

**PERCEPTION ON MOTIVATORS, TRAINING  
SUPPORTS, BARRIERS AND CHALLENGES TO  
CAREER PLANNING AND ADVANCEMENT  
AMONG PERAK PHARMACIST IN MALAYSIA  
CIVIL SERVICE**

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by

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## LIST OF ABBREVIATIONS

ANFSR	National Association of Hospital Pharmacists in Romania
BPharm	Bachelor of Pharmacy
BPS	Board of Pharmacy Specialties
COREQ	Consolidated Criteria for Reporting Qualitative Research
FRP	Fully registered pharmacist
HRPB	Hospital Raja Permaisuri Bainun
IC	Identity Card
JUSA C	Special C Grade
MoH	Ministry of Health
MREC	Medical Research and Ethics Committee
MTAC	Medication Therapy Adherence Clinic
NMRR	National Medical Research Registry
NSR	National Specialist Registry
PCLP	Pharmacist Career Ladder Program
PhD	Doctor of Philosophy
PRP	Provisionally Registered Pharmacist
PSD	Pharmaceutical Services Division
SME	Subject Matter Expert
SPSS	Statistical Package for the Social Sciences
UK	United Kingdom
US	United States
USD	United States Dollar

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**PERSEPSI TERHADAP PENDORONG, LATIHAN SOKONGAN,  
HALANGAN SERTA CABARAN KE ATAS PERANCANGAN DAN  
KEMAJUAN KERJAYA DALAM KALANGAN AHLI FARMASI PERAK  
DALAM PERKHIDMATAN AWAM MALAYSIA**

**ABSTRAK**

Peranan ahli farmasi mula berkembang dalam dua dekad yang lalu, meliputi bidang penjagaan pesakit dan kaunseling pesakit. Ini mengakibatkan peningkatan permintaan ahli farmasi untuk memenuhi keperluan perkhidmatan farmasi yang diperluas. Beberapa kajian menunjukkan bahawa kekurangan kemajuan kerjaya menyebabkan ketidakpuasan kerja dan peningkatan kadar penggantian pekerja. Pada masa ini, tiada laluan kemajuan berasaskan prestasi yang ditakrifkan untuk ahli farmasi awam. Kajian ini direka bentuk untuk meneroka motivasi, sokongan latihan dan cabaran untuk kemajuan kerjaya di kalangan ahli farmasi berdaftar penuh (FRP) dan ahli farmasi provisional (PRP) dalam perkhidmatan awam Malaysia. Kajian ini dijalankan dalam dua fasa. Fasa pertama kajian ini adalah dalam reka bentuk kualitatif. Panduan temu bual separuh berstruktur digunakan untuk menjalankan wawancara secara bersemuka. Semua sesi wawancara dirakamkan dalam bentuk audio dan ditranskrip secara verbatim. Sesi wawancara mengambil masa purata 20 hingga 30 minit. Kajian ini dijalankan di kalangan sebelas ahli farmasi yang berkhidmat dalam hospital. Lima tema telah dikenalpasti selepas sesi wawancara: perancangan kerjaya, pendapat mengenai laluan kemajuan pakar, motivator untuk prestasi kerjaya yang lebih baik, halangan untuk kemajuan kerjaya, cadangan untuk mengatasi halangan. Pada umumnya, kekurangan laluan pengkhususan yang mantap untuk ahli farmasi dalam perkhidmatan awam dilihat sebagai penghalang utama

untuk kemajuan kerjaya mereka. Peserta berharap laluan kemajuan pakar bidang yang baru ditubuhkan dapat ditambahbaik dengan melibatkan lebih ramai ahli farmasi, terutama di kalangan ahli farmasi junior. Fasa kedua kajian ini adalah dalam reka bentuk kuantitatif dan menggunakan soal selidik atas talian. Kajian atas talian dijalankan pada bulan Oktober 2018 dan melibatkan kedua-dua FRP dan PRP dalam perkhidmatan awam di Negeri Perak, Malaysia. Berdasarkan skala Likert 5-mata, mereka dikehendaki untuk memberi respons kepada 56 item, termasuk ketersediaan dan kepentingan motivator dan sokongan latihan, cabaran kepada kemajuan kerjaya dan kesedaran tentang keperluan untuk perancangan kerjaya. Respons mereka kemudiannya dikategorikan kepada "setuju" / "penting" dan "tidak setuju" / "tidak penting". Daripada 480 peserta, kebanyakannya adalah FRP (77.8%) dan berkhidmat di hospital (68.3%). Lebih separuh daripada mereka bersetuju dengan waktu bekerja yang tidak fleksible dan ketiadaan skim gaji dan promosi berasaskan prestasi. Lebih daripada 80% daripada mereka juga sangat mementingkan latihan dalam bidang berkaitan farmasi dan pengurusan. Jika dibandingkan dengan PRP, FRPs mempunyai kebimbangan yang lebih terhadap ketiadaan skim gaji dan promosi berasaskan prestasi, masa kerja yang fleksibel dan maklum balas berkala untuk prestasi kerja mereka. Hasil dapatan kajian menunjukkan kekurangan pengiktirafan, latihan, maklum balas untuk prestasi kerja dan laluan kerjaya yang jelas kepada ahli farmasi dalam perkhidmatan awam Malaysia.

**PERCEPTIONS ON MOTIVATORS, INSTITUTIONAL TRAINING  
SUPPORTS, CHALLENGES TO CAREER PLANNING AND  
ADVANCEMENT AMONG PHARMACISTS IN THE MALAYSIAN PUBLIC  
HEALTHCARE SYSTEM**

**ABSTRACT**

The role of pharmacists began to expand over the last two decades, covering pharmaceutical care and patient counselling. This resulted in increased demand for pharmacists to meet the expanded pharmaceutical services requirements. Some studies have shown that lack of career advancement leads to job dissatisfaction and increased employee turnover rates. At present, there is no performance-based advancement pathway defined for public pharmacists. This study is designed to explore motivation, training support and challenges for career advancement among fully registered pharmacists and provisional pharmacists (FRPs and PRPs) in the Malaysian civil service. The study was conducted in two phases. The first phase of this study is in qualitative design. A semi-structured interview guide is used to conduct face-to-face interviews. All interview sessions were recorded in audio form and transcribed verbatim. The interview sessions take an average of 20 to 30 minutes. This study was conducted among the eleven pharmacists who served in hospitals. Five themes have been identified after an interview session: career planning, opinion on subject matter expert advancement pathway, motivators for better career performance, barriers to career advancement and suggestions to overcome barriers. In general, the lack of an established specialization path for pharmacists in the civil service is seen as a major barrier to their career advancement. Participants hoped the newly established subject matter expert pathway could be

improved to include more pharmacists, especially among junior pharmacists. The second phase of this study is in quantitative design and used online questionnaire. The online study was conducted in October 2018 and involved both FRPs and PRPs in the civil service in Perak, Malaysia. Based on the 5-point Likert scale, they are required to respond to 56 items, including the availability and importance of motivators and training support, challenges to career advancement and awareness of the need for career planning. Their responses are then categorized into "agree" / "important" and "disagree" / "not important". Of the 480 participants, most were FRP (77.8%) and worked in hospital setting (68.3%). More than half of them agreed with the absence of flexible working hours and performance-based pay schemes and promotions. More than 80% of them were concerned about training in pharmacy and management related fields. In comparison to PRPs, FRPs have more concerns over the absence of performance-based pay schemes and promotions, flexible working hours and periodic feedback on their work performance. The research findings demonstrated the lack of recognition, training, feedback to job performance and clear career paths to pharmacists in the Malaysian civil service.

# CHAPTER 1

## INTRODUCTION

### 1.1 Background

The healthcare system of Malaysia consisted of both public and private sectors. The public sector is funded by the government which includes general hospitals, district hospitals and health clinics. The private sector provides fee-for-services to the public. This includes community pharmacies, private clinics and hospitals (Thomas et al. 2011).

In the early years, pharmacy services in the country were mainly focused on procurement and distribution of medicines. Pharmacists' role began to expand in the last two decades, covering pharmaceutical cares and patient counselling. This resulted in an increase in demand of pharmacists to cater for the expanded services of pharmacists. In 2002, there were 619 registered pharmacists working in the public sector, and 2900 registered pharmacists in the private workforce (Pharmaceutical Services Division, 2003).

Hence, in year 2004, the Ministry of Health Malaysia made it mandatory for all new pharmacy graduates in Malaysia to serve the government for a period of 4 years (Chua et al., 2014). Fresh pharmacy graduates will be given a permanent post in the public service if they successfully pass as a provisionally registered pharmacist. In 2010, the government has reduced the number of compulsory service to 2 years.



In year 2011, there were 5288 registered pharmacists in the public sector and 3344 registered pharmacists in the private sector (Health Informatics Centre, 2012). Due to limited posts available in the public service, from year 2016, the fresh graduate was hired on contract basis instead of given permanent post in the public service. Based on the latest guideline of the Ministry of Health Malaysia, pharmacy graduates can now choose to undertake their training in the public or private institutions (PSD, 2018a). Although the junior batch of pharmacists are provided more options for their career, the prospects of career advancement in the government is not clearly illustrated till date.

Improvement of pharmacists' career growth and development is one of the main agenda of the Pharmaceutical Services Division. The Pharmacy Programme Annual Report 2015 stated that planning and coordinating the development and career pathway of pharmacist was one of the main focus for pharmacist profession development (PSD, 2015). Currently, for advancement of a public pharmacist from Grade 41 to Grade 54, a total of 14 years is needed (Ministry of Health, 2014). In 2018, a new pathway of subject matter expert was created in two specific areas of pharmacotherapy (infectious disease and anticoagulant) and one specific area of regulatory (first in human trial) (PSD, 2018b). Medical officers and dental officers could pursue a specialization once they reached the grade of UD44. It took 4 years for a medical or dental specialist to advance from UD 48 to UD 54. Since specialization pathway was only available for pharmacists at the UF 54 grade, it took 7 years for pharmacists to advance from UF 48 to UF 54 (Table 1.1). Opportunities of senior pharmacist to progress as a subject matter expert is also limited, in comparison to medical officer or dental specialists (Ministry of Health, 2014). The pharmacists at Grade UF 54 could select one out of three subject matter expert areas

available, and they are offered one Special Grade post in each SME area. In contrary, there are more areas of expertise and Special Grade posts for medical or dental specialists (Table 1.2).

**Table 1.1: Comparison of career advancement pathway for doctors, dentists and pharmacists**

Promotion in Grade	Medical/dental officer	Medical/dental specialist	Pharmacist	SME Pharmacist
44 to 48	3 years	Promotion can be applied once gazetted	3 years	3 years
48 to 52	4 years	2 years	4 years	4 years
52 to 54	3 years	2 years	3 years	3 years
54 to JUSA	Depends on vacancy	Can be applied from Specialisation Evaluation Panel, Ministry of Health, Malaysia	Depends on vacancy	Can be applied from Specialisation Evaluation Panel, Ministry of Health, Malaysia.
Total time needed from 48 to 54	7 years	4 years	7 years	7 years

**Table 1.2 Comparison of pharmacist SME with medical and dental specialization pathway**

Criteria	Subject matter expert pathway for pharmacists	Specialisation pathway for medical and dental officers
<b>Coverage</b>	Three subject matter expert fields: i. anticoagulant (clinical) ii. infectious disease (clinical) iii. first in human trial (regulatory pharmacy)	Thirty fields of specialties. (National Specialist Register, 2018)
<b>Eligibility</b>	Grade UF 54 only	Grade UD 44 onwards
<b>Position available</b>	Three JUSA posts available currently (One post for each field)	Multiple posts available

## **1.2 Rationale and Significance of The Research Project**

Several studies have indicated that lack of job specialization or career advancement lead to job dissatisfaction and increased turnover rate of employees (Iorga et al., 2017; Chua et al., 2014; Mak et al., 2013a; Goodwin et al., 2010; Scahill et al., 2009; Liu et al., 2011; Sansgiry et al., 2003). High turnover rate increased the institutional tangible cost of retraining and recruiting new staff and intangible cost of time lost in retraining or seeking equivalent capabilities to fill up the empty post (Dube et al. 2010). Currently, there is a defined career pathway for medical doctors in the government setting to advance as a specialist, but such pathway was limited for the pharmacists (Table 1.1).

The findings of this study might serve as indicators for MoH policymakers to have an insight on the perceived motivators, support and barriers towards career advancement and as a guide for policy makers to identify the gap of support and the existence of barriers in the current career pathway for pharmacists. Following this, the National Pharmaceutical Services Division can use the findings to design a framework for a more defined career pathway for the pharmacist profession in term of specialization.

## **1.3 Research Project Aims and Objectives**

The aims of this research project were as follows:

- i. To assess pharmacists' awareness on career planning and their anticipated role in future;

- ii. To assess pharmacists' perceived availability and importance of motivators and institutional training support in career;
- iii. To assess pharmacists' perceived institutional barriers and challenges to career advancement;
- iv. To offer a framework for pharmacists' career advancement

To achieve these aims, the following project objectives were determined:

- i. to explore Perak state pharmacists' awareness on career planning and their anticipated roles in the next 5 to 10 years;
- ii. to explore Perak state pharmacists' perceived availability and importance of motivators in their career
- iii. to explore Perak state pharmacists' perceived availability and importance of training support in their career
- iv. to explore Perak state pharmacists' perceived barriers and challenges to career advancement
- v. to make suggestions for pharmacists' career advancement framework based on their feedback
- vi. to explore differences in perception between different group of pharmacists
- vii. to assess Perak state pharmacists' awareness and perception towards the current subject matter expert (SME) advancement pathway

#### **1.4 Thesis Overview**

The thesis consists of six chapters. Chapter 1 describes the research project rationale, significance, aims and objectives. Chapter 2 describes career planning and

career advancement scenario among pharmacists, provide review of literature on pharmacists' perception of motivating factors in their career, institutional training support and barriers to pharmacists' career advancement. Chapter 3 addresses the first to eighth and tenth project objectives using a qualitative approach among eleven pharmacists in the Perak state. It explores in-depth about pharmacists' awareness on career planning and their anticipated roles in the future. In addition, it identifies the perceived availability and importance of motivators and institutional training support, as well as institutional barriers to career advancement. Chapter 4 addresses the first to ninth project objectives using a quantitative approach. It describes perceived availability and importance of motivators and institutional training support, as well as institutional barriers to career advancement among the pharmacists in the Perak State. Comparison of perception towards motivating factors, training supports and challenges to career planning and advancement between different groups of pharmacists were made. Chapter 5 draws the project's overall conclusions and proposes recommendations for policy makers, healthcare professionals and future research.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

When individuals are planning for their career development and future goals, job satisfaction appears to be an important motivating factor (Gould, 1979; Herzberg, 1976). Motivation typically arises from intrinsic conditions of a job itself, particularly recognition, achievement and personal growth (Herzberg, 1976). Dissatisfaction resulting from the lack of motivation and failure in overcoming the challenges to career advancement will eventually lead to poor work performance and a high turnover rate of staff (Chua et al., 2014; Goodwin et al., 2010). It is also noteworthy that institutional support, especially in terms of providing job-related training, is important in enhancing the overall work performance (Truitt, 2011; Sahinidis, 2008).

#### **2.2 Pharmacists' Career Planning and Career Advancement Scenario**

The career planning of pharmacist's career should be started before they graduate. According to a United Kingdom study, there was a major shift in term of short term and long-term goals (10 year post-graduation) (Hanna et al. 2016). Most respondents saw themselves as an employed community pharmacist after graduation, and as an employer after 10 years. Most of them preferred to work in hospital and community practice rather than academia or industry, due to the higher salary and the opportunities to directly improve patients' health and well-being (Hanna et al. 2016).

This finding was similar to one study in Malaysia, where most pharmacy undergraduates have chosen hospital or community practice as first career choice (Hasan et al., 2010). Hasan et al. (2010) also reported that less than 50% of the respondents would continue to work at the MoH facilities after 4 years of mandatory services. 20% of the students planned to enter private non-pharmacy related careers such as insurance and cosmetic industries after graduation in order to fulfill other interests and obtain better income.

In the United States, fully registered pharmacists are encouraged to pursue Post-Graduate Year 1 and Post-Graduate Year 2 pharmacy residency if they wish to practice in a specific therapeutic area. Currently, the Board of Pharmacy Specialties of the United States recognized pharmacotherapy, nuclear pharmacy, nutrition support pharmacy, oncology pharmacy, psychiatric pharmacy and ambulatory care pharmacy. Certification for all the specialties is achieved by examination. Recertification is required every 7 years if the pharmacists remain in the same specialty (Shord et al., 2013).

At Yale Hospital, United States, a pharmacist career ladder program (PCLP) was developed to encourage career development and improve frontline pharmacists' performance. The PCLP consisted of 4 rung of career ladders, and the pharmacists were given opportunities to advance from clinical pharmacist to become clinical pharmacy specialist once they fulfilled certain requirements, including pharmacy practice, educational, drug information and leadership criteria. This program successfully increased the number of pharmacists with specialty board certificates, peer-reviewed publications, interventions documentations and increased participation in other clinical improvement projects (Heavner et al., 2016).

According to Goodwin et al. (2010), two-thirds of pharmacists did not develop plan for career advancement. However, more than 80% of these pharmacists have strong interest in career planning. In this study done in the United States, 70% of the front-line pharmacists (pharmacists with clinical and distributive roles, not in managerial position) reported that there were no defined objective criteria for career advancement (Goodwin et al., 2010).

Currently there is no clearly defined career specialization pathway for the pharmacists in the public healthcare sector in Malaysia (Chua et al., 2014). Specialization of pharmacists in a particular field is not recognized in Malaysia even if the pharmacist obtained a master degree or a PhD degree.

### **2.3 Pharmacists' Perception On Career Motivators**

In a study done in Australia, intern pharmacists reported that they were prepared for patient care and primary health care roles after the training. However, experience during the intern practice did not meet their expectations, where some of the interns reported inadequate chance to apply their knowledge due to too much focus on supply-based dispensing (Mak et al., 2013a).

According to one study done at Northern Ireland, changes in contractual or organizational arrangements caused stress among 50 percent of the hospital pharmacists. Uncertainty about professional future due to new contract system and limited information regarding the new contract system with different pay schemes and working hours lead to stress among the pharmacists (McCann et al., 2009).



Perception of pharmacists towards their job were affected by their roles. In the United States, clinical pharmacists were shown to have higher job satisfaction compared to staff pharmacists. This might be due to clinical pharmacists have more opportunities to make use of their skills and knowledge at their place of employment (Kerschen et al., 2006). This finding was in congruence with a study done among pharmacy staff in Australia, where ability utilization was considered as the most important factor of an ideal job, while not being recognized as important by other health care professional and no chance for promotion were considered as factors contributed to dissatisfaction (Liu & White, 2011).

Younger pharmacists were more dissatisfied compared to senior pharmacists as reported by a study done in Australia. Young pharmacists had higher expectations towards professional growth and perceived dispensing as a barrier that prevented them from practicing in the ways they prefer (Mak et al., 2013a). According to a Malaysia study done by Chua et al. (2014), career advancement is one of the top five factors associated with job satisfaction. A local study conducted by Hasan et al. discovered more than 50% of the respondents would leave MOH facilities after 4 years of compulsory service. A more recent study by Chua et al. found that 70% pharmacists were likely to stay with the public service. While the introduction of time-based promotion system in year 2010 may have increased the intention of pharmacists to stay in the civil service, many pharmacists still felt that there was a need to improve the remuneration scheme in public sector (Chua et al. 2014). They also considered more opportunities for personal development and career advancement as important, for example more opportunities to continue postgraduate study and specialization of post-graduate in related field (Chua et al. 2014). Nevertheless, after the publication of findings by Chua et al., the Subject Matter

Expert pathway was being introduced to the civil pharmacists in year 2018 to further improve their career advancement (PSD, 2018b).

Opportunities in career advancement and personal growth were perceived as the most important factors to achieve career success (Goodwin et al., 2010). In the Saudi Arabia, some pharmacists believed that working in government sector may limit their opportunities for career growth (Al Ghazzawi et al., 2017). Despite this, job stability and constant raises on annual pay (USD 120) may encourage pharmacists to continue to work in the government sector (Al Ghazzawi et al., 2017). Lack of certainty about the future of their profession may affect pharmacists' satisfaction at work (Liu & White, 2011).

**Table 2.1 Characteristics and findings of studies investigating pharmacy students and pharmacists' career perception**

Authors (year)	Countries	Study designs	Sampling techniques	Study participants	Number of participants	Response rates	Key findings
Taylor et al. (2018)	Australia	Cross-sectional: electronic survey using an online questionnaire	Convenience sampling	Australian registered pharmacists and pharmacy interns	355 participated, 306 completed	Not reported	<ul style="list-style-type: none"> <li>▪ 49% pharmacists reported salaries lower than initial expectation.</li> <li>▪ Pharmacists and interns were satisfied with their current employment.</li> <li>▪ Major concern of pharmacists on job security due to oversupply of undergraduate.</li> </ul>
Iorga et al. (2017)	Romania	Cross-sectional: Questionnaire	Convenience sampling	Registered pharmacists in the National Association of Hospital Pharmacists in Romania (ANFSR)	160 pharmacists invited, 78 pharmacists responded	48.75%	<ul style="list-style-type: none"> <li>▪ The majority of pharmacists reported low level of satisfaction towards payment and promotion dimensions due to legislation</li> <li>▪ Lack of recognition by other medical professions due to restricted role in clinical activities</li> </ul>
Ghazawwi et al. (2017)	Saudi Arabia	Cross-sectional: electronic survey using an online questionnaire powered by SurveyMonkey	Convenience sampling	Female pharmacy students at King Abdulaziz University during the 2013-2014 academic year	167 invited, 108 completed	64.7%	<ul style="list-style-type: none"> <li>▪ Pharmacy students rated growth opportunities (28.7%) and working environment (25%) as important selection criteria for their jobs.</li> <li>▪ Half of the respondents reported lack of essential information on career opportunities at pharmaceutical company.</li> </ul>

**Table 2.1. Continued**

<b>Authors (year)</b>	<b>Countries</b>	<b>Study designs</b>	<b>Sampling techniques</b>	<b>Study participants</b>	<b>Number of participants</b>	<b>Response rates</b>	<b>Key findings</b>
Hanna et al. (2016)	United Kingdom	Cross-sectional: Paper-based questionnaire	Convenience sampling	Queen's University Belfast first-year student	124 pharmacy students invited, 100 responded	96.8%	<ul style="list-style-type: none"> <li>▪ Opinion towards pharmacy as a career choice changed after entering the program (60%)</li> <li>▪ 30% of respondents would consider to pursue an advanced degree upon finishing the current pharmacy program</li> </ul>
Chua et al. (2013)	Malaysia	Cross-sectional: Paper-based questionnaire	Convenience sampling	All fully registered pharmacists in the Penang, Perak, Perlis and Kedah	247 out of 467 FRPs responded	52.9%	<ul style="list-style-type: none"> <li>▪ There was limited specialization training and lack of defined career structure for public pharmacists</li> <li>▪ Respondents felt that there was a need to offer more opportunity for personal development and advancement in career, for eg more scholarship for postgraduate study and acknowledgement of post graduate qualification</li> </ul>
Mak et al. (2013a)	Australia	Cross-sectional: Paper-based questionnaire	Convenience sampling	All registered pharmacists on the registers of Pharmacy Boards of Victoria and South Australia	7764 pharmacists invited, 1627 pharmacists completed the survey	21.0%	<ul style="list-style-type: none"> <li>▪ 1053 (77%) were professionally satisfied with their job</li> <li>▪ 57% believed they had no choice in their work area and limited job description</li> <li>▪ Dispensing is the dominant part of a pharmacist's role, but it becomes barrier that prevent pharmacists from</li> </ul>

Table 2.1. Continued

Authors (year)	Countries	Study designs	Sampling techniques	Study participants	Number of participants	Response rates	Key findings
Mak et al. (2013b)	Australia	Pre and post questionnaires. First set of questionnaire sent by mail during the initial stages of intern; second set of questionnaire was administered near completion of internship and available online on Survey Monkey.	Convenience sampling	136 South Australian pharmacy interns enrolled in South Australian Intern Training Program	60 respondents completed phase 1; 49 respondents completed phase 2.	44.1% for phase 1; 36.0% for phase 2.	<p>practicing the areas they prefer.</p> <ul style="list-style-type: none"> <li>▪ The internship model no longer meets the expectation of pharmacy graduates</li> <li>▪ 45% of the respondents felt that they wanted to do something else than being a practicing pharmacist after the internship.</li> <li>▪ Supply-based dispensing, lack of opportunities to apply clinical skills and knowledge were among the factors of dissatisfaction among interns.</li> </ul>
Hasan et al. (2010)	Malaysia	Cross-sectional: Paper-based questionnaire	Convenience sampling	Final year BPharm students from 3 public universities and 1 private university in	213 (67.8%) respondents from public universities; 101 (32.2%)	Not reported	<ul style="list-style-type: none"> <li>▪ Salary was the extrinsic factor that most influencing in career choice</li> <li>▪ 40.4% of the public and 19.8% of the private university respondents would enter a nonpharmacy-related career upon graduation if given the choice.</li> </ul>

Table 2.1. Continued)

Authors (year)	Countries	Study designs	Sampling techniques	Study participants	Number of participants	Response rates	Key findings
				Malaysia	respondents from private university		
Scahill et al. (2009)	New Zealand	Cross-sectional: Paper-based questionnaire	Convenience sampling	Pharmacists registered with the Pharmacy Council of New Zealand	1892 pharmacists invited to participate the survey, 980 completed the survey	51.8%	<ul style="list-style-type: none"> <li>▪ Several barriers for pharmacists' 10-year vision were identified</li> <li>▪ Lack of trust between pharmacists and funding agencies, inadequate remuneration and underutilization of pharmacists' skill were considered as significant barriers</li> </ul>
McCann et al. (2009)	Northern Ireland	Cross-sectional: Paper-based questionnaire	Convenience sampling	All registered community and hospital pharmacists in Northern Ireland	1965 pharmacists invited to participate the survey; 766 completed the survey	39.0%	<ul style="list-style-type: none"> <li>▪ Major organization changes in the Northern Ireland caused stress among pharmacists</li> <li>▪ Interruptions, excessive workload and inadequate staffing were the most stressful aspects of pharmacists' employment</li> </ul>
Kerschen et al. (2006)	United States of	Cross-sectional: Paper-based	Convenience sampling	Inpatient pharmacists	38 pharmacists	63.3%	<ul style="list-style-type: none"> <li>▪ Various subsets of pharmacist role may lead to different level of satisfaction</li> </ul>

**Table 2.1. Continued)**

<b>Authors (year)</b>	<b>Countries</b>	<b>Study designs</b>	<b>Sampling techniques</b>	<b>Study participants</b>	<b>Number of participants</b>	<b>Response rates</b>	<b>Key findings</b>
	America	questionnaire		working at 2 hospitals	completed the survey		<ul style="list-style-type: none"> <li>▪ Clinical pharmacists were more satisfied than non-clinical pharmacists</li> <li>▪ Job satisfaction was related to the amount of clinical activities performed</li> </ul>
Liu et al. (2011)	Australia	Cross-sectional: Paper-based questionnaire	Convenience sampling	350 pharmacy staff over 14 hospitals	188 staff responded	53.7%	<ul style="list-style-type: none"> <li>▪ Ability utilization and recognition were the most important factors for job satisfaction</li> <li>▪ Job satisfaction decreased as more time spent for processing prescription</li> <li>▪ Increasing pharmacists' role in clinical activities and establishing a professional identity may improve pharmacists' satisfaction</li> </ul>
Sansgiry et al. (2003)	United States of America	Cross-sectional: Paper-based questionnaire	Convenience sampling	Pharmacists working at the Texas Medical Center	324 surveys distributed; 85 pharmacists responded	26.0%	<ul style="list-style-type: none"> <li>▪ Pharmacists have negative feeling towards their advancement opportunities and management's attitude towards them</li> <li>▪ Diversity in job responsibilities may improve job satisfaction</li> <li>▪ Fairness and consistency by management towards all employees were perceived as important motivating factors</li> </ul>

## **2.4 Pharmacists' Perception on Training Support and Barriers to Career Advancement**

Training support to develop a work environment for career growth and advancement is important. It was suggested that management shall reward employee fairly, allowing staff pharmacists to involve in management functions and increase job diversities of pharmacists (Sansgiry & Ngo, 2003). Management shall increase hospital pharmacists' role in clinical activities and establish professional identity for pharmacists in order to support career advancement (Liu & White, 2011).

Currently, majority of pharmacists stated that there were no mentoring activities available to them. Institutional support in term of mentoring activities were important for the pharmacists, especially on coaching students, training on presentation skills and advice on career advancement (Goodwin et al., 2010). Increased availability of financial rewards for high performance, increased work time for teaching and participation in professional organisation were also important motivators for career advancement among pharmacists (Goodwin et al., 2010).

Typical pharmacy career ladders have 3 to 5 levels of advancement with increased responsibility and rewards. In Yale, there were 4 rung of career ladders for pharmacists to advance, from Clinical Pharmacist Level 1, Clinical Pharmacist Level 2, Clinical Pharmacy Specialist Level 1 and Clinical Pharmacy Specialist Level 2 (Heavner et al. 2016). A well-structured career ladders might serve to improve job satisfaction, employee retention and employee competence. Although it might be costly to establish a career ladder, however a well-structured career ladder can be



cost-effective in long term, by reducing the cost related to recruitment, orientation, training and disruption caused during the transition period (Goodwin et al., 2010).

Effective communication of the department or institution goals and strategic plan to all employees is important to support pharmacists' career advancement. It was also important to create an environment that rewards self-development and professional growth (Goodwin et al., 2010).

There were a few factors identified as barriers to career advancement. Lack of utilisation of the pharmacists' skill, lack of promotion of the profession to stakeholders and lack of a unified pharmacy voice were among the few factors considered as barrier to career advancement (Scahill et al., 2009). Inadequate acknowledgement of clinical and patient-focused activities by other professions were also considered as barriers for career advancement. Pharmacists were found to possess lesser autonomy compared to other healthcare professionals in term of clinical roles (Sansgiry & Ngo, 2003).

In Romania, pharmacists found that current Romanian legislation did not encourage professional development and promotion. Since the hospital pharmacists were not part of the medical team, they have limited involvement in clinical decisions. Legislation of the healthcare system was considered as one of the barrier to career advancement (Iorga et al., 2017).

In the United States, the lack of a clear advancement structure for pharmacists who positively impact the institution was considered as the most important barrier to career advancement. Other factors such as shortage of qualified pharmacist,

visionary leader and lack of sufficient funds for educational purposes were also considered as barrier to career advancement (Goodwin et al., 2010).

## **2.5 Conclusions**

Various motivating factors and barrier for career advancement have been observed among pharmacists worldwide. Literature indicated that some of the pharmacists were satisfied with their job, but some reported that their ability is not fully utilized or not fairly remunerated according to their performance. Moreover, some of the junior pharmacists were unsure of their future due to the recent excessive workforce in the public setting and change of employment scheme. Most studies reported the various factors contributed to the job satisfaction of the pharmacists, including recognition, salary and career prospect. However, the majority of these studies did not explore the career planning and career advancement of pharmacists as a profession in depth. Therefore, this study focus on exploring the motivators, training support and barriers towards pharmacists' career advancement and career planning.

## CHAPTER 3

# QUALITATIVE EXPLORATION OF PHARMACISTS' PERCEPTION ON MOTIVATORS, INSTITUTIONAL TRAINING SUPPORTS, CHALLENGES TO CAREER PLANNING AND CAREER ADVANCEMENT

### 3.1 Introduction

Career planning is defined as the individuals' plan of future career developments and outline of their career goals (Gould, 1979). Career planning is perceived to be important as it is related to more successful careers (Hall, 2002). In the current situation, with the latest batch of pharmacists employed on a contract basis, career planning becomes essential as it aids the employee to explore other job options during career transition (Zikic & Klehe, 2006). Despite its importance, studies on awareness of career planning among pharmacists are lacking.

Motivating factors is theoreticized by Herzberg (1976) as factors that give positive satisfaction, arising from intrinsic conditions of the job itself, such as recognition, achievement, or personal growth. Previous studies have indicated that lack of motivating factors such as career advancement lead to job dissatisfaction and increased turnover rate of employees (Chua et al., 2014; Goodwin et al., 2010). High turnover rate increased the cost of retraining and recruiting new staff with equivalent capabilities to fill up the empty post, with an estimated cost of USD 7000 per professional or managerial employee (Dube et al., 2010).

Currently, there is time-based advancement pathway for pharmacists, medical doctors and dentists (Ministry of Health, 2014). There are 5 different grades of career ladders for the pharmacists in current pharmacist employment scheme, ie. UF 41, UF

44, UF 48, UF 52, and UF 54. UF 41 and UF 44 are considered as entry level and junior grade, UF 48 as intermediate grade while UF 52 and UF 54 are senior pharmacist grade. It takes 14 years for a pharmacist at the grade of UF 41 to advance to UF 54 on a time-based basis. However, there is no specialization or merit-based pathway for the pharmacists to advance in a faster manner.

In contrary, there is a merit-based promotion pathway through exam or master programs for medical doctors in the government setting to advance as a medical specialist (Figure 3.1) (Ministry of Health, 2014). As of August 2018, there were 30 specialties areas of recognised by the Ministry of health under the National Specialist Registry (NSR). In 2018, a new subject matter pathway was created for the pharmacists in two specific areas of pharmacotherapy and one specific area of regulatory (PSD a, 2018). The pathway allowed the senior pharmacists at the senior pharmacist grade UF 54 to advance to the Special C Grade (JUSA C). However, opportunities for pharmacist to progress as a subject matter expert are still limited, with three JUSA C posts in the entire country, in comparison to medical officers or dental officers who were offered more JUSA C posts (Ministry of Health, 2014).

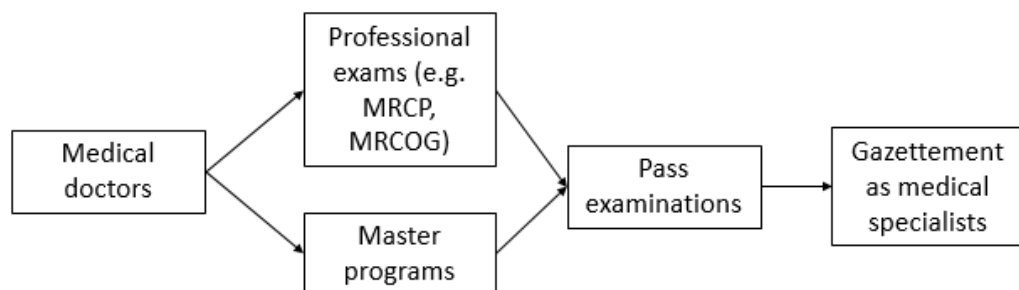


Figure 3.1 Promotion pathway for medical doctors in the civil service

Previous studies among pharmacists were focused on their overall job satisfaction, but did not specifically explored their view on career planning and career advancement (Chua et al., 2014; Liu & White, 2011; Noel et al., 1982; Cox & Fitzpatrick, 1999; Manan et al., 2015). Since the lack of a well-defined advancement structure in the health system was considered as the most important barrier to career advancement (Goodwin et al., 2010), there is a need to study the motivating factors and barriers for career advancement among pharmacists in more depth.

This study aimed to explore the pharmacists' view in the government service on career planning and advancements using qualitative methodology.

### **3.2 Objectives**

The study objectives were as follows:

- i. to assess awareness on career planning and anticipated role among pharmacists in the Perak state;
- ii. to assess perceived availability and importance of motivators and institutional training support among pharmacists in the Perak state;
- iii. to assess perceived institutional barriers to career advancement among pharmacists in the Perak state;
- iv. to assess awareness and perception towards the current subject matter expert advancement pathway among pharmacists in the Perak state

### **3.3 Methods**

#### **3.3.1 Study Design**

This was a qualitative study conducted among hospital-based pharmacists. A qualitative method was chosen because it allowed the researchers to obtain in-depth insights from the participants, which might not be possible via quantitative research methods (Sandelowski, 2000; Teddlie & Yu, 2007). A qualitative descriptive approach with phenomenology overtone was used, as it is suitable for the direct description of observed phenomenon and providing insight of individual with different experiences and perceptions (Husserl, 2012; Sandelowski, 2000). Qualitative approach allowed flexible interrogation and provision of information to the respondents (Berg, 2014; Tonna & Edwards, 2013), which is suitable for the context of this study as it allowed the investigator to explore the participants' perception on career motivators, training support and barriers for career advancement, as well as their view on the current subject matter pathway.

#### **3.3.2 Developing the study instrument**

A semi-structured interview guide was developed as the data collection instrument (Appendix A). The interview guide consisted of open-ended questions in order to allow exploration of participants' view on career advancement and career planning. The interview guide ensure the standardization of interview questions asked among different participants. It allowed the investigator to have greater freedom in prompting participants for answers, explore their perspective or interrogate further as new themes emerged during the interview sessions (Creswell, 2012; Gray, 2013). Besides, the interview sessions can be conducted more

systematically and the investigators could obtain more comprehensive data by using an interview guide (Creswell, 2012).

Extensive literature search was conducted to construct the interview guide. Then, the interview guide content was reviewed by two senior academicians (MAH, AAS) from the School of Pharmaceutical Sciences, Universiti Sains Malaysia with expertise in social administrative sciences and qualitative research. Two pharmacists (CLY, MI) were nominated by the Head of Pharmacy Department, Hospital Raja Permaisuri Bainun to participate in the pilot test. A minimum of two respondents were required to test the adequacy, clarity and relevancy of the interview guide. (Hennink et al., 2011; Silverman, 2013). The pilot interviews were excluded from the analysis. Suggestions were used to modify the interview guide. The finalised interview guide was used during the data collection process.

### **3.3.3 Study setting**

This study was conducted at the Hospital Raja Permaisuri Bainun (HRPB), Ipoh in June and July 2018. HRPB is a tertiary referral hospital with 990 beds, located in the urban Kinta district of the Perak state (Adi et al., 2013). According the Perak State Health Department, the total number of pharmacists working in the Pharmacy Department of HRPB were approximately 171, with 109 permanent FRPs, 48 contract PRPs and 14 contract FRPs. The pharmacists were stationed at different units, including outpatient unit, counselling unit, therapeutic drug monitoring unit, aseptic unit, galenicals unit, clinical pharmacy unit, ward supply unit and pharmacy logistics unit.