher income, and lifestyle factors as key motivators [5]. In the Malaysian context, program availability, institutional reputation, and financial support play crucial roles [7]. However, limited research exists specifically examining Medical Officers' (MOs) motivations for pursuing postgraduate general practice training.

To address these challenges, we have developed the Postgraduate Diploma Program in General Practice (PGDGP), a Malaysian Qualifications Framework (MQF) Level 7 qualification designed as an alternative to traditional family medicine specialization. This 18-month program, delivered through open distance learning, aims to enhance practitioners' skills while accommodating their professional commitments. In particular, the program emphasizes practical skill development, evidence-based decision-making, and effective multidisciplinary collaboration.

Therefore, this study aims to assess MOs' interest in enrolling in the PGDGP.

1. Identify factors associated with enrollment interest
2. Evaluate program acceptance among potential participants
3. Determine the relationship between demographic factors and program interest

This research addresses a critical gap in understanding the factors influencing postgraduate general practice training in Malaysia and may inform the development of more accessible, effective training pathways for primary care practitioners.

A. Role of general practitioner

The GP plays a pivotal role in private primary care, extending beyond managing acute illness and minor trauma to include chronic illnesses (communicable and non-communicable), as well as maternal and child health. In emergencies, the family doctor is the first point of contact and requires up-to-date knowledge, effective communication skills, procedural proficiency, and access to well-equipped instruments and medications to treat patients. Moreover, effective communication and coordination with multidisciplinary teams and referral centres are essential [2].

The provision of solid patient care in primary care settings hinges on the family doctor's acquisition of both basic and advanced training skills.

Furthermore, the performance of GPs is evaluated through the MSQH accreditation process for medical clinics. Nonetheless, this accreditation primarily focuses on basic skills and infrastructure, with limited monitoring of the quality of patient care. Consequently, the continuity of care between the family doctor and the patient is compromised. Hence, there is a pressing need to further enhance programs tailored to GP development.

B. Factors that may influence higher education pursuit

According to Bhat's study, factors such as job security, improved income, and lifestyle contribute significantly to the pursuit of higher education [5]. Additionally, future career prospects are identified as a crucial determinant [5, 6]. Interest in medicine and the desire to acquire skills for flexible working hours and independence at work are also highlighted [6].

In the Malaysian educational context, Yusof et al. emphasized factors such as the availability of relevant programs, university reputation, faculty and lecturer quality, and financial support as key influences on pursuing higher education [7]. Similarly, international rankings and government budget allocations play significant roles [7-9]. At the same time, meeting parental expectations and peer influence are also cited as motivations for pursuing higher education. Although these factors have been extensively studied among full-time students, there remains a gap in understanding the factors influencing MOs in furthering their studies. In essence, understanding these reasons would help improve program design.

C. Overview of PGDGP

The PGDGP was designed as a significant educational offering and is classified at MQF Level 7 [10]. It is structured as an open distance learning program, allowing flexibility for participants. With a credit value of 30, the program lasts 18 months. Assessment methods include a balanced approach, with 60% of the evaluation relying on continuous assessment and the remaining 40% on examinations. The main purpose of this program is to improve skills and knowledge in their respective field. This programme is aimed at people who are already active in their respective fields. The result of this program includes improving their knowledge, skills, and understanding in the field, enabling them to assist in decision-making that is guided by ethical, social, and scientific evidence. In addition, this program aims to produce a responsible GP who can work effectively in a multidisciplinary team and demonstrates strong communication skills. This setup provides a comprehensive learning experience while accommodating participants' diverse needs.

The benefits of pursuing postgraduate diploma studies among MOs are well-documented, including the enhancement of medical knowledge and skills, ultimately leading to an improvement in the quality of practice [11]. In our local context, specialized programs in family medicine offer two distinct pathways: a master's program from public universities and a parallel path through the MintFM, which includes the Graduate Certificate of Family Medicine (GCFM) or the Advanced Training in Family Medicine (ATFM) in collaboration with the

Royal College of General Practitioners (RACGP) [12, 13]. These family medicine programs in Malaysia typically span four years.

Our PGDGP aims to address this gap by providing an opportunity for medical doctors, regardless of their job status, to enhance their general practice skills. Unlike traditional programs, participants are not required to be full-time clinicians before or during the program. Therefore, our survey seeks to assess the level of interest and acceptance among doctors in enrolling in the PGDGP, as well as the associated factors.

II. MATERIALS AND METHODS

A cross-sectional study was conducted using purposive sampling methods from June to August 2022, utilizing online platforms such as WhatsApp, email, and Facebook. The study included MOs registered under the Malaysian Medical Council and GPs residing in Malaysia. House officers and specialists were excluded from participation.

The sample size was determined using a non-probability sampling approach, referencing a study by Lam in 2006 titled "Why do primary care doctors undertake postgraduate diploma studies in a mixed private/public Asian setting" [11]. According to Lam's methodology, the formula for calculating sample size (n) is as follows:

$$n = \frac{N}{(1 + Ne^2)}$$

where:

N = Total population size (216)

e = Margin of error (5%) = 0.05

z-score (confidence level standard deviation) = 1.54 (assuming 95% confidence level)

Substituting the values into the formula:

$$n = \frac{216}{1 + 216(0.05)^2}$$

$$n = 140$$

Considering a 40% dropout rate due to the online study format, the calculated sample size was adjusted to 196 participants.

A. Ethical Approval

Ethical approval was obtained from the USIM Research Ethics Committee (PPPI/BM/FPSK/USIM/10122), and the study was registered with the NMRR (NMRR ID-22-00952-SYS).

B. Study Tools

The respondents were requested to complete a self-administered questionnaire comprising four distinct sections. Section one included sociodemographic questions, including age, gender, ethnicity, marital status, occupation status, duration of work, monthly income, and respondents' future concerns regarding their job. The second section covered respondents' interest in upgrading knowledge and skills in general practice, the programme duration that would attract them to join, and their topics of interest in general practice.

Section three involved respondents' reasons for enrolling in the program and acceptance towards PGDGP. This questionnaire was adapted from literature review [6, 7]. It comprises nine items and is categorized into five components

ranging from "not important" to "extremely important." Section four included a questionnaire on respondents' opinions, views, and interest in PGDGP. It is a 10-item questionnaire adapted from a readily available survey for a new master's and PhD programme in health sciences by research mode, compiled by a colleague in our medical faculty for our now-available postgraduate programmes. Details of the upcoming PGDGP were attached to the form, and respondents were asked to state whether they "agree" or "disagree" with them. Section five concerned respondents' interest in joining the PGDGP and was categorized as interested or not interested.

The questionnaire was reviewed by five panels of experts, comprising two family medicine specialists, a medical educationist, a psychiatrist, and a public health specialist, for content validity. It is available in English. The content validity of the questionnaire was evaluated using the Scale-Level Content Validity Index (SCVI), yielding an average Item-Level Content Validity Index (ICVI) ranging from 0.93 to 0.95. This indicates strong consensus among expert raters on the questionnaire's appropriateness and effectiveness in measuring the intended constructs. The internal consistency was excellent for sections two and three, which were 0.985 and 1.000, respectively.

C. Data Analysis

Data were analyzed using Statistical Package for the Social Sciences (SPSS) Software version 25.0. Descriptive statistics were presented as frequencies and percentages, and means $\pm$ SD. The chi-square test was used to examine associations between sociodemographic profile, reason for upgrading skills, and MOs' opinions on interest in joining PGDGP. Multiple logistic regression was used to identify factors associated with interest in joining PGDGP.

III. RESULTS

Of 200 respondents, 171 completed the study, and 29 were excluded for non-consent and incomplete questionnaires, yielding a response rate of 85.5%. This demographic study of Malaysian MOs reveals a workforce with a mean age of 35.62 (6.364) years, predominantly female (63.7%), and majority Malay (48.5%), followed by Indian (30.4%) and Chinese (18.1%). Most are married (72.5%) and work as permanent government MOs (56.1%), with the majority having more than five years of experience (72.5%). Income-wise, 70.2% earn between RM4850 and RM10971 monthly. Notable career aspirations indicate 69% plan to pursue higher education. The workforce is concentrated in urban areas (60.8%) and the central region (60.8%), suggesting a centralized distribution of medical personnel in Malaysia's healthcare system.

The data revealed a strong desire among MOs to enhance their primary care capabilities, with an identical 85.4% expressing the desire to upgrade both their skills and knowledge in this field. Notably, when assessing their current competency, only 30.4% consider their skills and knowledge adequate. On the other hand, the largest group (40.9%) remain neutral about their current capabilities, and 28.7% explicitly acknowledge inadequate primary care abilities. This suggests a significant gap between current competency levels and desired primary care professional development. Among surveyed

medical doctors, 62% (n = 106) expressed interest in pursuing a PGDGP, while 38% (n = 65) exhibited no interest.

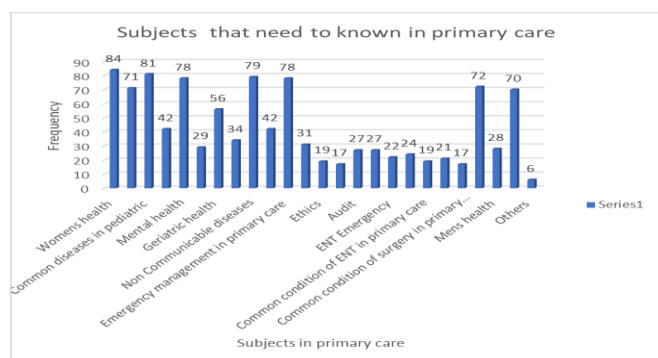


Figure 1. Subjects that need to be known at the Primary Care Level.

The assessment of learning needs in primary care, as illustrated in Figure 1, revealed women's health (84%), paediatric diseases (81%), emergency management (79%), and primary care management (78%) as the highest priorities, followed by non-communicable diseases (56%) and geriatric health (42%). This suggests a strong emphasis on maternal and child health services alongside acute care management in primary care settings.

Table I indicates that personal development was the primary driver for upgrading skills and knowledge, with gaining knowledge and self-improvement ranking highest (64.9% each). This was followed by a desire for broader experience (59.6%) and greater job satisfaction (57.3%). Professional interests were also significant, with 50.3% rating field interest as very important. Notably, external influences such as family (7.6%) and peer pressure (6.4%) had minimal impact on participants' motivation for professional development. These findings imply that intrinsic motivators significantly outweigh external factors in healthcare professionals' pursuit of additional training.

Table 1. Reasons for upgrading skills and knowledge

	Not very important at all n (%)	Not important n (%)	Somewhat important n (%)	Important n (%)	Very important n (%)
I want to gain knowledge.	0	2 (1.2)	11 (6.4)	47 (27.5)	111 (64.9)
I have an interest in field the of study.	1 (0.6)	4 (2.3)	12 (7.0)	68 (39.8)	86 (50.3)
I want to feel better about job satisfaction.	1 (0.6)	1 (0.6)	12 (7.0)	59 (34.5)	98 (57.3)
I want to widen my experience.	1 (0.6)	0	6 (3.5)	62 (36.3)	102 (59.6)
My family want me to join the program.	43 (25.1)	53 (31.0)	38 (22.2)	24 (14.0)	13 (7.6)
My friends want me to them.	47 (27.5)	65 (38)	39 (22.8)	9 (5.3)	11 (6.4)
I want to get a better income.	8 (4.7)	17 (9.9)	35 (20.5)	67 (39.2)	44 (25.7)
I want to enjoy flexible working hours.	5 (2.9)	11 (6.4)	21 (12.3)	50 (29.2)	84 (49.1)
I feel the program will be helpful for me to upgrade myself.	1 (0.6)	3 (1.8)	7 (4.1)	49 (28.7)	111 (64.9)

Table II describes the MOs' opinions and their interest in enrolling in a proposed PGDGP. Interestingly, most respondents agreed with the proposed opinion. The top four views that received the highest agreement (more than 80% agreement) include the following: 88.9% agreed that the program would benefit those who are keen to upgrade their knowledge, 86.5% perceived the proposed syllabus as contributory to the program's strength, 83.6% agreed that multidisciplinary lecturers involved in this program are important, and 80.7% acknowledged the program's alignment with the criteria for general practice.

However, concerns are raised regarding the acceptability of the fee structure, with a notable proportion of respondents (45.6%) expressing dissent in this regard. Additionally, a significant minority (31%) questioned the program's coverage of subjects, and 26.3% felt the duration of the program is not suitable.

Table III provides the associations between sociodemographic characteristics and interest in the PGDGP. Chi-square analysis revealed that personal monthly income ($p = 0.006$) and future career plans ($p = 0.043$) were significantly associated with interest in enrolling in the program. Notably, MOs in the middle-income bracket (RM4850-RM10959) presented the highest interest (69.2%), while those with higher incomes ($> RM10960$) demonstrated substantially lower interest (39.4%). This suggests the program may appeal most to mid-career professionals. Similarly, those planning to pursue higher education (65.3%) or join the private sector (72.7%) expressed greater interest compared to those intending to maintain their current status until retirement (43.5%).

Table II. Medical officers' opinion, view and interest in PGDGP Program

	Disagree (n)	%	Agree (n)	%
I feel the program fulfils the criteria of becoming a general practitioner.	33	19.3	138	80.7
The proposed syllabus contributes to the strength of the program.	23	13.5	148	86.5
The proposed program covers all the subjects.	53	31	118	69
Multidisciplinary lecturers involved in this program.	28	16.4	143	83.6
I feel the duration of the program is suitable.	45	26.3	126	73.7
I feel the mode of delivery of the program is acceptable.	36	21.1	135	78.9
I feel the timing of delivery is sufficient.	44	25.7	127	74.3
I feel the fee structure is acceptable.	78	45.6	93	54.4
I feel the program is sufficient to enhance my skills and knowledge.	36	21.1	135	78.9
I feel the program would benefit medical officers who are keen to upgrade their knowledge .	19	11.1	152	88.9

Table III. Association of sociodemographic factors and interest among medical doctors

		No interest n (%)	Interest n (%)	Total	P value ^a
Gender	Male	24 (38.2)	38 (61.3)	62	0.887
	Female	41 (37.6)	68 (62.4)	109	
Race	Malay	27 (32.5)	56 (67.5)	83	0.543
	Chinese	14 (45.2)	17 (54.8)	31	
	Indian	22(42.3)	30 (57.7)	52	
	Others	2 (40)	3 (60)	5	
Marital status	Single	20 (46.5)	23 (53.5)	43	0.342
	Married	43 (34.7)	81 (65.3)	104	
	Divorced	2 (50)	2 (50)	4	
Occupation	Permanent government doctors	36 (37.5)	60 (62.5)	96	0.729
	Contract government doctors	12 (34.3)	23 (65.7)	35	
	Private resident doctors	3 (60)	2 (40)	5	
	Private general practitioner	41 (40)	21 (60)	62	
Duration of working as medical doctors	Less than 2 years	6 (50)	6 (50)	12	0.196
	2 to 5 years	9 (25.7)	26 (74.3)	35	
	More than 5 years	50 (40.3)	74 (59.7)	124	
Personal monthly income	Less than RM 4850	8 (44.4)	10 (55.6)	18	0.006
	RM 4850 – RM 10959	37 (30.8)	83 (69.2)	122	
	More than RM 10960	20 (60.6)	13 (39.4)	33	
Future plan concerning job	Pursue higher level education	41 (34.7)	77 (65.3)	118	0.043
	Join private sector	6 (27.3)	16 (72.7)	22	
	Become academician	3 (100)	0 (0)	3	
	Continue current status until retirement	13 (56.5)	10 (43.5)	23	
	Others	2 (40)	3(60)	5	
Current working region	Northern	8 (32)	17 (68)	25	0.930
	Central	39 (37.5)	65 (62.5)	104	
	East	4 (40)	6 (60)	10	
	Southern	10 (43.5)	13 (56.5)	23	
	West	4(44.4)	5(55.6)	9	
Place of work	Urban	43(41.3)	61(58.7)	104	0.263
	Rural	22(32.8)	45(67.2)	67	

^aP Value < 0.05 is significant

Table IV demonstrates the relationship between various motivational factors and interest in the PGDGP. Chi-square analysis identified four statistically significant associations: gaining knowledge ($p = 0.016$), interest in the field ($p < 0.001$), family influence ($p = 0.020$), and desire for self-upgrading ($p = 0.014$). The strongest association was observed for interest in the field, where 67.5% of those considering this factor important expressed interest in the program, compared to only 11.8% among those who did not value field interest. Interestingly, while family influence was significant, peer influence was not ($p = 0.077$), suggesting that close family support may play a more crucial role than broader social networks in educational decisions among medical professionals.

Table V revealed multiple significant associations of program acceptance with interest levels. Most program aspects highlighted significant associations ($p < 0.05$) with interest levels: fulfillment of criteria ($p = 0.010$), proposed syllabus contribution ($p = 0.004$), subject coverage ($p < 0.001$), multidisciplinary team involvement ($p = 0.023$), program duration ($p < 0.001$), mode of delivery ($p = 0.005$), fee structure ($p = 0.045$), enhancement of skills and knowledge ($p < 0.001$), and benefit to MOs ($p = 0.004$). Only timing sufficiency presented no significant association ($p = 0.123$). Notably, among those who agreed with each aspect, interest levels were consistently higher (65-72%) compared to those who disagreed, with subject coverage highlighting the highest interest (72%) among those in agreement.

Table VI presents the final multiple logistic regression model identifying factors independently associated with MOs' interest in enrolling in the PGDGP. Using the forward selection method, two variables emerged as significant predictors: 1. Coverage of subjects: MOs who agreed that the program covers all subjects reported significantly higher odds of being interested in the program compared to those who disagreed (OR = 0.372, 95% CI: 0.175-0.793, $p = 0.01$). The inverse odds ratio ($1/0.372 = 2.69$) indicates that disagreeing with the comprehensiveness of subject coverage was associated with approximately 2.7 times higher odds of disinterest. 2. Program duration: Similarly, MOs who agreed that the program duration was suitable presented higher odds of interest compared to those who disagreed (OR = 0.418, 95% CI: 0.19-0.924, $p = 0.031$). The inverse odds ratio ($1/0.418 = 2.39$) indicates that disagreeing with the program duration was associated with approximately 2.4 times higher odds of disinterest. These findings suggest that acceptance of the program structure, specifically subject coverage and duration, is the most important independent predictor of interest in the PGDGP when controlling for other factors.

Table IV. Reasons for upgrading skills and knowledge and its associated factors with interest in PGDGP Program

Variable	Not important / Important	No interest		Interest		Total	P value
		f	%	f	%		
Gain knowledge	Not important	9	69.2	4	30.8	13	0.016
	Important	56	35.4	102	64.6	158	
Interest in the field	Not important	15	88.2	2	11.8	17	0.000
	Important	50	32.5	104	67.5	154	
Job satisfaction	Not important	8	57.1	6	42.9	14	0.124
	Important	57	36.3	100	63.7	157	
Widen knowledge	Not important	4	57.1	3	42.9	7	0.287
	Important	61	37.2	103	62.8	164	
Family influence	Not important	57	42.5	77	57.5	134	0.020
	Important	8	21.6	29	78.4	37	
Peer influence	Not important	61	40.4	90	59.6	151	0.077
	Important	4	20	16	80	20	
Better income	Not important	23	38.3	37	61.7	60	0.949
	Important	42	37.8	69	62.2	111	
Flexi working hours	Not important	18	48.6	19	51.4	37	0.132
	Important	47	35.1	87	64.9	134	
Upgrade myself	Not important	8	72.7	3	27.3	11	0.014
	Important	57	35.6	103	64.4	160	

f = frequency

Table V. Association of program acceptance and interest level

Variable	Disagree / Agree	No interest		Interest		Total	P value
		n	%	n	%		
Fulfill the criteria	Disagree	19	57.6	14	42.4	33	0.010
	Agree	46	33.3	92	66.7	138	
Proposed syllabus contribute to the program	Disagree	15	65.2	8	34.8	23	0.004
	Agree	50	33.8	98	66.2	148	
Program covers all the subjects	Disagree	32	60.4	21	39.6	53	0.000
	Agree	33	28	85	72	118	
Multi-disciplinary team involved	Disagree	16	57.1	12	42.9	28	0.023
	Agree	49	34.3	94	65.7	143	
Duration is suitable	Disagree	28	62.2	17	37.8	45	0.000
	Agree	37	29.4	89	70.6	126	
Mode of delivery acceptable	Disagree	21	58.3	15	41.7	36	0.005
	Agree	44	32.6	91	67.4	135	
Timing is sufficient	Disagree	21	47.7	23	52.3	44	0.123
	Agree	44	34.6	83	65.4	127	
Fee structure acceptable	Disagree	36	46.2	42	53.8	78	0.045
	Agree	29	31.2	64	68.8	93	
Enhance skills and knowledge	Disagree	23	63.9	13	36.1	36	0.000
	Agree	42	31.1	93	68.9	135	
Benefit medical officers	Disagree	13	68.4	6	31.6	19	0.004
	Agree	52	34.2	100	65.8	152	

Table VI. Factors independently associated with interest level to join PGDGP

Variable	Ref.	Odds Ratio	P value ^a	(95% CI OR)
Cover all subjects	Agree	0.372	0.01	(0.175; 0.793)
	Disagree			
Suitable duration	Agree	0.418	0.031	(0.19; 0.924)
	Disagree			

^aP Value < 0.05 is significant

IV. DISCUSSION

Our regression analysis revealed two key program characteristics (subject coverage and program duration) as significant independent predictors of interest in the PGDGP. While bivariate analysis identified multiple factors associated with program interest, these associations did not hold in multivariate analysis, highlighting complex interrelationships among factors.

The inverse relationship between program comprehensiveness and participant interest is particularly notable. For every unit increase in perceived subject coverage adequacy, the odds of exhibiting interest increased approximately 2.7-fold. Likewise, agreement with program duration appropriateness increased the odds of interest by about 2.4 times. These findings suggest that MOs, particularly those in government service (> 56% of respondents), have specific expectations regarding program scope and time commitment.

A. The Malaysian Context

This study represents one of the first comprehensive assessments of MOs' interest in pursuing general practice (GP) postgraduate diploma training in Malaysia. The descriptive analysis revealed that 64% of female respondents expressed interest in the program, although this gender difference was not statistically significant. This gender distribution mirrors international trends, particularly in the United Kingdom (UK),

Australia, and Slovenia, where female participation in GP training programs is notably high [14, 15]. However, it contrasts sharply with findings from countries such as Austria, Switzerland, Germany, Hungary, and Italy, where GP specialization remains male-dominated [15]. This implies a progressive shift in Malaysia's primary care landscape.

Some local studies have focused on undergraduate perspectives. Chan et al. highlighted the advantages and disadvantages of exposure to the GP course during medical school. Senior students demonstrated a better understanding of and attraction toward primary care, whereas others perceived it as routine, unchallenging, and poorly remunerated [16]. Nevertheless, the findings of this qualitative study require contemporary validation, given the recent proliferation of GP clinics across Malaysia. More recent studies, such as Kumar et al., indicate that while many medical students plan to pursue clinical specialties or government service, gender and training year significantly influence career choices [17].

Nadarajah et al. indicated primary care ranking third (14.6%) among house officers' specialty choices, after medical and surgical pathways, though their identified influencing factors (age, family background, work schedule) differed from our findings [18]. These findings reveal that while current trends predict a mushrooming of GP clinics in Malaysia, choosing hospital-based clinical specialties still ranks relatively higher

among medical graduates, depending on certain sociodemographics.

B. International Perspectives

International studies provide valuable context for our findings. In the UK, Gale et al. reported that only 26% of doctors pursued GP training exclusively, with females and non-white doctors exhibiting a higher likelihood of choosing this path [19]. Danish studies present moderate interest (36%) in GP careers [20, 21], aligning with national efforts to expand the primary care workforce to reach 5,000 GPs by 2030. In other countries, such as Ireland, curriculum and personal factors drove choices to work in primary care [22]. Meanwhile, in Nepal, male postgraduate doctors tend to choose surgery, orthopaedics, and internal medicine as career options [23]. Overall, these international comparisons highlight how perceptions of GP as a career choice vary across healthcare systems.

C. Motivational Factors and Program Design

Our analysis found that personal development and knowledge acquisition (64.9%) were the primary motivators, outweighing external factors such as financial gains or peer influence. This aligns with previous findings by Yusof et al. [7] and Fernandez [8] on factors influencing the pursuit of higher education. The high interest in specific areas, women's health (84%), paediatric diseases (81%), and emergency management (79%), provides clear direction for curriculum prioritization. This, in turn, reflects the comprehensive nature of primary care practice described by Grol et al. [4].

D. Strengths and Limitations

The study demonstrated significant strengths, including a high response rate (85.5%) and robust validation metrics (SCVI 0.93-0.95, internal consistency 0.985-1.000). Comprehensive data collection from both public and private sectors provides valuable insights for developing healthcare education. Nonetheless, limitations include potential selection bias from online-only and purposive sampling, geographical concentration in the central region (60.8%), and demographic skew toward female (63.7%) and Malay (48.5%) participants. The cross-sectional design and pandemic-period data collection (June-August 2022) may affect generalizability.

E. Implications for Practice

These findings have important implications for program development, particularly given the documented need for enhanced primary care services in Malaysia [24, 25]. These suggest that successful GP training programs should balance comprehensive coverage with practical duration constraints, potentially through modular approaches or flexible learning pathways. The strong preference for specific clinical areas should inform curriculum prioritization, while the identified motivational factors can guide program marketing and structure.

The study revealed significant strengths, including a high response rate of 85.5% and robust validation through expert panel review, with excellent SCVI (0.93-0.95) and strong internal consistency (0.985-1.000). Comprehensive data collection on demographics, motivations, and program preferences from public and private sector MOs across

Malaysia provided valuable insights for healthcare education development.

V. CONCLUSIONS

The study reveals significant interest (62%) among Malaysian MOs in pursuing the PGDGP, with program duration and content scope emerging as key determinants of enrolment interest. The findings emphasize participants' preference for focused, efficient training pathways driven by personal development goals. This ultimately provides valuable guidance for educational institutions in developing postgraduate GP training programs that effectively meet both practitioners' needs and healthcare system requirements.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this paper.

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DECLARATION OF AI-ASSISTED TOOLS USAGE

AI-assisted tools were used solely for language editing to improve grammar, clarity, and readability. An AI-detection assessment reported a score below 15%. The authors have critically reviewed and verified all revisions and accept full responsibility for the accuracy, originality, integrity, and entire content of the manuscript.

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