

EXPLORING THE OPINION ABOUT JOB SATISFACTION, LIFELONG LEARNING OPPORTUNITIES AND INSTITUTIONAL SUPPORT AMONG ROMANIAN PHARMACISTS

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Abstract

The pharmacist's profession has faced great challenges in recent decades. Academic training and continuing education have to cover the multitude of pharmacists' responsibilities. The current study aimed to identify the opinions of pharmacists from various areas of activity fields (hospitals, pharmaceutical chains, laboratories, or community pharmacies) regarding the profession of pharmacist, job satisfaction and willingness to attend training courses. A total of 481 respondents were included in the study. The research collected socio-demographic, medical, professional and institutional data. It was found that pharmacists were least satisfied with the salary level and most satisfied with their relationships with colleagues. Moreover, almost half of the pharmacists took communication courses, and almost a third completed leadership courses. Half of the respondents were in management positions. The pharmacy profession needs to be continuously supported by laws with impact at both professional and organisational level, in order to increase pharmacists' satisfaction regarding profession and workplace.

Rezumat

Profesia de farmacist se confruntă cu mari provocări, deoarece atât formarea academică, cât și educația continuă trebuie să acopere multitudinea de responsabilități și tipuri de locuri de muncă din ce în ce mai diverse ale farmaciștilor. Studiul de față a urmărit să identifice opinia farmaciștilor din diverse arii de activitate (spitale, lanțuri farmaceutice, laboratoare sau farmacii comunitare) cu privire la profesia de farmacist, satisfacția la locul de muncă și disponibilitatea de a urma cursuri de perfecționare. Un număr de 481 respondenți au fost incluși în studiu. Cercetarea a colectat date socio-demografice, medicale, profesionale și organizaționale. S-a evidențiat faptul că farmaciștii sunt foarte puțin mulțumiți de nivelul de salarizare și consideră că au o relație bună cu colegii. De asemenea, aproape jumătate dintre farmaciști au urmat cursuri de comunicare și aproximativ o treime au finalizat cursuri de *leadership*. Jumătate dintre respondenți au funcție de conducere. Profesia de farmacist trebuie să fie permanent susținută prin legi cu impact atât la nivel profesional, cât și la nivel organizațional, pentru a crește motivația farmaciștilor cu privire la profesie și la locul de muncă.

Keywords: pharmacists, continuing education, training, satisfaction with job, institutional support, leadership skills, communication skills

Introduction

The pharmacist's profession has gone through many changes over the decades. If, at the beginning, the pharmacist profession was limited to the preparation and dispensing of medicines, nowadays pharmacists are actively involved in patient therapy, participate in the development of personalized schemes, and are part of the patient-centred care team. The contemporary pharmacist is much closer to the needs of the community, for which they must always be prepared to provide health services.

Maintaining skills and performance among pharmacists allows the public to have confidence in their health-care providers. Because pharmacy education is regulated

in individual countries, there is limited uniformity or portability of degrees between countries. That is why some authors recommend creating uniform pharmacy education requirements across different countries [23]. Lifelong learning, continuing education and continuing professional development are recommended by health-care regulators and professional bodies across countries for all pharmacists who need to be updated in order to better adjust their healthcare to the demands of today's community needs [18]. The Accreditation Council for Pharmacy Education (ACPE) defined continuing education as "a structured educational activity designed or intended to support the continuing development of pharmacists to maintain and enhance

their competence" [1], such as online and face-to-face conferences, workshops, or lectures. There have been numerous debates regarding the effectiveness of continuing education among pharmacists, insisting on the fact that they focus less on the practical aspects of the profession. On the other hand, continuing professional development refers to "the process of active participation in formal and informal learning activities that assist in developing and maintaining competence, enhancing professional practice and supporting achievement of career goals" [1], sustaining that pharmacists must focus on the permanent development of practical and theoretical skills.

Many countries have developed their own systems for the regulation of continuing education and continuing professional development. In many European countries, continuing education is a condition for the renewal of the pharmacist's license, while in some others, continuing professional development is mandatory [16, 22, 28, 31]. Some countries have adopted differing systems for ensuring pharmacists' competence, such as the completion of a certain number of hours or the submission of practice portfolios for evaluation. Several countries, including Australia, Canada, New Zealand and the United Kingdom, have incorporated the continuing professional development approach as a requirement for pharmacist re-licensure, while in Saudi Arabia, the United Arab Emirates, Jordan and Iran, continuing education is mandatory [19, 28]. The evaluation of their competencies can be done on an individual, organizational, or national level, as self-assessment or by external assessors, peers, or national organizations [32].

Despite an increase in the availability of continuing education activities and the existence of mandatory requirements, scholars identified that pharmacists' participation in such activities remains low, motivated by a lack of interest in information. This aspect is not directly related to their daily activities, a lack of time due to extra-hours work, or family responsibilities. Some researchers also identified a significant difference between a higher number of hours of continuing education for hospital pharmacists and a lower number for community pharmacists [2, 9, 29].

Previous studies conducted on hospital pharmacists in Romania identified a low-level of satisfaction for pay promotion and a very high level of satisfaction for management–interpersonal relationships and organization–communication scales [15]. Recent research conducted by Pop *et al.* [25] showed that even if pharmacists could play an important role in the integration of genotype-guided drug therapy into routine practice, they had a low level of knowledge about it, highlighting the need for training. The study of Rusu *et al.* [26] highlighted the need for communication skills among the pharmacists' community to improve interaction with patients. Ciolan *et al.* [8] proved that pharmacists' job satisfaction is strongly related to their salary level,

especially when they must deal with a high number of patients [14]. Sandulovici *et al.* [27] also showed that, in industrial practice, pharmacists had been replaced by chemists, leading to a low representativeness of pharmacy profession in this area.

In Romania, pharmacists are graduates of a medical-pharmaceutical higher education institution. Official qualifications in the profession of pharmacist obtained outside Romania, the European Union Member States, the European Economic Area, or the Swiss Confederation are equivalent by law.

Pharmacists are required to attend a number of training courses or other forms of continuing education and information in the field of professional sciences. In this regard, the National Council of the Romanian College of Pharmacists stipulates that each practicing pharmacist must obtain 40 continuous education credit points *per* year, structured as follows: 32 credits (obtained from conferences, symposia, journals etc.) and 8 credits (obtained by attending a course organised by the local College of Pharmacists, in the area where the pharmacist is a member). The study of a master's degree or doctorate in medical-pharmaceutical sciences and the completion of a residency in pharmaceutical specialties will result in the obtaining of 32 credits for each year of study, with the remaining 8 credits to be taken in the college of which the pharmacist is an active member.

The aim of the present study was to identify the satisfaction of Romanian pharmacists with their jobs, lifelong learning opportunities and organizational support.

Materials and Methods

Study design and data collection

The study was conducted between May 1 and June 30, 2021. The research targeted medical professionals specialized in the pharmacy field and working in all kinds of sectors. The questionnaires were distributed in all counties with the help of the National Association of Hospital Pharmacists from Romania and the College of Pharmacists from Romania.

A total of 522 respondents filled in the questionnaires. The inclusion criteria were full-time employed pharmacists working in the public and private sectors. Exclusion criteria were questionnaires not fully filled in and questionnaires submitted after the deadline. A total of 481 pharmacists were finally considered for the present research.

Instrument

The online questionnaire was created using the Google Forms application (Alphabet, Mountain View, CA, USA) [12].

The first part of the questionnaire collected socio-demographic information (such as age, gender, marital status, number of children, level of education and graduated university, county of origin, home environment, environment and the institution in which they work),

medical information (whether they suffer from chronic diseases and what medication they take) and professional information (specialty, type of institution where they work, number of jobs, seniority at work and at their current place of work, foreign languages spoken, if they have teaching activity and residency in Pharmacy, what the number of working hours during a week is, if they work at weekends and if they have a management position).

The second part questioned the level of job satisfaction, the work schedule, the salary level, the relationships with colleagues, other departments in the institution, or the management staff. Self-assessed items were specially constructed for this questionnaire, and the responses were rated on a 5-point Likert scale. Additionally, in this part of the questionnaire, the respondents were asked about the number of employees in the institution or department, the salary level and how they evaluated the way they were paid in order to distinguish them from other colleagues with the same level of education and the same seniority, the salary of the pharmacist on the salary scale, the number of pharmacists in the institution and the free time allowed by this job.

The third part of the survey collected information about professional development at the workplace, such as number of accumulated credits, membership in various associations and unions, completion of management, project manager, leadership, communication and trainer courses and financial support from the institution for participation in training courses. This section included questions regarding the usefulness of pharmaceutical service legislation, how good or bad they considered their workplace to be, if they wanted to stay at this workplace until the end of their career, what the recommendation of pharmacists regarding the work place was, and the quality of pharmaceutical products, without being influenced by financial benefits.

Statistical analysis

Collected data were processed using IBM Statistical Package for Social Sciences (SPSS) for Windows, version 26 (SPSS Inc., Chicago, IL, USA) [12]. Results for descriptive statistics were expressed as means and standard deviations (SD). In order to assess comparative results considering gender, marital status and home environment, the Mann-Whitney test was performed. The Spearman correlation was used to test the relationship between variables. A p-value < 0.05 was considered statistically significant.

Ethical approval

The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved by the Ethical Committee of Faculty of Economics, "Valahia" University of Târgoviște, Romania, No. 2381/08.04.2021.

Results and Discussion

Socio-demographic and medical data

Socio-demographic and family-related data were gathered, but also information about education, job, profession and institutional characteristics.

The majority of the 481 pharmacists were female (91.7%, N = 441) and most of them came from urban areas (88.8%, N = 427), with the majority of responses coming from counties such as: Dolj (26.0%, N = 125), Cluj (11.9%, N = 57), Bucharest (8.9%, N = 43), Gorj (5.6%, N = 27) and Neamț (5.2%, N = 25). Percentages below 5% came from the rest of the country's counties.

The participants were aged $M = 39.56 \pm 10.20$ (with a minimum age of 23 and a maximum age of 70 years old). On average, the participants had $M = 2.51 \pm 1.32$ children, with less than half (41.2%, N = 198) declaring that they had no children.

Most of the participants did not suffer from chronic diseases (83.2%, N = 400), and a small part took medication for chronic diseases (14.8%, N = 71).

A quarter of the participants commuted to work (25.2%, N = 121), and the majority of them (92.9%, N = 447) worked in urban areas.

Education level, workplace and lifelong learning

The study collected information about education levels and lifelong learning courses. The analysis of the data identified that pharmacists graduated from the Faculty of Pharmacy from the most important university cities in Romania, such as Craiova (31.0%, N = 149), Cluj-Napoca (17.0%, N = 82), Bucharest (15.8%, N = 76) and Iași (11.4%, N = 55).

Almost a quarter of the participants (24.7%, N = 119) had completed a master's degree, and more than half had a bachelor's degree (65.7%, N = 316), while more than half of the participants had completed a residency in the pharmaceutical field (64.2%, N = 309).

Approximately three-quarters of the participants had only one job (71.3%, N = 143), mostly in a community pharmacy of a pharmaceutical chain (35.6%, N = 171), in a public hospital pharmacy (27.2%, N = 131), or in an independent community pharmacy (23.1%, N = 111).

A small number of the respondents were university teachers (4.57%). The distribution of respondents considering their place of work is presented in Figure 1.

The analysis of the data identified that the length of employment was about 12.92 ± 7.70 years, and the number of years at the current job was 7.70 ± 7.80 years.

On average, pharmacists worked $M = 39.65 \pm 11.72$ hours *per* week, and more than half (56.5%, N = 272) also worked during the weekends. Detailed information about socio-demographic and professional data are presented in Table 1.

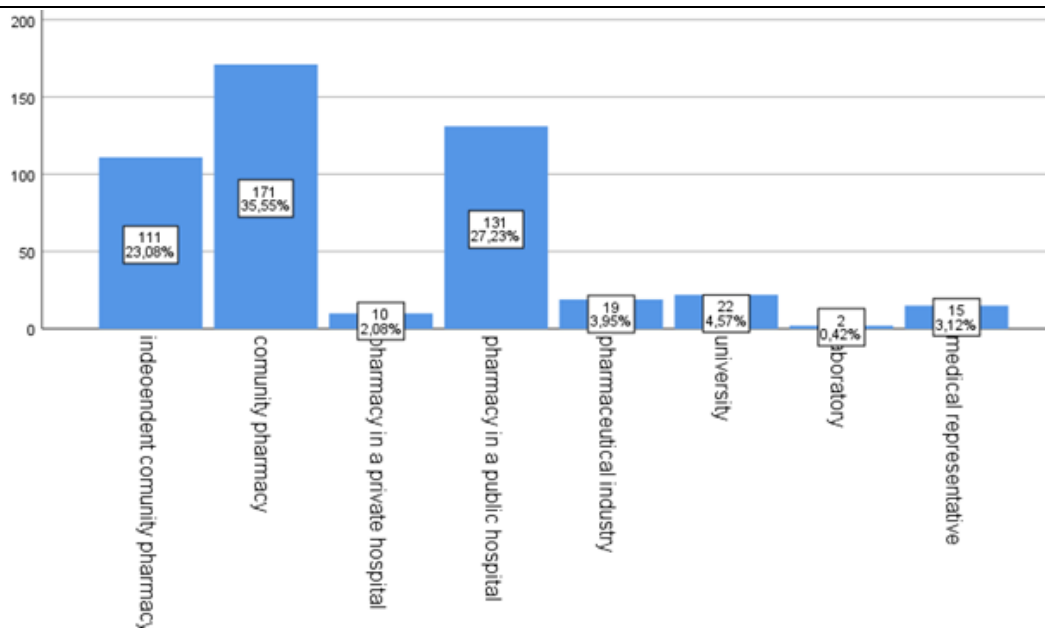


Figure 1.

The distribution of respondents considering the workplace

Table I

Socio-demographic, professional and institutional related data

Socio-demographic and professional characteristics	M ± S.D. and % ¹
Sex	
male	12.09 ± 8.87
female	13.00 ± 10.23
Marital status	
single	102 (21.2%)
in a relationship	379 (79.8%)
Education level	
Bachelor's degree	316 (65.7%)
Master's degree	119 (24.7%)
Doctoral degree	46 (9.6%)
Professional category	
pharmacist	331 (68.8%)
senior pharmacist	83 (17.3%)
specialist pharmacist	67 (13.9%)
Specialty	
general pharmacy	384 (79.8%)
clinical pharmacy	67 (13.9%)
pharmaceutical laboratory	22 (4.6%)
pharmaceutical industry	8 (1.7%)
Pharmaceutical resident	309 (64.2%)
The institution where they work is	
public institutions	148 (30.8%)
military hospital	6 (1.2%)
multinational private company	217 (45.1%)
independent pharmacy	110 (22.9%)
Years of seniority at work	12.92 ± 7.70
male	12.09 ± 8.87
female	13.00 ± 10.23
Years of seniority at current workplace	7.70 ± 7.80
male	6.00 ± 7.27
female	7.85 ± 7.84

¹Means and standard deviations (M ± D), frequency and percentages (%)

Job-related information: satisfaction with salary, work schedule and management

The results indicated that the number of employees from the institutions where the pharmacists worked was, on average, $M = 401.41 \pm 714.21$, and the number of employees from the department where the participants worked was, on average $M = 21.53 \pm 99.26$.

On a scale from 1 (very few) to 5 (very many), pharmacists evaluated the number of employees in the department/institution at an average of $M = 3.49 \pm 1.30$. Regarding the salary level, approximately a quarter of the participants declared that they had a salary between 2000 and 3000 RON (28.9%, $N = 139$), between 3000 and 4000 RON (25.6%, $N = 123$), or over 5000 RON (22.9%, $N = 110$). Thus, approximately half of the participants (48.2%, $N = 232$) considered

that, compared to other colleagues with the same level of education and number of years of experience, pharmacists were paid just as well. Also, on a scale from 1 (a very low level) to 5 (a very high level), pharmacists evaluated their salary at an average of $M = 2.37 \pm 1.16$.

On a scale from 1 to 5 (where 1 = total disagreement, and 5 = total agreement) an important part of the pharmacists considered that their work schedule allowed them to have time for family, friends and other hobbies, the average being $M = 3.53 \pm 1.19$.

The analysis of the data showed that pharmacists were more satisfied with their relationships with colleagues and less satisfied with their salary level. Other detailed results are presented in Table II.

Table II

Self-rated items regarding job satisfaction

How satisfied are you with your ...	1	2	3	4	5	M±SD ¹
job	29 (6.0%)	45 (9.4%)	146 (30.4%)	172 (35.8%)	89 (18.5%)	3.51 ± 1.08
salary level	102 (21.2%)	99 (20.6%)	163 (33.9%)	85 (17.7%)	32 (6.7%)	2.68 ± 1.18
relationships with colleagues	5 (1.0%)	19 (4.0%)	91 (18.9%)	179 (37.2%)	187 (38.9%)	4.09 ± 0.90
work schedule	20 (4.2%)	51 (10.6%)	87 (18.1%)	158 (32.8%)	165 (34.3%)	3.83 ± 1.13
relations with management staff	18 (3.7%)	36 (7.5%)	99 (20.6%)	177 (36.8%)	151 (31.4%)	3.85 ± 1.06
relations with other departments	11 (2.3%)	34 (7.1%)	129 (26.8%)	193 (40.1%)	114 (23.7%)	3.76 ± 0.96

¹ Number of answers (N) and percentage (%), means and standard deviations (M ± SD)

Professional development and affiliation

The study wanted to identify how many pharmacists were affiliated with Romanian associations such as the Association of Pharmacists (ETHICA) or the National Union of Pharmacists from Romania (Cartel ALFA and National Association of Pharmacists from Romania). The analysis of the answers showed that only 17 (3.5%) pharmacists were members of ETHICA, 42 (8.7%) were members of Cartel ALFA and 136 (28.3%) were members of the National Association of Pharmacists from Romania.

More than half of the respondents were in leadership positions (53.43%; $N = 257$).

In order to identify the lifelong training, pharmacists were asked to mention the number of credits. More than a third of the participants (39.1%, $N = 188$) mentioned that they had accumulated between 120 and 150 credits in the previous 3 years.

One item targeted the World Health Organization 243-06.11.2020 that legislated the pharmaceutical service within Law 95/2006 - Health Law. The pharmacists were asked if they considered this useful for the pharmacist profession, and most of the participants (88.4%, $N = 425$) agreed to that.

More than half of the participants attended courses in Management (57.8%, $N = 278$), Communication (51.4%, $N = 247$) and Leadership (68.6%, $N = 330$) skills. Similarly, an important majority of them obtained diplomas as Trainer (82.5%, $N = 397$) or Project manager (87.1%, $N = 419$). More than 40% of the participants (41.4%, $N = 199$) declared that the

institution paid the costs of the training. Details are presented in Table III.

Table III

Types of training and number of credits

Trainings and Professional credits	M ± S.D. and % ¹
Communication training	234 (48.6%)
Management training	203 (42.2%)
Leadership training	151 (31.4%)
Trainer diploma	84 (17.5%)
Project manager diploma	62 (12.9%)
Number of credits in the last 3 years	
< 120	100 (20.8%)
120 - 150	188 (39.1%)
150 - 200	98 (20.4%)
> 200	95 (19.8%)

¹ Means and standard deviations (M ± D), frequency and percentages (%)

A significant number of pharmacists declared that they wished to remain at the current place of work until the end of their careers, the average being $M = 3.43 \pm 1.40$. Approximately half of them (49.5%, $N = 238$) stated that they recommended the institution where they worked to other health professionals.

A Mann-Whitney U test was run in order to identify if there were differences regarding some of the variables considered for the present study.

The comparative analysis showed that men had more subordinates (Mdn = 7.00, $U = 1251.50$, $Z = -2.077$, $p = 0.038$) compared to women (Mdn = 5.00). Also, we identified that pharmacists who worked in rural areas had more experience in this field (Mdn = 17.00),

compared to those who worked in urban environments (Mdn = 10.00, $U = 6047.50$, $Z = -1.987$, $p = 0.047$).

The analysis of data identified that pharmacists who had a higher level of education had higher salary (Mdn = 4.00), compared to those with a lower level of education (Mdn = 3.00, $U = 5475.50$, $Z = -2.789$, $p = 0.005$).

The results showed that there were significant differences between respondents with only one job and the level of satisfaction with salary ($U = 19659.00$, $Z = -3.003$, $p = 0.003$), in the sense that those with only one job were more satisfied on the salary scale (Mdn = 3.00), compared to those who had more jobs (Mdn = 2.00). The results of the Mann-Whitney test showed that there were significant differences depending on the status of weekend/non-weekend worker in terms of job satisfaction ($U = 21081.50$, $Z = -5.069$, $p < 0.001$) and salary level ($U = 17212.00$, $Z = -7.659$, $p < 0.001$), which means that pharmacists who did not work during the weekend were more satisfied with the job (Mdn = 4.00) and had a higher salary (Mdn = 4.00), compared with those who had to go to work in weekends (Mdn = 3.00, respectively, Mdn = 3.00).

We proceeded with comparative analysis, considering the variables “academic activity” and “number of credits”. The results proved that there were significant differences in the teaching activity variable and the salary level ($U = 9298.00$, $Z = -2.393$, $p = 0.017$), respectively, the number of credits obtained in the last 3 years ($U = 9165.00$, $Z = -2.568$, $p = 0.010$) in the sense that those who had a teaching activity had a higher salary (Mdn = 4.00) and a higher number of credits (Mdn = 3.00), compared to those who did not have a teaching activity (Mdn = 3.00, respectively, Mdn = 2.00). At the same time, there was a significant difference between the teaching staff status and the number of foreign languages spoken fluently ($U = 9175.50$, $Z = -2.902$, $p = 0.004$), in the sense that pharmacists who had teaching activities spoke more foreign languages fluently (Mdn = 2.00), compared to those who had no teaching activity (Mdn = 1.00). Pharmacists who had managerial responsibilities were better remunerated. The comparative analysis showed a significant difference ($U = 17088.50$, $Z = -7.939$, $p < 0.001$), in the sense that those who held a management position had, of course, a higher salary level (Mdn = 4.00) compared to those who did not hold a management position (Mdn = 3.00). In addition, significant differences were also identified regarding job satisfaction ($U = 21857.50$, $Z = -4.752$, $p < 0.001$) proving that respondents who had a management position had greater satisfaction with their jobs (Mdn = 4.00), compared to those who did not hold a management position (Mdn = 3.00).

Speaking more than one language is an important factor that allows pharmacists to attend international conferences and earn continuing education credits. The correlational analysis shows that there were significant

positive correlations between the level of education and the number of foreign languages spoken fluently, respectively, and the seniority at work. Thus, we identified the fact that the higher the level of education of the pharmacists was, the more likely they were to speak more foreign languages ($r = 0.107$, $p = 0.018$) and more work experience in this field is depicted ($r = 0.097$, $p = 0.034$). Moreover, it was identified that the more foreign languages pharmacists spoke, the more likely they were to accumulate more credits ($r = 0.128$, $p = 0.005$).

The results showed that the number of hours worked *per* week correlated positively with the satisfaction regarding the relationship with colleagues at work ($r = 0.102$, $p = 0.025$), in the sense that the more the pharmacists worked, the more satisfied they were with the relationships with colleagues.

Salary level had a strong positive correlation with satisfaction with the pharmacist job ($r = 0.314$, $p < 0.001$), as well as with satisfaction with the work schedule ($r = 0.280$, $p < 0.001$), in the sense that the higher the salary the pharmacists had, the more they were satisfied with the job and the work schedule.

The correlational analysis also showed that there were positive correlations between satisfaction with the pharmacist job and satisfaction with the work schedule ($r = 0.560$, $p < 0.001$), respectively, and the satisfaction with the relationships with colleagues ($r = 0.309$, $p < 0.001$). The more the pharmacists were satisfied with the job they had, the more the satisfaction with the work schedule and relationships with colleagues increased. At the same time, the job satisfaction was positively correlated with the management staff relationship ($r = 0.583$, $p < 0.001$), in the sense that as pharmacists' satisfaction with their job increased, so did the satisfaction related with the management staff relationships.

The analysis of the data identified that pharmacists were not so satisfied with the level of salary but they appreciated that, compared to other specialties, they were paid according to their level of education. This result is important for analysing the percentages of pharmacists that attend continuing education courses, emphasizing that only 41% stated that the organization provided financial support for the training.

A study performed by Alhaqan *et al.* [2] identified that mandatory requirements were seen as important to improve the standards in pharmacy practice, provide an adequate remuneration, and improve the perceptions of both the public and other healthcare professionals. But some other research identified that the pharmacist's opinion regarding the need for and benefits provided by continuing education or continuing professional development changed over the years.

Our study identified that almost half of the continuing education training was covered by the institutions, and the number of credits obtained in the previous three years were quite different. In their literature review,

Alhaqan *et al.* [2] identified that barriers regarding the professional training of pharmacists were explained by the following issues: a lack of financial remuneration, the inability to share knowledge between colleagues, a lack of information and understanding of the concept of continuing professional development, difficulties in the identification of learning needs, and evaluation of one's own learning or lack of role models in the pharmacy field. Some other authors showed that, depending on the country, time constraints were an important barrier to being involved in continuing education training.

The results of the study showed that less than half of pharmacists attended courses in Management, Communication, or Leadership. The results are congruent with some others, reported in the literature. For example, Shikaze *et al.* [30] identified that the key barriers to assuming leadership roles included a lack of education, a lack of institutional support, inadequate remuneration, concerns about how to properly balance job tasks and life responsibilities, time constraints and a generalized discontent with leadership in society and in the profession. Similar results were pointed out by Gregory *et al.* [11]. The team conducted research on community pharmacists, identifying the importance of a charismatic personality, and mentioned the underuse of rewards and punishments and a general lack of effectiveness among pharmacy leaders.

A recent study developed by Brandish *et al.* [5] proved that international health projects develop leadership skills that are essential for influencing change and developing ways of working in the community. Meadows *et al.* [21] identified that successful leadership among pharmacists is related to the integration of communication skills, critical thinking and problem-solving techniques. Communication skills are extremely important in pharmacy practice. Jalal and his team [17] showed that the majority of the pharmacists (90%) included in their research believed that they needed further training on their consultation skills, while Luetsch & Burrows [20] proved that training for developing communication skills determined pharmacists to have a higher level of job satisfaction and perceived themselves as becoming more effective.

Salary level was found to be related to the job satisfaction, which is not surprising given that previous studies in the field identified perceived adequacy of salary and benefits as well as intention to quit. Carvajal *et al.* [6] showed that a high income within the profession reflects that a pharmacist is capable of coping with the pressures of the labour market, with the many challenges raised by patients and with the relationship with employers or colleagues.

Correlation analysis showed that younger pharmacists and male respondents are less satisfied with many facets of job satisfaction. The results are congruent with some others in the scientific literature. For example, research conducted by Belay *et al.* [4] and Chua *et al.*

[7] identified age differences in pharmacists' satisfaction with their job compared to older pharmacists.

One of the strongest challenges of the labour market is the retention and loyalty of employees at the workplace. The strategies for maintaining pharmacists have been analysed in various studies from various countries. For example, Obamiro *et al.* [24] showed that community pharmacies outside of Australian metropolitan areas declared that they found it consistently difficult to attract, recruit and retain pharmacists in these areas. A more challenging situation is in countries where foreign pharmacists are more representative than national pharmacists. AlRuthia *et al.* [3] identified that, in the case of Saudi Arabia, the number of national pharmacists represents almost 20% of all pharmacists employed in the kingdom, so retaining the licensed pharmacy workforce in the pharmacy field in Saudi Arabia has become a strategic plan for the next years until 2030.

When analysing the global pharmacy workforce, the literature presents a variety of challenges: the workforce is more feminized, pharmacists prefer to work in urban areas rather than in rural ones, migration of the pharmacy workforce is determined by labour market demand and job satisfaction, and retention remain challenges for employers. In a systematic literature review, Hawthorne and Anderson [13] identified the main problems in the pharmacy field. The need for an extended number of pharmacists was determined by several factors. The factors that raised the demand for pharmacists were increased feminization, clinical governance measures, the complexity of medication therapy and increased prescriptions. Additionally, the authors highlighted that there are pronounced differences between more developed and less developed countries and university cities (pharmacists tend to look for jobs near university areas in order to have the possibility to continue their education or properly do their continuing education). On the other hand, there are countries where there is a significant demand for a highly educated workforce, so higher academic grades are very appreciated, and organizations are more determined to recruit and retain highly qualified pharmacists.

The literature highlights that even if the number of male pharmacists is lower than of female ones, men are more likely to hold management positions. For example, Gidman and his team [10] identified that female pharmacists leave the profession at a much younger age than their male counterparts. Moreover, the research team pointed out that female pharmacists, although making up the majority of the workforce, were underrepresented in management positions. The results of the study that was conducted among British pharmacists highlighted that being less involved in leadership positions was related to their personal choices, such as having more time for family-extended duties or having family responsibilities over children.

Strengths and limitations of the study

The strength of the present study is related to the focus on the need for training pharmacists in Romania, considering all types of pharmaceutical specializations. The limitations of the study are related to a small number of respondents that cannot be used to generate strong comparative results and to the low number of male respondents (sustained by the type of profession in the pharmaceutical field, there is a larger number of female than male professionals) that cannot conduct to gender comparative results.

Conclusions

The results support the previous research that highlighted the importance of a multifaceted approach when analysing job satisfaction and the availability to attend continuing education courses. A good relationship with colleagues, an adequate level of salary, and organizational support are among the most important factors that pharmacists related to their satisfaction with work. These findings must be taken into consideration by the accreditation bodies and the staff of the institution during the continuous education process and to retain the pharmacist at the workplace.

Conflict of interest

The authors declare no conflict of interest.

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