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Malaysian Specialists' Involvement in Research: Attitudes, Barriers and Facilitators

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ABSTRACT

In Sabah, the research tradition still needs to be improved due to the need for more participation of specialists in the field of research. Their views and attitudes towards research still need to be improved and expanded. Therefore, this study aimed to assess the willingness of specialists to participate in research and their attitude towards research, as well as the barriers and facilitators in conducting research in government hospitals. This cross-sectional descriptive study was conducted among specialists in three government hospitals in Kota Kinabalu, Sabah using self-administered questionnaires. A total of 49 specialists responded to the questionnaires distributed. Only 44.9% of respondents were involved in research. All the respondents thought that research was advantageous to both patients and society. However, lack of access to expertise, software or statistical analysis and too much red tape in obtaining approvals were among the top barriers to doing research. The main facilitators were to receive acknowledgement of research achievement for their career advancement. In conclusion, most specialists have a positive perception towards research, but more than half of them were not involved in any research during this study.

INTRODUCTION

Medical research is critical to advancing patient care and is significant to the discipline. Disease surveillance, diagnosis, treatment and prevention advances rely heavily on quality research, and research also influences healthcare policies (Lavis et al., 2008; Pager et al., 2012; Sabzwari et al., 2009). However, research in the Malaysian healthcare system is still very new and developing, especially in Sabah. In addition, Malaysia faces difficulties in medical research, and most work is compromised due to flawed methodology, lack of research training and background of researchers. Thus, for health systems to be improved and better health outcomes to be achieved, robust national health research programmes are required.

Specialists are a key "driving force" and catalyst for expanding research in their institutions (Teh et al., 2013). Individuals' critical thinking abilities are crucial for research. A study from Taiping Hospital found that most specialists working in northern Malaysia believed that research benefits patients and society and helps their professional development. However, most are not involved in research, and one-third are unlikely to participate due to their current working conditions (Teh et al., 2013). Several studies have also examined attitudes and research interests among doctors in various specialities and sub-specialities.

Building the capacity to undertake research in health professional groups is a priority. The involvement of specialists in clinical research is essential to improve clinical services in healthcare facilities. This is because specialists play a significant role in policy-making and changing clinical practices for their respective departments and units (Lansang & Dennis, 2004). Thus, there are considerable difficulties to overcome. To successfully cultivate research culture in government hospitals, it is essential to understand and highlight the attitudes, barriers and facilitators faced by specialists so that future research is more in number, better in quality and more significant in impact. However, little is known about specialists' perceptions towards research. Therefore, this study aimed to understand better how attitudes, barriers and facility specialists in Sabah government hospitals in Sabah to do research.

MATERIALS AND METHODS

A cross-sectional descriptive study was conducted in three government hospitals in Kota Kinabalu, Sabah, which were Queen Elizabeth Hospital (QEH), Queen Elizabeth Hospital II (QEH II) and Sabah Women and Children Hospital (SWACH) between September 2015 and October 2015. This study included only those specialists working in government hospitals. Those who were non-personnel of government hospitals or visiting specialists were excluded. Clinical Research Centre distributed self-administered questionnaires in each hospital to their specialists. The questionnaire had been validated (Teh et al., 2013). No personal identifiers or personnel's personal information were collected. Informed consent was taken from the first page of the questionnaire. The questionnaire consists of five sections: (A) personal particulars, (B) attitude, (C) barriers, (D) facilitators and (E) comments and suggestions. All responses were presented categorically (yes/no and by ranking the importance of facilitators given without repeating the same number, from one as the most important to eight as the least important). In total, there were 33 questions, 10 questions for attitude, 15 questions for barriers and 8 questions for facilitators.

All data were analysed using IBM SPSS Statistics version 24. Data were expressed as descriptive statistics such as percentages and frequencies for attitudes and barriers and scoring for facilitators among specialists towards research. No inferential statistics are involved as study objectives are fulfillable with descriptive

statistics and limited respondents. This study was approved by the Medical Research and Ethics Committee (MREC), Ministry of Health, Malaysia (NMRR-15-1294-27149).

RESULTS

Among the 122 questionnaires distributed, 49 were completed, giving a response rate of 40.2%. Responses by three hospitals were QEH (28), QEH II (5), and SWACH (16). The demographic characteristics of the respondents are shown in Table 1. The study's respondents were mainly males (n = 31; 63.3%). Most respondents belonged to the 30 – 39 years age group (n = 23; 46.9%), and the mean age was 40 years old (SD 5.341).

Table 1 Demographic characteristics of respondents (n = 49)

	n	%
Gender add		
Male	31	63.3
Female	17	34.7
*Missing data	1	2.0
Age range		
30 – 39	23	46.9
40 – 49	19	38.8
≥ 50	2	4.1
*Missing data	5	10.2
Designation		
Head of department	15	30.6
Consultant specialist	15	30.6
Specialist	11	22.4
Specialist under gazettement	7	14.3
*Missing data	1	2.0
Directorate		
Surgical	13	26.5
Women and child health	10	20.4
Medical	9	18.4
Others	16	32.7
*Missing data	1	2.0

There were an equal number of heads of department and consultant specialists (n = 15; 30.6%). Most respondents worked in surgery (n = 13; 26.5%), followed by women and child health (n = 10; 20.4%). Most respondents received research training (87.8%) and had research experience (85.8%) in the past five years. However, only 44.9% currently had involvement in research (Figure 1). Attitudes towards research are given in Table 2.

Figure 1 Training and experience of the respondents and their current involvement in research (a) research training in the past five years; (b) research experience in the past five years; (c) current involvement in research

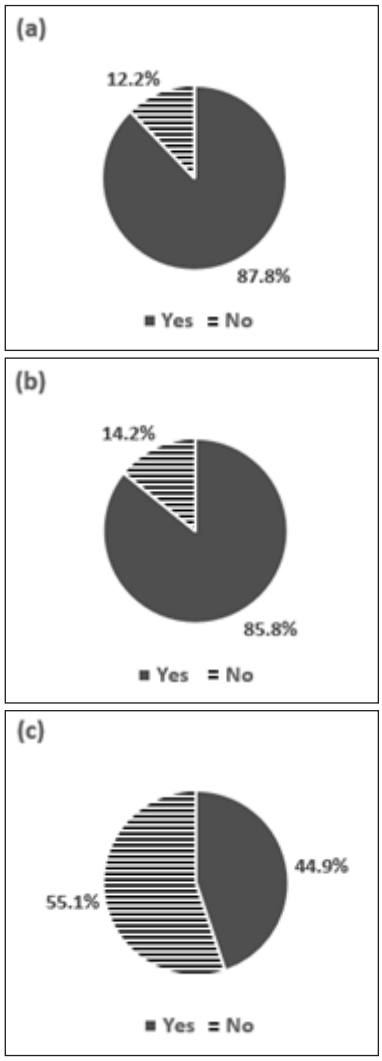

Table 2 Attitudes of specialists towards research (n = 49)

	n	%
I think research benefits patients and society	49	100
I think research helps to improve healthcare systems and policies	49	100
I think research helps in my professional development	46	93.9
I think research achievement given consideration in promotion exercise	35	71.4
I can carry out my clinical duties and do research at the same time	29	59.2
I think research is difficult and too time consuming	26	53.1
Research is in my job description	23	46.9
I think research could be harmful to my patients	7	14.3
I think research may affect my 'doctor-patient' relationship	7	14.3
I think research is a waste of time	1	2.0

All the respondents thought that research benefited patients and society (n = 49; 100%) and helped improve healthcare systems and policies (n = 49; 100%). Table 3 shows the perceptions of barriers to doing research. Lack of access to expertise, software or statistical analysis (n = 43; 87.8%) is the primary concern among specialists doing research in government hospitals.

Table 3 Specialists' views regarding barriers to research (n = 49)

	n	%
Lack of access to expertise, software or statistical analysis	43	87.8
Too much red tape in obtaining approvals (NMRR/NIH/MREC)	42	85.7
Lack of funds for research	41	83.7
Lack of mentors	39	79.6
The desire for work or life balance	36	73.5
Inconsistent number of doctors in my department	36	73.5
No coordinated approach to research in my department	36	73.5
Lack of access to journals and articles	35	71.4
Inadequate skills in research	34	69.4
Inadequate opportunities for training	34	69.4
It interferes with my daily work schedule, e.g., clinic duties, ward rounds, etc.	28	57.1
Lack of recognition from top management	27	55.1
Lack of encouragement and support from the department/institution	26	53.1
Research is not a priority in my department	25	51.0
Community distrust of research	12	24.5

The order of importance of facilitators is shown in Table 4. Recognition of research achievement for promotion was ranked as the most critical facilitator (score = 198), followed by professional development and peer recognition (score = 208).

Table 4 Importance of facilitators or motivators for research

	Score
Recognition of research achievement for promotion	198
For professional development and peer recognition	208
Financial incentives	211
Potential to benefit patients and institutions	223
Consideration for research scholarships	230
Seeing colleagues with research achievement	231
Ministry support to present at international conferences/scientific meetings	258
Getting CME credit	260

The lowest score reflects the most important facilitators or motivators.

DISCUSSION

This study provides valuable information on the attitudes, barriers and facilitators towards the research of specialists working in three tertiary hospitals in Kota Kinabalu, Sabah. Most respondents have attended research training such as Good Clinical Practice and protocol development training, whilst some had done research at their master's or PhD levels. Moreover, many respondents also have research experience as principals or sub-investigators in the past five years, which comprises doing research for their postgraduate requirement, involved in self-initiated or industry-sponsored research. Although the respondents may have adequate exposure and experience in research, their involvement at the time of this study was lower than half. This may result from the heavy workload that specialists deal with; once they begin working with patients, they cannot be more in research. In addition to that, specialists may think that research is not their primary job duties (Jowett et al., 2000).

In this study, most specialists positively perceive research, but more than half were not involved in any research. These results were in line with results from previous studies in Taiping (Teh et al., 2013) and studies from Caldwell et al. (2017) and Reali et al. (2021). Most believe that research benefits patients and society and thus improves the quality of care for patients and practices. Moreover, in recent years, several new guidelines for conducting research in the Ministry of Health (MOH) (2021), Malaysia's institutions and facilities were established, and a national funding programme was introduced to promote research culture in MOH.

Lack of access to expertise, software or statistical analysis was a significant barrier in conducting research, possibly due to statistician manpower shortage and inadequate funds to buy the statistical software. Moreover, too much red tape in obtaining approvals from the National Medical Research Register (NMRR), National Institutes of Health (NIH) and MREC, and lack of funds for research were also identified as the second and third most significant barriers. These perceived barriers have become the reason for the MOH management to document the level/frequency of research activity at the ministry level and to keep track of the approved and supported project, such as funding, to combat the arising issue National Institutes of Health (NIH), 2021). Furthermore, a few studies also identified that time, financial constraints, busy clinical practices, difficulties overcoming IRB hurdles, infrastructure support, lack of mentors and lack of interest as significant barriers to clinicians' involvement in research (Bakken et al., 2009; Jowett et al., 2000; Lloyd et al., 2004; Rosemann & Szecsenyi, 2004).

The top three excellent facilitators or motivators were recognition of research achievement for promotion, professional development and peer recognition, and financial incentives. This is consistent with the findings in Bakken et al.'s (2009) study. The results show that most specialists appreciate

research; however, in our practice, some specialists are still unaware of it being a professional obligation, unlike their colleagues in countries like the United Kingdom or America, with a much longer tradition in research, do. They are willing to participate in research mainly to improve their reputation and as an acknowledgement of their professional career.

CONCLUSION

In conclusion, this study provides valuable information for formulating strategies to increase specialist participation in research in government hospitals. Most specialists are trained and have experience in research, and they also believe that research benefits patients and society. However, not many engage in research due to barriers they face. This study also identifies key facilitators or motivators for specialists: promotion through recognition of research accomplishments. Therefore, MOH should pay attention to the barriers faced by specialists and facilitators, which motivate them to conduct research. Furthermore, steps and strategies should be implemented to reduce perceived barriers and increase awareness of research resources to improve the research environments.

CONFLICT OF INTEREST

The authors declare that they have no competing interests in publishing this article.

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