



Original article

Association between intention to leave work and quality of work-life of Saudi pharmacists



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ABSTRACT

Background/Aim: Pharmacists are one of the most essential healthcare professionals, with substantial clinical knowledge and skills in the use of medications. Pharmacists provide patient care services and contribute to the enhancement of health outcomes, which increases their workload. This study was conducted to determine the association between intention to leave work and quality of work life (QWL) of pharmacists in Saudi Arabia.

Methods: This cross-sectional study was conducted using a self-administered questionnaire provided as a paper-based survey using two scales (the Work-related Quality of Life [QoL] and Intention to Leave scales). In addition, this was combined with demographics to determine the relationship between intention to leave work and quality of work-life. Data were analyzed using descriptive and analytical statistical tests.

Results: A total of 284 (76.5%), out of the 371 surveys distributed, were completed and returned. The average age and annual income of the respondents were 33.4 ± 6.5 years and $196,401 \pm 82,306.7$ SAR, respectively and 61.2% and 38.9% were male and female, respectively, whereas 62.9% were married and 53.2% reported having children. The multiple linear regression analysis conducted showed a significant negative relationship between QWL and the intention to leave work ($\beta = -0.131$; 95% CI, -0.185 to -0.076).

Conclusion: We found a significant association between the QWL and intention to leave. This indicates that a greater intention to leave was associated with a low or lousy QWL among Saudi pharmacists.

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1. Introduction

Pharmacists are one of the most important healthcare professionals, with substantial clinical knowledge and skills in therapeutics and use of medications. Consequently, they play a unique role in healthcare systems. Pharmacists provide patient care services, such as management of medication therapy, health education, and prevention of diseases, and thereby assist patients in optimizing drug use, reduce medication-related difficulties, and enhance health outcomes (Hazen et al., 2019).

Historically, in Saudi Arabia, the traditional role of the pharmacist has been limited to dispensing medications; however, this role has recently expanded to include other medication-related duties.

These duties include preparation and dispensing of medical prescriptions, counseling patients in hospitals and community pharmacies, advising physicians on medications, therapeutic doses, drug-drug interactions, adverse drug reactions, and other drug-related issues (Haseeb and Elrggal, 2013).

Furthermore, pharmacists are active in ambulatory care, oncology, hematology, cardiology, and other healthcare settings (Al-Jedai et al., 2016). Because of their multiple tasks, pharmacists spend a considerable amount of time at work, which may affect their quality of work life (QWL). Therefore, attention must be focused on increasing the work-life quality to boost employee happiness and satisfaction, which would lead to several benefits for individuals, organizations, and consumers.

The QWL is a complicated entity that is influenced by and interacts with a wide range of factors in both work and personal life (Hsu and Kernohan, 2006). However, there is no consensus on what exactly comprises the QWL and over the years, many definitions have been proposed. Physical and emotional well-being, financial conditions, personal conviction, and environmental collaboration all contribute to QWL (Khorsandi et al., 2010). QWL was defined by Hackman et al. (1980) as a by-product of the connection between the work environment and personal requirements.

Hackman and Suttle (1977) defined QWL as the extent to which organizational experiences enable individuals to meet their primary requirements. According to Ahmad (2013), the fundamental goal of QWL is to improve employee well-being and productivity, with the work environment and job characteristics as essential parts of QWL (Ahmad, 2013). Factors that can influence the QWL include fair and affordable compensation, safe working environment, great chance for career growth, and social merge in the workplace (Islam, 2012).

A variety of circumstances can cause low QWL, including increased workload and stress levels, unpleasant working environments, lack of engagement in decision-making, poor supervisory relationships, shift work, and lack of opportunities to develop new skills (Ellis and Pompili, 2002). Based on numerous studies and these factors, poor QWL is inversely and strongly related to the intention to leave the job (Faraji et al., 2017; Lee et al., 2013). The term “intention to leave the job” refers to a worker's plan to leave their current job and look for another shortly. When people resign from their positions, barriers are raised, resulting in increased costs, decreased production, knowledge loss, and possible harm to the teamwork.

QWL and the strength of the desire to practice pharmacy, as well as age, gender, a safe workplace, fair compensation, work-life parity, and the balance between work and non-work life, are all variables contributing to pharmacists' intention to leave their positions (Seston et al., 2009). Women have a higher annual turnover rate than that of men (15% and 9.7%, respectively) (Mott, 2000).

Several studies addressing pharmacists' intention to leave their positions have shown it has a significant relationship with the QWL. For instance, the study of 1,412 Taiwanese nurses by Lee et al. (2013) discovered that QWL was a significant predictor of intention to leave. In addition, a 2017 study of 300 nurses in Kurdistan showed that QWL played a substantial role in their intention to leave (Faraji et al., 2017).

A study conducted in Saudi Arabia in 2012 involving 500 nurses demonstrated that turnover intention was significantly related to QWL (Almalki et al., 2012). Age, gender, education, years of service, marital status, and income were all found to substantially affect employees' intentions to leave their positions (Agyeman and Ponniah, 2014). To our knowledge, there has not been any study evaluating intention to leave work for pharmacists in Saudi Arabia. To identify strategies to decrease the turnover rate and cost of

training new pharmacists and improve the stability of the workplace, we examined the relationship between intention to leave work and QWL among Saudi pharmacists.

2. Methods

2.1. Study design and data sources

A cross-sectional study was conducted using a self-administered survey in the form of a paper-based questionnaire using demographic predictors. In addition, two scales were used to explore the relationship between intention to leave work and QWL, which they were pretested and validated by a group of pharmacists. Before data collection commenced, the Qassim Regional Research Ethics Committee (Institutional Review Board) granted ethical approval.

Pharmacists from different sectors working in Saudi Arabia were considered eligible to participate in this study. Data were collected for two months from August 2019 from different sectors and sites across Saudi Arabia, including hospitals, communities, universities, and community **pharmacies**.

2.2. Participants

Participation in the study was voluntary and all pharmacists in Saudi with a Bachelor's degree and higher who were already working and were eligible to participate were given 15–25 min to complete the survey. **Universities, hospitals, retail pharmacies, the drug industry, and pharmacy conferences were among the places where the survey was delivered. A research assistant visited the targeted places and distributed the survey to the targeted participants. Participants who agreed to participate in the study were asked to sign the consent form and complete the survey.** All participants were free to discontinue participation without providing any reason and no names or identifying information were collected to ensure confidentiality.

2.3. Survey design and data collection tool

The survey was translated into Arabic and then English using the translation-back-translation technique (Campbell et al., 1970). The Arabic version of the questionnaire was presented and was divided into three sections: the first **section** was respondents' demographic characteristics, the second **section** rated the respondents' intention to leave work using the Intention to Leave Scale, and the last **section** rated the QWL using the Work-related Quality of Life (QoL) scale. To ensure the accuracy and understandability of the scale, pharmacists were interviewed and asked to express their comprehension of the questionnaire. A convenience sampling approach was used to obtain the data.

2.4. Variables

2.4.1. Outcome variables

The survey used to evaluate the intention to leave work of the pharmacists who participated in this study was adapted from the studies of Jillian et al. (2004) and Francis et al., (2004). It consisted of three questions asking pharmacists about their intention to leave work. The items were measured using a seven-point Likert scale ranging from strongly disagree to strongly agree.

2.4.2. Independent variables

Several covariates were collected to control for QWL. Participating pharmacists were requested to report their birth year, number of children, and income in Saudi Riyals (SAR) per year, which was

used as a continuous factor. Variables related to gender were also collected by asking participants to select between two options (male or female). Marital status was recorded using the options included: single, married, divorced, or widowed. In addition, participants were asked to state the number of children they had with the options none at all, one, two, three, four, five, or six or more.

Variables related to education and work, such as the total number of weekly hours worked, work experience in years, and job title, were also collected. Work experience and weekly work hours were collected as continuous variables. We also collected information on academic qualifications with the options Bachelor of Pharmacy (B. Pharm), Doctor of Pharmacy (Pharm.D.), Masters, completed PGY1 residency, completed PGY2 residency, and Doctor of Philosophy (Ph.D.). Information on employment type was also collected and divided into seven options to choose from.

Respondents were asked if they worked in the private sector and the number of beds in their facilities. Another independent variable, QWL, was measured using the Work-related QoL scale, which was developed by Van Laar et al. (2007). The scale consists of 24 items and six dimensions use to measure the QWL of pharmacists. The dimensions used for the scales were job and career satisfaction (JCS), general well-being (GWB), stress at work (SAW), control at work (CAW), home-work interface (HWI), and working conditions (WCS). The five-point Likert scale used for the scale consisted of the following possible responses: strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree.

2.5. Statistical analyses

The sample size was estimated to be 257, using the G*Power software, by keeping the medium effect size, power, alpha level, and number of predictors at 0.15, 0.99, 0.05, and 15, respectively. Categorical and continuous descriptive analyses were performed to explore the essential characteristics of the collected data. Descriptive statistics and analytical results of all variables and the level of significance were considered at $p < 0.05$. Microsoft Excel 2010 was used to encrypt and enter all data, and Stata 16 was used to perform the statistical analysis.

3. Results

A total of **371 questionnaires were distributed to participants, of which only 284 questionnaires were completed and returned**, resulting in a 76.5% response rate. Baseline characteristics of the study subjects are summarized in Table 1. The average age of respondents was 33 years and most were male (61.1%), whereas approximately 62.9% reported that they were married. Almost half of the participants had children (54%). Furthermore, 17.6% of the respondents reported having been diagnosed with a chronic disease. The mean annual income of the surveyed pharmacists was $196,401 \pm 82,306.71$ SAR. The mean work experience was approximately eight years. The total number of working hours per week of the pharmacists was 42 ± 10.2 h. Regarding the level of education, 78.5% of pharmacists had a B. Pharm degree, whereas 21.5% indicated having higher than a Bachelor's degree. Most of the pharmacists were employed in hospitals.

To investigate the relationship between variables, univariate analyses were performed (Table 2). First, the univariate linear regression analysis showed a positive association between intention to leave work and QWL ($\beta = -0.142$; 95% CI, -0.189 to -0.097). The male gender variable showed a positive association on intention to leave work ($\beta = -1.334$; 95% CI, -2.387 to -0.281). Pharmacists who were married reported a lower intention to leave work ($\beta = -1.090$; 95% CI, -0.140 to -0.041). Total

Table 1
Continuous and Categorical Baseline characteristics of participating pharmacists.^a

Characteristic	Numbers of participants (n = 284)
Age (years)	33.4 (± 6.5)
Income in SAR/year	196,401 ($\pm 82,306.7$)
Years of experience	8.1 (± 7.2)
Total work week in hours	41.2 (± 10.2)
Gender	
Male, n (%)	170 (61.2)
Female, n (%)	108 (38.9)
Married	
Yes, n (%)	176 (62.9)
No, n (%)	108 (38.0)
Chronic disease	
Yes, n (%)	50 (17.6)
No, n (%)	234 (82.4)
Raising children	
Yes, n (%)	151 (53.2)
No, n (%)	133 (46.8)
Education level	
Bachelor's degree or equivalent, n (%)	223 (78.5)
Hospital pharmacist	
Yes, n (%)	220 (80.6)
No, n (%)	53 (19.4)

^a Due to missing data, the numbers may not add up to 284. Data are means \pm standard deviation (SD).

working hours/week showed a positive relationship with intention to leave work ($\beta = 0.066$; 95% CI, 0.013 – 0.119). Multivariate linear regression was used to adjust for covariates (Table 3). There was only one significant negative association between QWL and the intention to leave work ($\beta = -0.131$; 95% CI, -0.185 to -0.076) when other variables were kept constant.

4. Discussion

Pharmacists play an important role in providing pharmaceutical care to patients and improving the quality of healthcare by providing cost-effective and rational medication therapy management. The goal of this study was to determine the effect of QWL on pharmacists' intention to leave work in Saudi Arabia. QWL negatively influenced pharmacists' intention to leave work in the studied sample.

The participants had an average age of 33 years, indicating that most were in the first and second quarters of their working lives. Thus, it is not surprising that the average years of experience was approximately eight years. The number of pharmacy colleges is increasing with 27 colleges presently and approximately 3,000 students graduating each year. The number of pharmacists graduating nationally has increased following the increase of colleges of pharmacy around the country (Alomran et al., 2017). Therefore, the number of young pharmacists has increased significantly in recent years.

The average annual income of the respondents in our sample was more than the average monthly income of Saudi workers in several sectors, including public, private industry, non-profit institutions, and global and regional agencies, which is approximately 122,000 SAR (GASTAT, 2019). Regarding working hours, pharmacists worked for an average of 41 h per week, which is customary for all employees in Saudi Arabia. In accordance with the country's labor laws, workers in Saudi Arabia are not permitted to work for more than 48 h a week (MoHRaS, 2005). The average working hours were within the Saudi labor law. Nevertheless, this variable was not significantly associated with the intention to leave work.

Most respondents reported working in hospital settings. In Saudi Arabia, most people choose government positions because they provide more job stability and fewer work hours than those

Table 2
Simple linear regression analysis of predictors associated with intention to leave work among pharmacists in Saudi Arabia.

Independent variable	Beta coefficient	95% Confidence Interval		p-value
		Lower	Upper	
QWL	-0.1422959	-0.1869857	-0.0976061	<0.001 *
Age	-0.0611367	-0.1441373	0.021864	0.148
Gender				
Male	-1.334456	-2.387413	-0.2814987	0.013 *
Female	Ref.			
Marital status				
Married	-1.090909	-2.140744	-0.0410738	0.042 *
Non-married	Ref.			
Yearly income in SAR per 1000	-0.0994627	-0.8072653	0.6083399	0.782
Have children				
Yes	-0.7986187	-1.82004	0.222803	0.125
No	Ref.			
Chronic disease				
Yes	0.9240669	-0.4720401	2.320174	0.194
No	Ref.			
Education level				
Bachelor's level degree	Ref.			
Graduates level degrees	0.1088228	-1.136196	1.353842	0.863
Experience in years	-0.052888	-0.1248179	0.0190418	0.149
Total working hours/week	0.0664157	0.0132506	0.1195809	0.015*
Hospital pharmacist				
Yes	0.4196998	-0.8608861	1.700286	0.519
No	Ref.			

Note: p-value < 0.05 indicated with asterisk.

Table 3
Multiple linear regression analysis of factors associated with intention to leave work among pharmacists in Saudi Arabia.

Independent variable	Beta coefficient	95% Confidence Interval		p-value
		Lower	Upper	
QWL	-0.1311002	-0.1857544	-0.076446	<0.001 *
Age	-0.1154213	-0.3369606	0.106118	0.304
Gender				
Male	-0.8114399	-2.333842	0.7109624	0.293
Female	Ref.			
Marital status				
Married	-1.006751	-3.030103	1.016602	0.327
Non-married	Ref.			
Having children				
Yes	0.9907587	-1.054097	3.035614	0.339
No	Ref.			
Chronic disease				
Yes	0.6514314	-1.232244	2.535106	0.495
No	Ref.			
Experience in years	0.1188762	-0.0931058	0.3308583	0.269

Note: p-value < 0.05 indicated with asterisk.

of community pharmacies. However, presently, Saudi Arabia is moving toward creating accountable care organizations that will partner with community pharmacies; this could improve the involvement of pharmacists from other sectors in the future.

Unexpectedly, the multivariate linear regression analysis showed that none of the demographic factors were significantly associated with the intention to leave work. In contrast, a 2017 study conducted in Kurdistan revealed a close relationship between gender and the intention to leave a position of employment (Faraji et al., 2017). Female respondents expressed a greater intention to leave than the male respondents did. In a similar study in 10 European countries, a significant relationship was found between the intention to leave work and gender (Heinen et al., 2013). Another study, which was conducted in 2015 with 2,235 pharmacists working in hospital settings, found that older workers had a lower turnover intention than that of younger workers (Leone et al., 2015). A study conducted by Lambert (2006) showed that gender and education level influenced participants' turnover intent.

The final multivariate linear regression analysis revealed a negative relationship between the two factors. This finding is in line with findings from prior studies of healthcare and non-healthcare practitioners, indicating that a higher intention to leave was associated with a low or bad QWL. Huang et al. (2007) studied the relationship between intention to leave and quality of life work and reported a significant association. Furthermore, a study including 1,000 nurses in China found that a high QWL reduced their intention to leave the employment position (Zhao et al., 2013).

To our knowledge, this is the first study that evaluated the relationship between QWL and intention to leave work for pharmacists in Saudi Arabia. However, our study has few limitations, which are worth mentioning. Because external validity was restricted to a specific study population, concerns about cause and effect may arise from cross-sectional analysis, but not about the association between factors. A five-page paper-based survey was used in this study and, therefore, missing values could have influenced the survey findings, particularly responses to questions near the end. Furthermore, despite our assurances to the participants that their

responses would be kept private, they may not have been completely forthcoming in their answers for social concerns. Because of the high rejection rate, this study was unable to focus on a specific sector, such as the hospital setting. A convenience sampling method was chosen and, therefore, the possible impact of non-respondents could not be investigated. The present study utilized a cross-sectional design, which restricts the ability to observe change over time, but its findings could be extended to future research studies and elaborated. First, this model should be expanded and tested on workers other than healthcare workers. Second, this research may be repeated with additional interventions that would allow a comprehensive view of how much control those factors may have over achieving the final goal.

Companies strongly desire to retain their employees, especially those who increase their productivity and profits, and a high turnover rate with exiting staff has a negative impact on the company's performance. Furthermore, hiring new employees results in financial loss, because they need to be paid during their training period. Losing employees can also create instability in the workplace and harm the company's reputation by suggesting the working environment is unfriendly and associated with many hazards due to job insecurity.

Improving the QWL by implementing necessary strategies and frequently changing the work environment, would increase employee motivation and satisfaction. Job redesigning interventions include job rotation, enlargement, and enrichment, which would recover the QWL (Mosadeghrad, 2013). However, implementation of any QWL intervention must consider the extent to which any work changes would be perceived as interfering with the pharmacist's personal life.

5. Conclusion

Our study found a significant correlation between the QWL and intention to leave an employment position. This indicates that a higher intention to leave was associated with a low QWL among Saudi pharmacists. Improving the QWL of pharmacists would lead to the retention of their services in the various sectors, which would contribute to reducing the cost of training new pharmacists and would reduce medication errors.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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