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CURRENT PRACTICES OF COMMUNITY PHARMACISTS IN COUNSELING PATIENTS ON SMOKING CESSATION IN BEIRUT:A QUESTIONNAIRE – BASED STUDY

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Abstract

Despite various strategies and efforts exerted in the form of awareness campaigns, health conferences, targeted advertisements and laws, the prevalence of smoking is alarmingly increasing for both genders in Lebanon. Because of the ease of accessibility, community pharmacists are ideally positioned to help their patients quit smoking. The current study aims to assess the Lebanese pharmacists' practices in counseling their patients on smoking cessation. A cross-sectional study targeting community pharmacists in Beirut was conducted during June 2017 to September 2017. The adopted questionnaire was designed based on the WHO approved 5A's toolkit program for delivering brief tobacco interventions in primary care. Results were analyzed using the Statistical Package for Social Sciences program (SPSS) version 20 and Mega Stat. Our results showed that, for most of the survey questions, the performance of fresh pharmacy graduates (having less than 5 years of practice experience) and senior pharmacists (having 6-10 years of practice experience) with regards to counseling patients on smoking cessation using was not statistically different compared to that of older pharmacists (having more than 10 years of practice experience). In a similar pattern to that obtained concerning the length of professional experience, the participating pharmacist in our study, irrespective to their graduating universities, displayed inconsistent practices during counselling their patients on smoking cessation. Interestingly, the presence of on-duty assistance to the participating pharmacists during their practice shift was shown to be significant (P< 0.05 for all questions) in helping them provide their smoking patients proper counselling on smoking cessation. In conclusion, our study highlighted the discrepancy in the participating community pharmacists' practices relevant to their ability to provide their smoking patients with appropriate smoking cessation services. In order to address the current situation, well-planned, structured interventions at both educational and professional levels should be made as a priority.

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ABSTRACT

Despite various strategies and efforts exerted in the form of awareness campaigns, health conferences, targeted advertisements and laws, the prevalence of smoking is alarmingly increasing for both genders in Lebanon. Because of the ease of accessibility, community pharmacists are ideally positioned to help their patients quit smoking. The current study aims to assess the Lebanese pharmacists' practices in counseling their patients on smoking cessation. A cross-sectional study targeting community pharmacists in Beirut was conducted during June 2017 to September 2017. The adopted questionnaire was designed based on the WHO approved 5A's toolkit program for delivering brief tobacco interventions in primary care. Results were analyzed using the Statistical Package for Social Sciences program (SPSS) version 20 and Mega Stat. Our results showed that, for most of the survey questions, the performance of fresh pharmacy graduates (having less than 5 years of practice experience) and senior pharmacists (having 6-10 years of practice experience) with regards to counseling patients on smoking cessation using was not statistically different compared to that of older pharmacists (having more than 10 years of practice experience). In a similar pattern to that obtained concerning the length of professional experience, the participating pharmacist in our study, irrespective to their graduating universities, displayed inconsistent practices during counselling their patients on smoking cessation. Interestingly, the presence of on-duty assistance to the participating pharmacists during their practice shift was shown to be significant (P<0.05 for all questions) in helping them provide their smoking patients proper counselling on smoking cessation. In conclusion, our study highlighted the discrepancy in the participating community pharmacists' practices relevant to their ability to provide their smoking patients with appropriate smoking cessation services. In order to address the current situation, well-planned, structured interventions at both educational and professional levels should be made as a priority.

KEYWORDS

1. INTRODUCTION

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Tobacco use is the leading preventable cause of death in the world, it kills half of all lifetime users, and half of those die in middle age (Global & Tobacco, n.d.). Tobacco smoking is a risk factor for many different diseases including cardiovascular diseases, respiratory diseases, diabetes, impotence and cancer. Smoking deteriorates the overall health, increases absenteeism from work, and increases the health care cost and utilization (United States Department of Health and Human Services, 2014).

In an interesting WHO study on the prevalence of smoking in Lebanon, the number of smokers among persons aged 15 years and above in the year 2000 was estimated to be 668,000. This number was doubled in 2015. As for the years 2020 and 2025, the number of smokers is expected to increase to reach 1,693,700 and 1,969,500 respectively. The same study revealed that despite age intervals, men tobacco smokers were greater than women smokers in year 2010 by about one third. As for 2025, the rates are expected to increase for 3:2 males to females respectively. Therefore, smoking can be considered a major public health problem in Lebanon (World Health Organization, 2015)

Concerning tobacco economics, tobacco expenditure among the poorest Lebanese families were reported to be equal to the expenditure for recreation and is close to that of education. The highest cancer incidence rates in Lebanese male adults were found of those pertaining to smoking-related cancers. Smokers and Past-Smokers comprised 58% of those with heart disease. Smokers' and past smokers' sick days constituted a cost due to lost production of $102 million/year. A conservative lower bound on the total medical costs of smoking-related diseases in 2008 reached $147 million (Chaaban, Naamani, & Salti, 2010).

The World Bank suggests that if adult tobacco consumption is to decrease by 50 % by the year 2020, approximately180 million tobacco-related deaths can be avoided (WHO, 2007). Therefore, smoking cessation promotion can have a great impact in reducing disease burden and improving population health. However, several barriers may face smokers who want to quit. Addiction, fear of weight gain and depression are among the known barriers to smoking cessation (Jiloha, 2014). During withdrawal from nicotine, depressive symptoms emerge which leads to both cessation failure and relapse (Blazer, Kessler, McGonagle, & Swartz, 1994) Furthermore, resumption of smoking can reverse depression symptoms. The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) documented seven primary symptoms associated with nicotine withdrawal: irritability, anxiety, depressed mood, difficulty concentrating, increased appetite, insomnia, and restlessness (De Biasi & Dani, 2011). The syndrome also included constipation, dizziness, nightmares, nausea and sore throat (De Biasi & Dani, 2011).

Pharmacists are active members of the healthcare team and, since they are easily accessible to patients, they are ideally positioned to provide smoking cessation services to their patients. Community pharmacists can support patients' attempts to quit smoking (El Hajj, Al Nakeeb, & Al-Qudah, 2012), (Dent et al., 2007), (Saba, Bittoun, Kritikos, & Saini, 2013). The International Pharmaceutical Federation (FIP) published a statement of policy that describes the anticipated role of pharmacists in eliminating the use of tobacco in the communities they serve (El Hajj et al., 2012). Based on this statement, community pharmacist should provide tobacco cessation services to anyone who is considering quitting tobacco use or to anyone who suffers from tobacco-induced diseases (U.S. Department of Health and Human Services, 2010). One of the community pharmacists' most vital role is to help smokers select the most appropriate prescription or non-prescription treatment and to ensure that they are used correctly. To increase smokers' success rates, community pharmacists can also counsel and educate them on the importance of smoking cessation (El Hajj et al., 2012). In other words, community pharmacists have the potential to assist in both behavioral counseling and pharmacotherapy management (Siu, 2015). A systematic review of tobacco interventions by pharmacists demonstrated that pharmacists can deliver smoking-cessation services and suggested they are effective in helping patients successfully quit (Dent et al., 2007). Community pharmacists should be encouraged to perform interventions when counseling patients who are picking up medications; even a brief intervention (3 minutes) increases patient interest and success in quitting. Counseling interventions have been associated with greater cessation success as the number of interventions increases (Hudmon, Corelli, Kroon, Shreve, & Prokhorov, 2001). The Clinical Practice Guideline, which is a modified form of the National Cancer Institute's original 5 A's clearly describes five key components for tobacco cessation interventions (Fiore et al., 2008). These components, referred to as the 5 A's, offer pharmacists a practical method for implementing tobacco counseling in clinical practice. The 5 A's are as follows: Ask, Advise, Asist, Assess and Arrange (World Health Organization, 2014).

To the best of our knowledge, there is no structured professional smoking cessation programs that are available to the Lebanese pharmacists to train them for the successful provision of smoking cessation cervices to their patients. For this purpose, as a first step in our endeavors to develop the Lebanese community pharmacists' capacity, we decided to investigate the situation concerning the current practices that are adopted by the community pharmacists in Beirut to help better design and propose further suitable interventions.

2. MANUSCRIPT

2.1 Study design and participants

The study objectives were addressed in a cross- sectional survey of community pharmacists in Beirut during the period of June 2017 to September 2017. All the participant pharmacists (172 pharmacists) were licensed pharmacists practicing in community pharmacies in Beirut and were selected through convenient sampling.

2.2 Assessment tool

The survey used in this study was adopted from the work carried out by MS El Hajj et al. (El Hajj et al., 2012). The adopted survey was modified and tested in a pilot study with a small group of pharmacists (n=20) for clarity, relevance, acceptability and time to completion (i.e.: face validity). Refinements were applied to the survey questions as required in terms of language comprehension and questions' organization before developing and distributing the final survey form to the study population. The final survey consisted of closed-ended questions that could be completed within approximately 3 minutes. The final survey was made available in both Arabic and English, and the participating pharmacists had the opportunity to choose the survey langue according to their preferences. The survey consisted of two parts; the first part included nine socio-demographic related questions. The second part of the survey was a matrix-table question that was designed to evaluate the current pharmacists' counseling practices on smoking cessation. The matrix table was composed of twelve questions to be answered as " always", " most of the time", " sometimes", "rarely", and "never".

2.3 Data analysis

The survey data was analyzed using the Statistical Package for Social Sciences program (SPSS) version 20 and Mega Stat. Chi square testing was applied to study the significance between categorical groups. Results were considered "statistically significant" when P value less than 0.05. For all questions, the "always" answer was considered the right response that should reflect the appropriate counselling behaviour of the participating pharmacists, and hence were incorporated in all statistical analyses.

2.4 RESULTS

Demographic Data
Age:

In this study, a majority of 128 pharmacists (74.4%) out of a total number of 172 pharmacists were aged less than 30 years old, while only 3 pharmacists were older than 50 years. (Figure 1)
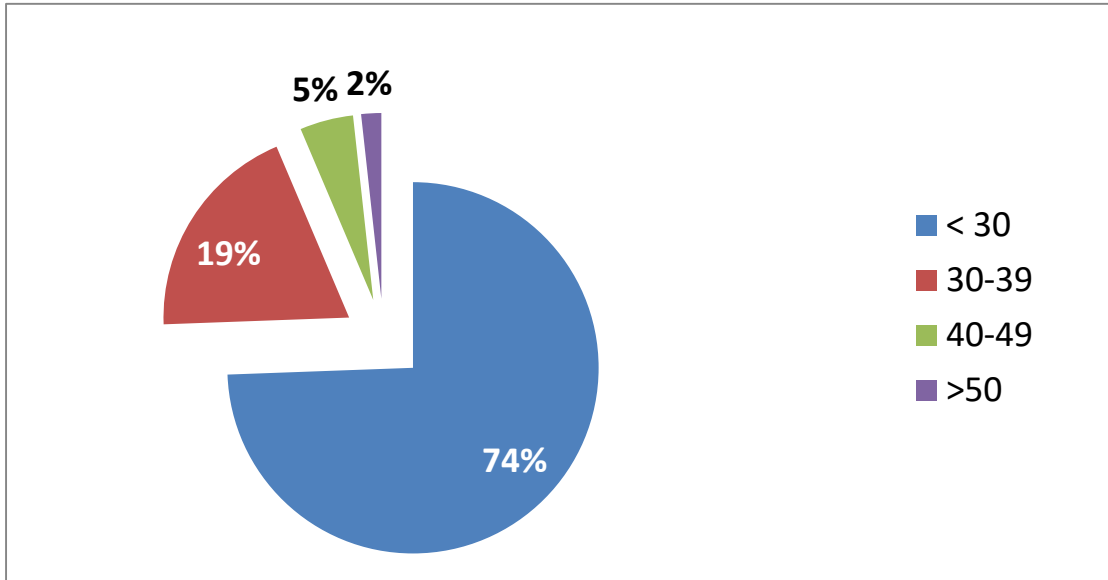

Fig. 1 Frequency of participating pharmacists with respect to their age.

Gender:

Male participating pharmacists in our study accounted for 57% whereas the rest (43%) were female pharmacists. (Figure 2)
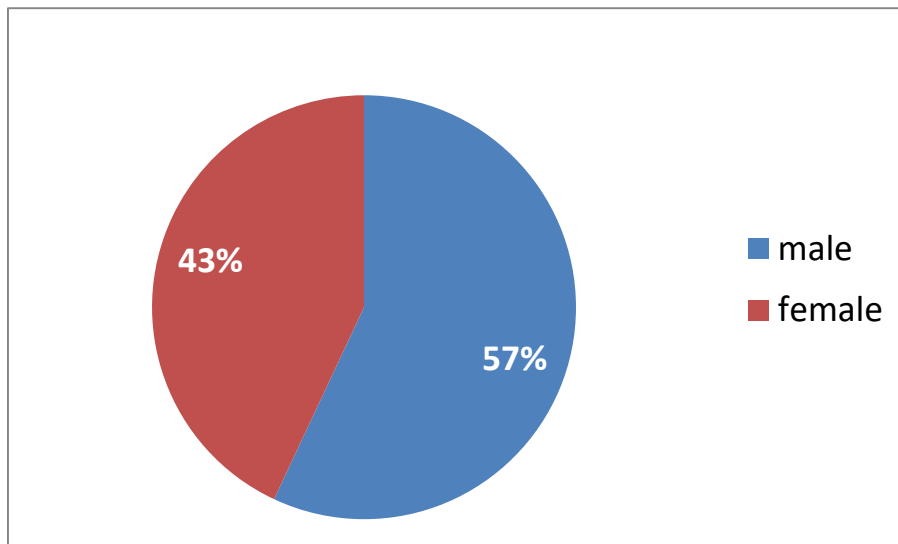

Fig. 2 Frequency of participating pharmacists with respect to their gender.

3. EDUCATIONAL BACKGROUND AND PRACTICE EXPERIENCE

3.1 University of graduation:

Sixty four percent of the participating pharmacists in our study were BAU graduates, while 21.5%, 5.2% and 8.8% of the remaining pharmacists were LIU, AUB and graduates from other universities respectively. (Figure 3)
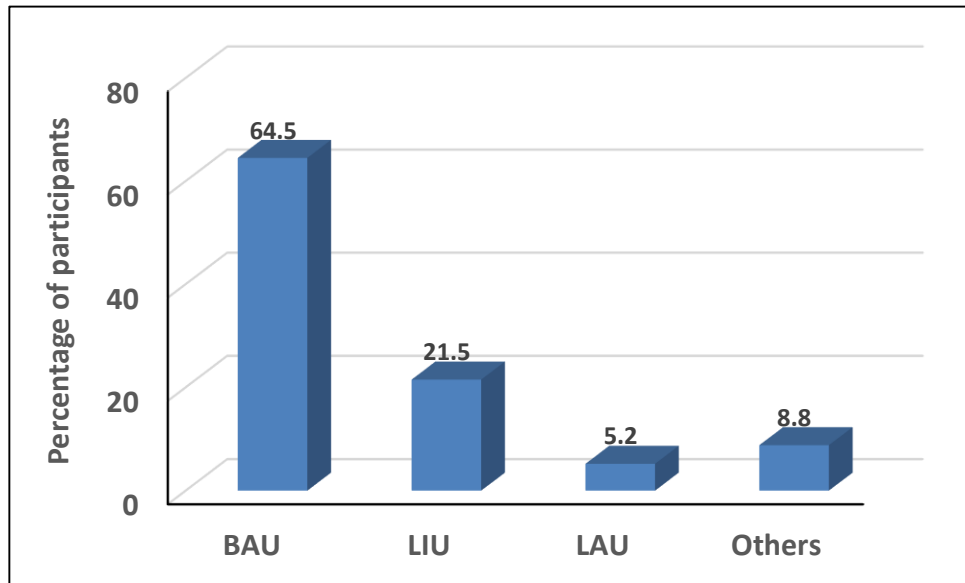
Fig. 3 Frequency of participating pharmacists with respect to their graduating universities.

3.2 Years of practice experience

In this study, the majority of participating pharmacists (71%) were fresh graduates with practice experience of less than five years. Seventeen percent of the participated pharmacists reported to have 6-10 years of practice experience. On the other hand, senior pharmacists with more than 10 years of practice experience comprised 12% of the total number of pharmacists. (Figure 4)
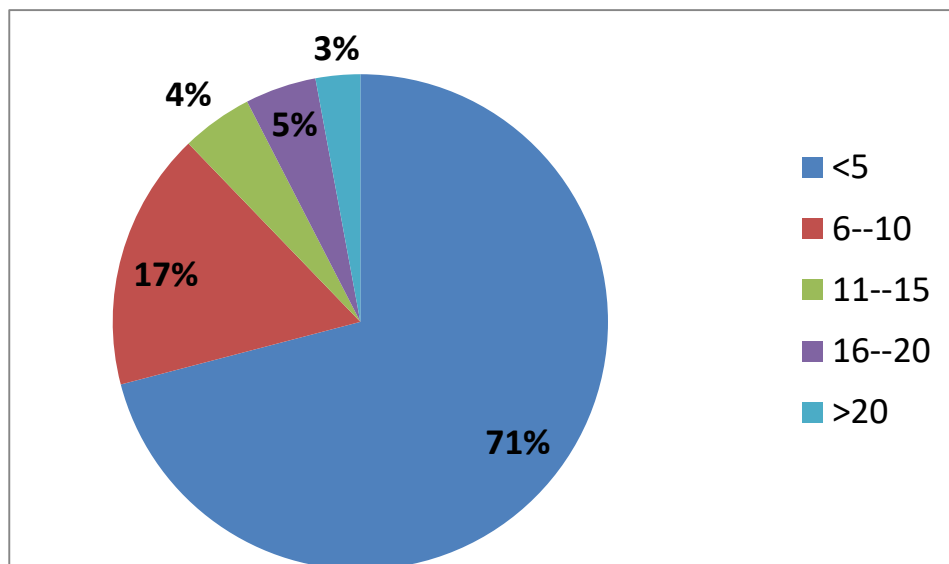
Fig. 4 Frequency of participating pharmacists with respect to their years of practice experience.

3.3 Presence of on-duty assistance to the participating pharmacist during practice shift:

In this study, about 62 % of the participating pharmacists reported to be working alone with no accompanying on-duty pharmacists or technicians during their practice shifts. The remaining pharmacists reported work with one or more than one on-duty pharmacists or technicians. (Figure 5 A&B)

Fig. 5 Frequency of participating pharmacists with respect the presence of on-duty pharmacists (A) and technicians (B) per shift.
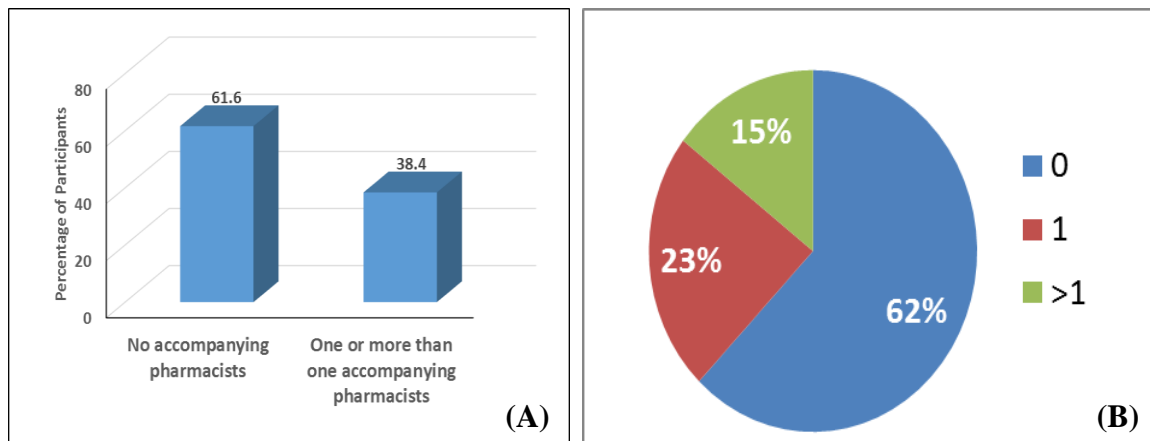
4. SMOKING CESSATION COUNSELLING PROVIDED BY PARTICIPATING PHARMACISTS IN CORRELATION WITH SELECTED PARAMETERS

4.1 With respect to years of practice experience

About 74% of fresh graduates (pharmacists with less than 5 years working experience) always advised their smoking patients to quit smoking, while only 51% of them arranged follow up with patients to assess their progress in quitting smoking and referred patients to physicians or specialized smoking cessation programs. In case of participating senior pharmacists (with 6-10 years practice experience), 76% of them displayed a relatively better performance by always advising their patients to quit smoking, assessed patients' readiness to quit, and assisted by counseling patients on behavioral techniques for quitting. Interestingly, senior pharmacists were significantly shown to refer their smoking patients to a physician or to a smoking cessation program. On the other hand, older pharmacists (with working experience more than 10 years) were significantly found to assist their smoking patients by advising them on the use of nicotine replacement gums and patches. [OR= 353.18(CI: 1.902-65588), $P<0.05$; OR=0.002(CI: 1.36-0.432), $P<0.05$, respectively] (Table 2).

4.2 With respect to graduating universities

Although not statistically significant, they results revealed an interesting pattern in which BAU pharmacy graduates were shown to provide a better compliance to the first three questions of the smoking cessation counselling model as compared to those of other universities (73%, 73% and 68.5% vs 62.3%, 62.3% and 59%, respectively). On the contrary, pharmacy graduates from universities other than BAU were shown to be more keen to advise their patients to quit smoking than their BAU counter peers (75.4% and 67.6%, respectively). (Table 3)

4.3 With respect to presence of on-duty assistance

Statistical analysis of the results showed that for most counselling questions (9 out of 12 questions), participating pharmacists who reported having one or more assisting on-duty pharmacists during their practice shifts complied with the recommended practices required for smoking cessation services (Table 4). In a similar pattern, the presence of assisting on-duty technicians with the participating pharmacists in our study during their practice shift was found to be a significant factor in providing patient counselling on smoking cessation for all the applied counselling questions (Table 5).

Table 1: Correlation between working years of practice experience and the performance of the participating pharmacists in counselling patients on smoking cessation. (Participating pharmacists having more than 10 years of work experience were taken as reference)

	Experience							
	<5years			6-10years			>10years	
	Count	%	OR(CI.),P)	Count	%	OR(CI.,P)	Count	%
Q1: Discuss the effects of smoking on health	86	70.5%	2.83(0.09-84.7), P>0.05)	21	72.4%	0.007(4.98-9.304), P>0.05	12	57.1%
Q2: Highlight the benefits of quitting smoking	86	70.5%	2.83(0.09-84.7), P>0.05)	21	72.4%	0.007(4.98-9.304), P>0.05	12	57.1%
Q3: Ask patients about their smoking status	81	66.4%	0.342(0.017-6.844), P> 0.05	20	69.0%	1.33(0.01-1212), P>0.05	11	52.4%
Q4: Advise patients to quit	90	73.8%	0.948(0.051-17.594), P>0.05	22	75.9%	0.002(2.97-2.057), P>0.05	9	42.9%
Q5: Assess patients' readiness to quit	75	61.5%	0.138(0.02-8.55), P>0.05	22	75.9%	0.002(2.97-2.057), P>0.05	9	42.9%
Q6: Assist by giving them educational materials related to quitting smoking	81	66.4%	6.509(0.173-245.26), P>0.05	21	72.4%	0.76(0.002-345), P>0.05	10	47.6%
Q7: Assist by counseling patients on behavioral techniques for quitting	79	64.8%	0.425(0.011-16.19), P>0.05	22	75.9%	0.002(2.97-2.057), P>0.05	9	42.9%
Q8: Assist by advising patients about the use of nicotine replacement gums and patches	83	68.0%	6.539(0.238-179.510), P>0.05	20	69.0%	0.002(1.36-0.432), P<0.05	7	33.3%
Q9: Assist by suggesting patients to obtain a prescription for Bupropion from a physician	7	5.7%	2.007(0.067-60.25), P>0.05	3	10.3%	3.99(0.103-154.86), P>0.05	1	4.8%
Q10: Arrange follow up with patients to assess their progress in quitting smoking	63	51.6%	6.788(0.362-127.466), P>0.05	14	48.3%	8.443(0.136-523), P>0.05	5	23.8%
Q11: Refer patients to a physician or to a smoking cessation program	63	51.6%	0.418(0.021-8.29), P>0.05	18	62.1%	353.18(1.902-65588), P<0.05	6	28.6%
Q12: Offer NRT purchasers smoking cessation counseling	76	62.3%	1.197(0.071-20.18), P>0.05	18	62.1%	7.87(0.048-1297), P>0.05	8	38.1%

Table 2: Correlation between educational backgrounds and the performance of the participating pharmacists in counselling patients on smoking cessation. (Participating pharmacists who graduated from BAU were taken as reference)

		BAU (N=111)	Other universities (N=61)	OR(CI), P
Q1: Discuss the effects of smoking on health	Observed	81	38	0.61(0.31-1.19), P>0.05
	%	73.0%	62.3%	
Q2: Highlight the benefits of quitting smoking	Observed	81	38	0.61(0.31-1.19), P>0.05
	%	73.0%	62.3%	
Q3: Ask patients about their smoking status	Observed	38	38	0.66(0.35-1.27), P>0.05
	%	62.3%	62.3%	
Q4: Advise patients to quit smoking	Observed	75	46	1.47(0.73-2.98), P>0.05
	%	67.6%	75.4%	
Q5: Assess patients' readiness to quit smoking	Observed	70	36	0.84(0.44-1.60), P>0.05
	%	63.1%	59.0%	
Q6: Assist by giving patients educational materials related to quitting smoking	Observed	72	40	1.03(0.54-1.99), P>0.05
	%	64.9%	65.6%	
Q7: Assist by counseling patients on behavioral techniques to quit smoking	Observed	72	38	0.89(0.47-1.71), P>0.05
	%	64.9%	62.3%	
Q8: Assist by advising patients about the use of nicotine replacement gums and patches	Observed	70	40	1.12(0.58-2.15), P>0.05
	%	63.1%	65.6%	
Q9: Assist by suggesting patients to obtain a prescription for Bupropion from a physician	Observed	5	6	2.31(0.68-7.92), P>0.05
	%	4.5%	9.8%	
Q10: Arrange follow up with patients to assess their progress in quitting smoking	Observed	54	28	0.9(0.48-1.68), P>0.05
	%	48.6%	45.9%	
Q11: Refer patients to a physician or to a smoking cessation program	Observed	57	30	0.92(0.49-1.17), P>0.05
	%	51.4%	49.2%	
Q12: Offer NRT purchasers smoking cessation counseling	Observed	66	36	0.98(0.52-1.85), P>0.05
	%	59.5%	59.0%	

Table 3: Correlation between the presence of on-duty assistance (one or more than one pharmacists) on the performance of the participating pharmacists in counselling patients on smoking cessation. (Participating pharmacists who reported having no assistance were taken as reference)

		No assistance (n=106)	Assistance (n=66)	OR(CI),P
Q1: Discuss the effects of smoking on health	Observed	83	36	0.33(0.17-0.65), P<0.05
	%	78.3%	54.5%	
Q2: Highlight the benefits of quitting smoking	Observed	83	36	0.33(0.17-0.65), P<0.05
	%	78.3%	54.5%	
Q3: Ask patients about their smoking status	Observed	78	34	0.38(0.2-0.73), P<0.05
	%	73.6%	51.5%	
Q4: Advise patients to quit smoking	Observed	79	42	0.6(0.31-1.16), P>0.05
	%	74.5%	63.6%	
Q5: Assess patients' readiness to quit smoking	Observed	70	36	0.62(0.33-1.16), P>0.05
	%	66.0%	54.5%	
Q6: Assist by giving patients educational materials related to quitting smoking	Observed	76	36	0.47(0.25-0.9), P<0.05
	%	71.7%	54.5%	
Q7: Assist by counseling patients on behavioral techniques to quit smoking	Observed	77	33	0.38(0.2-0.72), P<0.05
	%	72.6%	50.0%	
Q8: Assist by advising patients about the use of nicotine replacement gums and patches	Observed	74	36	0.52(0.27-0.98), P<0.05
	%	69.8%	54.5%	
Q9: Assist by suggesting patients to obtain a prescription for Bupropion from a physician	Observed	6	5	2.02(0.59-6.9), P>0.05
	%	5.7%	7.6%	
Q10: Arrange follow up with patients to assess their progress in quitting smoking	Observed	61	21	0.34(0.18-0.66), P<0.05
	%	57.5%	31.8%	
Q11: Refer patients to a physician or to a smoking cessation program	Observed	65	22	0.32(0.17-0.6), P<0.05
	%	61.3%	33.3%	
Q12: Offer NRT purchasers smoking cessation counseling	Observed	73	29	0.35(0.19-0.67), P<0.05
	%	68.9%	43.9%	

Table 4: Correlation between the presence of on-duty assistance (one or more than one pharmacists) on the performance of the participating pharmacists in counselling patients on smoking cessation. (Participating pharmacists who reported having no assistance were taken as reference)

		No assistance (n=107)	Assistance (n=65)	OR(CI),P
Q1: Discuss the effects of smoking on health	Observed	91	28	0.13(0.06-0.27), P<0.05
	%	85.0%	43.1%	
Q2: Highlight the benefits of quitting smoking	Observed	91	28	0.13(0.06-0.27), P<0.05
	%	85.0%	43.1%	
Q3: Ask patients about their smoking status	Observed	87	25	0.14(0.07-0.29), P<0.05
	%	81.3%	38.5%	
Q4: Advise them to quit	Observed	89	32	0.2(0.1-0.4), P<0.05
	%	83.2%	49.2%	
Q5: Assess patients' readiness to quit	Observed	82	24	0.18(0.09-0.35), P<0.05
	%	76.6%	36.9%	
Q6: Assist by giving patients educational materials related to quitting smoking	Observed	82	30	0.18(0.09-0.35), P<0.05
	%	76.6%	46.2%	
Q7: Assist by counseling patients on behavioral techniques to quit smoking	Observed	82	28	0.23(0.12-0.45), P<0.05
	%	76.6%	43.1%	
Q8: Assist by advising patients about the use of nicotine replacement gums and patches	Observed	85	25	0.16(0.08-0.32), P<0.05
	%	79.4%	38.5%	
Q9: Assist by suggesting patients to obtain a prescription for Bupropion from a physician	Observed	2	9	8.44(1.76-40.4), P<0.05
	%	1.9%	13.8%	
Q10: Arrange follow up with patients to assess their progress in quitting smoking	Observed	67	15	0.18(0.09-0.36), P<0.05
	%	62.6%	23.1%	
Q11: Refer patients to a physician or to a smoking cessation program	Observed	71	16	0.17(0.08-0.33), P<0.05
	%	66.4%	24.6%	
Q12: Offer NRT purchasers smoking cessation counseling	Observed	80	22	0.17(0.09-0.34), P<0.05
	%	74.8%	33.8%	

5. DISCUSSION

Despite various strategies and efforts exerted in the form awareness campaigns, health conferences, targeted advertisements and laws, the prevalence of smoking is alarmingly increasing for both genders in Lebanon. Consequently, more serious attempts should be scheduled to enhance smoking cessation endeavours. Since pharmacists are easily accessible to patients, they are ideally positioned to help their patients quit smoking (El Hajj et al., 2012). The current study aims to assess the Lebanese pharmacists' practices in counselling their patients on smoking cessation.

Our results showed that, for most of the survey questions, the performance of fresh pharmacy graduates (having less than 5 years of practice experience) and senior pharmacists (having 6-10 years of practice experience) with regards to counselling patients on smoking cessation using the 5A's program was comparable to that of older pharmacists (having more than 10 years of practice experience). Senior pharmacists were significantly found to assist their smoking patients by offering them available NRT (**OR**=0.002, **CI**: 1.36-0.432, **P**<0.05). On the other hand, older pharmacists took the lead in referring their smoking patients to physicians or specialized smoking cessation programs (**OR**=353018, **CI**: 1.902-6558, **P**<0.05). In general, our results demonstrated the lack of a clear impact of the length of professional experience on the smoking cessation services provided by most of the participating pharmacists in our study. This finding may clearly reflect the fact that the practices of the participating pharmacists were a result of personal initiatives rather than a well-structured system of patient counselling on which they were trained.

In a similar pattern to that obtained concerning the length of professional experience, the participating pharmacist in our study, irrespective to their graduating universities, displayed inconsistent practices during counselling their patients on smoking cessation. Our results showed no statistical differences between BAU pharmacists and other pharmacists graduated from other universities. On the level of individual questions, BAU graduates were relatively more ready to discuss the effects of smoking and to highlight the benefits of smoking cessation on the health of their patients. This finding suggest that pharmacy curricula of most universities in Lebanon may lack both didactic, practical and experiential components that target essential practices required by the graduated pharmacists to make them competent enough to provide their future patients with appropriate smoking cessation cervices. In agreement to our findings, Saba et. al reported that targeting clinical gaps regarding baseline knowledge about current smoking cessation practice and relevant training programs in pharmacy education for final year students was shown significant in improving the implementation of smoking cessation service provided by the pharmacists (Saba et al., 2013). In anticipation to this situation, the pharmacy practice department at the faculty of pharmacy at BAU has recently incorporated both didactic and experiential activities that can develop the capacity of pharmacy students to provide such services. Further, offering smoking cessation services to patients was included as part of professional events conducted by the final year pharmacy students.

The presence of on-duty assistance to the participation pharmacists during their practice shift was shown to be significant in helping them provide smoking patients proper counselling on smoking cessation (Tables 4, 5). For most adopted counselling question, participating pharmacists who reported to have one or more than one on-duty pharmacists outperformed those who reported to work alone with no on-duty help during their practice shift. The effect of presence of on-duty assistance on the counselling performance of the participating pharmacists was even confirmed when we studied the possible effect of having on-duty pharmacy technicians available during the practice shift. Interestingly, for all the counselling questions adopted, the presence of on-duty technicians was shown to be a significant factor that may determine the quality of smoking cessation services provided by the participating pharmacists. Evidently, the presence of on-duty assistance, whether in the form of pharmacists or pharmacy technicians, can be responsible for providing pharmacists with precious time that is required to perform appropriate counselling and to provide better smoking cessation services to smoking patients. Our finding was further supported by an Australian study that reported on the lack of time to be the main barrier preventing community pharmacists from offering counselling on smoking cessation (Loren Bonner, 2015).

6. CONCLUSIONS

To conclude, this study highlighted the discrepancy in the practices relevant to the ability of the participating pharmacists to provide their smoking patients with appropriate smoking cessation services.

Well-planned, structured interventions on both educational and professional levels should be made. Future research, which seeks in depth understanding of the impact of pharmacy undergraduate education on the improvement of smoking cessation services provided by community pharmacists. Furthermore, national healthcare authorities together with the Lebanese order of pharmacists (OPL) should invest more efforts in developing training programs that can build capacity of the community pharmacists to make them able to perform appropriate counselling and to provide their smoking patients with quality smoking cessation services. The main objective of such training programs should be the encouraging of community pharmacists to incorporate identification and help of smoking patients in their professional daily activities.

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