Addressing the ‘costs of quitting’ smoking: a health promotion issue for adolescent girls in Canada

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SUMMARY
While intense efforts have been implemented to address the problem of cigarette smoking, the prevalence of tobacco use among adolescents, in particular young women, remains high. Older adolescent girls are joining their younger counterparts in taking up the smoking habit. The literature has examined the reasons for young people starting to smoke; however, little is known about the smoking cessation process in adolescents. This paper reports findings from an in-depth qualitative study of 25 girls ages 18 and 19 which uncovered the struggles young women experience as they attempt to quit smoking. These struggles and losses are referred to as the ‘costs’ of quitting smoking. The ‘costs’ reflect not only their ‘real’ experiences when attempting to quit smoking, but also reflect ‘anticipated’ struggles and losses. The study addressed the ‘costs’ in relation to the social, emotional and physiological domains of the adolescent girl’s life. Findings from this research project provide theoretical direction for the development of comprehensive health promotion interventions. If health care professionals are to assist in reducing cigarette smoking among young women, the ‘costs’ which girls see to quitting smoking must be considered.

Key words: adolescent; costs of quitting; female; smoking

INTRODUCTION
Smoking in adolescents, particularly teenaged girls, is a growing health concern. Not only is the number of young teen smokers in Canada increasing, but also adolescent women in later teen years are taking up the smoking habit (Health Canada, 1996; Pierce and Gilpin, 1996; Health Canada, 1999). While research has addressed the reasons for starting to smoke, there is little known about the process of smoking cessation in adolescent girls, in particular in late adolescent girls (Health Canada, 1995; Stanton et al., 1995; Spoke et al., 1996). It is recognized that smoking cessation programs for women must address the factors which underlie why women begin and continue to smoke (Moyer, 1999). For smoking cessation strategies to have long-lasting effects, women must discover new ways of replacing the rewards which the smoking habit provides.

The purposes of this paper are to describe the ‘cost of quitting’ smoking as described by older adolescent girls, and discuss strategies which health promoters can use to assist adolescent girls in their smoking cessation efforts. These findings were derived from an in-depth study of the smoking patterns and processes of late adolescent girls (Seguire, 1997). The ‘cost of quitting’ refers to the adolescents’ perceptions of the struggles and losses they encountered or anticipated encountering if they attempted to quit smoking. Insights gained from the ‘costs of quitting’ provide theoretical direction for health promotion interventions.
to enable health practitioners to provide timely and effective assistance for this population.

LITERATURE REVIEW

Over the past number of years, efforts associated with educational initiatives, public information campaigns and legislation strategies have exposed the dangers of tobacco use. These efforts have resulted in a substantial drop in the number of smokers over the past two decades. In 1964, Health and Welfare Canada reported that 50% of adults in Canada were smokers; while in 1996 ~30% of the adult population were smokers (Cunningham, 1996; Health Canada, 1988, 1999). In recent years the decline in the numbers of individuals quitting smoking in Canada is leveling off. Of particular concern is the proportion of adolescents who smoke, specifically young women who appear to be turning to cigarettes in greater numbers (Stanton et al., 1995). The average age of habitual smoking (defined as smoking daily) in adolescent girls is currently 14.5 years. However, it is apparent that some young women are now also starting to smoke later in their teen years (Pierce and Gilpin, 1996). Approximately 90% of regular smokers start before the age of 21 years. Currently, ~27% of males and 31% of young females ages 15–19 are smokers (Health Canada, 1999).

Health issues for young women related to cigarette smoking increase as they move into the child-bearing years. In addition to lung cancer, cervical cancer and respiratory problems; prenatal mortality, SIDS and earlier menopause also become issues for young women who smoke. Because women are generally the primary caregivers for young children, their smoking also has a direct effect on the child through second-hand smoke producing increased risk for allergies, asthma and other respiratory disorders (Peto et al., 1994; Stacy et al., 1994; Makomaski-Illing and Kaiserman, 1995).

In order to deal with health-related concerns, e.g. smoking, the traditional approach to providing health promotion interventions has been constructed within the logical/rationale model (Kuhn, 1970; Leininger, 1995). The underlying assumption of this model is that once people are informed of health-promoting activities, they will embrace this information and alter their behaviors. More recently, theories have addressed health beliefs and attitudes as precursors of behaviors. The health belief model, e.g. attempts to explain and predict health behavior based on a complex interplay of beliefs, values and cues to action (Rosenstock, 1990). Other social theorists, e.g. Bandura have focused on the smokers' perceived positive outcomes of smoking (Bandura, 1977, 1985), e.g. using smoking to cope with daily pressures. The Theory of Reasoned Action (Ajzen and Fisher, 1993) identifies health beliefs, personal factors and social influences as variables affecting smoking behavior (Galvin, 1992; Michell and Amos, 1997).

For some time, the goal of health promotion when dealing with individuals who were practicing unhealthy behaviors was to help move people from a state of chronically unhealthy behavior to stable healthier behavior. However, individuals do not shift their behavior in such a dramatic fashion (Prochaska, 1989). The Transtheoretical Model of Change is an integrative, comprehensive model of change (Prochaska and DiClemente, 1983; Prochaska et al., 1994). It describes five stages of change adult smokers move through as they achieve smoking cessation. However, recent evidence suggests the stages of change described for adult smokers may not be appropriate for use with adolescent smokers (McDonald et al., 1996).

Theoretical models describing adolescent female smoking behavior reflect a variety of complex forces influencing smoking practices, e.g. culture, environment forces (knowledge, values, media, attitude), personal forces (gender, disposition, self-efficacy), social forces (peers, parents, social bonding, social learning, intra-personal) (Glendenning et al., 1994; Best et al., 1995; Maher and Rickwood, 1997), and motivational forces (purposeful, goal oriented, functional) (Jessor, 1991; Michell and Amos, 1997). These factors all need consideration in health promotion efforts.

Smoking cessation programs developed from social and behavioral models, however, have failed to achieve long-term smoking cessation for adolescents (Jessor, 1991; McDonald, 1999). Clearly, there are other factors influencing why girls begin to smoke, continue to smoke and resist quitting smoking (Dino et al., 1998). A significant factor influencing girls' failure to achieve smoking cessation is lack of attention to the benefit that smoking has for individuals. Assistance in quitting smoking for adolescents must address the purposive and functional nature of their smoking behavior (Jessor, 1991). Health education models which accept the individuality and
variation of adolescents, allowing for an evolving development of insight, personal beliefs and motivation, will meet with greater success (Lynch, 1995; Stanton et al., 1995; Dino et al., 1998; Stein et al., 1998).

Symbolic Interactionist Theory (Blumer, 1969; Chenitz and Swanson, 1986) provides a powerful basis for integrating these factors and understanding smoking behavior. According to this theory, individuals act on the basis of the meanings things (i.e. smoking) have for them. These meanings arise out of social interaction with others, and these meanings are dealt with and modified as a result of a process of assessment used by the individual. Thus, understanding the struggles and losses which young women fear as they consider quitting smoking from their own perspectives will assist in developing cessation strategies with the potential of greater measure of success. Symbolic Interactionism provided the theoretical basis for this study.

THE STUDY

Background

This paper is based on the findings from a study which explored the smoking patterns and processes of late adolescent females (Seguire, 1997). A qualitative ethnographic approach was used to uncover the meaning of smoking in the girls’ lives. Data were collected using a semi-structured interview guide specifically designed for the study. Interview questions addressed the topics of their smoking patterns and processes. In addition, participants completed a short questionnaire documenting their smoking history and those of their family members and friends. Twenty-five young women ages 18 and 19 from a cross-section of socio-economic backgrounds participated in the study. Participants were recruited from six high schools in three school divisions in a western Canadian city. Inclusion criteria included: girls 18 and 19 years of age, currently attending high school full or part time, currently smoking or recently quit (i.e. within the past 6 months). Participants were chosen through purposive sampling to include current and former smokers, some of whom had begun smoking in junior high school (ages 12–14), and others who began smoking after entering high school (ages 15–18). The first author carried out all interviews; both authors analyzed the data. All interviews were tape-recorded, fully transcribed, and analyzed using content analysis techniques (Strauss and Corbin, 1990). Analysis proceeded through the stages of open coding in the margins of the transcripts, category building, category saturation and searching for deviant cases. Data collection and analysis continued until all categories were saturated (Strauss, 1987). Rigor was established using the guidelines of Lincoln and Guba (Lincoln and Guba, 1985).

This approach included assessing the study’s trustworthiness including credibility, auditability, fittingness and confirmability (Glasser and Strauss, 1967; Lincoln and Guba, 1985; Sandelowski, 1986; Strauss, 1987).

FINDINGS: THE ‘COST OF QUITTING’

The analysis revealed four major categories. These were described as the adolescents’ ‘start story’, ‘smoking story’, ‘quit story’ and ‘looking to the future’. The start story described intrapersonal and interpersonal factors occurring in the life of the adolescents as they discovered cigarette smoking. The smoking story documented the adolescent’s progression to a regular smoking pattern. In the quit story, girls recounted their attempts to stop smoking. The final category reflected the hopes and fears of the young women regarding their plans about cigarette smoking in the future. In this paper we present the perceptions of the ‘cost of quitting’ smoking uncovered in the above major categories.

The ‘cost of quitting’ emerged as an underlying theme through many of the girls’ stories. All of the girls knew the hazards of smoking for their present and future health. Many were experiencing the physical effects of their smoking, e.g. shortness of breath, skin changes and voice changes. All of them had attempted to quit smoking at some point in their lives. Some were successful for a few hours; others remained smoke free for several months. Two had been smoke free for 6 months at the time of the interviews. All the participants had experienced or anticipated the ‘costs’ associated with quitting. The ‘costs of quitting’ smoking were the overriding factors which influenced their decision to attempt or not attempt to quit.

The findings related to the ‘cost of quitting’ have been organized in this paper using domains described by Greaves (Greaves, 1995). These domains include the social domain, the
emotional domain and the physiological domain. The social domain reflects interactions and relationships with others. The emotional domain addresses factors, e.g. coping, while the physiological domain pertains to body changes and sensations. Utilizing the domains provides an integrating perspective on the major impacts of tobacco use. Although these domains were helpful in presenting the analysis, there was some overlap in the impacts of quitting smoking when the findings were categorized into the three domains. Quotes from the data have been assembled in Boxes 1, 3 and 5 to provide the reader with examples in support of the analysis.

The ‘cost of quitting’: the social domain

The adolescents in this study expressed the need to fit into a social group and to be accepted by their peers. Having a social connection was critical for them. Smoking became a vehicle to enter and subsequently belong to a group, therefore allowing them to gain peer acceptance and a sense of identity. For young women who felt socially insecure, a cigarette was the ticket to opening a conversation, creating common ground, and establishing a ‘persona’, i.e. a smoker. The preferred identity included being seen as ‘cool’, sophisticated, mature, or even just a ‘smoker’. Young women used smoking as a means to achieve their desired identity. To give up the smoking behavior meant losing a desired image (see participants comments about the social domain in Box 1).

Also, smoking was used in a purposeful manner as a means to build bonds with others through engaging in a common activity. When feeling insecure in new environments or social situations, cigarettes provided an immediate connection with another individual or a group. This bonding action could be with strangers as well as with friends. If the young women quit smoking, they perceived that they would lose an effective bonding vehicle. The girls all had primary friends who smoked, thus quitting smoking created a potential major cost of jeopardizing their social relationships.

In addition, communication skills were often poorly developed in the adolescents, therefore, the action of asking for a cigarette created an opening line in a new group of peers at school or in a social situation. Without the ‘crutch’ of smoking, many adolescent girls reported that the communication required in the action of approaching peers would be an impossible task.

Finally, the cost of quitting smoking in relation to the social domain was evident in the struggle adolescent girls experienced in dealing with their environment. Smoking was seen as a normal, and sometimes, as an expected behavior in their homes, in their social environments and even at school on the ‘smoking pad’. Adolescent girls did not see an easy means of escaping these environments; therefore they chose not to make the effort to work towards smoking cessation because it was ‘just too hard’. The ‘cost of quitting’ was too great.

The ‘cost of quitting’: the emotional domain

In addition to social pressures, adolescents were also experiencing emotional pressure in their daily lives. Smoking was viewed as a vehicle to deal with emotional pressures by facilitating relaxation and stress reduction, therefore making it an attractive behavior to engage in. The cigarette was seen as a comfort measure and as a means to handle difficult times in their lives.

Some of the girls were looking for mechanisms to gain a sense of control in their lives. Areas of

<table>
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<th>Box 1</th>
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<td><strong>Participants’ comments: social domain</strong></td>
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<td>All the popular girls smoked, I wanted to be accepted by them.</td>
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<tr>
<td>I felt cool, older. If you didn’t smoke, you weren’t cool.</td>
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<tr>
<td>One of the biggest reasons people smoke is to fit in.</td>
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<td>It (smoking) starts a conversation, even if you don’t know the person.</td>
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<td>It’s a great way to meet people, if you see someone you like, you can ask him for a cigarette.</td>
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<tr>
<td>You have something in common right away.</td>
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<td>Non-smokers never understand it, but there is a bond with other people who smoke.</td>
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<td>I would have to move out of my house, because everybody smokes.</td>
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<tr>
<td>It’s hard when you quit to go to the bar because everyone is lighting up.</td>
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concern requiring a feeling of control included: relationships with parents and peers; school environment; their emotional lives and their social situations. Because smoking was viewed as providing a quick, reliable method for a young woman to gain control in her life, the notion of smoking cessation was not readily embraced. Also, in difficult times, a quick ‘fix’ with a cigarette would take away uncomfortable feelings which girls did not want to deal with or to experience. They did not have coping skills which could assist them through the tough times. Instead, cigarettes were the comfort measure used to eliminate feelings of anger, sadness, boredom or tension (see participants’ comments, Box 3).

If smoking cessation was to be considered, significant self-motivation was necessary in order to deal with the loss of the cigarette as a mechanism for perceived emotional well-being. That is, they would have to have the self-determination to quit smoking before any other type of assistance would be of benefit. Young women who had successfully quit smoking indicated that self-motivation (an internal desire to quit) had been present in order to achieve smoking cessation and to remain smoke free. Girls who had participated in smoking cessation programs suggested that ongoing support following completion of the program would have assisted them to have a greater chance of remaining smoke free.

The final element of the ‘cost of quitting’ in the emotional domain was the difficulty teens faced in dealing with the self-recrimination and regret regarding their smoking behavior. Maturity resulted in candid reflection that smoking was creating more of a problem than they ever imagined that it could. In spite of the pleasurable, calming experience cigarettes provided, undesirable physical symptoms, e.g. shortness of breath, skin changes, loss of stamina and addiction were emerging. Also, financial costs were a constant factor. In spite of the impact smoking was having on their lives, many young women did not have the desire, the emotional support or the coping skills to handle the emotional ‘costs’ of quitting smoking.

**The ‘cost of quitting’: the physiological domain**

The final domain in the ‘cost of quitting’ smoking was the physiological domain. The body became

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**Box 2**

‘Cost of quitting’: social domain

- Loss of identity.
- Elimination of bonding vehicle.
- Loss of common activity.
- Loss of communication crutch.
- Loss of friends and social relationships.
- Limitation of social activities (parties, bars, coffee shops).
- Struggle of dealing with smoking environments (home, school, social).

**Box 3**

Participants’ comments: emotional domain

I think for me it was a way of having control over my life, cause at home I had no control. They said it would relax me (referring to trying a cigarette).

If I’m under a lot of stress that day, I’ll smoke a lot more.

If you are feeling sad you have a cigarette, it is almost like a companion, a buddy, a friend.

A soon as I start to get upset about something, I need a cigarette.

I think basically it (quitting) has to do with me. I think I’m going to have to be the one on my own.

It’s like AA, having someone there to help you, to call.

You don’t know what you are doing, what you’re getting into, then 3 or 4 years later you realize it’s too late.
Box 4
‘Cost of quitting’: emotional domain
Loss of perceived mechanism for control.
Loss of comfort measure.
Struggle to develop self-motivation.
Facing regrets of beginning to smoke.
Self-recrimination.
Loss of pleasurable effects.
Need to create new coping skills.

Box 5
Participants’ comments: physiological domain
I wake up in the morning and I can’t breathe. I’ve smoked a lot the night before, I can tell.
You wake up in the morning, you cough. I know that my lung capacity is not as good as it used to be.
I used to love track and field, I can’t run anymore. I’d be on the ground because I can’t breathe.
It’s like my whole throat is being cut off, I used to love singing, my voice is shot because of it (smoking).
You realize too late that there isn’t control. It is a power struggle.
I love the feel, the smoke going down my throat, aah!
I keep thinking I wouldn’t mind quitting, but the first thing that comes to mind is what happens when I’m on the beach and I’m sitting there without one.
After 8 h, I know I’ll need one, it will be like being really thirsty. You feel like you are going to die without it.

accustomed to regular nicotine dosages. The adolescents used powerful metaphors to describe the hold which nicotine had over their lives, indicating a sense of being powerless and a loss of free will to quit smoking. Real as well as anticipated withdrawal effects further challenged the quit process. Although they were only 18 and 19 years old, young women saw themselves trapped in an addictive habit (see participants’ comments, Box 5).

Coming to terms with progressive shortness of breath, skin changes, voice changes and lack of physical stamina was a difficult process for the teenage girls who generally saw themselves as untouched by health problems. However, there was an eventual realization that their smoking behavior was actually causing bodily changes. Once this realization occurred, and a decision was made to quit smoking, girls then had to face the fact that their bodies had become accustomed to regular dosages of nicotine. Fear regarding what may occur when regular doses of nicotine were not available became a major emotional concern.

Thus, a major ‘cost of quitting’ smoking was the need to face the imagined and real effects of nicotine withdrawal. Cravings occurred within a few hours of stopping smoking. Heightened sensitivity, edginess and agitation were all symptoms which emerged as the cessation process progressed. Many teens found the imagined and real experience of these symptoms too high a price to pay, and therefore were not successful in the quit process. Also, adolescents had not been prepared with strategies for dealing with withdrawal effects (e.g. nicotine replacement therapy), nor was there the necessary emotional support to assist them through the cessation process and to remain smoke free.

For many young women, the buzz/highs and pleasurable effects from cigarette smoking were too important to give up. They reported liking these sensations, and were not eager to imagine life without the pleasurable highs. The challenge then became how to replace these experiences with something else once smoking cessation was attempted. Once again, most of the teens found
this aspect of quitting a powerful ‘cost of quitting’ smoking.

**DISCUSSION AND IMPLICATION FOR HEALTH PROMOTION PRACTITIONERS**

The findings from this study support previous empirical findings of adolescents and smoking behavior, e.g. the need for connection with peers and maintenance of an image, the desire for social bonding, and concern for mood control (Winkelstein, 1992; Best *et al*., 1995; Health Canada, 1996; Michell and Amos, 1997). The authors recognize that the study has limitations related to the small sample size. It was not possible to identify potential differences in smoking patterns and processes based on variation in socio-economic status, smoking history, cultural history, etc., however, despite the limitations the findings may provide direction to assist health promotion practitioners in their work in assisting adolescent girls to quit smoking. What was evident was the sense of loss, i.e. the ‘cost’ smoking cessation would bring to some young women. Perceived ‘costs of quitting’ smoking included loss of identity, friends and connection to other people. A mechanism for bonding to others would be gone, as well as the loss of a comfort measure, and a method for coping. A further ‘cost’ is the struggle of dealing with physiological effects of withdrawal. All of these factors provide powerful reasons for the adolescents to continue smoking. Thus, in addition to the usual information provided by health professionals to increase awareness of health risks of smoking, addictive responses and withdrawal effects; an understanding of the losses and struggles should be added to any interventions to assist adolescents to prepare for smoking cessation.

With the passage of time, adolescents acquire the cognitive and emotional maturity to reflect on their behavior within the context of their lives. Smoking cessation interventions need to address this emphasis on holism. Skill development in isolation will likely not be enough to sustain smoking cessation without consideration of the needs that smoking is fulfilling.

It is important to assist adolescents to carefully assess their readiness for quitting prior to any quit attempts (Moyer, 1999). This would include an assessment of stressors they are currently experiencing and resources for support during the quitting process. If the timing is not right to attempt smoking cessation after all factors are considered, a decision is likely appropriate to postpone quitting efforts, or perhaps to attempt to cut down on the numbers of cigarettes smoked. Proceeding in a planned, appropriate manner will increase the teen’s understanding of the quit process, as well as increase the likelihood of successful cessation at a later date (Dino *et al*., 1998).

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**Box 6**

‘Cost of quitting’: physiological domain

- Facing physiological changes.
- Fears regarding anticipated withdrawal effects.
- Struggle with actual withdrawal effects (e.g. mood changes, cravings).
- Loss of nicotine ‘buzz/highs’.

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**Box 7**

**Strategies to assist adolescents in their smoking cessation efforts**

- Help the adolescent assess her readiness for quitting.
- Include a discussion of ‘costs of quitting’.
- Reflect on her personal costs entailed if she attempts to quit smoking.
- Reflect on effect of unsuccessful attempts to quit smoking.
- Skill development prior to implementing any smoking cessation strategies (social skills and communication skills).
It is evident that young women have an awareness of factors which are impacting on their continuing to smoke, on consideration of quitting smoking, and on cessation efforts. What is not clear is the level of understanding they may have about the notions of loss and ‘cost’. Placing their fears in a context of loss not only allows for general discussion about the ‘costs of quitting’, but also provides a framework to reflect on the individual girls’ personal ‘costs’ which she has, or will experience, if smoking cessation is attempted.

Adolescents may need assistance in understanding the process of quitting with help to view unsuccessful attempts as part of the usual process of quitting smoking. They may need to be encouraged to review their unsuccessful attempts in terms of readiness, stressors, motivation, need for ongoing support and other factors.

To be successful in helping young women become smoke free, the ‘costs of quitting’ smoking need to be integrated into any smoking cessation efforts with adolescents. Consideration of the ‘costs of quitting’ need to be added to theoretical frameworks which underpin health promotion programs to enhance the likelihood of offering individualized, significant quit smoking programming to young women. In addition to interventions directed at individuals, public health policies aimed at the broader community, e.g. restricted sales to minors, smoke-free environments, plain packaging, etc. need to be in place. Clearly, a multi-faceted approach is required to assist young women in being smoke free.

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