

The Experience of a Middle Eastern Smoking Cessation Program: A Focus Group Study of Providers' Perspective

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Abstract

Introduction: Almost one-third of the Lebanese population are active smokers, with limited knowledge about their attitudes toward existing smoking cessation interventions. This study aims at exploring the facilitators and barriers facing a smoking cessation program (SCP) in a Lebanese tertiary referral center from the providers' perspective. **Materials and Methods:** This is a qualitative study comprising a focus group discussion (FGD) among five practitioners from the SCP. The data collected were then transcribed and summarized by coding, simplifying, and transforming the raw data into major themes and subthemes as per the Miles and Huberman method of organization. **Results:** Facilitators and barriers fell under three subthemes: (1) participant factors, (2) provider factors, and (3) system factors. Facilitators included motivation and concerns about health among patients, in addition to increased behavioral support from providers. Meanwhile, barriers were much predominant and included stress factors and nicotine addiction among patients, time constraints among providers, lack of an effective referral system, inaccessibility, and unavailability of pharmacotherapy as well as a pro-smoking environment with weakly enforced tobacco legislation. **Conclusion:** Our findings implicate the need for multilevel strategies to help improve smoking cessation interventions. Addressing identified barriers is of paramount importance to help develop effective, accessible, and culturally specific tobacco treatment.

Keywords: Cessation program, qualitative, smoking, tobacco, underdeveloped countries

INTRODUCTION

Tobacco use has been responsible for avoidable early death and disability all over the world due to the adverse health effects that it causes, including malignancy, as well as cardiovascular and respiratory diseases.^[1] The smoking prevalence in low- and middle-income countries is estimated to reach more than 40%, and it exceeds 30% in Lebanon, ranking first for tobacco consumption compared with other countries of the Eastern Mediterranean Region (EMR).^[2]

Most smokers are familiar with the health consequences of tobacco consumption and many desire to quit, but quitting without assistance has been shown to be difficult due to nicotine's addictive nature.^[3] However, tobacco cessation interventions, including pharmacotherapies such as nicotine replacement therapy (NRT), Bupropion and Varenicline, and behavioral support (as simple as brief advice from health-care practitioners), have been

proven to increase the odds of smoking cessation.^[4] In developed countries, tobacco cessation programs have been proven to be cost-effective in promoting abstinence among smokers, leading to fewer tobacco-related diseases and lower mortality.^[5] Meanwhile, there exists a challenge to implement efficient tobacco control policies and treatment programs in the EMR countries, where the availability and affordability of cessation services and pharmacotherapy were revealed to be lacking or

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Submission: 27-June-2021 **Accepted:** 28-July-2021 **Published:** 17-Dec-2021

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How to cite this article: Koubaissi SA, Jawhar S, Romani M, Honein G, Degheili JA, Kanj N. The experience of a Middle Eastern smoking cessation program: A focus group study of providers' perspective. Med J Babylon 2021;18:327-32.

Access this article online

Quick Response Code:



Website:
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DOI:
10.4103/MJBL.MJBL_44_21

insufficient.^[6] The perceived costs of providing a sustained tobacco dependence treatment support and the lack of clear evidence about its cost-effectiveness remains the main challenge toward implementing smoking cessation interventions in this region.^[7]

Most of the smoking cessation evidence in the literature is established from quantitative and intervention-focused studies, with limited findings coming from qualitative research. Qualitative approaches afford an in-depth way to explain unanticipated findings or clarify relationships found in quantitative research. By focusing our study on the views of the providers, we aimed at identifying the factors perceived by tobacco treatment providers to influence quitting attempts and outcomes among smokers seeking cessation support to optimize the delivery of comprehensive smoking cessation treatments.

MATERIALS AND METHODS

Overview of smoking cessation program

This study involves an outpatient smoking cessation program (SCP) at the American University of Beirut Medical Center (AUBMC) in Beirut, Lebanon. The program is staffed with two smoking cessation physicians, three specialized nurses, and one administrator. At the first visit, participants are introduced to the program and undergo a full assessment during which medical history, physical assessment, pulmonary function test, and carbon monoxide level are assessed. Nurses also complete a behavioral assessment form that records patients' tobacco use, smoking habits, and nicotine dependence. This is followed by a visit to the physician to receive the appropriate treatment plan based on international practice guidelines (NCSCT—National Centre for Smoking Cessation and Training).^[8] The plan includes choosing a quit date with the help of the physician, consenting on smoking cessation pharmacotherapy (NRT, non-nicotine medications, or combination therapy) along with behavioral support, and setting a follow-up plan that lasts for one year. The follow-up sessions are either done in-person or through the telephone and take place every week for two months. In parallel with the weekly visits, two follow-up visits with the physician are arranged (at one month and two months post-quit date). After two months from quitting, the patients are contacted once per month for one year to ensure compliance and maintenance of abstinence.

Design and participants

The participants were recruited health-care staff from the SCP who were invited by e-mail to participate in the study along with a written consent form. E-mails were retrieved from the institution's available mailing list. Five out of six providers (including two tobacco-treatment physicians, two specialized nurses, and one administrator) agreed to participate in the FGD. Those who agreed to participate

provided written informed consent before the FGD. Ethical approval to conduct this study was acquired from the Institutional Review Board at the AUBMC.

Procedure

The FGD was 1-h long and took place in the participant's workplace. The focus group was conducted by a researcher, GH (Ph.D.), with varied research experience, including extensive experience in facilitating focus group interviewing and qualitative methods. The researcher used a semi-structured interview with a prepared set of questions covering topics related to smoking cessation services and interventions as well as enablers and barriers related to success or failure of cessation among smokers [Table 1]. The discussion was audio-recorded and transcribed by one interviewer and reviewed by another to eliminate errors.

Analysis

Two of the research team members reviewed the transcription on multiple occasions while performing a content analysis on the data.^[9] Initial coding was performed with a generation of multiple category codes with specific but different ideas. A second focused coding stage was then completed by eliminating or merging the initial coding categories into wider themes, connecting multiple similar codes, and unifying recurrent ones. One major theme was finally concluded, and it was divided into three subthemes, followed by exemplary quotes for further clarification [Table 2]. This ongoing process of data reduction was consistent with the Miles and Huberman method of organization.^[10]

Findings

A central theme that emerged from the FGD was facilitators and barriers contributing to successful smoking abstinence among smokers who had enrolled in the program, which split into three subthemes: participant, provider, and system level. Additional exemplary quotes for each subtheme are shown in Table 2.

Participant level

The program's providers believed that motivation was a significant enabler for successful smoking cessation and that "coming to the program depends on how much they are excited or serious about quitting" (*M.2*). Also, the main intrinsic factor that encouraged young smokers to think about stopping smoking was the prospect of living a healthy lifestyle, especially "educated parents who know the harmful effects of smoking on their kids, so they do it to prevent diseases and protect their children" (*T.2*). Interestingly, providers found that smokers with worse health status have better chances to succeed in quitting. Another major factor facilitating smoking cessation was the presence of social support, "encouraging people

Table 1: Focus group questions

Introductory questions	1. Please tell me about your program's mission and goal. 2. What range of nicotine-dependent patients do you encounter in your clinic? 3. Describe the different approaches used to counsel participants: Type of communication, medications prescribed in terms of availability, and cost. 4. What is the number of staff involved in this program, and are you able to cope with the demand? 5. How much does the program cost? 6. How do you describe the participants' compliance with counseling?
Barriers to health-care delivery	1. Do you believe that patients with high nicotine dependence at baseline are the least compliant with the nurses' and physicians' advice to stop smoking? 2. From your perspective, are there patient factors other than nicotine dependence influencing compliance? What could they be? 3. How compliant are the participants to the planned follow-up visits with the nurses and/or physicians? And at what stage of the counseling do you encounter most of the missed appointments? 4. Are there any suggestions on the type of patients who are likely to miss appointments, and what measures do you take to follow them up? 5. Given the current behavioral counseling approach, do you think that there are practitioner-related gaps in the service delivery? Please elaborate.
Physicians' practices and perspectives	1. Do you routinely refer all your patients who smoke and express readiness to stop to the smoking cessation program? 2. Do you find that most of the referred patients have the same initial health issue or belong to the same medical specialty? (i.e.: COPD or oncology patients mainly...)
Nurses' confidence in health-care delivery	1. Describe how easy it is for you to know whether a patient is presenting with symptoms of inadequately controlled nicotine withdrawal. 2. What about if a patient is presenting with symptoms that are consistent with side effects due to smoking cessation medication prescribed? 3. From your perspective, are you confident that you are currently delivering the optimal care for your patients?
Perceived training needs	1. Nicotine withdrawal symptoms 2. Medications side effects 3. Behavioral counseling sessions 4. New or current techniques of communication with the patients 5. More training on how to deal with difficult-to-treat or noncompliant patients

Table 2: Themes, subthemes, and specific exemplary quotes from the focus group discussion

Theme	Subtheme	Exemplary quote	
		Facilitators	Barriers
Facilitators and barriers	Participant factors	"Those who succeed are usually the sick patients, [...] they feel that if they don't quit, they are going to die" (N.2)	"[...] statistics are showing that stress level in Lebanon is very high, and we're diagnosing more often depression and anxiety [...] so this will add to the problem as well" (M.3) "Certain age, especially teenagers, consider that if you don't smoke then you don't belong to the group" (R.2) "Some participants don't have time to come on weekly basis to spend an hour, maybe the traffic in our location is a hinder also" (R.2)
	Provider factors	"We are very supportive and welcoming" (S.2) "With the use of WhatsApp for communication, I was more available to my patients, and that helped a lot" (R.2) "Even sometimes by email, whatever makes them comfortable" (T.2-S.2)	"Smoking is addiction, and the nature of the disease by itself is a major barrier because it implements multiple issues and you have to tackle them all, whereas with regular patients [...] you only have to tackle one target during the encounter" (M.3) "One should be willing to read more to do the behavioral therapy. It is a major by itself and not all nurses can do it" (R.4)
	System factors	"In 2016, after our campus became tobacco free, the president supported program with two new smoking cessation staff and with medication coverage for the [insured participants]" (M.3)	"The nurses are not counseling the patients, whenever the patient tells them that I am a smoker, it's as if they are asking them about the age, gender, and exercise... They notify the doctor only" (M.3) "Medications availability was a main barrier for about two years" (M.3) "The main reason not to refer was not to put more financial burden on the patients" (M.3) "It's a very frustrating situation because it is well known that the system in our country is a pro-smoking system..." (N.3)

around them" (R.2) and the fear of tarnishing their social image: "One of the university professors mentioned that he is a role model for his students, not only in his profession but also in other aspects of life" (M.2).

When discussing barriers to cessation, providers believed that those less likely to comply with the program tended to be younger, less committed, and had a high baseline level of anxiety or depression "because they see smoking as a stress reliever" (M.3). This same group of providers, when asked to quit smoking, would do so as they were being pressured by their parents or relatives; "and coming only for their [parents], they don't quit, and they relapse easily" (M.2). They also stated that patients reported concerns of peer rejection, losing the pleasure of smoking, "having to pass through the withdrawal symptoms" (R.3), and changing their lifestyle habits. Another issue was the time constraint as a result of traffic and travel distance operated as logistic barriers, contributing to poor compliance.

Provider level

Providers' perceived facilitators were reduced physician fees "we only charge the patients for the first visit and the remaining ones are free of charge" (M.2), nurses' behavioral support with their continuous personal efforts to be "available all the time if they need any help, even outside working hours" (R.2), technology use, and implementation of awareness campaigns.

The main barriers were physicians' time constraints since "usually a smoker patient needs a minimum of 30 minutes to assess, counsel, educate whereas a regular clinic appointment is only 20 minutes, so I feel pressured by the time when I merge smoking cessation appointments with regular appointments" (M.3). The nurses reported a similar challenge since they believe that a patient's visit must be long enough to provide adequate "psychological support that takes sometimes more than half an hour before talking about smoking cessation itself" (T.3). Finally, although nurses' international training was very helpful for delivering behavioral support, they thought it was "different than the culture [they] are dealing with" (T.3) and that "more practice and experience is needed" (T.4).

System level

Unlike today's implemented efforts to make the campus smoking-free, no well-organized directives were set at the launch of the program to fight for smoking cessation or tobacco control.

Practitioners believed that the referral of hospitalized smokers to smoking cessation services is still "[...] lacking even from oncologists or cardiologists who are probably counseling their patients, but they don't refer them" (M.3). Similarly, from the nursing staff who are not sufficiently trained on delivering smoking cessation interventions:

"they ask the patients if they smoke or not and this is it" (M.3), without implementing the five As (Ask, Advise, Assess, Assist, and Arrange). Besides, the availability and cost of smoking cessation medications were a barrier for all enrolled participants. Since the hospital's pharmacy did not have any available stocks for outpatients, "we used to check the availability of the medications for our participants in pharmacies near the hospital on monthly basis" (M.3).

Moreover, funds to provide a Quit line to the program are insufficient, and "it would help more if the insurance companies cover the smoking cessation services or encourage smokers to participate" (R.3). The government also plays a crucial role in reducing smoking. However, Lebanon's tobacco control legislation and preventive measures are weakly enforced despite the presence of laws for banning smoking in public places. Finally, policies related to cost and accessibility of tobacco products are absent and despite our efforts "to convince participants that [smoking cessation services] cost the same as the cigarettes, we find that the locally produced cigarette pack costs only 1000 Lebanese pounds!" (N.3).

DISCUSSION

Findings from this article described the factors influencing smoking cessation outcomes among smokers who had enrolled in a tobacco-treatment program from the providers' perspective. Using a focus group discussion, the program's providers determined considerable facilitators and barriers that affected the smokers' attempt to quit, which were represented as three subthemes (participant-, provider-, and system-related). Most of the barriers that were mentioned by the providers fell under the system level, which can be explained by the dominant pro-smoking environment in Lebanon and negligible efforts toward tobacco control policies and legislation.

The main subthemes of our findings are supported by evidence from other studies. Considering the facilitators and barriers at the participant's level, providers believed that health concerns, having negative health consequences,^[11-14] and the presence of social support,^[15-19] positively influence cessation attempts and outcomes among smokers. Motivation to quit was also considered an enabler; however, numerous studies have assessed the association between motivation and smoking cessation but revealed conflicting results. Some studies revealed motivation to predict quit attempt alone, whereas other studies found it to be predictive of successful cessation maintenance.^[19-24] This may be explained by the changeable nature of motivation over time along with a difference in the sample of smokers and the tools used to measure motivation to quit and its variability across studies. Meanwhile, young smokers and smokers who had high levels of anxiety and depression were predicted by

providers to have less successful cessation attempts, as shown in earlier studies where smoking cessation success was reported to be lower in smokers with depressive and anxiety symptoms.^[25]

When it comes to the factors affecting care delivery and directly linked to the providers themselves, it was found that the demanding treatment of addiction and the long time it needed was the main barrier. Another barrier was the incompletely adapted international behavioral therapy training they received, and the one required for the Lebanese culture. Both of these factors go in alignment with previously reported studies,^[26] including those conducted in medically underserved communities,^[27] such as the case in Lebanon.

Finally, during the FGD, providers viewed the unavailability of pharmacotherapy and the cost of cessation services as significant barriers to successful quitting, attributing these obstacles to the absence of the governmental role in implementing tobacco control policies. This is clearly explained by the lack of access and financial coverage of cessation treatments in the EMR region, which urgently demands implementing national plans to better adopt tobacco control policies.^[28,29] By providing greater access to cessation services along with subsidized or financially covered treatments through governmental bodies or insurance companies, we expect better encouragement toward treatment use and increase quit attempts among smokers, leading to decreased smoking rates in our community.^[30-32] Not to mention also the importance of establishing office- and hospital-based cessation and interventional programs, aiming to address provider- and system-level barriers, along with targeting deficiencies in our healthcare system, that are averting tobacco control. Implementing system-wide smoking status documentation of patients and referral programs, as well as providing counseling training opportunities for clinicians should be a priority in promoting physician involvement in cessation efforts and enhancing smokers' engagement in tobacco treatment programs.^[30-32]

CONCLUSION

Our study identified participant-, provider-, and system-related facilitators and barriers influencing quit attempts and outcomes among smokers seeking assisted cessation. These findings implicate the need for contextualized multilevel strategies to improve and develop effective, accessible, and cultural-specific smoking cessation services. A better understanding of these factors from the perspective of providers, who deliver direct care to smokers, can help explain gaps and offer insight on successful practice change related to cessation interventions. Health practitioners and public health researchers can use such knowledge to better support policies, clinical practice,

and care delivery of tobacco treatment to this unique population.

Ethical consideration

Ethical approval was acquired from the Institutional Review Board at the American University of Beirut. Before enrollment in the study, written informed consent was obtained from the SCP providers.

Authors' contributions

MR and NK were responsible for the conceptualization and management of the project. SK and JAD were responsible for the article preparation, FDG transcription, coding and quoting, and interpretation of findings. SJ and JAD were responsible for the article preparation and interpretation of findings. GH was responsible for the focus group discussion interview and interpretation of findings. All authors have read and approved the article.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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