

Physician's intention to leave from malaysia government hospitals with existing retention strategy.

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Abstract

Background: Healthcare professionals or physicians are important assets for health institutions in ensuring optimum delivery of healthcare to the people. Job satisfaction in various aspects including daily tasks, responsibilities and other duties will indirectly provide high productivity to an organization as well as ensuring a conducive working environment and reducing the resignation rates. Resignation rate trends among physicians in Malaysia ranged from 6.4% in 2000 to 3.5% in 2016. The introduction of Full Paying Patient services in Ministry of Health hospitals in 2007 somewhat contributed to the reduction in resignation rate of physicians. The purpose of this research is to assess this retention strategy implemented in Ministry of Health in achieving one of its objectives (to retain physicians). The assessment will help gain a better understanding of the complexities involved to assist policymakers in establishing good policies and guidelines to reduce the rate of resignation among physicians in the government hospitals and ultimately ensure a sustainable national health system.

Methods: This is a cross sectional study involving simple randomly sampled physicians from the daily attendance list in pioneered Ministry of Health hospitals offering Full Paying Patient services. The study using quantitative methods in the form of structured questionnaires that are often used to measure the level of job satisfaction (Minnesota Satisfaction Questionnaire-short form).

Results: Intention to leave found in 46.8% of respondents though the findings of this study do not statistically significant (p value of 0.437) which indicates that there are other factors involve. However, job satisfaction towards governance and work processes at workplace are turned out to be associated with intention to leave among physicians in Malaysia government hospitals (p value less than 0.05). monitoring of its effectiveness together with research on factors that motivate health workers in order to

Conclusions: Full Paying Patient services must be accompanied by continuous assessment as well as adapt and adjust the benefit packages that sensitive towards the changing needs and desires of the workforce.

Keywords: Human resource management, Job satisfaction; Resignation; Government hospitals, Malaysia.

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Abbreviations

DF: Degree of Freedom; FPP: Full Paying Patient; JUSA: Jawatan Utama Sektor Awam or Head of Public Sector; MOH: Ministry of Health; MREC: Medical and Ethical Research Committee; MSQ: Minnesota Satisfaction Questionnaire; NMRR: National Medical Research Register; SPSS: Statistical Package for the Social Sciences; WHO: World Health Organization.

Background

Physicians or healthcare professionals are an important asset in any healthcare institutions to ensure that optimal healthcare delivery can be rendered to the people. Physicians are also virtually posited to provide training so that knowledge can be passed down in ensuring a sustainable healthcare system. Well-trained physicians in their respective fields are indispensable in the medical world [1]. The issue of resignation has relentlessly

becoming a hot topic among managers and researchers over the years. Resignation or turnover is the inauspicious hidden costs of any organizations. In the process of searching the ideal substitute that fits the right place to be offered in an organization, often human resource planners incline to focus more on basic aspects like knowledge and skills [2]. Furthermore, global empirical evidence depicts that most of research on healthcare worker resignations are typically for industries such as hospitality, pharmaceutical, health, hospital institutions, professionals from public and private institutions.

The soaring number of healthcare professionals resigned particularly in the Asia Pacific region should be taken seriously in an effort to develop a robust healthcare system [3]. Resignation trend among physicians in Malaysia has been fluctuating from 6.4% in 2000 to the most recent data in 2016 with 3.5% [4]. With one of the objectives is physician's retention, the introduction and implementation of Full Paying Patient services in 2007

by Ministry of Health (MOH) Malaysia somewhat contributed to the declination in resignation of physicians from public healthcare services. Albeit the trend of specialist resignations has improved, the enigma of physicians' resignation cannot be taken lightly. One of the factors contributing to this high mobility, especially from public to the private sectors is closely related to job dissatisfaction such as unsatisfactory work environment (lack of facilities, flexible working hours, lack of career paths, lack of employment, lack of autonomy professional and ineffective management style) as well as service conditions (poor salaries and funding, duplication of activities) [5-7].

In the world of labour, job satisfaction plays a very important role in one's career [8,9]. Job satisfaction can be defined as a pleasing or positive emotional state proceeding one's work experience or job evaluation [10]. Satisfaction in many aspects including responsibilities, daily tasks and other duties engender high return to an organization while maintaining a proficient and conducive work environment. In addition, it is shown that job satisfaction directly effecting job performance, commitment and intention to leave [11]. The complexity in maintaining the level of job satisfaction requires heedful planning, effective human resources, clear organizational direction as well as excellent financing. A study was conducted in 2014 and found that 40% of medical personnel in Malaysia were dissatisfied with their job. Job satisfaction is a complex combination of many variables. For instance, an employee satisfaction with work to some extent, but dissatisfied with other aspects such as salary and environment [12].

Full Paying Patient or FPP services pilot project which was implemented at Selayang Hospital and Putrajaya Hospital in 2007 [13] shows an increasing trend in patient participation, physicians' involvement and government revenues. This achievement led the MOH to gradually expand FPP services to all 42 gazetted public hospitals. The drive towards quality patient care and social justice craved evidence from MOH on the implications of FPP services especially on MOH staff, patients, the general public, and its effectiveness to reduce government's financial burden in providing healthcare services subsidies to those who can afford to pay in full. Implementing FPP services is an intricate process and requires strategic planning and policies guided by evidence-based data. Therefore, it is hoped that this study will help attain a better knowledge of the complexities involved and suggest policy makers in establishing governance and better guidelines for effective retention strategies in MOH hospitals.

Background of Full Paying Patient Services

Referring to Circular Letter Director General of Health Malaysia 2007 (Revision 2015), the introduction of FPP service aims to eliminate or reduce the rate of attrition among government specialists to the private sector. The services are offered by selected MOH medical institutions whereby patients are given the option to be treated by specialist of choice within executive or first-class facilities and patients will be charged fully without subsidies from the government. According to Fee Order (Medical) (Full Paying Patient) 2007 and Guidelines for Implementation of Fee Order (Medical) or Garis Panduan

Pelaksanaan Perintah Fi (Perubatan), revenue collected by the hospital through these services will be given to specialists registered under this service and the government.

Scope of FPP services include consultations, investigations, procedures and surgeries, treatment, hospitality as well as miscellaneous fee, Fee Order (Medical) (Full Paying Patient) 2007. Inpatient treatment for FPP service will be provided in an executive or first class ward with single bedded room, two bedded room and four bedded room. Other wards can also be used for FPP patients if circumstances require. All outpatient and daycare services will be provided at the specified clinic set by the hospital.

FPP committee plays a crucial role in monitoring the provision of the service. The hospital-level committee will be chaired by the hospital director or any specialist appointed on his behalf. The committee shall consist of at least three other specialists include FPP specialists. The term of office of the FPP chairman and committee members is 3 years. Every FPP hospital has their own FPP committee with varied power. They are responsible in introducing awareness and sensitization among both the hospital staff and patients to clear any doubt regarding FPP services.

Methods

This was a cross sectional study involving physicians working in two Ministry of Health hospitals (Selayang and Putrajaya Hospitals). Both of these hospitals were chosen due to maturity in FPP services as they were the pioneer hospitals given the mandate carrying out the services since 2007.

Sample

The study employed sampling frame maintained by Human Resource Division as well as Medical Development Division in the Ministry of Health. Sample criteria include adult physicians with Malaysia citizenship who are still in-service during data collection and regardless of their enrolment in FPP services. Distributed questionnaires were bilingual (Malay or English language), thus respondents have to be fluent in both language in order to be included in this study. The study did not include physicians that were dismissed from service and those who refused to give cooperation during the study period. Visiting physicians to the study sites were also excluded from this study.

Respondents were simple randomly sampled from the daily attendance list. With prevalence of physicians' resignation from Ministry of Health Malaysia recorded at 3.58% [4]. Using the Cochran sampling technique with confidence interval at 95% and 20% inflated for non-response anticipation, we needed 72 samples. Power of the study is at 0.771 (77.1%) calculated using Power and Sample Size Program developed by Department of Biostatistics, Vanderbilt University [14]. Questionnaires were distributed and collected after written consented by samples during the data collection period between October 2018 and January 2019.

Instrument

In achieving the objectives of this study, we adopted the Minnesota Satisfaction Questionnaire (Short Form) or MSQ

(Short Form) that has been used in Malaysia settings previously in a nationwide study looking into health professionals' perspectives on the retention of senior pharmacists as well as medical and dental specialists [15]. There are four domains comprising the questionnaire and intention to leave was measured by a single domain with a single item. Job satisfactions were estimated by a nine-item domain using Likert scale of one (1) being Most Dissatisfied to four (4) represent Most Satisfied. Cronbach α were excellent which ranges from 0.85 to 0.91 via previous study [16]. Factor analysis found two factors (satisfaction with the intrinsic aspects of the job and satisfaction with the extrinsic aspects of the job) whereas exploratory factor analysis yields four factors. These subdomains include job satisfaction, governance, responsibility and extrinsic rewards. Validation factor analysis shows that four factors fit best (intrinsic satisfaction, extrinsic satisfaction, recognition and social) [17].

Given that this questionnaire is well known and stable, it is used in this study. However, this questionnaire has been modified to be used in Malaysia settings without compromising its reliability. Earlier versions of the questionnaire were verified via face-to-face by a panel of experienced experts at government hospitals. The questionnaire structure was divided into four sections including sociodemographic, job satisfaction, intention to resign from the public sector and suggestions on specialist retention in public sector. Job satisfaction is broken down into three factors: governance, social at work and work processes. The dependent variable (intention to leave) will be measured by a single item: "Do you have any intention of resigning in these three years (early retirement option)?" Feedback is a choice between yes or no.

Statistical Analysis

Completed questionnaires were retrieved the same day as distributed for analysis. All statistical analysis was performed using SPSS version 21 with p value of less than 0.05 considered as statistically significant and categorical variables represented as frequency and percentage. Normalization tests were performed and all quantitative data were found to be normally distributed. All questionnaire items were analysed descriptively and the correlation between independent variables and the dependent variable was determined by Chi-square test.

Overall job satisfaction is coded as binary independent variable equals to 1 if the respondent is "Satisfied" and 0 otherwise. This approach generates the best data as opposed to the "Satisfied" and "Very Satisfied" encodings of 1 and 2. Moreover, using continuous or ordinal variables makes little difference in the results. The intention to leave as the dependent variable is binary coded to 0 if "NO Intention to Leave". The Likert scale used to determine job satisfaction consisted of four categories including Very Dissatisfied, Dissatisfied, Satisfied, Very Satisfied. Subsequently, the job satisfaction level was further subdivided into two (Satisfied and Dissatisfied). As

mentioned previously, there are 19 items in total made up of three domains (Governance, Social at Work and Work Process). Hence, if the respondents answered Very Dissatisfied for all the questions, the minimum score would be 19, otherwise if all items answered with Very Satisfied, the maximum score would be 76. In order to obtain two sub-categories, the assumption was made that the satisfaction level was when the respondents answered ten questions with Very Dissatisfied or Dissatisfied and nine answers Satisfied or Very Satisfied. Hence, the total Dissatisfied score is 19 to 47 and the Satisfied ranges from 48 to 76.

Approval

This study is approved and registered under the National Medical Research Register (NMRR) of Malaysia (NMRR-18-1891-42479).

Results

Respondents that fulfil inclusions criteria and completed the questionnaire for analysis represents 86.1% (N=62) response rate. Majority of the respondents are female (64.5%) and age from 40 to 49 years old made up 51.6% (n=32) of all respondents. Almost all of respondents have been in the service for 11 to 29 years with 90.3% (n=56). Obstetrics & Gynaecology discipline contributes the highest number of respondents with eleven (17.7%), followed by three disciplines (General Medicine, General Surgery and Orthopaedics) with same number of ten respondents (16.2%). Six (9.7%) of the respondents were the Head of Department or the most senior consultants at their respective disciplines and only two (3.2%) respondents at the lower pay grade of UD 51/52. A total of 30 (48.4%) respondents engaged with FPP services. Sociodemographic respondents visualized in Table 1.

Domain Job Satisfaction in the questionnaire is divided into three subdomains that consists of seven-item 'Governance', five-item 'Social at Workplace' and another seven-item compose 'Work Processes'. Each subdomain was measured using Likert scale. Descriptive analysis of each items in the subdomain is shown in Table 2. With statistically significant of p value=0.006 and degree of freedom (df) of 1, 62.9% (n=39) of respondents having job satisfaction with governance at their workplace (Table 3). Job satisfaction also shown in other two domains but with p value of 0.748 and 0.282 respectively indicate that the findings are not statistically significant and open for arguments.

Respondents from both hospitals had no intention to leave, of which only 46.8% of respondents had intention to leave. However, the findings of this study do not statistically significant having the p value of 0.437 demonstrates that there are other factors that influence and interfere with the findings (Table 4).

There are association between governance and work processes factors with intention to leave evidence by p value of less than 0.05. Twelve respondents (54.5%) who were dissatisfied with governance at their workplace have intention to leave and eleven respondents (50.0%) with job satisfaction in work processes still have intention to leave their current workplace (Table 5).

Table 1. Sociodemographic of respondents.

| Demography (N = 62) | | Physicians | |
|--------------------------|-------------------------------------|------------|----------------|
| | | Frequency | Percentage (%) |
| Gender | Male | 22 | 35.5 |
| | Female | 40 | 64.5 |
| Age | ≤ 40 Years old | 23 | 37.1 |
| | 41-49 Years old | 32 | 51.6 |
| | ≥ 50 Years old | 7 | 11.3 |
| Years in Service | ≤10 Years | 5 | 8.1 |
| | 11-29 Years | 56 | 90.3 |
| | ≥ 30 Years | 1 | 1.6 |
| Speciality/ Subspecialty | Anaesthesiology | 8 | 12.9 |
| | Otorhinolaryngology | 0 | 0 |
| | Gastroenterology | 1 | 1.6 |
| | General Medicine | 10 | 16.1 |
| | General Surgery | 10 | 16.1 |
| | Obstetrics & Gynaecology | 11 | 17.7 |
| | Ophthalmology | 0 | 0 |
| | Orthopaedic | 10 | 16.1 |
| | Paediatric | 6 | 9.7 |
| | Pathology | 2 | 3.2 |
| | Psychiatry | 4 | 6.5 |
| Current Position | Head of Department | 6 | 9.7 |
| | Consultant / Specialist / Physician | 56 | 90.3 |
| Current Grade | 51 – 52 | 2 | 3.2 |
| | 53 – 54 | 26 | 41.9 |
| | 56 | 23 | 37.1 |
| | Jusa C (Gred Khas C/NK7/VU7) | 11 | 17.7 |
| FPP Enrolment | Yes | 30 | 48.4 |
| | No | 32 | 51.6 |

Table 2. Descriptive Job Satisfaction in MOH Hospitals with FPP Services.

| Domain | Item | Satisfied | | Dissatisfied | |
|---------------------|---|-----------|----------------|--------------|----------------|
| | | Frequency | Percentage (%) | Frequency | Percentage (%) |
| Governance | Salary | 32 | 51.6 | 30 | 48.4 |
| | Opportunities for promotion | 24 | 38.7 | 38 | 61.3 |
| | Job security | 60 | 96.8 | 2 | 3.2 |
| | Allowances and benefits | 27 | 43.5 | 35 | 56.5 |
| | Support for additional training and education | 25 | 40.3 | 37 | 59.7 |
| | Location of work place | 58 | 93.5 | 4 | 6.5 |
| Social at Workplace | Facilities of workplace | 43 | 69.4 | 19 | 30.6 |
| | Relationship with my subordinates | 55 | 93.2 | 4 | 6.8 |
| | The way my co-workers get along with each other | 54 | 87.1 | 8 | 12.9 |
| | Relationship with my supervisors | 60 | 96.8 | 2 | 3.2 |
| | Relationship with my co-workers | 57 | 91.9 | 5 | 8.1 |
| | Amount of eligible leave in a year | 52 | 83.9 | 10 | 16.1 |
| Work Processes | Opportunity to learn new skills | 45 | 72.6 | 17 | 27.4 |
| | Recognition for work accomplished | 44 | 71.0 | 18 | 29.0 |
| | Hours worked each week | 44 | 71.0 | 18 | 29.0 |
| | The chance to try my own methods of doing the job | 46 | 74.2 | 16 | 25.8 |
| | Flexibility of work schedule | 21 | 33.9 | 41 | 66.1 |
| | The praise I get for doing a good job | 42 | 67.7 | 20 | 32.3 |
| | Opportunities to utilize my skills and ability | 57 | 91.9 | 5 | 8.1 |

Table 3. Subdomain Job Satisfaction

| Domain | Physicians | | X ² | df | Nilai P |
|---------------------|--------------------|-----------------------|----------------|----|---------|
| | Satisfied n (%) | Dissatisfied n (%) | | | |
| Governance | 39 (62.9) | 23 (37.1) | 7.415 | 1 | 0.006 |
| Social at workplace | 58 (93.5) | 4 (6.5) | 0.014 | 1 | 0.748 |
| Work processes | 49 (79.0) | 13 (21.0) | 1.157 | 1 | 0.282 |

Table 4. *Intention to Leave Respondents.*

| Intention to Leave | Physicians n (%) | X ² | df | P value |
|--------------------|------------------|----------------|----|---------|
| Yes | 22 (46.8) | 0.604 | 1 | 0.437 |
| No | 40 (54.1) | | | |

Table 5. *Job Satisfaction and Intention to Leave.*

| Domain | Job Satisfaction | | X ² | df | Nilai P |
|---------------------|------------------|--------------------|----------------|----|---------|
| | Satisfied n (%) | Dissatisfied n (%) | | | |
| Governance | 10 (45.5) | 12 (54.5) | 4.449 | 1 | 0.035 |
| Social at workplace | 19 (86.4) | 3 (13.6) | 2.917 | 1 | 0.088 |
| Work processes | 11 (50.0) | 11 (50.0) | 17.344 | 1 | < 0.05 |

Discussion

Physicians migrating from scarce areas to greater resources, especially for personal and financial aspects, are phenomena that have altered the matrix of the global health system and have been around for decades [18]. The trend of migrating physicians from poorer countries to more affluent countries began as early as the 1960s, with the emergence of universal healthcare coverage in industrialized countries which conjured a shortage of doctors [19]. The Malaysian healthcare system and the public sector in particular are constrained by the shortage of health professionals, as in many Southeast Asian countries [6]. Malaysia has 1.5 physicians per 1,000 population compared with 2.2 physicians in other upper-middle income countries and has fewer doctors for its population than the Philippines, but more than its neighbour, Thailand [3]. Nonetheless, there are various ways and strategies that different countries have taken to address this worldwide concern. Most developed nations including Italy, France, Germany, Ireland and Austria encourage their physicians to practice their private practice in public hospitals. They are paid fee-for-service and are separately collected by hospital administration for the purpose of improving hospital equipment and facilities [20-22]. An additional effort is needed to unearth the causes of physicians' resignation and find out the ideal mechanisms for these physicians to continue serve in the public sector as well as the general public.

Many countries have started to offer dual practice in an effort of retaining public health workers. Though dual practice is an incentive for many health workers worldwide, it is a complex relationship and may raise the question of conflicting interests. Since 1993, under the "Civil Servant's Law", public staff in Malaysia are prohibited to practice multiple jobs without the consent of the Head of Department. A circular was made available in 2015 where the needful conditions to be fulfilled by the public staff prior to consent from the Head of Department were established [19]. A month later, another circular on guideline for "Flexi Working Hours for Senior Specialist (Grade 54 and above)" was issued in which these specialists are given the privilege once a week to carry out activities granted by the government in the form of research, training or locum practice.

In this study, the proportion of respondents who were involved or not involved in the FPP services are almost balanced. This is vital to obtain a clear picture of the hospital settings and how the optional service (FPP) influence the questionnaire responses. Over half of the respondents were women which corresponds to previous studies that have proven that women outnumbered men in the medical world [5,23]. Most

respondents are under the age of 50 as this is the age range where physicians looking for opportunities and career advancements as compared to those reaching over 50. This is evidenced by few studies in which experienced professionals with over 30 years of experience are more likely to have high job satisfaction and comfort with current work conditions [24]. The managerial position in an organization is generally for those who have served for a long time. Serving longer could contribute to job satisfaction by increasing employee prestige and confidence within the organization [12]. Therefore, experienced workers usually enjoy the increased power and prestige associated with their position.

Various departments or disciplines were involved in this study to avoid focusing on specific specialties and to avoid selection bias. Most studies on job satisfaction among physicians were small scale and more focus on general practitioners and non-physicians. Australian anaesthetists are reported to have high levels of job satisfaction, compared to ophthalmologists and medical consultants [25]. Their job satisfaction is associated with workload, administrative work, work hours and recognition. Other studies show that job satisfaction varies by type of practice and expertise. Some disciplines require 'on-call' physicians and affect the working hours. Theoretically, differences in working hours can lead to job dissatisfaction that leads to resignation [4], however findings from other previous studies suggest that the clinical practice of working long hours is the norm for healthcare professionals. Thus, high job satisfaction among long-hour working physicians may reflect the fact that the actual working hours are in line with expectations [25].

In the Malaysian public sector, income is largely controlled by the service scheme. The salary as well as allowances and benefits received is reflected by the service scheme and vary by service grade, rank, position, place of service and years of service [26]. We discovered in this study that the dissatisfaction towards salary, allowances and benefits is in line with previous studies that includes a study from the Malaysian Medical Association as early as the 1970s, in which they found that factors of job dissatisfaction that played a major role in the intention to resign among doctors were income and benefits received [27]. In another study and a survey by the American Society of Radiological Technology found that most employers felt that employees would be satisfied if they received the same money, reimbursement or any form of rewards [28]. Although doctors in Japan and Australia are not affected by income [12,19] but it may affect job satisfaction among doctors in Malaysia government hospitals as doctors' salaries in the public sector are much lower than those working in private hospitals.

Current position and grades can provide feedback on the duration of respondent's service. Higher grades open higher job opportunities. For some physicians, especially those who have high position and grade, difficulty arises when they were assigned to both clinical and administrative responsibilities. In addition to care for patients, they also have to play administrative roles such as attending meetings or courses, complete paperwork and address public complaints. On the other hand, those involved in the research work face greater and more frequent stressors when it comes to technical aspects, for example preparing proposals or reports, submitting or writing scientific papers for research grant funding [6].

FPP service is an option given to senior physicians with additional revenue opportunities. However, FPP services offered in MOH hospitals are still subject to the FPP guidelines and the Fee Act (2007) whereby, enrolled physicians can only generate personal revenue through this service until maximum of three times the salary [13]. Moreover, allowances and benefits received by FPP physicians are not uniform among departments. In accordance with the Guidelines for Implementing the Fees (Medical) and Fee (Medical) Order 2007, incentive payments are more focused on procedures. In other words, in FPP services, disciplines that carry out many procedures will receive more allowances and benefits than those that focus on consultations.

The findings of this study correspond with previous studies that examine the importance of job satisfaction towards organizational and employee well-being. Many government-sponsored medical students are not interested in continuing service with the government and many retired medical personnel have rejected offers to renew their services contracts [29]. This study on job satisfaction can potentially provide important input in making policies on human resource management so that this so-called "brain drain" among health professionals can be curtailed [7,30]. Almost half of the respondents expressed their desire to resign for various reasons. With significant association observed between intention to leave and job satisfaction among MOH physicians, the findings of this study are consistent with a 2014 study that found an association between job satisfaction and intention to resign among public sector health workers [31]. Economic situation and the rising cost of living have an impact towards the perception of workers which has been the basis for resignation of the public sector or migration of professionals from places with limited resources in the pursuit of a better life [6,7,30].

A study conducted in 2017 showed that social capital includes co-workers' or employees' relationships with their supervisors directly affecting job satisfaction which would influence intention to resign [32]. Professional relationships in workplace is a factor in job satisfaction that is believed to contribute to job performance and employee commitment. An employee who is satisfied with his or her job will perform well and be committed to the job, thus increasing the productivity of the organizations.

The work process at MOH hospitals has become a significant domain in relation to job satisfaction and intentions to leave. These factors of work processes are influenced by the guidelines and work ethic set by the government or the administration at the workplace organization. The number of hours work per week

and the flexibility of the work schedule are typically managed at the local settings and beyond the power of employees. For example, the Public Service Department of Malaysia has announced in a circular that working hours are flexible, as long as they work nine hours in total [33]. Consequently, it is up to the administration of the organizations to define the working hours for their employees as long as they abide to the nine hours in total per day.

According to Health Facts 2017 by MOH, the ratio of doctors and patients is at 1 : 632 while Health Facts 2015 shows a ratio of 1:661. The ratio is far from the 1:520 set by the MOH and projection of 1:400 by year 2020. Albeit the World Health Organization or WHO targets the ratio of doctors at 1:1000 patients, many developed countries maintain a higher ratio, in order to meet the needs of the aging population [34]. Matching up a recent study, this ratio is essential in describing workloads in MOH hospitals which appear to create a competitive environment among physicians and indirectly reduce opportunities to practice or enhance their skills (4). In the 2017 study, MOH physicians also expressed their dissatisfaction towards workload and working hours that ultimately led them to resign from the public services.

High job satisfaction is often associated with a sense of belonging to the job and thus reduces the intention of resigning from the job [5,11,35-37]. However, we observed no association between job satisfaction with the intention to leave among MOH physicians in this study. Low sample size may affect this relationship as the sample population only involves two hospitals. The respondents involved in this study are experienced in their respective specialties and have been stable and comfortable with their daily work. Job satisfaction may not be an indicator for them to have a resignation intention. Furthermore, there are factors other than job satisfaction such as employee motivation, hospital settings (MOH hospitals, Ministry of Education teaching hospitals, Ministry of Defence military hospitals) and logistic issues that contribute to the mobility in any institutions [36,38].

Conclusion

The Malaysian government, in all ministries, has taken various steps to find possible ways of retention strategies. For example, the Ministry of Higher Education (MOHE) and the Ministry of Health Malaysia (MOH) have introduced "private wings" in certain hospitals. University Hospitals (UMMC, UKM, HUSM) isolate private and public services with different wards or floors, while MOH has Full Paying Patient (FPP) Service. The drive towards quality of patient care and social justice demands evidence from MOH in the implications of FPP services especially towards patients, MOH staff and the public in general, and its effectiveness in increasing government revenue by reducing the government's financial burden in subsidizing health services to people who can afford full payment for health care services.

FPP services was introduced by Ministry of Health as one of the incentive packages designed to attract and retain health workers. Nevertheless, the services must be accompanied by continuous monitoring and assessment of its effectiveness together with research on factors that motivate health workers

in order to adapt and adjust the package to the changing needs and desires of the workforce. The challenges in introduction of new services that meets the needs of a population with social, demographic, epidemiological and political transitions require a sustainable effort in addressing workforce planning, development, and financing.

From this study, job satisfaction towards governance and work processes at workplace are associated with intention to leave among physicians in Malaysia government hospitals. These results are expected to provide some basic evidence to guide policy makers in establishing a more effective service of choice. The service is not only aimed at retaining physicians in the public sector, the autonomous struggle to maintain profitability or stabilize the economy but also to provide the most effective services for the people well-being. Therefore, further studies are recommended to identify factors that motivate physicians to stay in their workplaces. In this way, job satisfaction can be ensured and further reduce the rate of resignation or intention to leave the public sector among medical professionals in Malaysia.

Acknowledgement

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Availability of Data and Materials

The data that support the findings of this study are available from Ministry of Health Malaysia (Human Resource Division, Medical Development Division and individual hospitals) but restrictions apply to the availability of these data, which were used under license for the current study, and so are not publicly available. Data are however available from the authors upon reasonable request and with permission of Ministry of Health Malaysia.

Authors' Contributions

MNA was the Principal Investigator and conducted this study together. MNA and SE are accountable for designing the study as well as production of this manuscript. SE reviewed and contributed important revisions. All authors read and approved the manuscript.

Competing Interest

The authors declare that they have no competing interests.

Consent for Publication

The research team members of this study would like to thank Director General of Health Malaysia for his support in this study and permission to publish this article.

Ethics Approval and Consent to Participate

Ethical approval was obtained from Medical and Ethical Research Committee (MREC) of the Ministry of Health Malaysia (Ref: KKM.NIHSEC.P18-1821(6)). Prior to distribution of the questionnaire, written consent was obtained from all respondents. All information is confidential and for research purposes only. Other names and documents that can identify

the respondent (such as an identification card number) were not required. All data collection, data analysis and write-up are done by the research team. Data is stored by the research team in an external thumb drive to minimize risk of data accessibility. All study data will only be stored for a maximum of two years. Subsequently, digital data will be erased and printed material will be erased to protect the privacy of respondents.

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