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## Perceptions of the Effectiveness of Mentoring Programme among Medical Students In a Private University in Selangor, Malaysia

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### Abstract

Mentoring is a type of program which helps to foster professionalism and develop a personality in the newer generation of medical students by a role model who is their assigned mentor. This study is aimed to identify the perceptions of medical students towards the effectiveness of mentoring programme. This cross-sectional study was conducted for a period of 7 weeks. A self-administered questionnaire was used to gather data among 857 students. The results showed that 83.9% of students have good perception towards the mentoring function. There is a significant association between the phase of study in all aspects of mentor's potential ( $p < 0.001$ ). The clinical students have a better perception on mentor potential as a role model, envisioner, energizer, feedback giver, door-opener, idea-bouncer, career counsellor and challenger compared to the pre-clinical students. Besides that, there is a significant association between mentoring function and phase of study ( $p < 0.001$ , 95% CI= 0.1, 0.19) and the mean result is higher in students who are available during the mentoring hours compared to students who are not available ( $p = 0.02$ , 95% CI= 0.01, 0.12). In conclusion, the mentoring programme was found to be effective as majority of the respondents had good perception towards the programme. More attention should be given to the program by allocating more flexible time arrangement.

### Key Words

Mentoring, Medical students, Private university, Malaysia

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### Introduction

Mentoring is a key to a successful and satisfying medical career as reported by several authors<sup>1-3</sup>. The development of mentoring took place in the USA in early 1970s and it aimed to support junior staff in corporate offices. Later in 1990s, mentoring programme was introduced in medical education also in various medical schools across the world including Malaysia<sup>4</sup>.

Medical students learn medical professional skills to assimilate into the culture of medicine and choose a career path best fitting their interests and skills. Mentoring provides several demonstrated benefits. Research suggests mentoring can decrease attrition in medical school<sup>5</sup> and influence personal developments of students, their career choice and research productivity<sup>6</sup>. A mentor is defined as an experienced and trusted counsellor or guide. Mentors can also be important to teaching and modelling the essential ethics and professionalism to navigate the hidden curriculum<sup>7</sup>.

Although mentorship may be helpful, without a structured programme, students may have difficulty finding mentor. Barriers to find mentors may include discomfort with asking, not meeting a faculty mentor with a similar career interest or not meeting a faculty mentor with similar personal interest<sup>8</sup>. Barriers for faculty to be successful mentor include lack of time, lack of training and lack of financial incentives. Other than these, generation gap is also a hot factor in mentoring process.

Mentoring has been identified as an important social intervention for supporting medical students. It has been observed great academic achievement less absence from school and more positive attitude towards school<sup>9-11</sup>.

The aim of current study was to identify the perception of medical students towards the effectiveness of mentoring programme and the factors influencing this effectiveness.

**Methods**

A cross-sectional study was conducted among 857 medical students of Year 1 to Year 5 in 2015 with response rate of 84.94%. A Non-probability convenience sampling was applied in this research as this method was suitable to be used within the short time frame. A validated questionnaire based on five point likert scale (1= strongly disagree, 2= disagree, 3= not sure, 4= agree, 5= strongly agree) was administered to undergraduate medical students (n= 857) between September to November 2015. The instrument had demographic information, general perception on mentor – mentee system, academic support, personal development and emotional and psychological support.

Questionnaire was distributed to students and a written consent form was obtained from them. High scores indicated the better perception for that particular section of the instrument. Using the Statistical Package for Social Sciences (SPSS) version 20.0 data were analysed and the significance level was set ( $p = 0.05$ ).

The study was approved by research ethics committee of the university.

**Results**

857 students out of 1009 undergraduate medical students completed the questionnaire. Of the 535 (62.4%) respondents were in their clinical year and 322 (37.6 %) were pre-clinical students. 551 (64.3%) of the students aged less than 23 and 306 (35.7%) of the them aged more than 23 as shown in table 1.

The prevalence of students' perception towards mentoring was 16.1% with low perception and 83.9% has high perception (table 2).

Table 3 showing the Comparison of mean score for student's perception on mentoring function between clinical and pre-clinical students. There was a significant association as  $p$  value =  $<0.001$ . Mean difference = 0.14 with 95%CI = (0.1,0.19).

There was a significant association ( $p$  value  $< 0.001$ ) between the year of study (preclinical and clinical) with the student perception on mentors potential as a role model as shown in table 4.

**Discussion**

Based on the final data analysis from 857 MBBS students which completed the questionnaire, about

No	Variables	N (%)
Year	Year 1	141 (16.5)
	Year 2	181 (21.1)
	Year 3	199 (23.2)
	Year 4	171 (20.0)
	Year 5	165 (19.3)
Gender	Male	238 (27.9)
	Female	616 (72.1)
Race	Malay	552 (64.6)
	Indian	228 (26.7)
	Chinese	32 (3.7)
	Others	43 (5.0)
Age	< 23	551 (64.3)
	>23	306 (35.7)
Residence	State bound	374 (44.2)
	Out of state bound	473 (55.8)

**Table 1:** Socio demographic information of the undergraduate medical students (n = 857)

Variables	Categories	N	%
Mentoring function	Low perception	138	16.1
	High perception	719	83.9

**Table 2:** Prevalence of student's perception towards mentoring function.

Variable	Clinical	Pre-clinical	Mean	t-statistic (df)	p value
	(n = 535)	(n = 322)	difference (95		
			% CI)		
	Mean (SD)	Mean (SD)			
Perception	1.79	1.93	0.14	6.28	<0.001
	(0.41)	(0.26)	(0.1,0.19)	(853)	

**Table 3:** Comparison of mean score of student's perception on mentoring function between clinical and pre-clinical students.

Variable	n	Pre-Clinical	Clinical	X <sup>2</sup> Statistics	p-value
(Model)		n (%)	n (%)	(df)	
Low	440	122	318		
	(51.3 %)	(27.7 %)	(72.3 %)		
High	417	200	217	37.371	<0.001
	(48.7 %)	(48.0 %)	(52.0 %)	(1)	
Total	857	322	535		
	(100.0 %)	(37.6 %)	(62.4 %)		

**Table 4:** Comparison between Pre-Clinical and Clinical student on mentor potential as a role model.

83.9% prevalence of the MBBS students have high perception towards the mentoring function and only 16.1% with low perception. This might be due to the idea of the mentoring programme as a way to lead the younger generation especially those from burdened foundations and at danger of a censurable misconduct with a positive good example<sup>10</sup>. Apart from that, this program is also believed to offer the honesty towards the goodness care and moral support, which can test negative perspectives among the youth<sup>12</sup>. A cross sectional study was carried on 314 medical students in University Science Malaysia (USM) to identify the student's perceptions and attitude towards mentoring. The results showed 45.9 % of the students perceived the BigSib Students' Peer-Group Mentoring Programme as successful. About 60% of the students perceived it as an effective mentoring function in developing their soft skills and professionalism. The study concluded that, medical students have positive attitudes toward the program and it is perceived as a successful and effective program in developing student's personal attributes<sup>13</sup>. Our research finding regarding this measurement is supported with this result and both of these studies showed that majority of the students have high perception towards the mentoring function.

Because of class size increase, identifying a mentor is more challenging. Lack of mentoring has been associated with increased stress and less opportunity for academic achievement<sup>13</sup>. A limited research regarding effectiveness of formal mentoring programmes has been reported<sup>15,16</sup>.

Based on our research, there is a difference in the mean score of student's perception on mentoring function between clinical and pre-clinical students. The results showed mean (SD) for the clinical students is 1.79 (0.41) and the mean (SD) for the pre-clinical student, 1.93 (0.26) with p value = <0.001. This showed that the pre-clinical students have higher perception towards the mentoring function compared to the clinical student. The reason for this is that the students might found mentor to be a valid means of support especially in the early phases of training. Mentors were seen to satisfy a socializing role as they passed on norms of behaviour and ward routines<sup>17</sup>.

Besides that, pre-clinical students of MBBS MSU have a higher mean score of perception on mentoring system which is 0.941(0.236) compared to clinical students. The reason is they can improve their acquisition on clinical skills and the development of a positive professional identity through mentoring program. The system for evaluating preclinical student's learning is meant to strengthen the integration of basic and clinical

sciences and this can be achieved through a good mentoring program. Based on a recent study conducted by Cheah Whye Lian et al.<sup>18</sup> which compared the perception between second year medical students (pre-clinical) and fifth year medical students (clinical) shows a pre-clinical students also had a better perception towards mentoring program compared to clinical students with a mean score of 3.57 (SD=0.74) and 2.92 (SD=0.95) respectively. This difference is found to be significant ( $p < 0.001$ ). Thus, it showed that both of the studies stated that pre-clinical students have higher perception towards mentoring programme.

### **Recommendations**

#### **1) Recommendations for Mentors**

Mentors can be trained to improve their ways and soft skills to approach students for better future mentoring programmes. They should aim for a swift adaptation towards their own mentoring group by creating more interesting programs together in terms of curricular and extra-curricular.

Mentors can discuss with their mentees regarding preferences, abilities, interests, achievements, novelty, and practical relevance. They can also assist students in their study methods, teaching them to learn the basic concept of medicine, and also monitoring tasks that had been given to the students.

Besides that, mentoring programme will be more interesting and able to achieve greater success when a good and strong relationship is developed among faculty advisors, mentors, and students. Thus, students will engage a better comfort level among participants of the particular programme.

Mentors not only assist in professional knowledge and career development, but they also can assist in personal potential revealing of their mentees.

#### **2) Recommendation for Mentees**

Mentees should give full commitment towards the mentoring programme such as being punctual, cooperative, responsive, and completing the tasks given appropriately.

Furthermore, mentees must be willing to accept their mentor regardless of the mentor's nationality, race and gender. This is very important in terms of adaptability for their future development career. For example, students must be flexible in order to fit in or work better in new environments.

Otherwise, in order to create a good perception towards the mentoring programme for students, they can suggest to organize various outdoor activities rather than a passive meeting in the

classroom. Apart from that, mentees can learn from their mentors on how to develop effective communication skills which can help in all aspects of their life in the future.

3) Recommendation for MBBS Mentoring Programs  
IMS should assign clinical mentors to clinical students and vice versa. This will bring a lot of positive impact and influence in many aspects such as emotional, psychological and career development for the students. For example, for clinical students, mentors can give their personal view regarding scopes of their future career, soft skills and communication skills. It is also recommended that the faculty should consider setting a more flexible time arrangement for the mentoring hours.

### Conclusion

In conclusion, the mentoring programme was found to be effective as majority of the respondents had good perception towards the programme. More attention should be given to the program by allocating more flexible time arrangement.

### Conflicts of interest

The authors declare no conflict of interest.

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