Specialist Retention in Sabah: A Qualitative Study

LIM MING YAO[1], TEONG WIN ZEE[1,2]

[1] Clinical Research Centre, Hospital Queen Elizabeth, Malaysia
[2] Pharmacy department, Hospital Queen Elizabeth, Malaysia

*Correspondence: teongwz@gmail.com

ABSTRACT

Healthcare workforce is the key to driving a successful healthcare system. Having sufficient manpower and ensuring their availability at healthcare facilities at various locations throughout the country is a common challenge faced by healthcare administrators worldwide. Such problem is also ubiquitous in the context of Malaysia, with some of the states being less urbanized than the other. Particularly, the lack of specialists in East Malaysia has resulted in suboptimal specialist-to-patient ratio. In this study, we want to explore the pulling and pushing factors for them to work in Sabah. A total of eleven doctors of different seniority currently working in a tertiary hospital in Sabah participated in focus group discussion. Thematic analysis was employed to analyse all data. Eleven themes emerged and were divided into two main categories, i.e. (1) reasons against specialist retention and (2) reasons for specialist retention. Underlying the reasons against specialist retention in Sabah is the lack of recognition of the unique challenges of Sabah by the federal government, which then brings about scarcity such as disproportionate allocation of resources and higher workload due to bigger coverage area compounded by the lack of personnel. As specialists struggle to deliver quality service to the people of Sabah, some end up frustrated and decide to leave Sabah either by transferring to Peninsular Malaysia or quit the public service altogether. Conversely, reasons for specialist retention in Sabah includes being able to spend more quality time with family, a strong sense of community and more opportunities for improving clinical skills. In a nutshell, at present state, more effort and policies need to be put in place to attract and incentivize specialist so that they are willing to serve in East Malaysia.

Keywords: Human resource for health, specialist retention, healthcare management, qualitative health research

Article Info
Received 23 April 2020
Accepted 8 May 2020
Published 31 May 2020

INTRODUCTION

"Mere availability of health workers is not sufficient: only when they are equitably distributed and accessible by the population, when they possess the required competency and are motivated and empowered to deliver quality care that is appropriate and acceptable to sociocultural expectations of the population, and when they are adequately supported by the health system, can theoretical coverage translate into effective service coverage" (WHO, 2010). For that purpose, the World Health Organization (WHO) has developed the Global Strategy for Human Resources for Health with the objective of substantially increase the recruitment, development, training and retention of the health workforce in developing countries.

Regardless of the socioeconomic status, many countries are confronted with the problem of unequal distribution of healthcare personnel. Difficulty in training, and retaining the healthcare workforce as well as maintaining the quality and performance of healthcare services are common issues that reverberate in many countries (World Health Organization, 2016). Usually, a higher proportion of healthcare personnel are situated in urban and wealthier places (Darkwa et al., 2015).

Similar trends are also observed in Malaysia. Malaysia consists of Peninsular or West Malaysia and East Malaysia. With the capital located at Kuala Lumpur in the central peninsular, the concentration of the healthcare workforce is much higher in the more developed states in Peninsular Malaysia such as Selangor, Penang, Johor and Perak (Sivasampu, S, Lim, 2011). This has translated to unequal distribution of healthcare workers affecting different fields and specialties. For instance, the number of psychiatrists available in Wilayah Persekutuan Kuala Lumpur is 5.24 per 100,000 population while in Sabah, the ratio stands at 0.54 per 100,000 population (Ng et al., 2018). This appalling discrepancy in terms of distribution of specialists, unfortunately transpires across many specialities including general medicine, paediatrics, anaesthesiology, and so on (Faizah, A, 2013).

Allocation of resources from the federal government is based on the size, population and needs of the different districts and states. The rural and remote areas, however, still suffers from uneven deployment of facilities and resources (Quek, 2014). Sabah is the second largest state of Malaysia in terms of geographical area, located in East Malaysia on the Borneo island, with a population of 3.9 million (Department of Statistics Malaysia, 2019). However, the state has long suffered from untoward effects as a result of unequal allocation of medical workforce, especially doctors.

Overall, there is an increase in the number of doctors across the nation from 45,555 in 2015 to 50,087 in 2017 (Department of Statistics Malaysia, 2017); however, the geographical distribution remains unequal. In 2013 there were 17.91 and 11.98 doctors per 10,000 population in the west and east coast of peninsular Malaysia respectively; but only 7.38 doctors (including trainee doctors) per 10,000 population in Sabah region. (Planning Division, Ministry of Health, 2016).

The comparison of number of specialists between Sabah and the rest of the country is even more astounding. In the Klang valley region, comprising of Kuala Lumpur, Putrajaya and Selangor state, there were 47.55 specialists per 100,000 population in 2013. Sabah region, on the other hand, only had 9.09 clinical specialists per 100,000 population. For many clinical specialties such as internal medicine, orthopaedic and paediatrics, Sabah also had the lowest ratio of all regions, often having less than 1 specialist per 100,000 population or 2 to 4 times lower than that of Klang Valley (National Clinical Research Centre, 2015). Considering the vast geographical area of Sabah, the shortage of medical doctors is acutely felt by the administrators and locals alike.

With that in the background, we wanted to find out the reasons for this maldistribution of specialists in Sabah. In particular, the objective of this study is to explore the factors contributing to specialist retention in Sabah in order to assist relevant stakeholder in the policy making process for retaining specialists in Sabah.

STUDY DESIGN

This is an exploratory qualitative study conducted via focus group discussion (FGD) with a semi-structured interview guide. FGD was chosen over in-depth interview because the investigators believed that given the nature of the topic of interest, the interaction between different participants will be able to stimulate each other and enable a more fruitful discussion compared to individual in-depth interview.

Ethical consideration

Ethical approval for this was obtained from the Malaysian Medical Research Ethics Committee (MREC), Ministry of Health Malaysia prior to commencement of the study (NMRR-19-1337- 48031). Approval was also obtained from the director of the hospital where the study was conducted. The participants were given time to read the participant information sheet prior to signing the informed consent form. All the data published for this study are anonymized and no personal data will be published.

Participants

A list of potential participants was generated by the hospital administrators after the investigators informed them of the study. 16 potential respondents were recruited based on their seniority – less than 5 years of experience (junior specialists), those with 5 to 10 years of experience (senior specialists) and also those with more than 10 years of experience (consultants). This grouping was done as the investigators hypothesized that the reasons for retention for specialist might vary according to their seniority. Each focus group consisted of participants with approximately the same level of experience. This was done as the investigators feel that the participants are more likely to open up and share in front of their peers.

Within each group, all participants were of similar age, with a maximum of 6 years difference. They differ in terms of their medical disciplines, gender, marital status and family background. The heterogeneity of these characteristics enables the interviewers to gather a multitude of views and thoughts about the topic at hand. Invitation letter stating the objectives of the study was sent to potential study participants and also to excuse them from their clinical duties, with the approval from their heads of department, to participate in the FGD sessions. Prior to the FGD sessions, the investigators do not personally know the participants nor did they have further information about the study.

Interviewer

Both the investigators were first-time moderators and had attended an introductory workshop on qualitative research. Both originated from Peninsular Malaysia and have been working in Sabah for at least two years.

Semi-structured interview guide

A semi-structured interview guide was developed by both authors after a thorough literature search. The guide was largely based on a systematic review done by Willis-Shattuck et al. in 2008 (Willis-Shattuck et al., 2008) on the motivation and retention of healthcare workers in developing countries. The aspects that the authors wished to explore in this study were financial, career development, job definition and workload, administrative issues in the healthcare system, resources and social and personal factors. Open-ended questions and prompts such as "If you had to pick only one factor that was the most important to you, what would it be?" were used to elicit other possible aspects that the authors did not anticipate.

Focus group discussion

Three sessions of focus group discussions were carried out from 16 May 2019 to 21 May 2019 in one of the meeting rooms in the hospital. Within the meeting room, chairs were arranged in a circular manner. Each group consisted of 3-5 participants. All FGD sessions were moderated by the investigators. The first and third sessions were moderated by LMY assisted by TWZ as notetaker, whereas the roles were reversed for the second session. The moderator interviewed the participants based on the interview guide. The notetaker took down notes including non-verbal cues during the FGD session.

Informed consent by all the participants were taken before the start of the discussion. The discussions were conducted entirely in English and a mixture of colloquial Malay. At the start of the session, the moderator explained the ground rules, reiterated the purpose of the study and introduced the participants. To maintain the confidentiality and privacy of the session, the participants were assigned a nickname that was used throughout the session and also later on during the transcribing process. The entire session was audio recorded.

DATA ANALYSIS

The voice recording was transcribed ad-verbatim and cross-checked by both investigators. No translation was required as the interview was conducted fully in English. The occasional occurrence of Malay language or other colloquial terms were interpreted in that context of the conversation. Field notes were read and cross-checked with the transcript by verifying with the audio recording.

Following the transcription, two investigators analysed the transcript independently via thematic analysis following Braun and Clarke's recommendations (Braun & Clarke, 2006). QDA miner lite version 2.0.6 were used to aid the process of analysis. A theory-driven initial coding process was carried out separately by each individual investigator. Both investigators then met up to discuss about the codes and differences in views were discussed until consensus is reached. In the process of discussion, codes were merged and removed into sub-codes, then further aggregated into themes accordingly. The codes and themes were then verified again with the data set to ensure that the themes capture the essence of the data. Participants were not involved in the entire analysis process from transcription to coding.

Participant Observation at Research Site

Participants

11 out of 16 invited specialists took part in this study. Six were men and five were women. Ages of the participants range from 31 to 58 years old, with the median of 38 years. The duration of service in Sabah among the participants range from 2 years to 15 years with the mean of 8.27 years. The discussions lasted 74 to 98 minutes. Table 1 summarises the participants in this study.

Table 1: Summary of participants in this study

FGD session	Position	Number of participants	Years working in Sabah
1	Consultant	3	> 10 years
2	Senior specialists	3	5-10 years
3	Junior specialists	5	< 5 years

FINDINGS

The factors were categorised into two main categories, i.e. reasons against and reasons for specialist retention in Sabah. A total of six themes emerged for the reasons against specialist retention in Sabah, while for reasons for specialist retention in Sabah, there were a total of five themes.

Reasons AGAINST specialist retention in Sabah

Underlying the core of this issue are the unique challenges in Sabah, for example the underdeveloped infrastructure and vast distance from Peninsular Malaysia, that are not recognised by the federal government. This brings about the themes of scarcity – disproportionate allocation of resources to develop and deliver quality services, and higher workload due to bigger coverage area compounded by the lack of personnel. As such, healthcare personnel expect financial incentives and advantages in their career pathway such as preferential selection for career progression to offset the hardships that they face in East Malaysia.

As specialists struggle to provide service to the people of Sabah, some end up frustrated and decide to leave Sabah either by transferring to Peninsular Malaysia or quit the public service altogether. Some of the unique challenges of Sabah that the participants feel that are not being considered by the federal government while channelling resources are as follows:

1. Underdeveloped infrastructure in Sabah

Sabah constitutes a large geographical area that is half of peninsular Malaysia, with the mountainous Crocker Range dividing the state into two. The relatively underdeveloped infrastructure in the state as compared to Peninsular Malaysia gives rise to many problems such as logistics issues and inadequate healthcare coverage. Unlike in Peninsular Malaysia where there is north-south expressway that allows rapid transfer of patient between district hospitals and tertiary referral centres, transferring of patients in Sabah often implicates navigation through several hundred kilometres of treacherous road up and down the hilly ranges. Such driving condition might be exacerbated at night, as en route paths are often devoid of lamppost, impeding ambulance driver's assessment of actual road condition.

> "…if Kajang can have 12 [specialists], Sandakan can have 24! Sandakan is much more bigger la, you look at the coverage area, Kajang […] about 20 minutes away is Serdang. You know, people are there in another new hospital. Whereas Sandakan, the nearest hospital can be flying time…" (Consultant 3)

> "…whether you like it or not, infrastructurally [sic] we are still backward…" (Consultant 3)

This study took place in the largest tertiary referral centre of the state, and some participants also expressed that the infrastructure within the hospital itself is archaic and inadequate. The consequences of lack of upgrading of basic infrastructure comes at the expense of compromising work efficiency or even, workplace safety.

> "…yeah. Infrastructure is one la. For example, in my department the computer ah, (laugh) very difficult- I mean like, we want to trace results all, I mean, very difficult to open. Computer very slow. I think it's quite old already la." (Junior specialist 2)

> "…Like us in cy- uh, in cytology, in doing the preparation of the sample like urine, your... sputum, everything, we should have the... uh... what, the... safety cabinet, you know. But we don't have that... We don't have the emergency eye wash…!" (Junior specialist 5)

2. Lower standards of living in Sabah

Sabah is one of the states in the country with the lowest GDP per capita at MYR 25,861 in 2018. In contrast

with Kuala Lumpur, the capital city of Malaysia, its GDP per capita is more than 4 times higher at MYR 121,293 in the same year (Department of Statistics Malaysia, 2019). The private healthcare sector in Peninsular Malaysia, especially in the urban areas, are well-established as compared to that in East Malaysia. As such, the first choice for healthcare needs of the public naturally falls to the public healthcare institutions.

> "...what they must understand from the other side is, there are a lot of people in Sabah who actually not so well off. Okay, so a lot of people who don't have insurance cover […] there is no other choice other than coming to the [government] hospital […] our hands are tied, 'cause our budget is very limited, you know, so, and we are catering to a bigger crowd, bigger state…" (Consultant 3)

Stemming from the above aspects, the subsequent sub-themes on scarcity that emerged from our discussions are used to justify as possible reasons for the participants to leave the state.

3. Many participants feel that there is insufficient manpower in terms of number of specialists available to cope with the workload. The limited number of specialists and medical officers in the state meant that they are required to cover a larger geographical area and bigger population to provide adequate service to the locals. The increase in workload may trigger the intentions of specialists to transfer out of the state.

> "…Everywhere [in Sabah] only has one [consultant], a maximum of two. And you are considering covering the whole of Sabah, which is the second largest state [in Malaysia], so people get tired. And I mean they might not leave Sabah but they might leave to private la, it's one or the other…" (Junior specialist 1)

> "…so, every [hospital in] Sabah will post to us […] the workload I think triple, quadruple, from compared than the peninsular Malaysia […] With their number of pathologists more than us…" (Junior specialist 5)

4. Disproportionate allocation of funds from the federal government in contrast with the needs of the state is also one of the major issues that was brought up by all the participants. Annual budgets and workload statistics that were submitted were not accepted; instead, a reduced amount of funding was given to the state. Many, if not all, of our participants highlighted the fact that the federal government should not treat Sabah as just another state in Peninsular Malaysia. Challenges that are unique to Sabah such as logistic issue should be taken into account when allocating and channelling funds to the state. With the insufficient amount of funds allocated to the state, the quality and number of services that can be provided by the healthcare workers are limited.

> "... they just give the same amount [of funding] to all the states. […] You know, they're not opening their eyes to see what is going on here. Sabah and Sarawak are a bit different, […] you see the numbers already..." (Senior specialist 3)

> "I think will be about 10% la, what we are getting from our [budget] request…" (Junior specialist 2)

5. Lack of preferential treatment for career development: Last but not least, all of our participants think that there should be a preferential treatment for career development when working in East Malaysia. Deployment of medical personnel from the peninsular to East Malaysia remains an unpopular choice as East Malaysia is generally viewed as a remote posting, one filled with hardships. All our interviewees feel that more incentives should be provided in terms of career development. The lack of preferential treatment is a major issue not only for junior specialists in terms of postgraduate specialisation, but also in career promotion for the senior specialists and consultants.

> "…when talk about the promotion, so we have to compete with, uh... peninsular Malaysia. So, okay, let's say, for instance, give example like me, ok, I'm 12 years already, I'm head of service, but compare to whole Malaysia, so I'm the only one who left without jusa..." (Consultant 1)

> "…we should be given advantage in the sense that, you know, if let's say I were to ask for subspecialty later […] In comparison people are already talking about you know so hifi-wifi things already, but you know we are still struggling at scratch but.. yeah experience is not there in comparison to others, but we should be given advantage la, I feel…" (Junior specialist 3)

> "…We are here, we don't even get anything out of it… We are still treated as second class citizen. The only thing is that you don't queue up in the foreigner counter la, we are still under the Malaysian counter with the passport in the hand. So, I think that has to change la. That is probably one of the biggest drawbacks over the years that they never addressed…" (Consultant 3)

Reasons FOR specialist retention

On the other hand, we identified 5 sub-themes for reasons for the specialist to be retained in Sabah. They are: challenges at work that provide opportunities to improve clinical skills; desire to develop the service in the state; having more quality time; culture of Sabah; and being near with family.

1. Challenges at work which provide opportunities to improve clinical skills: A general perception held by many doctors in the country is that there is more exposure to rare diseases in Sabah, as well as more hands-on opportunities to perform surgical procedures. These training opportunities constitute as a strong pull factor for clinicians who wish to improve their clinical skills.

> "By coming here, there is a lot of opportunities and also exposure, compared to peninsular Malaysia […] I can do a lot of things, I can learn a lot of things…" (Junior specialist 4)

> "…we knew Sabah was one of the better places for training even those days…" (Consultant 3)

> "The cases are [sic] quite… varieties… and then give me a lot of challenges here also… compared than in peninsular Malaysia, here is more challenging, not straightforward, so that thing makes me more skilled." (Junior specialist 5)

2. Sense of altruism was often mentioned as one of the deciding factors for specialists to continue to stay and serve in Sabah. They find joy in their work of providing care and expertise to their patients, which led them to remain the state. This sub-theme appeared repeatedly throughout all the discussions.

> "…three years is not enough to develop the emergency medicine in Sabah. So, I said I must sacrifice myself. [short pause] Not sacrifice la, I tried… for fraternity, okay. So, I have to remain longer…" (Consultant 1)

> "...we're doing this for you, yes I'm not a Sabahan, I'm doing this for you…"(Senior specialist 3)

3. Near with family: Being near with family plays a big factor for specialists to decide whether to remain in Sabah. Some of our participants either married the locals or followed their spouses to Sabah. For those who already have children, the preference of family members is also taken into consideration into the decision of moving workplace.

> "Main reason why I choose Kota Kinabalu is because of my spouse…" (Junior specialist 2)

> "…the remaining factor we never ask for transfer is my children also like the place." (Consultant 2)

4. More quality time: Our study participants have either worked in Kuala Lumpur previously or had heard of anecdotes about the horrendous traffic jam and fast pace of life in the capital. Sabah as one of the sparsely populated states in the country, enjoys relatively less traffic jam. This allows our participants to enjoy more quality time with their families and develop hobbies and other personal aspects of their lives. The slower pace of life in the state also plays a role as one of the deciding factors to remain in the state.

> "…No jam, here. And quality time that I can, for instance, play music. […] I don't get a chance to learn in KL (Kuala Lumpur) 'cause most of the time on the road…"(Consultant 1)

> "…I come here, I can see my children go to school […] you don't see your children over there. Ok, you are stuck in the traffic jam all the time…" (Senior specialist 3)

"…So basically, here I would say that you have a very good blend of the relaxed lifestyle then yet you have so called like the facilities or you know, the things that you can enjoy while you are in city." (Junior specialist 3)

5. Sense of community: The local Sabahans generally have a calming and relaxed attitude, and they have a strong sense of esprit de corps that extends even to workplace with new staff. Perhaps a blessing from being far away from Peninsular Malaysia, many of the racial and religious polarisation issues that are common there did not find their way here. All our participants enjoyed working in Sabah because of the pleasant working and living environment that was difficult to get elsewhere.

"…the working environment in the hospital is still better than most of the hospitals in the peninsular. There's no politics, there's no polarisation..."(Consultant 3)

"…there is a difference between people in sort of West Malaysia compared to here which I find more... better here […] nicer, work together […] And community wise, like your neighbours, […] more closer, even though your neighbours not the same race or the same religion. You are more open..." (Junior specialist 4)

Figures 1 and 2 summarise the reason against retention of specialists in Sabah.

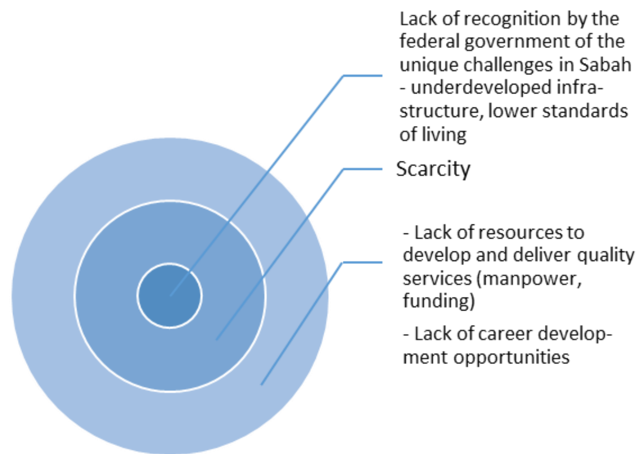

Figure 1: Mapping of the reason against retention of specialists in Sabah

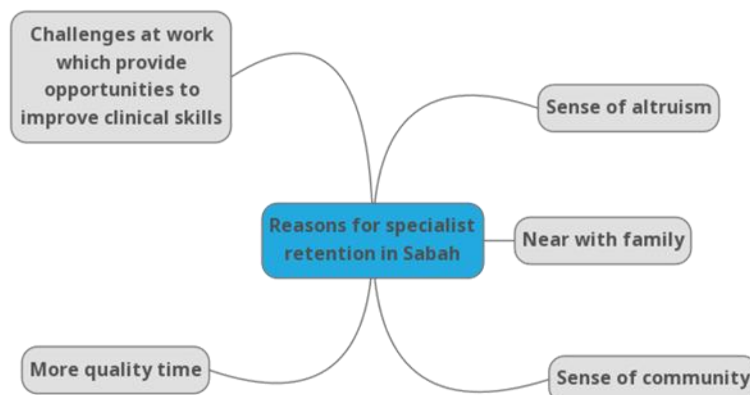

Figure 2: Mapping of the reasons for specialist retention in Sabah

DISCUSSION

Human resource is a dynamic and complicated issue, with most of the themes and factors that we have mentioned are inter-related. Sabah is a state with challenges in many aspects that are unique to the state. The paucity of resources is among one of them. Lack of resources is a critical factor shared by many similar studies that has shown to deter medical personnel from rural regions (Darkwa et al., 2015; Keane et al., 2012). Inequitable allocation of resources from the federal government caused considerable difficulty for the doctors to expand or even provide quality services to patients. They are forced to stretch their already inadequate budgets or facilities in order to accommodate the rising demand of healthcare by the locals. Based on the data published by National Healthcare Statistics Initiative, Malaysia, in terms of the number of hospitals per population, number of beds per population, number of mammogram machines per population available for Sabah, is among the lowest as compared to the other states in the country (National Clinical Research Centre, 2015). These physical infrastructures are not easily expandable as they require planning, procurement budget and time. Unlike human resources where transfer of staff between states is plausible, one cannot simply move the entire hospital building from one state to another.

As a result, it leads to a dearth of resources mentioned above being incommensurate to fulfil the needs of the state. This in turn will cause tremendous pressure onto healthcare workers to deliver quality services with insufficient resources. Clinicians may be compelled to make ethical compromises that is in conflict with their clinical judgments. Ethical compromise that may arise from this situation is one of the factors that 'push' specialists away from rural regions (Keane et al., 2012). The frustration and stress may lead to clinicians transferring out of the state or leaving the public health system altogether.

GDP per capita is a widely used indicator for measuring the standards of living. According to the data published by the Department of Statistics Malaysia, the GDP per capita of Sabah is the 4th lowest in the country (Department of Statistics Malaysia, 2018). Low GDP per capita translates into lower average income overall. Despite the lower average income, the cost of living is relatively higher in Kota Kinabalu compared to that of Peninsular Malaysia. This has catastrophic repercussion on the healthcare services. As the spending power is lower, most are not able to afford healthcare insurance, let alone pay the exorbitant fees charged by private hospitals. Therefore, most will choose to seek help at government facilities. That accounts for the heavy workload as repeatedly mentioned by several participants. When the limited resources like manpower and budget are over-stretched, the resource-scare environment might add on intangible stress to the already hectic working pattern of the specialist.

Providing additional financial incentives is one of the popular strategies in attracting talents to serve in district or rural areas (Darkwa et al., 2015; Kotzee & Couper, 2006; Nagai et al., 2017; Wibulpolprasert & Pengpaibon, 2003). It also functions as a compensation for challenges in working in a remote area, such as skills attainment (May et al., 2017). In other words, providing monetary incentives may be able to "level out the uneven playing field" between those who work in remote areas and those in urban setting (Darkwa et al., 2015). Interestingly, it is not the main reason for our participants to being retained in the state. Most of our participants (nine out of eleven) are originally from Peninsular Malaysia, thus enjoy extra financial incentives as part of their remuneration. All of them argued that cost of living in Kota Kinabalu is higher than in many places in Malaysia, if not one of the highest, which effectively cancels the perks of a higher salary. Other studies (May et al., 2017; Nagai et al., 2017; Purohit & Bandyopadhyay, 2014; Willis-Shattuck et al., 2008) also find that financial incentives do not rate high in the priorities of clinicians. The sustainability of increasing financial remuneration is questionable as well. As there are other factors at play that affect the recruitment and retention of specialists, they all should be considered as part of the big picture in crafting a comprehensive policy for human resource retention.

On the issue of lack of preferential treatment for career development, we find that similar issue has been brought up by a study done in Tanzania on the same topic, where there is no uniform mechanism for career development in terms of promotion and specialisation (Sirili et al., 2018). Our participants mentioned that special opportunities or privilege for career development were said to be allocated for those who are working in East Malaysia, but they did not feel its impact. Consultants also mentioned that merit-based promotion should be specially allocated for those working in the state, instead of competing with their counterparts in Peninsular Malaysia. Healthcare workers are more motivated to be retained in rural regions when they think that there are opportunities for career progression (Darkwa et al., 2015; Willis-Shattuck et al., 2008).

The various challenges at work that provide opportunities to improve their clinical skills is one of the few reasons that some participants decide to remain in the public healthcare sector. There are a large variety of clinical presentations and many opportunities for hands-on experiences. Many studies have shown that work variety that provides challenges and intellectual stimulation is an important retention factors for health professionals in rural and remote areas (Keane et al., 2012; Kotzee & Couper, 2006; May et al., 2017; Purohit & Bandyopadhyay, 2014). Despite this, high amount workload that became unmanageable can also cause these specialists to move away from the state (Keane et al., 2012). East Malaysia is perceived by local healthcare workers to be a good place for clinical training; hence this is one aspect that can be leveraged to retain specialists in this region.

Nonetheless, few participants commented that trainings for many subspecialties are not available in Sabah. One has to undertake the subspecialty training in Peninsular Malaysia, which poses significant logistic issue. These trainings may take years to complete. Some specialists may decide to stay in Peninsular Malaysia after their studies, thus further worsening the problem of brain drain. Drawing from this example, concerted efforts should be channelled to develop subspecialties that are important for the people but still unavailable at Sabah at the moment. A Bangladesh study showed that career development is the main reason for doctors' willingness to work in the state (Darkwa et al., 2015).

Sense of altruism is also one of the main factors that affect the retention of specialists. It has been shown elsewhere that doctors and other healthcare workers who wish to make a difference and contribute to the people is a compelling reason for doctors to be recruited and retained in rural areas (Darkwa et al., 2015; Keane et al., 2012; May et al., 2017; Purohit & Bandyopadhyay, 2014). The deep personal and professional satisfaction our participants feel when their contribution is being appreciated is one of the major reasons for their retention in Sabah. Excellent workplace culture and sense of community also contribute to the 'pull' factor for specialists to remain in East Malaysia (May et al., 2017).

Access to Peninsular Malaysia is an important factor as well. Two of our participants mentioned that the great distance between Sabah and Peninsular Malaysia and being far away from their families as one of the hindrances for being retained in the state. As compared to many other profession, medical doctors generally settle down slightly later in life. This is not unfathomable as the medical degree itself, takes at least five years to complete. Graduating from medical school is merely the beginning of the entire career, the subsequent internship, otherwise known as "houseman-ship" in the context of Malaysia, requires a minimum of two additional years. By the time that the medical graduates complete their training, most of their peers who are in the non-medical field, would have already progressed to the next phase of their life by getting married, having children, etc. This race against time is seemingly never ending for the doctors who have chosen to pursue a clinical career. Upon completion of houseman-ship, many will then compete for a spot in the Master's Program in order to advance to the next level of the hierarchy, becoming a clinical specialist. The current minimum duration needed to complete a clinical Master's Program is four years.

For this reason, many doctors tend to build their family later compared to their peers. With that backdrop, it is comprehensible that if given a choice, most likely a doctor will want to spend more time with their family whenever possible to compensate for all the time lost in the process of pursuing their career. For some participants whose family are already in Sabah, it was mentioned that that was one of the reasons for them to stay and continue to serve in Sabah. As such, being near with family is double-edged sword as depending on the location of their family, it can either deter them or entice them to work in Sabah. Having social connections in the state via family or friends may increase the possibility of recruitment and retention of personnel (May et al., 2017) in Sabah. Darkwa et al. showed that the joy of working in one's home state will make the workers more likely to stay (Darkwa et al., 2015). A successful example is in Thailand where the government provides education and training in regional and rural areas (Wibulpolprasert & Pengpaibon, 2003). A possible strategy to this issue at hand may be home placement and local recruitment.

Some participants of this study mentioned that as a result of less traffic congestion in Sabah, they are able to reduce their commuting time and spend more time with their family. This is in keeping with the finding above that most participants will prioritize the time with their family. The time saved instead are better spent on personal leisure activities like picking up an instrument. According to a study published by Boston Consulting Group, on average, people living in Kuala Lumpur spend an average of 53 minutes stuck in traffic jams every day (Dancel, 2017). That is about 6 additional hours per week, which can be spent on other activities or just resting.

One of the fascinating findings identified is the "sense of community" as a pulling factor for the participants to be retained in Sabah. The generally welcoming and accepting vibe created by the local staff indirectly contributes to a relaxed and enjoyable working environment which is valued highly by the participants. Alongside with that, the strong sense of racial coherence is also highlighted as an attractive point. However, the authors found that these factors are not extensively discussed in existing literature.

Among our respondents, four out of eleven of them were assigned to work in Sabah. Rural and regional centres are not as popular as their metropolitan counterparts, and compulsory service in these areas remains the key reason in recruiting medical personnel (Darkwa et al., 2015; May et al., 2017). With the implementation of compulsory service programmes for medical personnel, governments are able to direct health services to locations and communities that are not well-served and not favoured by health workers. It also allows re-distribution of staff and improvement of health services in overall. However, Frehywot et al. showed that compulsory service should not be utilised as a stand-alone act for healthcare workers in the healthcare system (Frehywot et al., 2010).

LIMITATIONS

As the objective of this study is only to explore the reasons that clinicians decide to stay and serve in the state, we did not go deep into the different strengths these factors have on the decision-making of our participants. A ranking of the different factors that may affect the recruitment and retention of specialists like what May et al. and Purohit et al. had done (May et al., 2017; Purohit & Bandyopadhyay, 2014) will provide a glimpse of priorities of the physicians.

As this study was only conducted among specialists working in Kota Kinabalu, the capital of Sabah, the results may not be applicable to specialists working in other parts of the state. In addition, the views of those who have left for private sector but still remain in Sabah are not accounted for. The investigators were only able to conduct a limited number of FGD due to the hectic schedules of specialists. Given more time we would be able to collect more data on this important topic.

CONCLUSION

Our study highlights the many plights medical practitioners face when serving in the state of Sabah. Specialists often felt that there was a lack of recognition by the federal government regarding the predicament of Sabah, namely underdeveloped infrastructure and lower standards of living. By discounting these unique circumstances of Sabah, it results in scarcity in terms of provision of manpower and funding from the federal level to develop and provide quality services within the state. Lack of career development opportunities for specialists in terms of further specialisation or job promotion also serve as a hindrance for specialists to remain in the state.

While more studies are warranted to devise strategies to overcome these shortcomings to resolve the problem of specialist shortage, a good starting point will be to look at the various factors mentioned in this study. From the vantage point of this study, we conclude that a three-pronged approach can be adopted by the policy makers to entice more specialists to serve in East Malaysia. First, a long-term plan needs to be in place with the vision of achieving infrastructure comparable to that of Peninsular Malaysia. Second, regular dialogue sessions to be held to enable two-way communication between policy makers and doctors at the grassroots level. This will circumvent the hassle of bureaucracy so as to allow the voices to be heard from the ground and also direct feedback from the higher level. Lastly, it is important to ensure that the career development pathway is competitive enough in order to make it more attractive for specialists to work in East Malaysia.

Acknowledgement
The authors would like to thank the Director General of Health Malaysia for the permission to publish this paper. This study is not funded by any organization and the authors declare that they have no conflict of interest.

REFERENCES

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Dancel, R. (2017, November 28). Filipinos spend 16 days a year stuck in traffic: Study. The Straits Times. https://www.straitstimes.com/asia/se-asia/filipinos-spend-16-days-a-year-stuck-in-traffic-study

Darkwa, E. K., Newman, M. S., Kawkab, M., & Chowdhury, M. E. (2015). A qualitative study of factors influencing retention of doctors and nurses at rural healthcare facilities in Bangladesh. BMC Health Services Research, 15(1), 1–12. https://doi.org/10.1186/s12913-015-1012-z

Department of Statistics Malaysia. (2019). Sabah @ a Glance. https://www.dosm.gov.my/v1/index.php?r=column/cone&menu_id=dTZ0K2o4YXgrSDRtaEJyVmZ1R2h5dz09

Department of Statistics Malaysia. (2017). Department of Statistics Malaysia Press Release Social Statistics Bulletin Publication , Malaysia , 2018. In Department of Statistics Malaysia. https://www.dosm.gov.my/v1/index.php?r=column/pdfPrev&id=NU5hZTRkOSs0RVZwRytTRE5zSitLUT09

Department of Statistics Malaysia. (2018). State Socioeconomic Report 2017. https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=102&bul_id=OE5UdnNRL1VZbjJjcUlSTVdIdFlUdz09&menu_id=TE5CRUZCblh4ZTZMODZIbmk2aWRRQT09

Department of Statistics Malaysia. (2019). Sabah @ a Glance.

Faizah, A, et al. (2013). Distribution of clinical Specialists in Malaysian Hospital. National Clinical Research Centre Malaysia, 40439300.

Frehywot, S., Mullan, F., Payne, P. W., & Ross, H. (2010). Compulsory service programmes for recruiting health workers in remote and rural areas: do they work? Bulletin of the World Health Organization, 88(5), 364–370. https://doi.org/10.2471/BLT.09.071605

Keane, S., Lincoln, M., & Smith, T. (2012). Retention of allied health professionals in rural New South Wales: A thematic analysis of focus group discussions. BMC Health Services Research, 12(1), 1. https://doi.org/10.1186/1472-6963-12-175

Kotzee, T., & Couper, I. (2006). What Interventions do South African qualified doctors think will retain them in rural hospitals of the Limpopo province of South Africa? Rural and Remote Health, 6(581).

May, J., Walker, J., McGrail, M., & Rolley, F. (2017). It's more than money: policy options to secure medical specialist workforce for regional centres. Australian Health Review, 41, 698–706. https://doi.org/http://dx.doi.org/10.1071/AH16159

Nagai, M., Fujita, N., Diouf, I. S., & Salla, M. (2017). Retention of qualified healthcare workers in rural Senegal: Lessons learned from a qualitative study. Rural and Remote Health, 17(3), 1–15. https://doi.org/10.22605/RRH4149

National Clinical Research Centre. (2015). National Healthcare Establishment & Workforce Statistics 2012-2013 (S. Sivasampu, C. Foo, N. Aimi, M. Fatihah, D. Kamilah, P. Goh, & S. Jeyaindran (eds.)). http://www.crc.gov.my/nhsi/

Ng, C. G., Toh, C. L., Francis, B., & Tan, S. Y. (2018). Psychiatrists in Malaysia : The Ratio and Distribution. Malaysian Journal of Psychiatry, 27(1). http://mjpsychiatry.org/index.php/mjp/article/view/477 Planning Division, Ministry of Health, M. (2016). Human Resources for Health, Country Profiles 2015: Malaysia. Ministry of Health, Malaysia.

Purohit, B., & Bandyopadhyay, T. (2014). Beyond job security and money: Driving factors of motivation for government doctors in India. Human Resources for Health, 12(1), 1–13. https://doi.org/10.1186/1478-4491-12-12

Quek, D. K. L. (2014). The Malaysian Health Care System: A Review. Intensive Workshop on Health Systems in Transition, July, https://www.researchgate.net/publication/237409933. https://doi.org/10.1161/CIRCULATIONAHA.108.847798

Sirili, N., Frumence, G., Kiwara, A., Mwangu, M., Anaeli, A., Nyamhanga, T., Goicolea, I., & Hurtig, A. K. (2018). Retention of medical doctors at the district level: A qualitative study of experiences from Tanzania. BMC Health Services Research, 18(1), 1–10. https://doi.org/10.1186/s12913-018-3059-0

Sivasampu, S, Lim, T. O. & H. A. (2011). National Healthcare Establishments & Workforce Statistics 2008-2009. The National Healthcare Statistics Initiative, Clinical Research Centre, Ministry of Health, Malaysia.

WHO. (2010). Increasing access to health workers in remote and rural areas through improved retention. World Health Organization, 1–72. https://doi.org/ISBN 978 92 4 156401 4

Wibulpolprasert, S., & Pengpaibon, P. (2003). Integrated strategies to tackle the inequitable distribution of doctors in Thailand: For decades of experience. Human Resources for Health, 1. https://doi.org/10.1186/1478-4491-1-12

Willis-Shattuck, M., Bidwell, P., Thomas, S., Wyness, L., Blaauw, D., & Ditlopo, P. (2008). Motivation and retention of health workers in developing countries: A systematic review. BMC Health Services Research, 8, 1–8. https://doi.org/10.1186/1472-6963-8-247

World Health Organization. (2016). Global strategy on human resources for health: Workforce 2030. Who, 64. http://www.who.int/workforcealliance/media/news/2014/consultation_globstrat_hrh/en/%0Ahttp://apps.who.int/iris/bitstream/10665/250368/1/9789241511131-eng.pdf?ua=1%5Cnhttp://www.who.int/hrh/resources/pub_globstrathrh-2030/en/

 ISSN no: 1823-8521