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Pharmacy manpower in Lebanon: An exploratory look at work-related satisfaction

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Abstract

Background: Pharmacy is a dynamic, growing, and increasingly diverse profession. It has a new patient orientation, especially in developed countries. There is paucity of work examining pharmacists' satisfaction and professionalization in developing nations, such as Lebanon.

Objective: This study is to explore the Lebanese pharmacists' professional satisfaction and applicable needs regarding their profession. Specific objectives aimed to examine Lebanese pharmacists' satisfaction and determine whether the Lebanese Order of Pharmacists helps pharmacists to meet their professional needs.

Methods: This study is a cross-sectional descriptive analysis of Lebanese pharmacists working in all pharmacy practicing environments in Lebanon. A random sample was drawn from the list of registered pharmacists provided by the Lebanese Order of Pharmacists. Selected individuals were visited and interviewed in their working place. Pharmacists who had no registered address were contacted and interviewed face to face.

Results: Newly graduated pharmacists seemed more prone toward working in community pharmacies or as medical representatives. Most interviewed pharmacists had no difficulty finding a job, but they all thought that the Order of Pharmacists should

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get more involved in advising and providing job opportunities, because the market is currently saturated. Most were financially satisfied, especially owners of community pharmacies. Although half of the pharmacists were psychologically satisfied, a great number of community, hospital, and medical representative pharmacists were not physically satisfied.

Conclusions: Further research is necessary for a thorough evaluation of the Lebanese pharmacists' professional satisfaction and its specific determinants, with the ultimate goal of finding adequate solutions for their needs.

Keywords: Manpower; Pharmacy; Lebanon; Satisfaction

1. Introduction

Pharmacy is a dynamic, growing, and increasingly diverse profession. Although drug preparation and preservation have shifted from individual pharmacies to the pharmaceutical industry, pharmacists are still playing their traditional role of meeting the transcriber's requirements, not only by dispensing medications, but also by providing quality products, offering advice and information, and monitoring drug therapy.[1] Succeeding in a pharmacy career requires diligence, commitment, good judgment, and loyalty. Moreover, the attention to details is paramount, because the pharmacist's performance can have life or death consequences.[2]

In hospitals and community pharmacies, pharmacists can be major players in rational therapy, and should remain competent to keep up with new developments. Expertise in information technology is mandatory to extract clinical information for individual patients, examine concurrent medications, inspect a group of potential drug therapies, and in collaboration with physicians, tailor the dosage of medication to meet the needs of each individual patient. Additionally, pharmacists have a key role to play in drug research and clinical studies.[1]

Despite the profession's growing nature, community pharmacists are struggling to balance its seemingly opposite mercantile and professional missions. Indeed, community pharmacy is the only health care profession that is primarily reimbursed through products sale rather than through the provision of services.[3] Nevertheless, because drugs continue to grow in potency risk, and cost, patients are going to need more personal care. Pharmacists are becoming personally responsible toward their patients[4] and are educating them on the use of both prescription and over-the-counter medications.[5] Unfortunately, if pharmacies remain overly busy and understaffed, a burdensome real-life workload can make these kinds of helpful conversation and information exchange difficult to maintain.[6]

In addition to all the above stated issues, several additional factors contribute to make the situation even more complex in the developing country

of Lebanon. For example, pharmacy education curricula are not unified: Pharmacists can practice in the same variety of conventional settings, whether they hold a doctorate (PharmD) or a bachelor of sciences (BS) degree, and sometimes even without a postgraduate diploma. Working fields include the following positions: community, hospital or academic pharmacies, representation or management of drug companies, governmental and regulatory related administration, and pharmaceutical industry. In Lebanon, there are approximately 1800 community pharmacies, 148 hospitals,[7] and 5 universities teaching pharmacy specialization courses. Additionally, there are 26 drug factories that manufacture medicines either as generics or under a license from mother companies,[8] and about 100 pharmaceutical wholesalers who import brand name patented and generic nonproprietary pharmaceutical products from various foreign laboratories.[9]

The Lebanese Order of Pharmacists is a professional organization established in 1950, officially entitled to manage issues related to the profession of pharmacy. It also plays a pivotal role in issuing and implementing laws and regulations, organizing pharmacy practice, and advocating for pharmacists' rights toward the government.[7]

In established practicing environments, pharmacists of different backgrounds are frequently expressing their professional dissatisfaction in national meetings. In addition, as in many other developing countries, the absence of new pharmacy practicing environments and the growing number of graduates expected to work in limited available sectors, exacerbated by the postwar economic crisis facing the country are factors likely to induce a significant decrease in job opportunities and satisfaction. So far, these general observations have not been completed by a statistical study of the pharmacists' situation in Lebanon.

2. Methods

2.1. Conceptual framework

Job satisfaction is believed to be determined by a number of factors. This issue has been particularly studied in the nursing profession where recent studies have found that positive outcomes include higher perceived quality of life,[10] less work-related stress,[11] and reduced likelihood to report burnout.[12] These are usually associated with positive outcomes for patients, such as greater inpatient satisfaction[13] and greater perceived quality of care.[14] On the other hand, negative outcomes of job dissatisfaction, such as burnout,[15] may also be linked to patient negative outcomes, such as intention to quit, exhaustion, and low patient satisfaction.[13] The application of this to pharmacists in a developing country, particularly Lebanon, has yet to be explored.

Because no validated questionnaire has ever been adapted to Lebanese health care professionals or to pharmacists in particular, our research

team seeks to establish such a questionnaire (expected to be completed by December 2008), and to further evaluate pharmacists' satisfaction in Lebanon by the end of 2009. This article reports the exploratory part of this project that would help directing our future investigations. Job satisfaction was rapidly assessed as a global tridimensional concept, with physical, psychological, and financial broad facets. Psychological and financial facets were deduced from the detailed multidimensional concept reported by van Saane and collaborators, who stated in a systematic review that the job satisfaction concept is composed of the following dimensions: work content, autonomy, growth/development, financial rewards, promotion, supervision, communication, coworkers, meaningfulness, workload, and work demands (van Saane, 2003).[16] We thought necessary to add the physical dimension, because it is a general observation that some Lebanese pharmacists work more than 1 shift; we assumed that this would be an additional cause of professional dissatisfaction because of physical tiredness.

It was hypothesized that job satisfaction facets may vary according to the pharmacy practice environment and the extent of professional experience. The objective was thus to explore Lebanese pharmacists' professional satisfaction and applicable needs regarding their profession. The examination primarily aimed at answering the following questions: Are pharmacists physically, psychologically, and financially satisfied in Lebanon? What are the personal and professional determinants of satisfaction, and how are they related to the practice environment and professional experience? Does the Lebanese Order of Pharmacists fulfill the expected professional needs of pharmacists?

Our exploratory, descriptive, cross-sectional study made use of a survey of Lebanese pharmacists working in all possible pharmacy-related environments existing in Lebanon. Inclusion criteria were defined as being a registered pharmacist practicing in any pharmaceutical environment in Beirut and surrounding suburbs, with any degree level. Pharmacists with postgraduate diplomas were also admitted. A questionnaire was designed, which was divided into 2 parts. The first part consisted of general questions to all pharmacists, whereas the second encompassed questions specific to each pharmacy practice environment in Lebanon. Social and demographic characteristics, professional history and current professional situation's data were collected. In addition, gender, age, work and residence regions, graduation year, and university information were also noted.

Interviewed individuals were questioned about their current and previous working experience in the field of pharmacy, possible difficulties they faced in finding their job and their opinion regarding current job opportunities. We also evaluated all potential and effective roles played by the Lebanon's Order of Pharmacists in providing professional help to its adherents. Dichotomous questions regarding financial, physical, and psychological satisfactions were asked: these would elicit rapid personal answers about work-related satisfaction dimensions.

The second part of the questionnaire dealt with specific issues related to the professional situation of pharmacists working in different fields, especially medical representatives of drug companies, as well as community, hospital, industrial, and academic pharmacists. Open questions were also added to give the pharmacists the opportunity to express their needs. This second part of the questionnaire was mainly of local interest, and its results were not reported in this article.

2.2. Sampling procedure

A sample was drawn from the list of registered pharmacists provided by the Lebanese Order of Pharmacists, using a systematic random sampling where every other name was selected. The addressees were interviewed in their working place by 1 trained interviewer, who was an undergraduate sixth year pharmacy student.

To ensure consistency, the interviewer was told not to give any additional explanation after reading the questions during the interview. Pharmacists who had no registered address were called and then interviewed face to face. In some cases, the interviewer had to make several visits due to the pharmacists' absence or limited time to answer the questionnaire.

2.3. Statistical analysis

[**Q2**] Data entry and analysis were performed on SPSS software, version 12.0. Statistical tests included: chi-squared test for bivariate analysis of categorical data (practice field cross-tabulation with gender, marital status, university graduation, time of graduation, type of degree, postgraduate education, opinion regarding the role of the Order of Pharmacists, perceived needs, and satisfaction types) and Kruskal-Wallis test (due to small numbers in some categories) for the continuous variable (age).

Dependent variables were financial, physical, and psychological types of satisfaction, coded as 1 for a positive answer and 0 for a negative one. Independent variables were sociodemographic characteristics, job situation, and level of education. Multivariate analyses were independently performed for every type of satisfaction, using a step-by-step backward logistic regression procedure, to reach an adequate model of work-related satisfaction determinants, with a minimal number of sociodemographic, educational and professional variables. The retained models were adequate in data fitting (nonsignificant decrease in likelihood ratio when subsequent variables [**Q3**] were removed) and classification of more than 50%. Variables taken into account included age, gender, marital status, number of children, graduation year, type of pharmacy diploma, additional education, and working sector.

3. Results

Out of 486 registered pharmacists in Beirut and surrounding suburbs, 243 were selected. Fourteen (5.8%) refused to participate, the stated reasons being time limitations (1.6%) or lack of cooperation (4.1%). Finally, 229 pharmacists were interviewed between July and September 2005, constituting 47.1% of the registered pharmacists' population.

3.1. Social and demographic characteristics

In our sample, there were more females than males, and more single than married respondents. The mean age was 33.49 ± 8.58 years. Marital status and age were unevenly distributed among different pharmacy working sectors, the youngest population being that of community pharmacists and medical representatives (Table 1).

3.2. Pharmacy education and graduation

Freshly graduated pharmacists seemed to be more oriented toward community pharmacies and medical representation. These 2 fields seemed particularly attractive toward people whose education is limited to BS in pharmacy or PharmD degree (Table 2).

3.3. Professional history and current work-related satisfaction

As shown in Table 3, a low percentage (20%) of interviewed pharmacists had difficulties finding a job, but the great majority (96.1%) thinks that opportunities do not exist any more in the pharmaceutical sector. They also think that the Order of Pharmacists should get more involved in advising (99.6%) and providing job opportunities for pharmacists in general (91.3%) and fresh graduates in particular (69.9%).

Most interviewed pharmacists were financially satisfied (60.3%), half were psychologically satisfied (52.4%), but few individuals working in community (41.9%), hospital pharmacies (30%), and medical representation (12.9%) were physically satisfied.

3.4. Professional satisfaction in relation with graduation year and other factors

Our results show that a higher degree of education was associated with a longer working period following graduation. Moreover, pharmacists who have been working for longer periods after their graduation were more physically satisfied, whereas this had almost no effect on their financial or psychological satisfaction (Table 4).

Table 1
Social and demographic characteristics of interviewed pharmacists

Characteristics of pharmacists	Community pharmacists	Medical representatives	Hospital pharmacists	Academic pharmacists	Other sectors[a]	*P* value	Total pharmacists
N (%)	124 (54.1%)	62 (27.1%)	10 (4.4%)	10 (4.4%)	23 (10.0%)		229 (100%)
Gender							
M (%)	57 (46.0%)	23 (37.1%)	2 (20.0%)	3 (30.0%)	12 (52.2%)	.29[b]	97 (42.4%)
F (%)	67 (54.0%)	39 (62.9%)	8 (80.0%)	7 (70.0%)	11 (47.8%)		132 (57.6%)
Age M (SD)	33.27 (8.92)	28.75 (2.06)	38.0 (11.74)	43.4 (5.93)	40.05 (5.70)	$<10^{-4}$[c]	33.49 (8.58)
Median	28.50	28.00	31.50	43.50	40.50		29.00
Marital status							
Married (%)	47 (37.9%)	13 (21.0%)	5 (50.0%)	9 (90.0%)	17 (73.9%)	$<10^{-4}$[b]	91 (39.7%)
Unmarried (%)	77 (62.1%)	49 (79.0%)	5 (50.0%)	1 (10.0%)	6 (26.1%)		138 (60.3%)

[a] Other sectors include drug company senior employees, industrial pharmacists, governmental positions, and drug information pharmacists.
[b] Chi-squared test.
[c] Kruskall-Wallis nonparametric test.

Table 2
Pharmacists' education

Characteristics of pharmacists	Community pharmacists	Medical representatives	Hospital pharmacists	Academic pharmacists	Other sectors[a]	*P* value	Total pharmacists
N (%)	124 (54.1%)	62 (27.1%)	10 (4.4%)	10 (4.4%)	23 (10.0%)		229 (100%)
University							
Lebanese University	23 (18.5%)	15 (24.2%)	1 (10.0%)	1 (10.0%)	6 (26.1%)	.09[b]	46 (20.1%)
Saint Joseph University	30 (24.2%)	17 (27.4%)	5 (50.0%)	3 (30.0%)	8 (34.8%)		63 (27.5%)
Lebanese American University	21 (16.9%)	14 (22.6%)	1 (10.0%)	2 (20.0%)	3 (13.1%)		41 (17.9%)
Beirut Arab University	35 (28.2%)	14 (22.6%)	1 (10.0%)	0	5 (21.7%)		55 (24.0%)
Other	15 (12.1%)	2 (3.2%)	2 (20.0%)	4 (40.0%)	1 (4.3%)		24 (10.5%)
Graduated since							
1-2 years	32 (25.8%)	11 (17.7%)	0	0	0	$<10^{-4}$[b]	44 (19.2%)
2-4 years	27 (21.8%)	25 (40.3%)	1 (1.0%)	0	1 (4.3%)		55 (24.0%)
5-6 years	21 (16.9%)	22 (35.5%)	2 (20.0%)	0	3 (13.0%)		48 (20.1%)
$\geq$7 years	44 (35.5%)	4 (6.4%)	7 (70.0%)	10 (10%)	19 (82.6%)		82 (35.8%)
Type of degree							
Bachelor of science pharmacy	58 (46.8%)	21 (33.9%)	3 (30.0%)	2 (20.0%)	8 (34.8%)	.22[b]	91 (39.7%)
Pharmacy doctor	66 (53.2%)	41 (66.1%)	7 (70.0%)	8 (80.0%)	15 (65.2%)		138 (60.3%)
Postgraduate education							
None	115 (92.7%)	60 (96.8%)	7 (70.0%)	3 (30.0%)	16 (69.6%)	$<10^{-4}$[b]	201 (87.8%)
Master's degree	6 (4.8%)	2 (3.2%)	3 (30.0%)	1 (10.0%)	6 (26.1%)		18 (7.8%)
Philosophy doctor	3 (2.4%)	0	0	6 (60.0%)	1 (4.3%)		10 (4.4%)

[a] Other sectors include drug company senior employees, industrial pharmacists, governmental positions, and drug information pharmacists.
[b] Chi-squared test.

Table 3
Affirmative opinions regarding the role of the order of pharmacists in Lebanon

Variable	Community pharmacists	Medical representatives	Hospital pharmacists	Academic pharmacists	Other sectors[a]	Chi-squared *P* value	Total pharmacists
	124 (54.1%)	62 (27.1%)	10 (4.4%)	10 (4.4%)	23 (10.0%)		N = 229 (100%)
Is there a lack of opportunities in the pharmaceutical sector?	118 (95.2%)	62 (100%)	10 (100%)	8 (80.0%)	22 (95.7%)	.04	220 (96.1%)
Is there a need for orientation for fresh graduates?	124 (100%)	62 (100%)	9 (90%)	10 (100%)	23 (100%)	.17	228 (99.6%)
Is the Order providing job opportunities for pharmacists?	10 (8.1%)	3 (4.8%)	2 (20.0%)	1 (10%)	4 (17.4%)	.21	20 (8.7%)
Is the Order providing job opportunities for fresh graduates?	31 (25.0%)	23 (37.1%)	3 (30.0%)	4 (40.0%)	8 (34.8%)	.45	69 (30.1%)
Was it hard for you to find a job?	17 (13.7%)	27 (43.5%)	0	2 (20%)	0	$<10^{-4}$	46 (20.1%)
Are you financially satisfied?	69 (55.6%)	43 (69.4%)	7 (70.0%)	4 (40.0%)	15 (65.2%)	.23	138 (60.3%)
Are you physically satisfied?	52 (41.9%)	8 (12.9%)	3 (30.0%)	8 (80.0%)	19 (82.6%)	$<10^{-4}$	90 (39.3%)
Are you psychologically satisfied?	67 (54.0%)	33 (53.2%)	5 (50.0%)	5 (50.0%)	10(43.5%)	.92	120 (52.4%)

[a] Other sectors include drug company senior employees, industrial pharmacy, governmental positions, and drug information center.

Table 4
Additional education and satisfaction levels by pharmacists' year of graduation

Graduated since	1-2 years	3-4 years	5-6 years	≥7 years	Chi-squared *P* value
N (%)	43 (18.8%)	54 (23.6%)	48 (20.1%)	84 (36.7%)	
Additional education					
None	40 (93.0%)	52 (96.3%)	42 (87.5%)	67 (79.8%)	.001
Master's degree	3 (7.0%)	2 (3.8%)	6 (12.5%)	7 (8.3%)	
PhD	0	0	0	10 (11.9%)	
Had difficulty finding a job	10 (23.3%)	15 (27.8%)	14 (29.2%)	7 (8.9%)	.008
Financially satisfied	22 (51.2%)	30 (55.6%)	31 (64.6%)	55 (65.5%)	.35
Physically satisfied	22 (51.2%)	8 (14.8%)	12 (25.0%)	48 (57.1%)	$<10^{-4}$
Psychologically satisfied	28 (65.1%)	26 (48.1%)	19 (39.6%)	47 (56.0%)	.08

Most interviewees (51%) have remained in their first job, whereas some of them have held at least one previous position, in community pharmacies (31%) or in medical representation (11%) or in various other sectors, including drug companies, pharmaceutical industry, hospital pharmacies, or governmental positions (7%). Interestingly, none of those who were enrolled in the academic field changed their career orientation. One hundred and ten responders (48%) reported that they were working more than 1 shift, especially in the community pharmacy sector. Respondents found their current jobs by filing applications (31.9%) or through public relations (27.1%) or by answering job advertisements (16.2%), or they were offered a position in their training facility (7%). Seven percent did not indicate specific circumstances. Out of 124 respondents who worked in the community pharmacy sector, 49 (39.5%) were the owners of the pharmacies and these were more financially satisfied than nonowners (71% vs 45%; $P = .004$), but only equally fulfilled either physically or psychologically.

Different reasons were cited for psychological dissatisfaction: most pharmacists (60%), especially medical representatives, believe that they are overqualified for their jobs, or that they do not get due respect and appreciation from other health professionals particularly physicians (64%), and 39% feel that work routine is overwhelming their initial passion for their career (details not shown).

3.5. Determinants of professional satisfaction

In the studied sample, financial satisfaction varied according to age, gender, and working sector: positive correlation was observed between a better financial situation on one hand and younger age, male gender, and a position in academic pharmacy on the other. Interestingly, physical dissatisfaction was greater among younger respondents, workers in community and hospital pharmacy, and medical representatives. As for psychological satisfaction, only gender was a factor of variation, with males being less satisfied than

females (Table 5). Factors such as marital status, number of children, and postgraduate education had no effect on any type of professional satisfaction.

4. Discussion

In this study, freshly graduated pharmacists seemed more attracted by a position in community pharmacy and medical representation; this is not surprising given limited opportunities in other sectors of the Lebanese market. Most interviewed pharmacists had no difficulty finding a job, but they think that the Order of Pharmacists should get more involved in advising and providing job opportunities, because they believe the market is now saturated. This is a reflection of the difficult economic situation facing the country.

As expected for a developing country, we found a lower extent of satisfaction than that observed by McHugh, who described generally positive work-related attitudes among pharmacists in the United States.[17] Half of the pharmacists, especially medical representatives, reported psychological dissatisfaction. In fact, it is a general observation in Lebanon that medical representation is practiced both by pharmacists and nonpharmacists, with no regulations to manage professional issues. This situation is sometimes leading physicians to underestimate the scientific background of the medical representative. The Order of Pharmacists

Table 5
[Q9] Contribution of selected demographic and professional factors to pharmacists' satisfaction

Variable	Associated factors[a]	OR_a (95%)	*P* value[b]
Financial satisfaction	Age	0.94 (0.90-0.98)	.004
	Male gender	2.89 (1.59-5.24)	.000
	Working in community	1.05 (0.37-2.94)	.93
	Medical representatives	0.48 (0.15-1.55)	.22
	Hospital pharmacies	0.94 (0.17-5.07)	.94
	Academic pharmacies	4.58 (0.91-23.23)	.06
	Other working sectors[c]	1.00 (reference)	.055
Physical satisfaction	Age	1.01 (1.03-1.17)	.003
	Graduation Year	0.68 (0.48-0.96)	.029
	Working in community	0.14 (0.04-0.47)	.002
	Medical representatives	0.04 (0.01-0.16)	.000
	Hospital pharmacies	0.08 (0.01-0.51)	.007
	Academic pharmacies	0.73 (0.10-5.08)	.75
	Other working sectors[c]	1.00 (reference)	.000
Psychological satisfaction	Male gender	0.59 (0.34-1.01)	.052

[a] Potential associated variables were age, gender, marital status, number of children, graduation year, type of pharmacy diploma, additional education, and working field.
[b] Backward stepwise logistic regression.
[c] Other sectors include drug company senior employees, industrial pharmacies, hospital pharmacies, governmental positions, and drug information centre direction.

should advocate for an official recognition of the status of medical representatives and should work on establishing specific professional and ethical standards for this profession so that its members can be considered by other health care professionals as full health care partners, not merely drug sellers or marketing officers.

Likewise, most of community, hospital, and medical representative pharmacists in Lebanon were not physically satisfied. These rates of dissatisfaction are alarming: studies have demonstrated that physically straining factors, such as work overload, understaffing, and inadequate schedules are contributing factors to professional dissatisfaction.[18,19] This has consecutively proven to be related to higher rates of dispensing errors,[20] or burnout syndrome,[21] which both jeopardize patients' health. Further research is thus needed to confirm these issues in Lebanon.

In contrast, most interviewed pharmacists were financially satisfied; in fact, experienced pharmacists are relatively well paid in Lebanon (18,000-36,000$/year), compared to other white-collar professionals (12,000-60,000$/year) and to other Lebanese workers (2400-24,000$/year). However, vigilance is of utmost importance, especially for pharmacy owners, who were the most financially satisfied individuals in our study. Although the profession registers the highest ethical challenges in this area, considerable efforts must be made in Lebanon to convince the pharmacist to care for the patient rather than the product, and to privilege the service rather than the trade, both being considered as important social objectives in this profession.[6] Pharmacy educators should also maintain their efforts to develop students' ethical standards and prepare patient-centered pharmacists.[22]

We also noticed in this study that most pharmacists practiced in limited fields and did not have postgraduate diplomas. Thus, considerable efforts must be made by pharmacists to encourage health care professionals and authorities involved in health planning to extend pharmacy fields. For instance, health professionals and decision makers could be invited to attend conferences related to these topics, or to visit developed countries and implement new career opportunities in the pharmacy field adapted to the Lebanese society, taking costs and benefits into considerations. The most important careers to be developed would be consultant pharmacists who work with a team of physicians, providing information on medications and recommending procedures to handle common conditions in general practice. Other opportunities must also be opened in professional organizations and association management, in home care and in clinical pharmacy.[23]

As of today, clinical pharmacy has not yet been implemented in Lebanese hospitals. It would however be very helpful because several universities have already introduced this concept in their curricula and the knowledge acquired by their graduates could therefore be invested in better patient's care and caregivers advantage.[24] Indeed clinical pharmacy has proven to be very beneficial worldwide, reflecting inpatients' health improvement,[25]

decrease in hospital mortality rates,[26,27] decline in preventable adverse drug events rate,[28,29] and medical costs reduction.[30] In Lebanon, this would allow the opening of more pharmacy jobs, and daily scientific collaboration would improve the image of the pharmacists among physicians and increase psychological satisfaction of pharmacists. This issue remains to be established in future research.

Moreover, more effective collaboration between pharmacy teachers and professionals will be vital to develop and implement new patient-centered practice models. Once this philosophy is truly embraced, each professional sector should collaboratively participate in establishing strategic and realistic plans, to promote the evolution of practice models consistently supporting this philosophy, in a rational, practical, and inclusive approach.

This study was intended to be explorative; therefore, our results are based on data collected only in Beirut and Mount Lebanon and cannot be extrapolated to all Lebanese pharmacists; the questionnaire we used was not validated, for our objective was only to broadly assess the extent of professional satisfaction among pharmacists. A significant limitation of this research was the use of 1-item, global measures of the satisfaction domains. Additionally, nonobjective understanding of questions is possible, as in all questionnaire-based surveys, particularly for satisfaction issues: declared satisfaction reflects subjective perceptions of well-being and dissatisfaction might be a result of nonprofessional stressful factors, such as familial or environmental events. A larger scale study is thus planned in the near future to assess more deeply pharmacy manpower issues in all of Lebanon, using internationally validated psychometric tools, such as the Job Descriptive Index or the quality of work-life attitudes questionnaire.[31,32]

5. Conclusion

Most Lebanese pharmacists are financially satisfied, especially community pharmacy owners. Most of them also think that the Lebanese Order of Pharmacists should be more involved in orientation and opportunity creation. Half of the pharmacists are psychologically satisfied, and the largest number is not physically satisfied. Reasons behind the lack of psychological and physical satisfaction should be further evaluated, to find and implement adequate measures to enhance professional standards and promote patients' health. Further research is necessary for a thorough evaluation of Lebanese pharmacists' professional satisfaction and its specific determinants, with the ultimate goal of finding adequate solutions for their needs.

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