Mixed methods evaluation of the 'real-world' implementation of group-based behavioral stop smoking support through Facebook

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ABSTRACT

INTRODUCTION While promising evidence from trials of social-media-based stop smoking support informs service-planning, there is a need for more prospective, observational studies of smoking cessation interventions to build 'real-world' evidence. Specifically, user experiences have been under-explored with qualitative methods to date. This mixed-method evaluation of a closed Facebook group-based behavioral stop smoking support program, which was conducted in Ireland in 2018, aimed to address these issues.

METHODS Pre- and post-program surveys measured smoking abstinence (self-reported 7-day point prevalence), changes in smoking attitudes and behavior, and participant experiences. Engagement with Facebook was measured through counting 'likes' and comments, and was used to categorize groups as 'more active' and 'less active' over a 12-week period of support. Thematic content analysis of semi-structured participant interviews explored program experience in depth.

RESULTS In total, 13 of 52 participants reported smoking abstinence post-program (25.0%, 95% CI: 14.0–39.0). Participant engagement with Facebook was variable and decreased over the program. Membership of a 'more active' group was associated with better reported participant experience (e.g. 90.9% agreeing 'Facebook group helped me to quit or reduce smoking', versus 33.3% in the 'less active' group, $p<0.05$). Qualitative analysis identified three over-arching themes: importance of social interactions; perception of health information; and appeal of online support.

CONCLUSIONS Facebook can be used to deliver group-based behavioral stop smoking support in the real world. In Ireland, the one-month post-program abstinence outcomes achieved by other stop smoking services is approximately 50%, and while the outcomes for this service was lower (25%), it is still better than outcomes estimated for unassisted quitting. Engagement and peer-to-peer interactivity should be maximized to support positive participant experience.

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KEYWORDS
program evaluation, tobacco use disorder, smoking cessation, social media, internet-based intervention, real-world effectiveness

Received: 15 March 2022
Revised: 26 April 2022
Accepted: 9 May 2022

Tob. Prev. Cessation 2022;8(June):24 https://doi.org/10.18332/tpc/149910

INTRODUCTION

Despite progress, tobacco use continues to cause harm on a huge scale globally[1]. While preventing smoking initiation is critical, saving lives now requires a strengthened focus on offering people who currently smoke help to quit[2]. The components of effective help are well-established[3]. However, many people attempt to quit without help[4]. Barriers to accessing support, such as cost and time, negative

Published by European Publishing on behalf of the European Network for Smoking and Tobacco Prevention (ENSP).

and false perceptions of stop smoking interventions, and misalignment with individual situations and preferences contribute to this gap[5].

There is global interest in digital health interventions[6]. Low cost, easy access and scalability, mean the internet is an attractive medium to offer stop smoking support. A Cochrane review reported that interactive (a two-way flow of information between the internet and the participant) and tailored (adaptation to a participant's characteristics) internet-based stop smoking interventions are effective[7]. Social media, which leverage internet-based technology to create 'interactive web and mobile platforms through which individuals and communities can share, co-create, or exchange information, ideas, photos, or videos within a virtual network', are a feasible, acceptable and cost-effective way to deliver stop smoking support[8-10]. Facebook, Twitter and WhatsApp were reported to be effective in supporting smoking cessation in recent reviews[8,10]. Participant engagement is proposed as a potential mediator of increased effectiveness, and recently greater individual connectedness has also been shown to increase social-media-based stop smoking program outcomes, including smoking abstinence[11,12].

While promising evidence from trials of social-media-based stop smoking support informs service-planning, more prospective, observational studies of smoking cessation interventions are needed to build 'real-world' evidence[13]. As with other health services, digital health solutions will play an increasing role in stop smoking service delivery in the context of COVID-19[14,15], making 'real-world' evidence especially valuable for national tobacco control programs. Mixed-methods studies and qualitative analysis of social media posts have shown the benefit of social media interventions in preventing relapse for those who have already quit successfully using established therapies, but only one study involved participant interviews[16-18]. The current evidence base for implementation in day-to-day practice still needs further development, exploiting the potential of qualitative methods to better explore and explain effectiveness of social-media-based stop smoking support from a participant perspective where support is delivered entirely on social media, not just as a supplement after routine therapy.

Universally accessible, free-of-charge stop smoking services are delivered in Ireland through the Health Service Executive (HSE) and are led by its Tobacco Free Ireland Programme (HSE-TFIP). A portfolio of behavioral support programs, augmented with pharmacological support advice, are offered through ongoing multi-channel mass media campaigns including a dedicated 'QUIT' website (www.QUIT.ie) and social media (QUIT Facebook page, Instagram and Twitter): tailored internet-based support combined with text-messaging; one-to-one telephone-based intensive support; one-to-one face-to-face intensive support; and group face-to-face intensive support. All programs are evidence-based, delivered to national standards and facilitated by trained stop smoking advisors[19-23].

The HSE-TFIP aims to increase service reach. Following exploration of potential service user preferences, a group-based behavioral stop smoking support program delivered through Facebook was piloted in 2018. Standard group-based behavioral support, led by a trained stop smoking advisor and delivered through seven sessions over twelve weeks, was adapted for social media platform functionality to enable peer-to-facilitator and peer-to-peer interaction, thereby replicating trained stop smoking advisor-led group-based behavioral support in a convenient, accessible digital environment. In line with World Health Organization recommendations on digital health interventions, the pilot was evaluated to inform future planning[6]. The specific objectives of the evaluation were as follows: to measure and analyze the impact of a closed Facebook group-based behavioral support program on participant smoking prevalence, behavior and attitudes; to describe and explore participant experience of the program; and to describe the demographics of those interested in participating in a social-media-based stop smoking program and compare these with people who smoke to assess potential reach.

METHODS

Participant recruitment

The pilot comprised three groups, capped at 25 participants in each group for manageability by the facilitator. The three groups commenced two weeks apart from September 2018. Volunteers were recruited

in July and August 2018 via promotion of the pilot on the HSE-TFIP's QUIT website and social media. The following inclusion criteria applied: current smoker interested in quitting; aged ≥18 years; Facebook account holder; and living in the Republic of Ireland. Pregnant smokers were excluded from this study. Group assignment was in order of recruitment and participants provided informed consent (including potential withdrawal) for participation in the pilot intervention for the HSE-TFI Programme and to take part in the research study. Participants who completed the evaluation were entered into a draw for a €100 shopping voucher.

Evaluation approach

The Centre for Disease Control and Prevention Framework for Program Evaluation in Public Health, a user-focused approach in line with WHO recommendations on health promotion evaluation, guided the approach[24]. Evidence was gathered using mixed-methods, so conclusions could draw on the combined strengths of qualitative and quantitative data[25]. An explanatory sequential design was chosen: quantitative methods were used first, followed by qualitative methods to explain quantitative results in more depth.

Data collection and analysis

All participants were invited to complete an online questionnaire before and one week after the end of the program; it collected information on demographics, smoking behavior, Fagerström Nicotine Dependence Score[26], Smoking Abstinence Self-Efficacy Score[27], Contemplation Ladder[28], and Motivation to Stop Smoking Scale[29]. The post-program questionnaire also included questions on participant experience and engagement, net-promoter score (how likely a participant is to recommend the program to someone else)[30] and self-reported seven-day point prevalence abstinence, a common measure for short-term follow-up of stop smoking interventions[31]. In line with the Russell Standards, smoking abstinence was measured on an intention-to-treat basis for all those who accepted the invitation to join a Facebook group[32]. Measures of each participant's daily activity within the Facebook group (comments on and 'likes' of posts in the group; and number of views of the videos posted by the facilitator) were also collected and were used to assign individual and group activity categories. Given small numbers, binomial exact 95% confidence intervals were derived for the proportion achieving smoking abstinence and Fisher's exact tests were performed to detect significant differences between groups. Data were analyzed in SPSS.

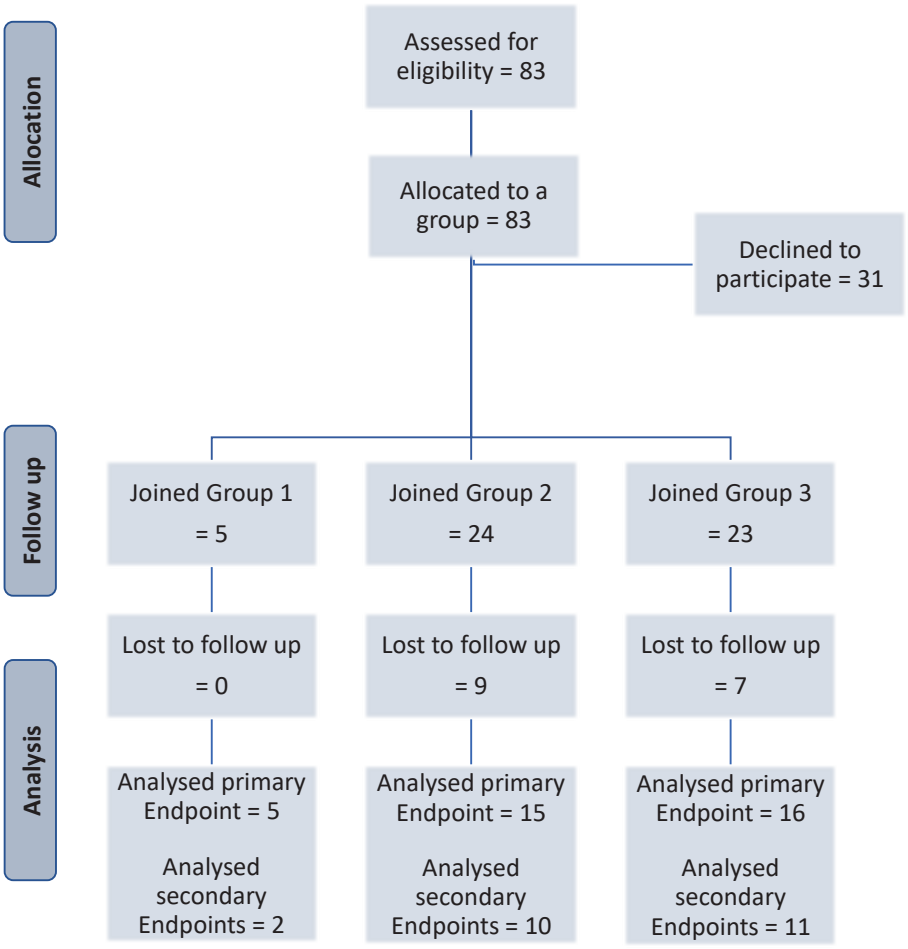
Qualitative data were collected and analyzed in line with good practices[33]. One-to-one phone interviews were conducted one to two weeks after a participant completed the program and the interviewer (LH) used a topic guide flexibly in discussions. Purposive sampling of the study participants as described above was used to maximize interviewee variation in terms of sex, quit status at the end of the intervention and level of activity in the Facebook group. Interviews were performed until saturation was reached and no new themes arose in the interviews. All interviews were transcribed verbatim. Thematic analysis was chosen to explore participant program experience. This is a method for identifying, analyzing, organizing, describing, and reporting themes found within a data set that is argued to be well suited for communication between quantitative and qualitative analysis, as intended in this mixed-methods study. An inductive approach was taken to identify themes and the traditional manual 'cut and paste method' was used[34]. After data familiarization, an initial set of data codes was generated by the primary researcher (LH). A second experienced qualitative researcher (EM) checked a sample of three transcripts and independently coded these for reliability. Codes were reviewed and discussed. Both researchers generated similar codes from the data and agreed on the over-arching themes arising from the sample. The primary researcher continued to systematically code all transcripts. A dictionary of codes for each theme was compiled, along with the frequency with which they appeared in the data. Charting was performed to demonstrate the relationships between the data. Consolidated criteria for reporting qualitative research (COREQ) were used by the authors to design, execute and ensure trustworthiness of the qualitative component of this mixed-methods study[35].

RESULTS

Participant overview

There were 83 people who responded to the

Figure 1. Overview of study participants



recruitment campaign and all were invited to join a Facebook group, with 52 participants ultimately joining a group (Figure 1). Attrition was high with 23 people (44.2%) completing the post-program survey. A further 13 were contacted by telephone so self-reported seven-day point prevalence smoking absence was available for a total of 36 participants. Sixteen participants could not be traced and were counted as smokers.

As shown in Table 1, most participants were female (45; 86.5%), aged 35–54 years (34; 65.4%), and many had completed third level education (21; 40.4%); and nearly half had dependent children at home (24; 46.2%). Almost all had previous quit attempts (50; 96.2%) but only 16 (30.8%) had previously used a cessation aid. At baseline, most participants were moderately nicotine dependent (25; 48.1%) and in the preparation phase of the 'Stages of Change' (37; 71.2%). The mean Smoking Abstinence Self-Efficacy score was 14.4, suggesting the group was not very confident in their ability to quit smoking. Despite low self-efficacy, the group reported high levels of determination, and 28 (53.8%) were extremely determined to quit based on their answers to the Smoking Abstinence Self-Efficacy questionnaire.

Due to the small numbers in Group One (n=5) and for comparative analysis purposes, Groups One and Two were combined and categorized as 'less active' groups (total likes/comments/posts in the groups, 294); Group Three was categorized as a 'more active group' (total likes/comments/posts in the group, 1013).

Participant engagement and activity

Figure 2 shows participant activity trends over the 12-week program. Overall, participant engagement and activity declined over the 12-week program, with

Table 1. Summary of baseline characteristics of participants within the mixed methods study, Ireland (N=52)

Personal and smoking characteristics	Categories	n	%
Gender	Male	7	13.5
	Female	45	86.5
Age (years)	18–34	7	13.5
	35–54	34	65.4
	≥55	11	21.2
Education level	Tertiary	21	40.4
	Secondary	28	53.8
	Primary	3	5.8
Employment	Full-time	27	51.9
	Part-time	11	21.2
	Caring	8	15.4
	Retired	2	3.8
	Unable to work	2	3.8
	Student	1	1.9
	Unemployed	1	1.9
Children aged <18 years at home	Yes	24	46.2
Previous quit attempt	Yes	50	96.2
Previous use of smoking cessation aids	Yes	16	30.8
Current cigarettes per day	≤10	8	15.4
	11–20	28	53.8
	21–30	13	25.0
	≥31	3	5.8
Fagerström nicotine dependence score	Low	6	11.5
	Low to moderate	9	17.3
	Moderate	25	48.1
	High	12	23.1
Determination to quit	Extremely determined	28	53.8
	Very determined	18	34.6
	Quite determined	6	11.5
Smoking abstinence self-efficacy score	Mean	14.4	
	Range	5–24	

Refer to methods for justification and supporting references. Determination to quit was measured by the Motivation to Stop Smoking scale[27].

50 (96.1%, 95% CI: 86.8–99.5%) versus 10 (19.2%, 95% CI 9.6–32.5) members making at least one 'like' or comment at week one versus 12, respectively. As outlined above, Groups One and Two combined were less active (total likes/comments/posts, 294) than Group Three (total likes/comments/posts, 1013).

Program impact and outcome

At program end, 13 participants (25.0%, 95% CI: 14.0–39.0) reported 7-day point prevalence abstinence. Use of cessation aids, participation in a more active group and above average individual activity were not associated with participant outcome (Fisher's exact tests, $p>0.05$). For those who completed the program and reported continued smoking, while Fagerström Nicotine Dependence Scores decreased, this was not significant. Participants who completed the program reported Smoking Abstinence Self Efficacy scores similar to baseline (mean scores 14.4 versus 14.7, respectively), albeit participants who quit reported a higher mean score compared to participants who continued to smoke (21.2 vs 8.8).

Participant experience

The program net promoter score was 4.4 (range: -100 to +100, with any score above 0 indicating satisfaction). Ten participants (43.5%) reported they would recommend the program to a friend. Compared to participants in less active groups (Group One and Two), a higher proportion of participants in the more active group (Group Three) were identified as promoters (81.8% vs 8.3%: Fisher exact test statistic 0.0006; result significant at $p<0.05$). As shown in Table 2, while many participants reported a positive program experience, compared with the less active groups, a higher proportion in the more active group reported a positive experience.

Thirteen participants were interviewed: 11 females; 8 aged ≤45 years; 6 in a more active group; and 6 reported end of the program smoking abstinence. Three over-arching themes were identified; the importance of social interactions, the perception of health information, and the appeal of online support.

The importance of social interactions was the main discussion topic raised, and peer support was the main reason for joining the group. Having someone to turn to, who was going through the same situation,

Figure 2. Total weekly number of likes, comments and posts over the course of the program, three groups combined.

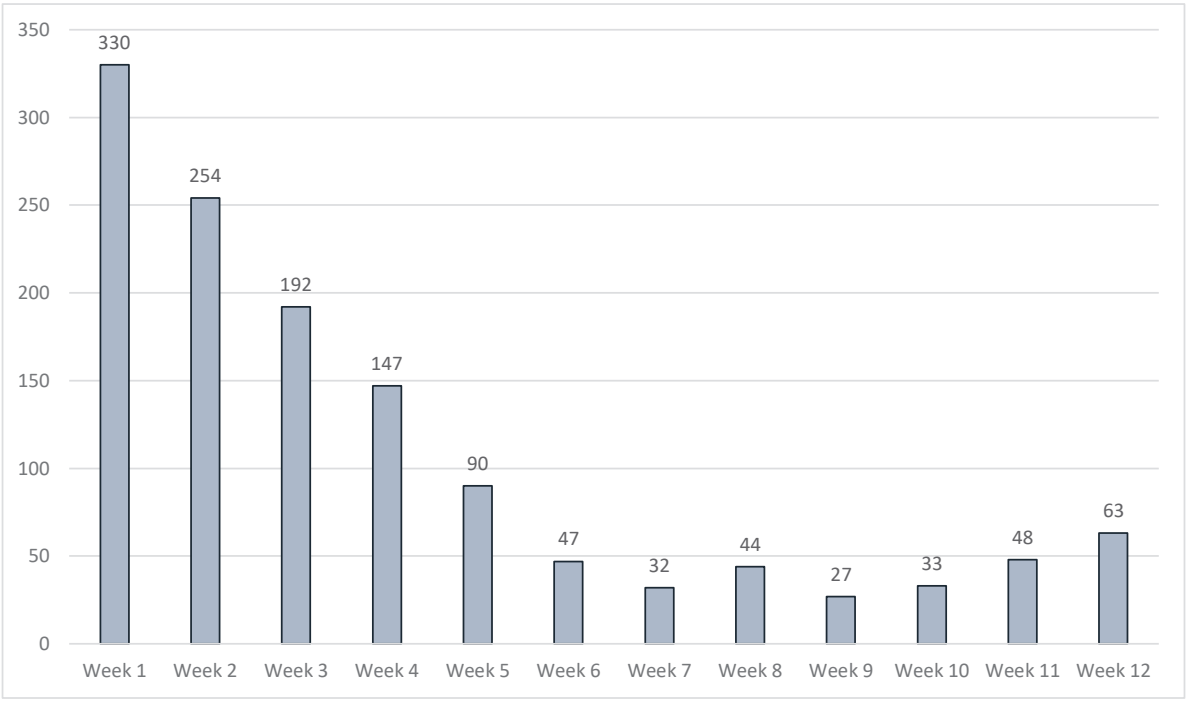


Table 2. Participant feedback, overall and stratified by 'more active' versus 'less active' groups within the mixed method study, Ireland (N=52)

Statement	Whole group (n=23)		More active group (n=11)		Less active group (n=12)		p*
	n	%	n	%	n	%	
The Facebook group helped me to quit or reduce smoking							
Agree	14	60.9	10	90.9	4	33.3	
Disagree	7	30.4	1	9.1	6	50	
Neutral	2	8.7	0	0	2	16.7	<0.05
I learned something from the Facebook group							
Agree	18	78.3	9	81.8	9	75	
Disagree	3	13	0	0	3	25	
Neutral	2	8.7	2	18.2	0	0	NS
I felt like part of a community							
Agree	11	47.8	10	90.9	1	8.3	
Disagree	6	26.1	0	0	6	50	
Neutral	6	26.1	1	9.1	5	41.7	<0.001
There was someone in the Facebook group that I could turn to for advice							
Agree	12	52.2	10	90.9	2	16.8	
Disagree	6	26.1	1	9.1	5	41.6	
Neutral	5	21.7	0	0	5	41.6	<0.001

*Fisher's exact test, comparing 'more active' and 'less active' groups, significant if p<0.05, NS: not significant.

was perceived as important:

'I suppose the option to contact somebody, you know when you need, maybe that's for me a very important thing.' (Female, 35–44 years, smoking, inactive group)

Other group participants were seen as a valuable source of encouragement, advice and inspiration when a quit attempt was going well, but also during a relapse:

'You can cheer people on and see, wow, someone's doing really well, that's brilliant.' (Female, 45–54 years, smoking, active group)

Support was seen as particularly necessary for managing cravings or relapses:

'... if you have a slip, someone is there to say keep going and try again.' (Female, 35–44 years, quit smoking, active group)

Turning to other group members for help was perceived as easier than talking to family and friends. Their support was seen as non-judgmental, understanding, and more objective:

'... if I'm having a bad day I can post and it's not my family, it's strangers, so you feel better doing it because you don't know them personally. But it's not someone giving out to you or saying don't or someone putting you on the guilt trip, you know family or friends that don't like you doing it.' (Female, 45–54 years, smoking, inactive group)

Advice from others in the group was valued, as it was based on lived experience. There was evidence that advice shared between group members was followed:

'I asked, I'm overweight and obviously that's a fear and I put up a post asking, has anyone been putting loads of weight on? Someone actually came on and said, actually I've lost weight! I couldn't believe it! Because she took up walking, running and drunk water for the cravings, and I found that the water was a great help for me for the cravings and someone told me to take up knitting to occupy your mind from food, so I'm on my third scarf.' (Female, 35–44 years, smoking, active)

Three participants mentioned 'the quit journey' and how they found it easier to relate to other smokers and ex-smokers rather than a counsellor:

'I didn't like the pep talk from somebody I didn't know, who's not a smoker themselves.' (Female, 45–54 years, smoking, active group)

Three participants mentioned feeling inspired by others' success, which gave them hope for personal success:

'I think it was harder because I gave them up for so long and went back, I think the group actually helped me get through the hard times because I kept beating myself up about going back and it was nice just to hear people have been off them ten years and someone went back on them.' (Female, 35–44 years, smoking, active)

While those in the active group praised the positive effects of group interactions, those in the inactive groups expressed almost universal disappointment at the lack of group interaction:

'I left the group because I just felt there was no point in me being in it ... I did post and there'd be nothing back ... there was no real support there, apart from the videos, they were good.' (Female, 45–54 years, smoking, inactive group)

'... That Facebook group didn't happen as far as I'm concerned, you know, no-one got engaged with it ...' (Female, 35–44 years, quit smoking, inactive group)

Participants suggested various solutions, including larger groups with more members. Two participants mentioned someone, a 'mole' or a 'stooge', who is a part of the group and would facilitate group discussion:

'I don't know if this is ethical, but I'd nearly put a few stooges in there just to keep the conversation going or generate conversation ...' (Female, 45–54 years, quit smoking, inactive group)

'... You'd nearly like have to have a mole in the group ... to like jizz people along, how's everyone today? But not make them really obvious.' (Female, 35–44 years, quit smoking, inactive group)

There was diverse perception among participants of the health-related information provided during the program. Some participants complained about it and perceived it as 'old knowledge':

'And then there were these random generic videos ... that like anyone who's been smoking for 20 odd years knows everything that's going to be in them videos. I thought as a group we'd support each other, not just generic videos getting sent out, you know.' (Female, 35–44 years, quit smoking, inactive group)

These participants all stated that they joined the group for support, rather than information. In contrast, some participants found the health

information very helpful:

'Because in the past, I tried to just kind of wean myself off them, cut down, or even just quit cold turkey and it never worked. So I guess really the main thing that I got from the group was learning about the replacement therapy definitely.' (Female, 18–24 years, quit smoking, active group)

The majority of participants felt the use of Facebook for smoking cessation was appealing. Ease of use, at a time convenient to you, was repeatedly cited as reasons for choosing online group support over a face-to-face group:

'... whereas if you have it on your phone and you can ask the question at any time, it's quite useful.' (Female, 18–24 years, quit smoking, active group)

The online groups suited those with busy lifestyles:

'I suppose being a full-time mum, full time worker, it was just easy to get into a group that I didn't have to go to, I could commit to it.' (Female, 35–44, quit smoking, active group)

Accessibility was also mentioned as a factor in deciding to use online support:

'To be honest about the clinics, there's not many around for myself because they're very far and I don't drive.' (Female, 35–44 years, smoking, active)

Privacy was also mentioned by four participants as an important factor:

'It's private, no one else can see what you're posting.' (Female, 35–44 years, smoking, active)

One participant even acknowledged how 'strange' this sounded, in light of recent data concerns involving Facebook. However, the private group meant that family and friends of the participants were not necessarily aware of the quit attempt, which for some participants was a relief from the potential pressure and judgement from family and friends. The distance from the other participants and online anonymity made it less intimidating for some participants to share their struggles:

'If you are having an off day, it seems to just write something rather than having to face someone, it's easier.' (Female, 45–54 years, smoking, inactive group)

DISCUSSION

This study demonstrates similar outcomes for conventional services delivered by the HSE-TFIP can be achieved with the 'real-world' delivery of face-to-face group-based behavioral stop smoking support through Facebook. While other studies have reported success in implementing social-media-based stop smoking support under trial conditions[8,9], the 'real-world' delivery of the intervention reported in this study adds support to the value of its adoption as part of stop smoking services. While this was not designed as a definitive effectiveness study, the post-program smoking abstinence outcomes achieved are in line with the range reported in published studies of social-media-based stop smoking interventions, which vary from 5.8%[36] to 40%[37,38]. In Ireland, the one-month post-program abstinence outcomes achieved by other HSE-TFIP delivered services is approximately 50%[23], and while the outcomes for this service was lower, it is better than outcomes estimated for unassisted quitting[13,39], and outcomes reported for control groups in social-media-based stop smoking studies.

Social-media-based stop smoking support could be a low-cost, scalable and useful augmentation to current stop smoking services, especially for people who smoke who would otherwise attempt an unassisted quit. Convenience and personal preference are commonly cited reasons for not accessing effective stop smoking support[5]. Qualitative findings in this study indicate social media can engage people interested in making a quit attempt, with ease of access and convenience being important aspects of its appeal. Participants in this study were aware that the program being offered was group-based and placed a high value on social interaction as a support to stop smoking. The contribution of peer-to-peer, group-based social interaction to effectiveness of stop smoking support is established[21], and is well-grounded in social cognitive theory on health behavior change[40]. A key finding in this study was that social-media-based support which does not offer a high degree of peer-to-peer social interaction is associated with poorer participant experience. Other studies have linked Facebook group inactivity to lower effectiveness in preventing relapse after a successful quit attempt[16,17]. Qualitative data in this study provided powerful corroboration of post-program survey findings and pointed to the perceived importance of social-media-based group peers in providing advice, encouragement, and support. The qualitative

findings are consistent with reviews of social-media-based stop smoking interventions, which highlight the role of participant engagement and interactivity with content in mediating effectiveness[8,9]. However, engagement and interactivity may be necessary, but not sufficient, for achievement of smoking abstinence. The findings regarding the importance of social interaction in this study support and deepen understanding of findings in more recent studies of social-media-based stop smoking support, which specifically identify the importance of the formation of connections and ties between members and the benefit of peer support when managing internal smoking cues, such as bad mood and anxiety[11,12,16]. Sharing, co-creation and exchange of information between peers is a defining feature of social media and this study highlights the importance of designing and managing delivery of stop smoking support through these media in a way which maximizes this feature, to meet expectations of potential users, ensure program retention and support achievement of smoking abstinence.

Unassisted quitting is common. However, to tackle the prevalence of current smoking, there is a need to increase quit attempts made with effective support[41]. There is a high level of interest in social-media-based stop smoking programs, which creates potential to extend the reach of effective services. The delivery of this new service was preceded by intensive, multi-channel communications to engage people who smoke. The service was, however, accessed predominantly by females, those in older age groups, and those with third level education. These characteristics are shared with users of face-to-face stop smoking services in Ireland, and are different from the characteristics of smokers generally, as well as those who report a positive intention to quit in Irish population-based surveys[23]. The findings highlight the need to plan, manage and monitor the reach of social-media-based stop smoking programs to ensure, as far as possible, that these engage new service users who do not find current service offerings attractive and who would otherwise make an unassisted quit.

Strengths and limitations

This utilization-focused evaluation of the piloting of a new stop smoking service development, provided useful local information to determine future planning, as well as offering more generalizable evidence. The mixed methods approach provided richer and more rounded evidence for decision-making, since qualitative data in this study triangulated with quantitative data. The study highlights the value of embedding evaluation into stop smoking service development, especially services using new and innovative methods, like digital health interventions, to ensure that benefits established in trials are delivered in day-to-day practice. Using evaluation to guide digital health implementation is an approach recommended by the WHO[6], and also highlighted recently by the National Institute of Health and Care Excellent (NICE), in its guidelines on using digital and mobile interventions to support behavior change[42].

The evaluation was limited by small numbers, albeit comparable to the scale of many previously reported studies in this area[8,9], and also by attrition, which is common in studies of stop smoking interventions[43]. To account for attrition, in line with good practice, outcomes were reported using the Russell Standards[32]. The decision to stratify some analyses by 'more active' versus 'less active' groups was made *post hoc*, and while this is explained, appropriate statistical tests are applied, and it is well-aligned with the mixed-methods paradigm of the study, these analyses should be interpreted with caution. While only short-term outcomes were measured and were not biochemically verified, the feasibility and value of these additional measures in population-based studies of stop smoking studies is questionable[44]. Furthermore, participant's usual social media use, was not measured. Future studies should include a longer period of follow-up and measurement of participant's social media usage.

CONCLUSIONS

Having demonstrated the utility and impact of the service in the 'real-world', the HSE-TFIP plan to continue closed Facebook group-based stop smoking support services in Ireland. These plans were initially derailed in 2020 owing to the impact of the COVID-19 pandemic on health services and staff redeployment, but this same issue is now requiring prioritization of stop smoking services to better manage population health in the face of this new threat and creating a need

for safer alternatives to face-to-face services. Social media offer potential to augment and strengthen stop smoking service delivery and to ensure more people who smoke benefit from effective support to quit. This study highlights the need to focus social-media-based stop smoking service design and delivery on maximizing participant engagement and peer-to-peer social interaction, to monitor and manage reach, and to ensure implementation is informed and supported with robust and ongoing monitoring and evaluation.

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ACKNOWLEDGEMENTS
We are grateful to Ebow digital agency who supported with the design of the Facebook closed group used to deliver the stop smoking program and who provided data on activity, and to the digital team of the HSE National Communications Department who supported design delivery and evaluation.

CONFLICTS OF INTEREST
The authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest and none was reported.

FUNDING
This research was supported by the HSE Tobacco Free Ireland Programme.

ETHICAL APPROVAL AND INFORMED CONSENT
The study was approved by the Ethics Committee of the Royal College of Physicians in Ireland (Approval Date: 8 November 2018). All participants provided informed consent.

DATA AVAILABILITY
The data supporting this research are available from the authors on reasonable request.

PROVENANCE AND PEER REVIEW
Not commissioned; externally peer reviewed.