

Smok Cessat. Author manuscript; available in PMC 2010 June 22.

Published in final edited form as:

J Smok Cessat. 2008 December; 3(2): 124–132. doi:10.1375/jsc.3.2.124.

Weight Gain After Quitting: Attitudes, Beliefs and Counselling Strategies of Cessation Counsellors

Terry Bush 1 , Michele D. Levine 2 , Susan Zbikowski 1 , Mona Deprey 1 , Vance Rabius 3 , Tim McAfee 1 , and Dawn E. Wiatrek 3

- ¹ Free and Clear, Inc., United States of America
- ² University of Pittsburgh Medical Center, United States of America
- ³ National Cancer Information Center, American Cancer Society, United States of America

Abstract

Postcessation weight gain is common and a frequent cause of relapse. Although interventions to address weight gain and weight gain concerns exist, the experience of telephone cessation counsellors in addressing weight concerns is unknown. We surveyed 134 cessation counsellors providing quitlines for 30 states regarding their experiences and attitudes about how to address weight gain concerns among smokers trying to quit. Counsellors estimated they discuss weight in 40% of their calls, primarily discussing concerns about gaining weight. Counsellors estimated that smokers gain about 4.1 kg after quitting and about 48% gain more than 2.3 kg. Most counsellors believed that exercise, education about weight gain and preparing smokers for weight gain would help people quit, which is consistent with current science. A total of 51% of counsellors believed that dieting while quitting would reduce weight gain and only 35% correctly identified that dieting reduces a smokers' ability to quit. Some counsellors believed they needed more training in weight management and may need to be reassured that they are currently following treatment guidelines when confronted with smokers who have concerns about postcessation weight gain.

Keywords

cessation counsellors; attitudes; weight gain

On average, smokers gain 8 pounds when quitting (Eisenberg & Quinn, 2006; Williamson, Madans, Anda, Kleinman, Giovino, & Byers, 1991) but some may gain as much as 30 pounds (Klesges et al., 1997; O'Hara, Connett, Lee, Nides, Murray, & Wise, 1998).

Several studies have found that behavioural weight control (i.e., focusing on decreasing calories and increasing physical activity) delivered simultaneously with cessation treatment either negatively impacts quit rates, increases relapse and has no effect on weight relative to cessation programs without the weight control adjunct (Copeland, Martin, Geiselman, Rash, & Kendzor, 2006; Hall & Tunstall, 1992) or has no effect on cessation or weight compared with standard treatment (Perkins et al., 2001; Pirie et al., 1992;). Thus, dieting to control weight while quitting is not a good idea. However, adding weight control interventions *after* smokers receive cessation treatment may be more successful. Spring and colleagues offered a weight control intervention that included prepackaged meals along with standard behavioural weight management treatment *after* provision of a smoking cessation program and reported a

significant reduction in post-cessation weight gain without impacting cessation rates (Spring et al., 2004). Others found that weight gain was reduced if cessation was accompanied by adding a structured exercise program to tobacco treatment or by increasing physical activity after cessation (Chaney & Sheriff, 2008; Kawachi, Troisi, & Rotnitzky, 1996; Marcus et al., 1999, 2005; Williams, Lewis, Dunsiger, & Marcus, 2005).

Concern about postcessation weight gain is common among men and women (Clark et al., 2006) and can present an impediment to successful smoking cessation. Individuals worried about post-cessation weight gain are less motivated to quit, less likely to make a quit attempt, less likely to adhere to tobacco treatment and more likely to relapse (Copeland et al., 2006; Jeffery, Hennrikus, Lando, Murray, & Liu, 2000; Meyers et al., 1997). In contrast to attempts to prevent weight gain, counselling smokers to alleviate fears of weight gain with quitting improves cessation rates and may reduce postcessation weight gain among those maintaining abstinence, relative to both a treatment to prevent postcessation weight gain and a standard cessation program (Perkins et al., 2001). Indeed, the clinical practice guideline for treating tobacco use and dependence recommends that providers inform smokers of the potential for weight gain, emphasise the benefits of cessation over any potential harm of weight gain, recommend moderate physical activity and a healthy diet, and urge smokers to avoid dieting while quitting smoking (Fiore et al., 2000; Fiore, Jaen, Baker, et al., 2008). Thus, providing counselling and education to address cessation-related weight gain concerns and encouraging smokers to postpone weight control activities until after quitting tobacco may be an important aspect of successful smoking cessation interventions.

Tobacco Treatment Specialists (i.e., cessation counsellors) play a key role in delivering theoretically based cessation counselling to aid tobacco users in quitting (Hughes, 2007). Although concerns about weight gain are common, there are no data on the counselling strategies cessation counsellors use with smokers who have weight concerns or who have gained weight with quitting. There is also a lack of data on the attitudes and opinions of cessation counsellors about how best to help smokers who are concerned about gaining weight or those who have gained weight after quitting. Telephone-based cessation programs are one of the most effective and cost-effective treatments for tobacco addiction, offering convenient evidence-based cessation treatment (Fiore et al., 2000, 2008). They have proliferated in availability since the 1990s. Each year, approximately 1 to 2% of adult smokers receive tobacco cessation services via state quitlines across the United States (Ossip-Klein & McIntosh, 2003) and many more receive services through their health plans and/or employers. Thus, cessation counsellors who work with quitlines offer assistance to a large proportion of the smokers who seek treatment each year.

However, it is unclear whether cessation counsellors feel adequately prepared to address the needs of smokers with weight gain concerns. Understanding their perceptions about the weight concerns of program participants and their beliefs about postcessation weight gain is important to determine if additional training to support cessation counsellors in working with this population of smokers is needed. Accordingly, we sought to identify themes that emerge during counselling about the weight concerns of tobacco users; valuable information for future program development.

In this study, we sought to:

- Determine the weight-related attitudes and beliefs of tobacco cessation counsellors.
- Describe weight-related issues that may arise during cessation counselling, from the
 perspective of the counsellors.
- Understand how cessation counsellors integrate discussions of weight gain or weight concerns into tobacco treatment.

 Determine the perceived needs of cessation counsellors to support them in their sessions with tobacco users who have weight concerns or have gained weight during treatment.

Study Setting

This study was conducted with cessation counsellors from two tobacco quitline organisations, Free & Clear, Inc. (F&C) and The American Cancer Society (ACS), which together provide for 30 of the United States' quit-lines. Services provided include phone-based behavioural counselling, mailed self-help materials, online/web-based tools and support, and cessation medication health education and/or actual provision of other over-the-counter FDA approved cessation medications (e.g., nicotine replacement therapies).

Study Population

Survey participants comprised 234 cessation counsellors from the two quitline service providers. Cessation counsellors were between 20 and 70 years old (mean age of 34.3), 81.5% were female, 93.7% had a bachelor's degree or greater, 71.4% were White, 7.7% were Black and 13% were Hispanic, all were nonsmokers (never or former). Although the two programs differed in many respects, they shared the following attributes: cessation counsellors receive at least 140 hours of training as well as ongoing call monitoring, feedback and continuing education; cessation counsellors are trained to identify and address individuals' barriers or concerns about quitting tobacco; if tobacco users report they are concerned about weight gain, cessation counsellors are instructed to provide appropriate information tailored to their specific concerns (for example, they may discuss reasons why individuals gain weight with quitting and that with planning, weight gain can be minimised); in the setting of a quitline the counselling given for weight concerns is typically brief and counsellors encourage participants to read through the section in the mailed materials regarding weight gain.

Research Methodology

We designed and implemented a web-based survey to collect information on the attitudes and beliefs of cessation counsellors about postcessation weight gain and participants' fears of gaining weight after quitting. The survey was administered using DatStat IllumeTM software, an enterprise level research tool geared toward designing and implementing social science survey research. The anonymous survey responses from both sites were pooled and stored in a secure survey database. Cessation counsellors were sent an email inviting them to participate in the web survey.

The email informed cessation counsellors that they were not required to participate in the study. The e-mail instructed participants to follow the link that logged them into the survey website and to view and then complete a secure and anonymous electronic waiver of the consent form. Participants had approximately 3 weeks (October 29 to November 16, 2007) to consider the invitation, view the waiver of consent form, and complete the survey. We sent two reminder e-mails 5 and 10 days after the survey was launched. The study was approved by the Western Institutional Review Board on October 15, 2007.

Measures

The web survey contained the following measures developed by the research team and aimed to elicit counsellors' attitudes, beliefs and counselling strategies around weight gain. A copy of the measure is available upon request.

Beliefs about weight gain, weight gain concerns and effectiveness of dieting

We asked cessation counsellors to estimate, out of every 10 calls, how many times the topic of weight, weight gain or fears about gaining weight are discussed. We also asked them to estimate: (1) how much weight the average smoker will gain upon quitting, (2) how many smokers will gain more than 2.3 kg, (3) who they think will be most likely to worry about weight gain, and (4) who is most likely to gain weight with quitting. Other questions asked their opinions about the effects of dieting to control weight while quitting. We asked if they believed: (1) dieting would increase, decrease or have no effect on a person's ability to quit smoking and (2) if dieting would increase, decrease or have no effect on postcessation weight gain.

Counselling strategies

Cessation counsellors responded to questions aimed at understanding what they say to participants with weight concerns, what participants want to discuss and to estimate the amount of time they spend discussing weight issues. We also asked cessation counsellors if they felt they had the training needed to assist smokers with weight concerns.

Demographics

Demographic information was obtained from the Human Resources Departments at the two service provider organisations for the total population of eligible cessation counsellors, and is presented above under Study Population. In addition to this information, the survey asked about the counsellors' personal experiences quitting tobacco and whether they gained weight after quitting.

Qualitative data

We added open-ended questions to capture cessation counsellors' opinions about how to help smokers with weight concerns. These included:

- What do you think would help people quit smoking if they are worried about gaining weight?
- What do you think would help people quit smoking if they have gained weight since joining a tobacco cessation program?
- What would help you feel more prepared to address weight concerns with your participants?

Analysis

Descriptive statistics (means and standard deviations for continuous data and counts and per cent for categorical data) were used to describe cessation counsellors' attitudes, beliefs, knowledge and counselling strategies. The analysis for this article was generated using SAS/STAT® Software 9.1.3 (NC: SAS Institute Inc., 2007).

For the qualitative analyses of the open-ended questions, we used 'Template Analysis' (King, Carroll, Newton, & Dornan, 2002), a qualitative research method for 'thematic coding' of text data whereby coders produce lists of codes to represent themes identified in the interview data. In Template Analysis, thematic categories are predetermined a priori according to the researchers' study goals (e.g., beliefs about weight gain). Categories are usually organised in a hierarchical fashion, with more general overarching categories encompassing more specific categories (King, 1998). Multiple readings and coding of transcripts and modifications to the coding template proceed in iterations. Initial coding templates are modified based on coding the transcripts and comparing revised templates with other coders; new codes are added when

data do not fit conceptually within the predetermined categories. Two authors (TB and MD) coded the interviews, created, compared and modified initial coding templates, recoded several interviews and then compared subsequent templates. Modifications to coding templates involved adding, deleting or merging codes and themes. Differences were resolved by consensus and the mutually agreed upon final template was then applied to all of the interviews.

Results

Among the 234 cessation counsellors invited to participate, 192 (82%) completed the survey. Although all counsellors are current nonsmokers, 43% of the participating counsellors said 'yes' to the question 'have you ever tried to quit smoking?' and of these, 39% said they gained weight when they quit (11% reported gaining more than 10 pounds in a quit attempt). As shown in Table 1, cessation counsellors reported they discuss weight on about 40% of their calls. When discussing weight, 83% estimated spending less than 5 minutes on the topic. Counsellors reported the primary topics participants talk about are fear of gaining weight (99%), help with preventing weight gain (83%) and their desire to lose weight (48%).

Most cessation counsellors (94%) believed that weight concerns were more common among women and among adults aged 31 to 64 (62%) relative to other groups. Similarly, 63% of cessation counsellors thought that women were more likely to gain weight with quitting, while 27% thought men were more likely to gain weight. Cessation counsellors also thought that the average smoker would gain 4.2 kg (range = 1.4–9.1 kg) when quitting and that 48% (4.8 out of every 10 smokers) would gain more than 2.3 kg (not shown in table). Cessation counsellors varied in their opinions about the effects of weight control dieting while quitting. A total of 35% believed that dieting while quitting would reduce a person's ability to quit; 19% thought dieting would improve quit success, 17% thought dieting would have no effect and 27% did not know. Regarding weight gain, 51% believed that dieting would reduce postcessation weight gain and 29% said they did not know.

Approximately 62% of cessation counsellors recalled having received training in ways to help people who have concerns about weight gain or have gained weight. Those who did not recall receiving training on helping those with weight concerns (33%) were asked to describe the training they did receive. Some felt they needed specific training in weight management/weight control as is evidenced by the following quotes from four counsellors.

As far as I can recall, we did not talk about weight management in training.

We just normalise and refer participants to the weight management section in the mailed materials.

Nothing aside from basic information such as average 3.2–4.6 kg weight gain and what to eat and not eat — that information doesn't even help me with my own weight loss!

No official weight management training.

When asked, 'Do you feel you have the training you need to help people with weight concerns?', 43% said 'yes' and 46% said 'no'. The 80 individuals who said 'no' were asked, 'What would help you feel more prepared to address weight concerns with your participants?' Comments from counsellors suggest that they felt that the training they received did not go into enough depth on the topic of weight. Counsellors reported it would help to have: (1) more depth to the training on discussing weight concerns with participants (n = 17 counsellors), (2) weight management training or restricting calories (n = 18) and (3) more facts or tips on preventing weight gain (n = 12). Comments from eight of the counsellors who said they felt unprepared to help people with weight concerns provide additional detail and suggest that in

some cases the counsellors may have misread or misunderstood the question about training needs.

I don't see where it should be a cessation counsellor's responsibility to address weight concerns in any other forum than its relation to smoking.

Let's just let them quit smoking first and then address the weight gain.

I feel that I do help with counselling based on the materials that I have given them but more in-depth training would better prepare me.

I have had little to no training on weight issues.

I don't think I need it for my job.

Lastly, 62% said it would be helpful if routine assessment of weight concerns and weight gain were added to the telephone-based counselling cessation protocols (not shown in table), although others felt it would not be helpful to add this as is apparent by the following comments: 'If it's a concern it will be voiced by the participant'; 'It could raise doubts in people who did not originally face this as a concern. This could stir up ambivalence in people who have already committed to quitting smoking'

Additional Qualitative Data From Open-Ended Questions

We identified important themes from the open-ended questions regarding helpful treatment approaches for people concerned about weight gain, or those who had gained weight since quitting. Common themes included: physical activity, healthy snacks and substitutions, education about weight gain, discussing the benefits of quitting, coping strategies, counsellor training, discussing weight management and self-efficacy for quitting and not gaining weight. All of the cessation counsellors provided comments in response to the open-ended questions. These themes along with representative verbatim comments are shown in Table 2.

Comments suggest that cessation counsellors inform people of the importance of quitting; try to explain the average amount of weight gained; and discuss healthy eating, physical activity and other coping strategies that can help them quit and not gain weight. Some cessation counsellors reported that they work on the person's confidence in quitting and not gaining weight. Cessation counsellors also proposed training components they felt would help prepare them to better serve this population such as training in weight management and more information on metabolism and special populations.

Discussion

Cessation counsellors report that discussions about weight are common during standard telephone-based tobacco cessation counselling and that the topic tends to be raised by the participant during the first counselling call. The majority of discussions (80–90%) were centred on fear of gaining weight and ways to prevent it; about one third of cessation counsellors said they provide weight loss tips. Two-thirds of cessation counsellors believed that the group most likely to gain weight when quitting were women and 75% believed that women were most likely to be worried about weight gain. These responses are consistent with the growing body of research showing that women tend to gain more weight when quitting than men and are more likely to have weight concerns (Borrelli, Spring, Niaura, Hitsman, & Papandonatos, 2001; Perkins et al., 2001; Williamson et al., 1991). Clark et al. (2006), for example, reported that 50% of women and 26% of men were concerned about gaining weight if they were to quit smoking. When asked what they believed would help those who have weight concerns, counsellors suggested healthy eating and exercise plans. This advice is backed by ample scientific research and the treatment guidelines. For example, increased physical activity can

reduce cessation withdrawal-related cravings and negative affect (Daniel, Cropley, & Fife, 2007). Chaney and Sheriff (2008) found that women gain less weight and have higher quit rates if they increase their level of exercise while quitting. Similarly, Williams et al. (2005) showed that women who participated in a moderate intensity exercise program had better quit rates than those who did not increase their exercise. In an observational study of women smokers, those who gained the most weight were those who quit without increasing their physical activity (Kawachi et al., 1996). Moreover, exercise interventions when combined with smoking cessation programs can reduce weight gain after quitting (Marcus et al., 1999). Thus, regardless of cessation counsellors' specific training on weight management and smoking, the advice most are giving is consistent with research.

Whether integrating weight-related topics with tobacco treatment for people trying to quit smoking helps or hinders program participants' success may depend upon the specifics of what cessation counsellors are taught and practice. Evidence from efficacy trials indicates that focusing on losing weight while quitting can undermine quit attempts and have detrimental or no effect on weight (Hall & Tunstall, 1992; Perkins et al., 2001; Pirie et al., 1992). However, helping people dispel their maladaptive thoughts about weight gain and accept a moderate amount of weight with quitting can lead to better success at quitting than simultaneous dieting (Perkins et al., 2001). Given the recent evidence that dieting can have a negative impact on both weight and cessation, it is reassuring that less than 20% of cessation counsellors believed that dieting while quitting would help the person quit smoking and prevent weight gain. This suggests that many counsellors' opinions about dieting align with the scientific evidence. However, nearly one third of counsellors did not know the impact of simultaneous dieting and quitting tobacco. This uncertainty may have contributed to counsellors' perceptions that they need more training to help participants who have weight concerns. Given the prevalence of weight gain and weight gain concerns among smokers, it is important to ensure that cessation counsellors feel that they have the information and skills needed to address smokers' concerns. Information about the knowledge and recommendations they should be imparting to smokers, and which practices they should be discouraging (such as concurrent dieting to control weight), may be helpful to cessation counsellors. Based on the survey and qualitative data, it appears that counsellors are following the treatment guidelines by: (1) presenting information on the average amount of weight gained, (2) discussing healthy snacks and (3) encouraging exercise as a means of preventing cessation-related weight gain.

There are several potential limitations to this study. Data come from cessation counsellors of two large organisations that provide telephone-based cessation services and may not be generalisable to other cessation programs across the US and in other countries. However, these two organisations provide the cessation services for about 60% of State Tobacco Quitline programs. Another potential limitation is that this study only examines knowledge, attitudes and self-reported practices around weight gain and weight concerns and there may be a discrepancy between counsellors' knowledge or attitudes and what they actually do in practice with participants. Future studies to determine actual practice will require more detailed enquiry as to how cessation counsellors respond to specific clinical scenarios. This could be investigated by actual monitoring of intervention session content, providing detailed clinical cases with different counselling options, and use of model participants or surveying quitline participants. The phrasing of some questions is also a limitation. We did not define 'dieting' for the two questions asking counsellors' opinions of the effects of dieting while quitting. Thus, counsellors may have different ideas of the meaning, conceptualising it as calorie restriction, attempting to lose weight, or healthy eating in moderation as recommended by the Public Health Service (PHS) guidelines. The use of 'yes/no' questions (e.g., asking if they felt adequately trained to discuss weight with tobacco users) will not be sensitive to qualifiers counsellors may want to make (i.e., I feel I have what I need so long as we have easy access to the written materials).

Conclusions

Cessation counsellors play a key role in assisting tobacco users with their quit attempts. Weight concerns and actual weight gain are common and may interfere with successful quitting. Disseminating accurate, up-to-date, evidence-based information about quitting smoking for people concerned about weight gain is critical. This study indicates that cessation counsellors' strategies for addressing smokers' concerns about weight gain meet the level of intervention recommended by the PHS guidelines, but that additional information and training about how best to support smokers who have concerns about weight gain would be helpful to counsellors. In particular, cessation counsellors may benefit from receipt of information about the research regarding the negative impact of attempting to lose weight while quitting tobacco and communication to reassure them that the majority of counsellors appear to be following the PHS tobacco treatment guidelines.

Acknowledgments

The authors would like to thank Anne Perez, Jess Martin, Jennifer Cinnamon and the Cessation Counsellors from American Cancer Society and Free & Clear who participated in the web-based survey. The study was funded by Free & Clear, Inc.

References

- Borrelli B, Spring B, Niaura R, Hitsman B, Papandonatos G. Influences of gender and weight gain on short-term relapse to smoking in a cessation trial. Journal of Consulting & Clinical Psychology 2001;69:511–515. [PubMed: 11495180]
- Chaney SE, Sheriff S. Weight gain among women during smoking cessation: Testing the effects of a multifac-eted program. AAOHN Journal 2008;56:99. [PubMed: 18389822]
- Clark MM, Hurt RD, Croghan IT, Patten CA, Novotny P, Sloan JA, et al. The prevalence of weight concerns in a smoking abstinence clinical trial. Addictive Behaviors 2006;31:1144–1152. [PubMed: 16137833]
- Copeland AL, Martin PD, Geiselman PJ, Rash CJ, Kendzor DE. Smoking cessation for weight-concerned women: Group vs. individually tailored, dietary, and weight-control follow-up sessions. Addictive Behaviors 2006;31:115–127. [PubMed: 15925449]
- Daniel JZ, Cropley M, Fife C. Acute exercise effects on smoking withdrawal symptoms and desire to smoke are not related to expectation. Psychopharmacology 2007;195:125–129. [PubMed: 17653531]
- Eisenberg D, Quinn BC. Estimating the effect of smoking cessation on weight gain: An instrumental variable approach. Health Services Research 2006;41:2255–2267. [PubMed: 17116119]
- Fiore, MC.; Bailey, WC.; Cohen, SJ.; Dorfman, SF.; Goldstein, MG.; Gritz, ER. Treating tobacco use and dependence. Clinical practice guideline (Rep. No. AHRQ publication no. 000032). Washington, DC: US Department of Health and Human Services, Public Health Service; 2000.
- Fiore, MC.; Jaen, CR.; Baker, TB., et al. Treating tobacco use and dependence: 2008 Update. Clinical practice guideline. Rockville, MD: US Department of Health and Human Services, Public Health Service; 2008.
- Hall SM, Tunstall CD. Weight gain prevention and smoking cessation: Cautionary findings. American Journal of Public Health 1992;82:799. [PubMed: 1585959]
- Hughes JR. Tobacco treatment specialists: A new profession. Journal of Smoking Cessation 2007;2:2–7.
- Jeffery RW, Hennrikus DJ, Lando HA, Murray DM, Liu JW. Reconciling conflicting findings regarding postcessation weight concerns and success in smoking cessation. Health Psychology 2000;19:242–246. [PubMed: 10868768]
- Kawachi I, Troisi RJ, Rotnitzky AG. Can physical activity minimize weight gain in women after smoking cessation? American Journal of Public Health 1996;86:999. [PubMed: 8669525]
- King, N. Template Analysis. In: Symon, G.; Canell, C., editors. Qualitative methods in organizational research: A practical guide. London: Sage Publications; 1998. p. 118-134.

King N, Carroll C, Newton P, Dornan T. 'You can't cure it so you have to endure it': The experience of adaptation to diabetic renal disease. Qualitative Health Research 2002;12:329–346. [PubMed: 11918099]

- Klesges RC, Winders S, Meyers A, Eck L, Ward K, Hultquist C, et al. How much weight gain occurs following smoking cessation? A comparison of weight gain using both continuous and point prevalence abstinence. Journal of Consulting & Clinical Psychology 1997;65:286–291. [PubMed: 9086692]
- Marcus BH, Lewis BA, Hogan J, King TK, Albrecht AE, Bock B, et al. The efficacy of moderate-intensity exercise as an aid for smoking cessation in women: A randomized controlled trial. Nicotine Tobacco Research 2005;7:871–880. [PubMed: 16298722]
- Marcus BH, Albrecht AE, King TK, Parisi AF, Pinto BM, Roberts M, et al. The efficacy of exercise as an aid for smoking cessation in women: A randomized controlled trial. Archives of Internal Medicine 1999;159:1229–1234. [PubMed: 10371231]
- Meyers AW, Klesges RC, Winders SE, Ward KD, Peterson BA, Eck LH. Are weight concerns predictive of smoking cessation? A prospective analysis. Journal of Consulting & Clinical Psychology 1997;65:448–452. [PubMed: 9170768]
- O'Hara P, Connett JE, Lee WW, Nides M, Murray R, Wise R. Early and late weight gain following smoking cessation in the Lung Health Study. American Journal of Epidemiology 1998;148:821–830. [PubMed: 9801011]
- Ossip-Klein DJ, McIntosh S. Quitlines in North America: Evidence base and applications. The American Journal of the Medical Sciences 2003;326:201–205. [PubMed: 14557735]
- Perkins KA, Marcus M, Levine M, D'Amico D, Miller A, Broge M, et al. Cognitive—behavioral therapy to reduce weight concerns improves smoking cessation outcome in weight-concerned women. Journal of Consulting & Clinical Psychology 2001;69:604—613. [PubMed: 11550727]
- Pirie PL, McBride CM, Hellerstedt W, Jeffery RW, Hatsukami D, Allen S, et al. Smoking cessation in women concerned about weight. American Journal of Public Health 1992;82:1238–1243. [PubMed: 1503165]
- Spring B, Doran N, Pagoto S, Schneider K, Pingitore R, Hedeker D. Randomized controlled trial for behavioral smoking and weight control treatment: Effect of concurrent versus sequential intervention. Journal of Consulting & Clinical Psychology 2004;72:785–796. [PubMed: 15482037]
- Williams DM, Lewis BA, Dunsiger S, Marcus BH. The effect of moderate intensity exercise on smoking cessation. Medicine & Science in Sports & Exercise 2005;37:S175.
- Williamson DF, Madans J, Anda RF, Kleinman JC, Giovino GA, Byers T. Smoking cessation and severity of weight gain in a national cohort. The New England Journal of Medicine 1991;324:739. [PubMed: 1997840]

Table 1

Attitudes, Beliefs and Counselling Styles of Cessation Counsellors About Weight Gain

| Estimated number of calls that weight is discussed out of every 10 calls: | Mean $(SD) = 3.92 (1.8)$; range = $0-8$. |
|--|---|
| Who usually brings up the topic of weight, weight gain or fears about gaining weight? | 5.7% said themselves |
| | 94.3% said participant |
| | 0% said they never discuss |
| When does the topic of weight come up? (check all that apply) | 83.2% at the first counselling call |
| | 53.9% before a quit attempt |
| | 48.9% after quitting |
| | 34.3% during a relapse or when struggling |
| | 7.9% other (e.g., When discussing past attempts, concerns about quitting or the quitting process, if they have noticed any weight gain or fears of it). |
| Specifically around weight concerns, what does the <i>participant</i> talk about? (check all that apply) | 99.4% fear of gaining weight during or after quitting |
| | 60.7% cravings for food |
| | 48.3% desire to lose weight |
| | 83.2% help preventing weight gain |
| | 46.6% wants food substitutes |
| | 13.5% other (e.g., becoming more physically active, being diabetic or over weight already, why they gain weight when they don't feel that they eat any more than usual) |
| Specifically around weight concerns, what do you discuss? (check all that apply) | 89.9% fear of gaining weight during or after quitting |
| | 53.9% cravings for food |
| | 31.5% tips to lose weight |
| | 82.0% tips to prevent weight gain |
| | 67.4% food substitutes |
| Giving your best guess, when discussing weight with a participant, about how much time do you | 3.9% < 1 minute |
| spend on the topic(s) of weight? | 36.0% 1–2 minutes |
| | 43.3% 3–4 minutes |
| | 13.5% 5–6 minutes |
| | 2.4% > 6 minutes |
| Do you think if participants diet while they are trying to quit tobacco, they will: | 35.2% reduce their ability to quit tobacco |
| | 19.3% increase their ability to quit tobacco |
| | 17.1% have no effect on their ability to quit tobacco |
| | 27.3% did not know |
| Do you think if participants diet while they are trying to quit tobacco, they will: | 51.1% reduce weight gain |
| | 10.8% increase weight gain |
| | 7.4% have no effect on weight gain |
| | 29.0% did not know |

Note: Some of the questions ask participants to check all that apply, thus responses will not add up to 100%.

Table 2

Sample Statements From QCs in Response to Open-Ended Questions

| What would help people quit smoking | g if they are worried about gaining weight? |
|---|--|
| Physical activity | Increasing the amount of exercise they get during the day, even if it's just going for a brisk walk. |
| | Adding a 20-minute walk per day would help with upping the metabolism and burning extra calories. |
| Healthy snacks and substitutions | Stocking up with fruits and veggies rather than cookies and chips. |
| | Understanding that they can control weight gain by incorporating healthy substitutes and distractions would be beneficial. |
| | • Food substitutions such as straws, or a water bottle, if one of their issues is the hand-to-mouth issue and not just hunger or cravings. |
| | • I've often recommended cinnamon sticks as a cigarette mime, an urge mitigator, and an appetite suppressant. |
| Education about weight gain | Giving education as to how much people do actually gain would help because often people are thinking they will gain 14 kg, which more often than not, is not the case. |
| | • Education about why people gain weight when they quit, such as: (1) slower metabolism at first for a couple of months but if they don't do anything different it should level out back to normal, (2) missing that hand-to-mouth motion and the use of subs such as straws, water, healthy snacks, (3) education about exchanging eating for smoking for emotional reasons and trouble shooting non eating ways of handling emotions when quitting, (4) assurance that most people gain 2.3–4.6 kg, putting weight gain in perspective of the overall health benefit that comes from quitting. |
| Discussing the benefits of quitting | I think if clients understand that the benefits of quitting are greater than the risk of a few pounds, they are less worried. It would be really helpful if there was an interactive risk calculator to allow one to visualise the change in the risk level (in graph form) if they quit smoking and gain weight. |
| | • The fact that you'd need to be 46 kg overweight to have it do the damage to you that smoking does. |
| Coping strategies or preparing smoker for weight gain | Anticipate that they will probably crave more food and/or sweets and prepare for these cravings with making low cal food choices and having the appropriate subs on hand. |
| | Figuring out coping skills they could use to not only help them deal with cravings, but things they could do to help them maintain their weight, like being more active (exercise, walking, etc.), substituting things that aren't food (toothpicks, straws, etc.), or even suggesting healthy snacks, drinking more H₂O, parking farther away in the parking lot, taking the stairs instead of the elevator, etc. |
| Training | Get some training on weight management coaching? |
| | Holding training for the coaches so that we have a better understanding as well. |
| Discussing weight management | Weight management program, discussing concern with their MD or nutritionist. |
| | Learning what they can do to prevent weight gain, or reassurance of losing the weight after quitting. |
| | Weight coaching, resources and referrals to weight management programs, materials that are very specific around particular ways to help control weight gain and help with weight loss during and after a quit. |
| Self-efficacy in quitting and not gaining weight | I think it would be helpful to reassure them that weight gain is easily reversed compared to irreversible diseases such as emphysema. |
| | Reassurance that weight gain is not inevitable, planning about exercise and healthy eating, encouraging non-food substitutes, providing ideas about how to self-comfort emotionally without turning to food. |
| | • To know that the amount of energy they will gain from quitting will help them lose the weight, and to know that hunger pangs during quitting do not last forever. |

2. What would help people quit smoking if they have gained weight with quitting?

Physical activity

- Getting more exercise if they are not exercising already.
- Adding a 20-minute walk per day would help with upping the metabolism and burning extra calories.
- Referral to low-cost workout facilities.

Healthy snacks and lifestyle

- Focusing on lifestyle change as a whole rather than just focusing on tobacco.
- Developing internal mechanism for coping rather than using any kind of substances to cope.
- Talk about taking small steps consistently for example, walk a bit more and eat a couple hundred fewer calories versus trying to deprive themselves of a healthy diet.

Education about average weight gain

- Education about exchanging eating for smoking for emotional reasons and trouble shooting about non-eating ways of handling emotions when quitting.
- Exploring why they gained the weight (were they exercising, what were they eating, how are
 they viewing food), and the steps they can take in the future to help them combat future weight
 gain.
- Sending out reading material specifically for weight gain and smoking.
- To know that they can always lose the weight they have gained, but that they cannot lose the health deficits that smoking brings. Those are there to stay.

Discussing the benefits of quitting

- Discussing if gaining weight is really that bad and possibly thinking that quitting smoking is more important and that losing weight can come next.
- The knowledge that most people would have to gain 23+ kg in order for it to be comparably as harmful for their body as smoking is.
- Knowing that 20 cig/day puts equivalent strain on the heart muscle as 46 kg of body weight.
- Helping them to either focus on one thing at a time, like quitting smoking and the health benefits
 they'll receive from that, or helping them to figure out a way to incorporate a little of each (i.e.,
 drinking more H₂O, getting active, using non-food substitutes), skills to use to help them get
 through urges and that help keep the weight down.

Training

- I think that further support via written materials and more advanced coach training on weight
 management could help. I also believe, however, that it is important to allow the participant to
 be the party to bring up the issue of weight gain. If this topic became uniform across all
 participants, this might plant the seed of doubt in the mind of someone who has already made
 the decision to quit. In other words, it could point out a potential issue before it's really known
 whether it would, in fact, be an issue.
- Skills to use to help them get through urges and that help keep the weight down.

Discussing weight management

- Talk to someone who is trained, like a weight coach, who will spend time making a specific plan to lose weight.
- Speak to a nutritionist.
- Some counselling on eating habits, which are similar to quit smoking counselling strategies.
- Providing a weight management program or resources that the participant can access.
- Weight coaching, resources and referrals to weight management programs, materials that are very specific around particular ways to help control weight gain and help with weight loss during and after a quit.

Self-efficacy in quitting and not gaining weight

- Identifying then disputing irrational beliefs to come up with a new more rational belief which
 generates more manageable emotions.
- The encouragement that it is normal to gain weight while quitting and a plan to lose some weight through a healthy exercise and nutrition plan.
- Support from other quitters; give hope offer resources, point out that it is ok to maintain current weight instead of reducing until stable with not smoking.
- 3. What would help you feel more prepared to address weight concerns with your participants?
- Providing ideas for milder forms of exercise for participants with limited mobility.
- A more formal training on weight gain, weight management as it applies to quitting smoking.

- Training with a nutritionist.
- Detailed classes on nutrition, metabolic rate and access to weight management program referrals.
- More information on the outcome of dieting while quitting smoking.
- More facts about why it happens and how to help participant circumvent it.
- How to work with special populations like diabetes, disabled, the elderly.