


Analysis of Pharmacy Practice Factors on Pharmacy Career Satisfaction in Saudi Arabia

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ABSTRACT

Purpose: To explore analysis of pharmacy practice factors on pharmacist career satisfaction in Saudi Arabia. **Methods:** It is a 4-months cross section survey of analysis of pharmacy services factors on pharmacist career satisfaction in Saudi Arabia. The study consisted of 44 questions divided into two-part demographic information and the second part was the questions about pharmacy services units of pharmacy job. It included pharmacy management structure, dispensing and patient education, clinical pharmacy services, pharmacy technology, pharmacy store and overall job satisfaction. The 5-points Likert response scale system closed and ended questions were used. The survey was made as an electronic format and it analyzed through survey monkey system. **Results:** The total responders were 242. The gender distribution 169 (70.7%) was male and 70 (29.3%) was female. The majority of them 202 (84.2%) were in age group (20-39) years. The average pharmacist satisfaction score of pharmacy management structure was (3.07), clinical pharmacy activities was (3.08). The average pharmacist satisfaction of pharmacy informatics was (2.78) and patient counselling satisfaction was (3.83). The average pharmacist satisfaction score of pharmacy store factors were (2.87) and the overall job satisfaction was (3.61). **Conclusion:** The low level of pharmacy services with an emphasis on information technology and pharmacy inventory management affected pharmacist job satisfaction. Those factors increase pharmacist workload and dissatisfactory in pharmacy job.

Keywords: Pharmacy, Practice, Career, pharmacist, Factors, Job, Satisfaction, Saudi Arabia.

INTRODUCTION

Over several years, the pharmacy services in the Kingdom of Saudi Arabia have developed tremendously with an emphasis on the Ministry of Health hospitals and primary healthcare centers.¹ The pharmacy services were just only outpatient and inpatient to several functions including drug information and clinical pharmacy services. The pharmacy workforce increased from 0.04 pharmacist per bed in the hospital to 0.2 pharmacists per bed as an essential requirement.² Besides, the workforce of primary healthcare pharmacy grew.³ The pharmacy services structure expanded with well-developed hospital pharmacy competency and pharmacy primary healthcare centers.^{4,5} The IV admixture services and total parental nutrition services increased.^{6,7} The pharmacy education and training and inventory management system developed and expanded.⁸ The computerized physician order entry expanded to cover several hospitals in Saudi Arabia.⁹ Several pharmacy administration programs have been implemented in past few years.¹⁰ The pharmacy strategic plan was founded in 2012 and implemented one-third of the plan. Also, the new pharmacy strategic plan with new Saudi vision released.¹ Any occupation is seeking to improve the profession better in the future especially in the medical field while the main purpose of it is to obtain the optimal health care services for the patient.^{11,12} Pharmacists are the third largest healthcare professionals in the world and they play a major role in providing healthcare services. However, their satisfaction with their work affects not only the pharmacists themselves but also patients who re-

ceive the pharmacists' services.⁹ Based on what was mentioned previously, the lack of adequately qualified pharmacists it contributes to increasing pressure at work and the generation of a tense work environment, resulted in a negative impact on the quality of work performance and consequently, errors may happen.¹³⁻¹⁶ Job satisfaction is defined as the feelings that an individual has about his job¹⁷ and it is the degree of favorableness with which an employee views his work.⁹ Job satisfaction depends both on the nature of the job and on the expectations health workers have of what their job should provide.¹⁷ Many kinds of research published discussed pharmacist job satisfaction in different countries and fields. Regarding the importance of pharmacists' role and quality of services on the health care system, many studies have attempted to determine the factors affecting pharmacists' job satisfaction.¹¹ Job satisfaction can be measured in many ways and there is no standard way to measure job satisfaction.⁹ The most common one is item questions regarding general job satisfaction which include for example overall management policies, pharmacy management structure. This is considered as Exogenous Satisfaction that is represented in Organizational Management, work environment and the manager. Endogenous Satisfaction, for example is the level of education, responsibility and passion for work.¹⁸ Throughout the literature, many factors have been found which could affect pharmacists' job satisfaction in different pharmacy practice settings.¹⁹ A study shows that the overall job satisfaction among Saudi commu-

nity pharmacists was high and the most satisfying aspects of the job were professional relations, clinical encounters with patients, recognition and autonomy. It concludes that Improvement in the areas of work schedules, utilization of skills and professional development could further maximize job satisfaction and assist in retaining productive and experienced pharmacists.²⁰ As a result, the low level of pharmacy services may affect the pharmacist and lead him to job dissatisfaction.

Based on the best knowledge of the authors; they are not familiar with writings about pharmacist job satisfaction on pharmacy services in Saudi Arabia. The aim of the current study to declare the analysis of pharmacy practice factors on pharmacist career satisfaction in Saudi Arabia.

METHODS

It is a 4-months cross-section survey of analysis of pharmacy services factors on pharmacist career satisfaction in Saudi Arabia. The study consisted of forty-four (44) questions divided into two-part demographic information and the second part was the questions about pharmacy services units of pharmacy job. It included pharmacy management structure, dispersing and patient education, clinical pharmacy services, pharmacy technology, pharmacy store and overall job satisfaction. The 5-points Likert response scale system closed and ended questions used. The survey was made as an electronic format and was analyzed through survey monkey system.

RESULTS

The total responders were 242. Of those 214 (91.8 %) was Saudi and 33 (8.2%) was non-Saudi. The gender distribution 169 (70.7%) was male and 70 (29.3%) was female. The majority of them 202 (84.2%) were in age group (20-39). Most of the pharmacists were married 152 (66.38%) while 75 (32.75%) were singles (Table 1). Most responders had an educational level of pharmacy bachelor degree 114 (47.7%), followed by pharmacy diploma level of 81 (33.89%) and Pharm.D 26 (10.88%). Most of the responders has not board of pharmaceuticals 171 (93.44%). Most of the current position was pharmacy technician 80 (34.93%) and staff pharmacist 78 (34.5%) and worked at outpatient pharmacy 83 (39.7%) and inpatient pharmacy 73 (34.9%). The most the responders spent less than 72 (30%), followed by three years three to five years 61 highest (24.42%) and six to ten years 50 (20.83%) worked in the current position. While more of responders receive 7,000-12,000 SR monthly salary 138 (58.97%) (Table 2). Most of the responders worked at Ministry of health 103 (42.92%) followed by MOH government Hospital 66 (27.5%) and Non- MOH government Hospital 31 (12.92%). The responders worked at (200-299 beds) 32 (17.02%) followed by (100-199 beds) 31 (16.49%) and (<50 beds) 29 (15.43%). Most hospitals were accredited by Saudi Commission for Health Specialties 97 (48.74%) followed by Saudi Central Board for Accreditation of Healthcare Institutions (CBAHI) 58 (29.15%) and Joint commission of hospital accreditations USA 40 (20.1%) (Table 3). The average pharmacist satisfaction score of pharmacy management structure was (3.07), clinical pharmacy activities was (3.08). The average pharmacist satisfaction of pharmacy informatics was (2.78) and patient counselling satisfaction was (3.83) (Table 4 and 5). The average pharmacist satisfaction score of pharmacy store factors were (2.87) and the overall job satisfaction was (3.61) (Table 6 and 7).

DISCUSSION

The finding showed Pharmacy administration is not adequate especially in terms of the facilities in pharmacy. This prevents patient's communication; the schedule work is not flexible may lead to high workload and the job becomes routine work. Besides, most of the responders agreed with clinical activities for pharmacy staff were not important. That includes of

Table 1: Demographic social information.

Nationality	Response Count	Response Percent
Saudi	214	91.85
Non- Saudi	19	8.15
Answered question	233	
Skipped question	9	
Gender	Response Count	Response Percent
Male	169	70.71
Female	70	29.29
Answered question	239	
Skipped question	3	
Age	Response Count	Response Percent
<19	0	0
20-29	87	42.08
30-39	86	42.08
40-49	26	12.92
50-59	6	2.92
>60	0	0
Answered question	240	
Skipped question	2	
Marital status	Response Count	Response Percent
Single	75	32.75
Married	152	66.38
Other (please specify)	2	0.87
Answered question	229	
Skipped question	13	

not participating in the education for healthcare professionals, not sharing the medical round or performing drug usage evaluation services. If the pharmacist got involvement with clinical team (Physician, Nurse) in inpatient area as personal efforts as clinical reference in regard of the medication's managements after the coordination with pharmaceutical care department leadership. So that was given opportunities to attend the daily clinical rounds with clinical discussion which was enriching the knowledge and increase the experience in short period. In addition, that's may search from updated resources with positive impression clinical teams and pharmacy leaders and is a great motivation method for pharmacist job satisfaction as done in previous studies.²¹⁻²³ The pharmacist is not satisfied with pharmacy informatics situation because most of MOH hospitals do not have electronic prescriptions or pharmacy automation system. Using the informatics and automation system may improve pharmacist job satisfaction.²⁴ The pharmacists who were satisfied with patient counseling system existed but not sharing it due to not enough time to participate inside it. Most of the pharmacists were not satisfied with pharmacy inventory system elements with emphasis on the update of medications shortage or the availability of non-pharmaceutical items. Medications shortage is a crucial subject considered as international crisis in the health care system. In our survey, it is considered one of the dis-satisfaction factors affecting the pharmacy practice and pharmacy working staff. 41% of our participants are considering this as defect in pharmacy practice in front of the patients, that the patients think when there is any medication shortage it is someone in the pharmacy do not do his job.²⁵ On corporate level now the governmental institutions with the ministry of health are in process to develop strategic plan to

Table 2: Demographic responder qualifications information.

Academic Qualification (s):	Response Count	Response Percent
Diploma Pharmacy	81	33.89
Bsc. Pharm	114	47.70
M.S	4	1.67
Msc. Clinical Pharmacy	16	6.69
Pharm.D.	26	10.88
Ph.D	2	0.84
MBA	4	1.67
Pharmacy Residency Two years (R2)	2	0.84
Pharmacy Residency one year (R1)	2	0.84
Fellowship	0	0
Other (please specify)	3	1.26
Answered question	239	
Skipped question	3	
Board of Pharmaceutical Specialty	Response Count	Response Percent
Board Certified Ambulatory Care Pharmacist (BCACP)	2	1.09
Board Certified Critical Care Pharmacist (BCCCP)	3	1.64
Board Certified Nuclear Pharmacist (BCNP)	0	0.00
Board Certified Nutrition Support Pharmacist (BCNSP)	0	0.00
Board Certified Oncology Pharmacist (BCOP)	0	0.00
Board Certified Pediatric Pharmacy Specialist (BCPPS)	0	0.00
Board Certified Pharmacotherapy Specialists (BCPS)	2	1.09
Board Certified Psychiatric Pharmacist (BCPP)	1	0.55
Non	171	93.44
Other (please specify))	4	2.19
Answered question	183	
Skipped question	59	
Current position	Response Count	Response Percent
Pharmacy Technicians	80	34.93
Lecturer	0	0.00
Intern Pharmacist	3	1.31
Director of Pharmacy	22	9.61
Staff Pharmacist	79	34.50
Supervisor Pharmacist	21	9.17
Clinical Pharmacist	12	5.24
Deputy Director of Pharmacy	4	1.75
Manager	3	1.31
Other (please specify)	5	2.18
Answered question	229	
Skipped question	13	

Table 2: Cont'd.

The practice area	Response Count	Response Percent
Inpatient Pharmacy	73	34.76
Outpatient Pharmacy	83	39.52
Satellite Pharmacy	0	0.00
Narcotics	2	0.95
Extemporaneous Preparation	2	0.95
Clinical Pharmacy	9	4.29
Inventory Control	3	1.43
Drug Information	4	1.90
Emergency pharmacy	2	0.95
Medication safety	2	0.95
Repacking	0	0.00
Pharmacy Education and Training	1	0.48
Other (please specify)	29	13.81
Answered question	210	
Skipped question	32	
Total years you worked in current position	Response Count	Response Percent
<3	72	30.00
3-5	61	25.42
6-10	50	20.83
11-15	25	10.42
> 15	32	13.33
Answered question	240	
Skipped question	2	
Monthly income	Response Count	Response Percent
<6.000	16	6.84
7.000 - 9.000	56	23.93
10.000 - 12.000	82	35.04
14,000 - 16,000	43	18.38
18,000 - 20,000	26	11.11
>25.000	11	4.70
Answered question	234	
Skipped question	8	
Your long-term employment goal is to	Response Count	Response Percent
Continue to work in the current place	67	28.51
Work in other health sector	26	11.06
Ask transfer and work somewhere else	43	18.30
Change the profession	11	4.68
Upgrade the profession	118	50.21
Run my own business	38	16.17
Answered question	235	
Skipped question	7	

Table 3: Demographic hospital information.

Sector of work	Response Count	Response Percent
Ministry of Health	103	42.92
General Medical Directorate in Region	3	1.25
MOH government Hospital	66	27.50
Non- MOH government Hospital	31	12.92
MOH-Primary Care Center	22	9.17
Private Hospital	3	1.25
Private Primary Care Center	0	0
Community pharmacy	7	2.92
Other (please specify)	5	2.08
Answered question	240	
Skipped question	2	
Number of beds at your hospital	Response Count	Response Percent
< 50	29	15.43
50-99	16	8.51
100-199	31	16.49
200-299	32	17.02
300-399	15	7.98
400-499	13	6.91
500-599	14	7.45
= or > 600	13	6.91
Medical City	25	13.30
Answered question	188	
Skipped question	54	
The hospital accreditation	Response Count	Response Percent
CBAHI	58	29.15
Joint Commotion USA	40	20.10
Canada	4	2.01
Saudi commission of health accreditation	97	48.74
Answered question	199	
Skipped question	43	

deal with the medication shortage worldwide crisis. Proper management of the medications also is a crucial factor affecting mainly the patients and the working staff. Sometimes lack of or medication shortage could lead to interruption of the treatment plan of the patient which may affect the outcome of the treatment plan, this is critical for certain cases (example if we are talking about oncology patients) since the time her is crucial factor for some clinical cases. Requesting the pharmacy medication demands on time to assure the proper medication delivery on time and early notification about the shortage of medications from the source of supply (pharmacy Warehouse or logistics) that will help to react to search for alternative or other source if there is a case needed lacking medication. The pharmacy store and inventory system should implement a new system with complete computerized and regular monitoring of medications shortage. Majority of pharmacists had challenges in their work need to solve it and improve pharmacy services. That's excepted

Table 4: Pharmacy administration and clinical pharmacy satisfaction.

	Pharmacy management structure	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Rating Average	Response Count
1	My pharmacy management software system is overly complicated to work with.	40	44	73	66	13	3.14	236
2	Management does not make clear what type of duties (patient consultation, managerial, dispensing) are expected of me.	41	65	61	59	9	3.30	235
3	My work schedule is flexible.	18	77	57	49	34	2.98	235
4	The physical arrangement of the prescription area facilitates communication with patients.	25	63	46	64	38	2.89	236
Answered question 237, Skipped question 5								
	Clinical pharmacy activities	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Rating Average	Response Count
1	Participating in drug-use evaluation	21	57	87	35	23	3.08	223
2	Providing patient education regarding drug therapy	26	71	79	26	22	3.24	224
3	Participating in medical or health care team rounds	27	47	83	32	34	3.00	223
4	Participating in the detection, monitoring, documentation, management and reporting of adverse drug reactions	30	69	68	29	27	3.21	223
5	Providing educational sessions or materials for other health care professionals	32	46	61	42	45	2.90	226
Answered question 237, Skipped question 5								

Table 5: Pharmacy informatics and patient counselling satisfaction.

Information Technology		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Rating Average	Response Count
1	Information Technology department respond to your urgent requirement promptly.	11	59	64	58	37	2.78	229
2	You are satisfied with overall services provided by Information Technology department to you.	9	53	74	56	32	2.78	224
Answered question 230, Skipped question 12								
Dispensing vs. patient consultation duties		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Rating Average	Response Count
1	I do not have enough time to perform many patient consultation duties at my job.	52	81	56	40	8	3.54	237
2	Patients are only concerned about getting their medication as cheaply / quickly as possible.	99	84	31	16	3	4.12	233
Answered question 237, Skipped question 5								

because most of the pharmacy facilities with an advanced system not existed. It may lead more two third of the responders to wish to change Pharmacy field.

CONCLUSION

Our findings specify different levels of job satisfaction between pharmacists in different practice settings in Saudi Arabia. The poor pharmacy services affected negatively to pharmacist job satisfaction, including missing of Pharmacy informatics and Pharmacy inventory management system. Targeting to improve pharmacy services will raise pharmacist job satisfaction in healthcare insurance in Saudi Arabia.

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CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest.

Table 6: pharmacy inventory management satisfaction.

Store Related Issues		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Rating Average	Response Count
1	The availability of pharmaceutical items (percentage of items received compared to ordered) was 90% or more most of the times	14	68	70	59	22	2.97	233
2	The availability of non-pharmaceutical items (percentage of items received compared to ordered) was 90% or more most of the times	10	45	94	62	22	2.82	233
3	The item shortages that you have is similar in other hospitals pharmacies	22	96	52	50	13	3.27	233
4	When you have urgent order, you receive the goods from store within 24 hr in most cases	15	75	47	65	31	2.91	233
5	You have regular update from store about new products in the market	8	43	67	70	42	2.59	230
6	You have regular update from store about the shortages in the market	8	51	61	66	43	2.63	229
7	warehouse take your undelivered items seriously	13	50	103	36	27	2.94	229
8	You are satisfied with overall services provided by warehouse to you	7	70	68	60	27	2.87	232
Answered question 234, Skipped question 8								

ABBREVIATIONS

KSA: Kingdom of Saudi Arabia; **MOH:** Ministry of Health; **B.Sc. Pharm:** Bachelor in pharmacy; **Pharm D:** Doctor of Pharmacy; **CBAHI:** Saudi Central Board for Accreditation of Healthcare Institutions.

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Table 7: The overall pharmacist job satisfaction.

	Overall job satisfaction	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Rating Average	Response Count
1	I find challenge in my work.	87	100	32	16	6	4.02	241
2	Knowing what I know now, if I had to decide all over again whether to go into pharmacy, I would choose another field.	62	43	36	60	39	3.12	240
3	If I were free to pursue any type of career I wanted, I would stay in pharmacy.	68	80	57	21	14	3.70	240
Answered question 242, Skipped question 0								

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