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Title: Additive and subtractive resilience strategies as enablers of biographical reinvention: a qualitative study of ex-smokers and never-smokers

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Additive and subtractive resilience strategies as enablers of biographical reinvention: a qualitative study of ex-smokers and never-smokers

Abstract

The notion of developing resilience is becoming increasingly important as a way of responding to the social determinants of poor health, particularly in disadvantaged groups. It is hypothesized that resilient individuals and communities are able to „bounce back“ from the adversities they face. This paper explores the processes involved in building resilience as an outcome in relation to both quitting smoking and never smoking. The study involved 93 qualitative, oral-history interviews with participants from population groups with high and enduring smoking rates in Adelaide, Australia, and was essentially interested in how some people in these groups managed to quit or never start smoking in the face of adversities, in comparison to a group of smokers. Our key findings relate to what we call *additive* and *subtractive* resilience strategies, which focus on the practices, roles and activities that individuals either „took on“ or „left behind“ in order to quit smoking or remain abstinent. The theoretical lenses we use to understand these resilience strategies relate to biographical reinforcement and biographical reinvention, which situate the resilience strategies in a broader „project of the self“, often in relation to attempting to develop „healthy bodies“ and „healthy biographies“.

Introduction

Resilience is regarded as a key factor in public health, with policy, practice and research focusing on ways to build individual and community levels of resilience, with the expectation of this leading to better health outcomes (Deveson, 2003). In Australia, the National Preventative Health Taskforce has the task of developing strategies aimed at preventing the major chronic illnesses and it recognises that this can only be achieved by focusing policy and practice on the Social Determinants of Health (SDH), particularly in the area of tobacco control and efforts to decrease the prevalence of tobacco smoking and increase smoking cessation (National Preventative Health Taskforce, 2008). Indeed, one of the key recommendations of the National Preventative Health Taskforce is to reduce smoking rates in the most vulnerable groups, which was the key driver of the study on which this paper is based.

While some of the SDH are structural, requiring large-scale and long-term national and global policy shifts, others are more amenable to shorter-term and more localised efforts. Since

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4 resilience has been linked to the SDH (Commission on Social Determinants of Health, 2008),
5 there needs to be a focus on attempts to increase community and individual resilience within the
6 population, in order to act as a buffer against various forms of adversity and ultimately to
7 change the existing adverse circumstances. This paper draws on ideas about *resilience* as its
8 conceptual base, the ability to *bounce back* from extreme difficulty and disadvantage, “an ability
9 to confront adversity and still find hope and meaning in life” (Deveson 2003, p.6).
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16 The main aim of the study was to understand why some people in population groups with high
17 smoking rates manage to quit (or not start smoking), even in circumstances of adversity and
18 personal or structural difficulties that would otherwise predispose them to become smokers.
19 Chapman and MacKenzie (2010) argue that a neglected area of research in smoking cessation
20 is around the “habits, attitudes, routines and environments of people who succeed where many
21 others fail” (p.5). This provides a further rationale for our study which examined groups who
22 had never smoked and those who had successfully quit, comparing them with a group of
23 smokers. We interviewed people representing groups with relatively high smoking rates (people
24 with a diagnosed mental illness, young people and Indigenous Australians (hereafter referred to
25 as Aboriginal)) in relation to the general population, since people from these groups who abstain
26 from smoking may exhibit *resilience*. The underlying assumption was that people with more
27 developed levels of resilience would be more likely to quit or never start smoking. We are not
28 arguing that stopping smoking equates to resilience, but rather that people who develop and
29 exhibit resilience (through a variety of life strategies) are also able to quit smoking (as a result of
30 their resilience) along with a number of other positive life changes. In this way, we need to
31 understand resilience first, in order to have a positive impact on smoking rates in population
32 groups that have not seen reductions to the same extent as the general population. From a
33 policy-driven research perspective, we were interested in drivers of resilience which could be
34 amenable to policy action and therefore be used to promote smoking cessation and prevention
35 through increasing personal and community resilience.
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51 *The concept of resilience*

52 There has been growing interest in resilience from a range of disciplines including psychology
53 (Harvey & Delfabbro, 2004), social policy (Ungar, 2004), and public health (M. Bartley, 2006; M
54 Bartley, Schoon, Mitchell, & Blane, 2006; Canvin, Marttila, Burstrom, & Whitehead, 2009; Lawn,
55 Hersh, Ward, Tsourtos, Muller, Winefield et al., 2011; Mitchell & Backett-Milburn, 2006; Muller,
56 Ward, Winefield, Tsourtos, & Lawn, 2009; Tsourtos, Ward, Muller, Lawn, Winefield, Hersh et al.,
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2011). Most research on resilience has focused on particular groups who have experienced particular trauma, for example during childhood (Castro, Garfinkle, Naranjo, Rollins, Brook, & Brook, 2007; Ireland, Weisbart, Dubowitz, Rowe, & Stein, 2010; Tercyak, Donze, Prahlad, Mosher, & Shad, 2006) and adolescence (Ali, Dwyer, Vanner, & Lopez, 2010; Brown, 2001; Velleman, Templeton, & Copello, 2005). However, while extremely important, this work has limited applicability for understanding resilience (and developing appropriate policy responses) across wider communities.

The concept of resilience has been developed into a theoretical framework known as the *resilience construct* (Luthar, Cicchetti, & Becker, 2000; Ungar, 2004) which examines the reasons why many individuals, regardless of the negative factors in their lives, are somehow able to draw upon a range of resources which assist them to deal with negative experiences and situations or „bounce back“ from adversity (McMurray, Connolly, Preston-Shoot, & Wigley, 2008). Ungar (2004) suggested that discussions about resilience should not only take into account the internal psychological traits or properties of the individual but also a whole range of external social factors, including gender, ethnicity, and socioeconomic status. He also argued for an approach that does not merely define resilience but seeks to understand meanings that individuals bring to their lives around resilience by listening to them tell their own stories. This underpins the methodological approach in this paper.

Contemporary research on resilience is focused on an „assets model“ approach which explores factors leading to wellbeing and salutogenesis (Fleischer, Weber, Gruber, Arambula, Mascarenhas, Frasure et al., 2006) as opposed to illness and deficiencies. This approach also seeks to examine the underlying social and psychological processes and practices by which resilience may be achieved. One of the major outcomes of developing resilience is the development of „human capabilities“ (Sen, 1999) which are seen as vital for developing freedom and thus „health“ in a broad, holistic sense.

A systematic search and critical review of the various literatures on resilience revealed a division within the literature adopting either psychological or sociological definitions of resilience, instead of recognising the potential benefits of integrating both. In response to this issue, we have proposed the following broad definition of resilience (Ward, Tsourtos, Hersh, Muller, Winefield, & Lawn, 2010): *“resilience is the interaction between the internal properties of the individual, and the set of external conditions, that allow individual adaptation, or resistance, to*

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4 *different forms of adversity at different points in the life course*" (p.10). Using this definition, a
5 person is not necessarily born with resilience and it does not necessarily remain stable or static
6 through one's life. Resilience can be built (or eroded) in a fairly unpredictable way, and may in
7 fact be a „storehouse" of tools and strategies that a person builds up, through facing difficulties,
8 which may be useful in some, but not all, future situations. This builds on Sen's notions of
9 „human capabilities" because it attempts to understand how we can best provide the necessary
10 resources in order to promote individual capabilities for resilience.
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17 The literature, however, has less to say about *how* resilience is expressed at different points
18 through life, how it changes, and even how the internal (psychological) or external
19 (social/environmental) forms of resilience interact or influence each other. Indeed, we have
20 developed a conceptual model of resilience (see Figure 1) which synthesises all of the
21 aforementioned literatures and takes into account the internal attributes and the external
22 resources required to develop and maintain resilience. The model also recognises the inter-
23 relationships between these internal and external resources, and builds in the fluidity or
24 flexibility of resilience over time (i.e. the idea of the life-course). This paper will present data to
25 elucidate this model further, especially the links between the internal traits and external
26 resources which are seen to be largely invisible in most research on resilience (Ungar, 2004).
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36 Figure 1 about here
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39 **Resilience and smoking**

40 Academic literature on the relationship between smoking and resilience is sparse, since much of
41 the literature on resilience has focused either on childhood development (in responses to
42 hardships, abuse, etc.) or responses to trauma in adulthood. Nevertheless, there are studies on
43 smoking and resilience that have identified the family, peer and personal factors which act as
44 moderators of smoking, particularly in adolescents (Arpawong, Sun, Chang, Gallaher, Pang,
45 Guo et al., 2010; Stanton, Lowe, & Silva, 1995). In addition, there is a broader literature around
46 vulnerabilities, especially in relation to adolescence, which also addresses the risk and
47 protective factors (in a similar way to our model of resilience in Figure 1) for health risk
48 behaviours (e.g. drug use, sexual behaviours, violence), although not specifically smoking
49 behaviours (Blum, McNeely, & Nonnemaker, 2002; Millstein & Halpern-Felsher, 2002;
50 Nightingale & Fischhoff, 2002).
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4 There is some significant work which has been completed on social disadvantage and smoking.
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6 First, there is a strong association between socioeconomic status (SES) and smoking. The
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8 evidence suggests that people in lower SES groups, or people who live in disadvantaged
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10 communities are more likely to start smoking, more likely to continue smoking, and less likely to
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12 quit. Indeed, the importance of social structures and the social environment on smoking and
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14 resilience can be seen in the following quote by Bartley et al (2006): "...there are no differences
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16 in knowledge about health hazards of diet and smoking between the more advantaged social
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18 groups and those less advantaged groups whose members are more likely to engage in health
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20 risk behaviour. If anything, the evidence is that those who smoke, for example, are even more
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22 aware of the risks than those who do not...It is clear that some forms of social environment
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24 increase the freedom of individuals to follow the health behaviours that they regard as most
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26 desirable, and other forms reduce this freedom" (p.7). Therefore, growing up in materially
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28 deprived neighbourhoods may increase the need for resilience in the face of increased
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30 adversity, but the likely assets and capabilities of people in those neighbourhoods to develop
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32 resilience may be reduced (Bancroft, Wiltshire, Parry, & Amos, 2003; Harman, Graham,
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34 Francis, & Inskip, 2006; Mitchell & Backett-Milburn, 2006; Siahpush, Borland, Taylor, Singh,
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36 Ansari, & Serraglio, 2006; Stead, MacAskill, MacKintosh, Reece, & Eadie, 2001).

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38 Rather than taking a victim blaming approach, many studies point to the social, economic and
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40 political environments within which people live, as the main drivers for inequitable smoking
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42 patterns (Bancroft et al., 2003; Lawlor, Frankel, Shaw, Ebrahim, & Smith, 2003; Stead et al.,
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44 2001). Indeed, a study in Melbourne (Siahpush et al., 2006) found that smoking was related to
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46 higher levels of perceived income inequality, lower levels of perceived well-being and living in a
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48 community with a lower degree of trust. The authors conclude that smoking prevalence is lower
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50 in more egalitarian communities with higher levels of social capital. Other studies have stressed
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52 the importance of local social networks, including membership of religious groups (Nonnemaker,
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54 McNeely, & Blum, 2006), in providing peer support and alternative opportunities (Stanton et al.,
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56 1995). All such studies stress the need to understand the interaction between individuals and
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58 their life-worlds in order to develop more useful and meaningful smoking cessation programs.
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62 In sum, our literature review highlights the importance of conceptualising resilience as a process
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64 which occurs over time, which involves an amalgam of both internal traits and external
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66 resources. Our review also highlights the lack of research around smoking and resilience which
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68 we regard as vital for the development of future public health programs aimed at promoting both

the internal traits and external resources required for successful and sustainable smoking cessation. Thus the aim of this research was to find out why some people were able to quit smoking, or never even take it up, when the evidence suggests that their social and health circumstances would have set them on a smoking career.

Methodology, methods and analysis

In terms of relevant methodological approaches to understanding smoking and resilience, Bartley (2006) stated that research is required *“to understand more about the factors that protect the health and wellbeing of people who continue to live in poverty or disadvantaged areas, enabling them to survive the experience”* (p.15). Therefore our research took a qualitative, inductive approach since we were interested in the world-views of the participants and were keen to limit our preconceptions of either the relative importance of resilience or the factors that lead to either quitting smoking or the factors that helped people not to start smoking. In terms of method, we used oral-history interviews, which allowed for explorations and discussions of relevant experiences and perceptions of history, biography and smoking, in addition to creating an atmosphere conducive to an open and uninhibited flow of conversation (Silverman, 2002). The interviews were therefore considered to be a social encounter in which knowledge was constructed and not simply an occasion for information gathering. In this way, we were open to the idea that resilience may not have been a useful concept to understand smoking-related behaviours within these particular groups.

As an important component of the study, it was considered essential to understand the meanings that people gave to their own abilities to cope and, if appropriate, be resilient to stressful situations and adverse life experiences. The use of such a biographical approach to understanding the motivations to quit smoking has been reinforced by a recent paper (Custers & Aarts, 2010) which argues that *“This affective-motivation process relies on associations between the representations of outcomes and positive reward signals that are shaped by one's history”* (p.49). Custers and Aarts (2010) argue that although motivations around behaviour (in this paper, relating to quitting or not starting smoking) involve subliminal or unconscious processes, people *“may become conscious of their motivation after the behaviour is performed and when they are explicitly asked to reflect on it”* (p.48). Therefore, the process of the oral histories allowed the space for participants to reflect on their past experiences throughout their lives in order to allow them and us to interpret the factors influencing their motivations and behaviours.

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4 The researchers promoted the project, and recruited potential participants using existing
5 workforce email list servers in large employers in Adelaide, prior professional contacts, flyers
6 and letters. Strategic targeting of specific sites was conducted for distribution of flyers and other
7 promotional materials, such as: health services; client-focused community health
8 groups/programs; medical centres (GPs); social programs and support services for target
9 groups relevant to this project (i.e., youth, mental illness, Aboriginal people); and other places
10 frequented by the target groups. As the criterion for the Mental Illness stream was clinical
11 diagnosis of Depression, it was important to have support from a number of General
12 Practitioners to identify and successfully recruit potential participants. In addition, links were
13 established with a range of Mental Health practitioners and services, allowing for a varied
14 spread of participants. Recruitment for the Youth stream was broadened to include flyers and
15 posters in a range of organisations. Using existing professional contacts and knowledge of local
16 Aboriginal communities, the Aboriginal Research Officer was able to recruit participants
17 successfully to the project. In addition, Aboriginal Health Workers and community members
18 were very responsive to the subject matter within the research project, as well as the narrative
19 approach to data collection, and willingly became involved. In addition to collecting data via oral
20 history interviews, the Aboriginal Research Officer also attended a number of Aboriginal groups
21 and programs in the Adelaide region to explain the project and to gather input from key
22 members of local Aboriginal communities.
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38 Altogether, 93 adults were interviewed: 31 from each of the population groups (people with
39 mental illness, young people and Aboriginal people). People with mental illness were defined by
40 having a medical diagnosis of depression (sometimes with other co-occurring forms of mental
41 illness such as schizophrenia); young people were defined as being between the ages of 15 and
42 29; and Aboriginal people were self-defined. Within each group, there was an almost equal
43 division between smokers, ex-smokers and never-smokers. We mainly focus on the ex-
44 smokers (n=31) and never smokers (n=30), although we make reference to the differences in
45 resilience between these two groups and the smokers (n=32). The ex-smokers (or quitters)
46 were defined as previously smoking but having quit for at least 12 months prior to this study.
47 The „never smokers“ were self-defined as such, although a single incident of smoking, for
48 example, as an adolescent, was allowed. Ethics clearance was granted for the conduct of this
49 study by the Social and Behavioural Research Ethics Committee at Flinders University (Project
50 Number 4103).
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4 While we did not specifically ask about diagnoses of mental illness in the Youth or Indigenous
5 participants, during the course of the interviews, 3 Indigenous participants and 6 Youth
6 participants talked specifically about feelings of depression and/or taking anti-depressants. We
7 recognize that this does not constitute a medical diagnosis of mental illness, but nevertheless it
8 reveals that our categories of participants were not necessarily closed boundaries.
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14 The interview schedule followed a traditional oral history trajectory, by dividing the interview into
15 „early childhood“, „teenage years“, „early adulthood“, and „mature adulthood“. These life-stages
16 were used since they are seen as distinct periods of biographical change and were thus
17 important life-stages within which to understand factors which inhibited, facilitated or diminished
18 resilience over time. This is a crucial point – our proposed model of resilience (Muller et al.,
19 2009) regards resilience as something which is built or diminished over time, and it was
20 therefore important to situate participants' current resilience and smoking status within their life
21 histories. Within each life-stage, participants were asked to talk about the smoking behaviours
22 of themselves and others around them, in addition to age-appropriate factors deemed important
23 to them (e.g. education, upbringing and relationships with their families during childhood; job
24 situation, housing conditions, peer-relationships during early adulthood). In particular, the
25 interviews allowed participants to provide a biographical account of „where they are now“ in
26 terms of their smoking status, with particular focus on the perceived factors throughout their
27 lives which enabled them to develop a level of resilience which has either enabled them to quit
28 smoking or never start smoking.
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41 Interviews generally lasted one hour and were undertaken at a venue convenient to the
42 participant. The interviews were all audio-recorded and transcribed verbatim. Preliminary
43 analysis, with recording of field notes, was carried out soon after each interview in order to
44 inform the development of subsequent interviews. All participants in each stream had been
45 interviewed by March 2009. All transcripts were checked for accuracy by a member of the
46 research team, by listening to the audio whilst reading the transcript. The analytical framework
47 involved open coding, and then grouping conceptual labels under common themes which were
48 modified to accommodate negative or deviant findings. This meant that sections of text which
49 referred to a particular issue or theme were copied into electronic boxes or *nodes*, for example,
50 *positive outlook*, *situations where smoking increases* or *transition to adulthood*. Some of these
51 nodes stood alone (free nodes) while others were hierarchical (or in a tree node structure), for
52 example, the *external resilience node* including sub-nodes about *employment*, *education*, *family*
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4 or *friends*. Through the analytic process, and the building up of numerous free and tree nodes, it
5 became clearer which themes were common across the populations or across the groups of
6 smokers, ex-smokers and non-smokers, which issues related to others, and what patterns could
7 be seen across the data.
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12 This paper draws primarily on themes related to the strategies that participants employed
13 (consciously or not) in order to quit smoking or never start, which we have called „additive
14 resilience strategies” and „subtractive resilience strategies”.
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19 Results

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21 Many of the interviews included examples of coping with and responding to enormous
22 challenges including abusive relationships, domestic violence and death of loved ones,
23 discrimination, dislocation, illness and periods in psychiatric hospitals. The use of smoking as a
24 stress relief was raised frequently by participants from all three groups – smoking was clearly a
25 form of coping (or problem avoidance), particularly for people with mental illness. As such, the
26 act of smoking increased people’s perceived ability to deal with adversity (although not
27 necessarily to be „resilient”), at least, in the short term. For example, two current smokers talked
28 about the ways in which smoking helped them „cope” with adversities, one with the management
29 of her depression, and one with the management of an abusive relationship:
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36 *“I gave up last year for 4 months. I tackled it. Managed to do it for 4 months. But at the*
37 *end of the 4 months I ended up in hospital with depression and all of a sudden it was just*
38 *overwhelming and for two days I had this barrage of thoughts of somehow rescuing*
39 *myself from this depression was to start smoking. And that barraged me for 2 days and it*
40 *was over the weekend so my lack of support, and yes I went for a packet” (F, 45, Mental*
41 *illness group, smoker)*
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44 *“When my husband started returning, I started smoking again secretly ‘cause he hated it.*
45 *He flipping hated it and he knew after a while, and then he would get so angry at me for*
46 *doing it, and the more angry he was, the more abusive he was, the more I smoked” (F,*
47 *40, Mental illness group, smoker)*
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50 For the participants who had never smoked, the main *resilience* strategies were through
51 supportive family and friends over their life-course (which helped them to develop resilience), a
52 strong sense of self (which allowed them to resist peer pressure), reasonably strong community
53 ties (which often meant increased interpersonal interactions and engagement), being more
54 willing to seek help from others and more willing to be help givers (often as a result of their
55 community ties), and a variety of other strategies such as exercise, reading/learning, general
56 „busy-ness”. Those „never smokers” who grew up in a smoking household also talked about
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negative experiences of smoking during their childhood, which helped them to abstain. Frequent mentions were made to the „bad smells“ in the house or car, some talked about the impact of parental smoking on their asthma and in a few cases, to the links between smoking, alcohol and abuse within families. The negative experiences created enduring memories (participants were often vivid in the recollection of such childhood memories) which serve as reminders of why they want to remain abstinent from smoking. All of these resilience-promoting factors were far more prevalent in this group than in the smokers who were interviewed as part of the study, leading us to the interpretation that they helped in the process of abstaining from smoking. These internal and external support systems meant that participants in high prevalence smoking groups were able to refrain from smoking.

Additive and subtractive resilience strategies

For the participants who had managed to quit smoking (and were still non-smokers), there were a number of strategies they had employed in order to quit. We have classified these as *additive resilience strategies* and *subtractive resilience strategies*. The additive strategies included: taking on new activities (e.g. exercise, fitness), taking on new roles (e.g. within community groups, help-giving, peer-support etc), and taking on new practices (e.g. organised religion, spirituality, faith-based organizations, peer mentoring, local advocacy groups). The subtractive strategies included quitting or „leaving behind“ certain activities or practices regarded as reinforcing their smoking behaviours by participants (e.g. drinking alcohol, being in certain jobs or even towns), moving away from relationships or friendship groups (if this was seen as having an unhealthy effect on the participant), and in some cases, quitting everything and „moving on“ with their lives. The additive and subtractive strategies often led to, or were part of a „life change“, which we classify as „biographical reinvention“. By this we refer to both the process and outcome of „reinventing“ the self and identity through the additive and subtractive resilience strategies (in response to biographically reinforcing factors which are „subtracted“). This is akin to Giddens' notion of the „project of the self“ (Giddens, 1990, 1991) which refers to the ways in which individuals constantly reflect on the self and „work on it“, much like sculptors work on their clay. The difference is that the project of the self is never ending.

In contrast to the quotes above from smokers, a number of the ex-smokers equated quitting or avoidance of cigarettes with their battle to overcome adversity. For these people, being resilient involved a conscious and ongoing process of preserving and promoting health and seeking healthier life options. In order to maintain this outlook and foster their resilience, ex-smokers

(especially those with a mental illness) often talked about smoking as something which represented or symbolised failure or defeat in their battles with adversities. For example:

“...I was going through really bad depression, so I was in and out of hospital a lot over the next few years. I kept going in. You know, there were a lot of down times and I’d go in for a couple of weeks, get myself well, come out again, you know. But as I said, I think I got too much time to dwell on the past and I keep going back. You know, I go back to my past and my unhappy life, you know? And I’ve got to try and stop doing that. You know, I’ve got to try and change my thoughts. That’s why I go to scrapbooking and different things. I keep my mind busy and to be with nice people. You know, you’re around nice ladies and they don’t smoke, so I don’t smoke” (F, 60, Mental illness group, ex-smoker)

The resilience strategies that people used to achieve a sense of wellbeing were either *additive*, actively taking on activities or a new positive outlook on life, or were *subtractive*, deliberately giving up something that had been done before or removing oneself from places or situations where one would have been before. These strategies were very powerful in terms of their perceived effect on helping people to quit or not start smoking, particularly in combination. In the quote above, the participant was able to cut down on smoking when she was busy scrapbooking or surrounding herself with “nice people”. This point is obviously similar to the frequent finding that smoking is related to boredom. Resilience was not simply being strong emotionally or being motivated to counter adversity, but was an active process of doing positive things, being in new places and being with people who provided support or a positive model. This quote also reveals the interplay between internal and external resilience, since the participant had to deal with negative feelings and unhappiness at the time and in the past (internal attributes) and boredom (lack of external supports). The participant then found a support system of people who did not smoke (which reinforced her new smoking identity – a non-smoker) which kept her “mind busy” and changed her thoughts.

During the interviews, participants did not provide a linear pathway on which their lives moved – it was not always easy to disentangle the internal and external factors in terms of which came first, or in terms of the level and nature of the interaction between them. Indeed, this may be an impossible task, and it may be sufficient to describe the factors that changed, in order for them to quit smoking and some of the interactions between the internal and external factors, while recognizing that there may be many other interactions that we (and maybe the participants) are not aware of. This point is worthy of more detailed methodological and epistemological examination.

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4 Some people used *additive resilience strategies* to give up smoking while others found that it
5 was through quitting smoking that they were able to achieve goals and adopt different pursuits.
6 From this perspective, smoking cessation was a strategy to allow space for other healthier
7 options (although this was not always the case – some people replaced smoking with alcohol or
8 other drugs, although these people were in the minority). For example:

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12 *I'm really loving learning things and like actually just [at University], and now that I don't*
13 *smoke cannabis much anymore which is something that I did for many years essentially*
14 *the same time I smoked tobacco for now I'm getting like my short term memory back and*
15 *I can actually do it I'm actually like the sponge.... so I can soak up more knowledge so*
16 *yeah goals, just I want to do well at Uni really like absorb as much as I can and, yeah,*
17 *just family based goals, still the man of the house but it is worth noting for me that I don't*
18 *think those goals would have been as easily realized, the ones that I've already*
19 *achieved, without stopping smoking. (M, 21, youth group, ex-smoker)*
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23 *I actually, purposely started reading comics, and joke books, and stuff like that and I*
24 *tried to better myself by reading new words in the dictionary. And I also really got into my*
25 *studies, and concentrated on that. (F, 35, mental illness, never-smoker)*
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28 The interesting conceptual and methodological issue here relates to the „chicken and egg“
29 quandary – is it the case that people develop resilience which then enables them to quit
30 smoking, or does the process of quitting smoking help to develop resilience? Participants in this
31 study provided evidence for both scenarios, indeed the quote above about life at University
32 shows that quitting smoking led to a whole range of positive outcomes which increased his
33 resilience.
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39 It was very common for people to talk about physical exercise as an *additive resilience strategy*.
40 They also mentioned creative activities, music, writing, poetry, art or a course of study. Some
41 found that becoming involved in religious or spiritual activities to be important. Also fundamental
42 was having supportive relationships, actively seeking good friendships and avoiding negative
43 relationships. For all of our participants who had quit smoking, it was the case that the additive
44 resilience strategies involved an inter-weaving of internal traits (e.g. developing self-confidence,
45 happiness, goal setting etc) and external resources (e.g. supportive relationships, peer
46 mentoring roles) in a synergistic relationship, with one feeding off the other. This almost seems
47 like a microcosm of Giddens" (1991) notion of the duality of structure, whereby they become
48 inseparable on their own, but can only be seen in relation to one another.
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58 In a number of cases, often related to a critical incident, participants described a decision to
59 make a major life change, taking on new people, activities and life goals, and rejecting old ones,
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4 sometimes over time and sometimes all in one hit – what we have termed *biographical*
5 *reinvention*. This is what one participant described as a “clearing out”, “a real process of
6 transformation”. Another participant was able to turn her life around through the support of a
7 new relationship and was interviewed at a time of transition from 90 cigarettes a day to none.
8 She said “*I’ve let go of the anchor [smoking], and thrown away the crutches. I don’t need them*
9 *anymore. I’ve got a husband. I’m happy! For the first time in my entire life, and I mean my entire*
10 *life! For the first time, I’m in control!*” Examples like this often coincided with the decision to quit
11 smoking, for example:
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18 *...when I actually did successfully give up, it was you know break up of a 20 year*
19 *relationship, all around that kind of time so I really did throw myself through the ringer on*
20 *it but managed to come through not smoking through that period which I thought was*
21 *pretty good... in many ways as well, at the time, I sort of thought oh shit, you know, this*
22 *is not a good time to give up smoking. I realize it probably was a good time because it*
23 *was a clearing out... it was an opportunity for me to make changes in my life as well*
24 *whether or not I’d intended them to happen... at that time when I gave up smoking, I was*
25 *really aware that I didn’t want to put on weight and stuff like that, and so I really*
26 *concentrated on fitness and what I was eating and completely chopped and changed*
27 *things around including I stopped seeing particular friends that had just had too strong*
28 *an association with smoking and they wouldn’t give me the emotional space... so I just*
29 *had to not see them for a year or so. (F, 55, mental illness group, ex-smoker)*
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33 This participant took on a number of new health-promoting activities in order to mitigate against
34 the difficulties she envisaged with quitting smoking, such as changing her diet and increasing
35 her fitness. In our interpretation, these would be regarded as *additive resilience strategies*.
36 However, she also “chopped and changed” a number of other parts of her life, including not
37 seeing particular friends who smoked and whom she felt would not give her the “emotional
38 space” she required to remain a non-smoker. In our interpretation, these would be regarded as
39 *subtractive resilience strategies*. It is interesting that she also does not necessarily attribute
40 these additive or subtractive strategies to conscious action (“whether or not I’d intended them to
41 happen”). Whether this was a case of modesty or *post hoc* rationalization cannot be
42 ascertained, but it does raise the question of whether such resilience strategies can be simply
43 translated and applied by policy makers and program planners in order to increase smoking
44 cessation.
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54 Some people talked about internal resilience strategies, personality traits or characteristics that
55 they felt helped them handle adversity. Many interviewees stressed the importance of having a
56 positive outlook on life or being with others who were positive. They described a close
57 relationship between internal and external resilience in that mood and motivation were
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4 interwoven with activity, levels of support and being linked to networks of people with a positive
5 influence. Another unsurprisingly strong relationship was between physical and mental
6 wellbeing in that those who were physically healthy tended to be more positive about life and
7 more resilient to stressful life events. Physical illness had psychological consequences, an issue
8 which has obvious implications for smoking cessation. An Aboriginal participant talked at length
9 about the various possible reasons why she was able to refrain from smoking, even though
10 many of her family and friends smoked:
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16 *I'll be sitting around all these forums and you know we're talking about Indigenous*
17 *smoking. I think like why is it that I didn't smoke? 'Cause I did grow up with a smoker, a*
18 *drinker, a depressive, you know all the problems he [father] had... and I didn't have a life*
19 *that was smooth sailing but... maybe I'm just one of those persons who doesn't dwell on*
20 *it. I don't think I let it get me down whereas I think a lot of people kind of take up things*
21 *'cause you know when you're feeling down or you're in a moment of weakness or you're*
22 *vulnerable yeah you're susceptible to things maybe. Maybe I just got a resilience that*
23 *you don't realise you have in yourself, you know? Or just the will power. Also, I don't*
24 *ever feel pressured to be like other people. I think maybe that's what it is... I just don't*
25 *want to be one of those people who sits around and goes 'oh this happened to me' or*
26 *'this happened to me and that's why my life's so screwed up', like I don't want that for my*
27 *kids. I want them to see that shit happens 'cause that's life and sometimes you're going*
28 *to get dealt a really bad hand but you actually just keep climbing over just keep*
29 *ploughing on cause you know, that's all you can do, can't let it drag you down. You can*
30 *have moments of weakness and that's it. (F, 32, Aboriginal group, never-smoker)*
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34 This participant revealed obvious signs of resilience and appeared to try and explain her non-
35 smoking in terms of *will power* and lack of self-pity, with a clear sense of her own biography ("*I*
36 *don't ever feel pressured to be like other people*"). But she also demonstrated that her decision
37 not to smoke was related to resisting peer pressure and to thinking beyond herself ("*I don't want*
38 *that for my kids... can't let it drag you down*"). She wanted to present them with a model of
39 strength and being a never-smoker was a powerful sign of that position. While some participants
40 found it hard to articulate exactly why they had resisted smoking or quit, they were often able to
41 locate the decision, whether sudden or evolving, to aspects of their biography. We suggest that
42 the theoretical frame of resilience strategies and biographical reinvention illustrated in this paper
43 makes it easier to conceptualise and explain people's decisions to smoke or not within the
44 context of their stories. This may have useful practical application as well as enhance the utility
45 of resilience to the issue of smoking.
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56 *Biographical reinvention and reinforcement*

57 In terms of both the process and outcome of resilience for participants in our study, we can
58 understand this by drawing on theories from medical sociology around biographical disruption
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(M Bury, 1982; M. Bury, 1991, 2000), biographical reinforcement (Carricaburu & Pierret, 2004) and biographical reinvention (Gabe, Bury, & Elston, 2004). We also draw on Giddens' ideas about the „project of the self“ (Giddens, 1990) and the idea that the „self“ is a reflexive project which is constantly being worked on in order to present „identity“ as coherent (Giddens, 1991). This emerged as a key finding in our study, since ex-smokers and never-smokers were constantly working to defend their identities as „non-smokers“, which involved the process of biographical reinvention (for ex-smokers) and biographical reinforcement (for never smokers).

The concept of biographical disruption was developed within the context of research on chronic illness to reflect the major life changes in response to the onset and management of chronic illness. A decision to quit smoking would, for many people, be regarded as a major life event, which in Bury's terms would bring about a shift in identity for quitters (from a „smoking“ identity to a „non-smoking“ identity). This change in identity was apparent in the ex-smokers, who talked about feelings of achievement with cessation, having a freedom from thinking about cigarettes all the time and even a decrease in stress because of not having to worry about how much they would have cost. They became increasingly aware of the smell of the smoke and often quite disgusted by what they had done previously. Some missed aspects of cigarettes and were only put off trying an occasional cigarette for fear of becoming hooked again. While a few people found it easy to stop, most had worked hard at it and valued their new status as ex-smokers.

The biographical disruption framework enables analysis of the events and processes leading to people re-constructing their identities and lives after quitting smoking. However, we feel that „disruption“ on its own has mainly negative overtones, and does not account for the potentially positive outcomes of quitting smoking. Therefore, we also use the notion of biographical reinvention to understand the ways in which the „disruption“ leads to shifts in a person's identity – a *reinvented self*. Here, we were interested in both the process and outcome of biographical reinvention, since the process may lead to important policy outcomes (i.e. the „things“ that people did in order to reinvent themselves). Given that this study also involved never-smokers, the concept of biographical reinforcement became potentially useful, since these people did not necessarily have to reinvent themselves, but had to take certain courses of action in order to „reinforce“ their identities as non-smokers, which often involved separating themselves off somehow or actively and effectively seeking out non-smoking peers/mentors who then helped to reinforce and maintain a non-smoking identity.

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4 A very good example of biographical reinvention (in response to a number of biographically
5 reinforcing factors) is highlighted below. This participant took on a new „caring“ outlook in life
6 and gave up a variety of activities which previously reinforced his smoking status. He talks
7 about his life before he gave up smoking and then after he quit smoking:
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11 [pre-cessation] *“I’ve been very isolated. When I did try and make friends . . . through a*
12 *stage when I was pretty heavily mentally ill and an alcoholic like you wouldn’t believe,*
13 *they were never friends anyway. We didn’t . . . I didn’t care about them. Couldn’t care*
14 *less. I started getting into drugs as well, so I kind of tried to escape even more. I had a*
15 *sort of religious experience, which is what changed me, so that’s what I’ve put my hope*
16 *in”.*
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18 [After quitting] *“Once I felt that I’d been forgiven and not worried about that, I opened up*
19 *to greater things than I ever thought I’d ever get in my life. Then I gave up smoking, I*
20 *gave up drinking, I gave up drugs, and I haven’t touched them since . . . At the same*
21 *time, I’d send messages to all my friends that . . . were . . . from school and that, just*
22 *saying sorry sort of thing”.* (M, 35, mental illness group, ex-smoker)
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25 A number of other cases from ex-smokers represent different forms of biographical reinvention,
26 through both additive and subtractive resilience strategies. For example, a male participant
27 “gave everything up” and moved towards „reinventing” himself through extreme fitness,
28 removing all substances from his life, and moving towards a more spiritual life (but not
29 organised religion). He recognised the huge change in his identity that he felt had to occur in
30 order for him to give up smoking, and then remain a non-smoker. Another example was a
31 female participant who experienced a “devastating experience of depression” during earlier
32 parts of her life. She talked about having lots of social support prior to cessation and in the
33 process she moved towards organised religion (both may be regarded as external resilience
34 strategies) and then quit smoking. She talked lucidly about how her move to organized religion
35 and the subsequent social support helped her to reinvent her identity and remain a non-smoker.
36 For a number of participants, it was often important to deliberately surround themselves with
37 like-minded, non-smoking people. A number of people talked about changing their social crowd
38 or no longer seeing particular friends when they quit. Some stopped when they changed jobs
39 and were therefore removed from the influences of smoking workmates. The choices that
40 people made to either smoke or not smoke were closely associated with particular social
41 environments, lifestyles and networks. Finally, the power of being in a cohesive and supportive
42 social situation, for example, through attending quit smoking groups, was reported to be a useful
43 and helpful experience in the reinvented self.
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58 Notions of *biographical reinforcement* were also apparent in the never-smoker group, whereby
59 participants had taken on a new set of activities and relinquished other roles and responsibilities
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4 in order to *remain* a never-smoker. In addition, the ex-smokers, when referring to the
5 subtractive resilience strategies, were implicitly talking about „getting rid“ of practices or
6 relationships that were seen to be reinforcing their smoking status (i.e. subtracting the
7 biographically reinforcing aspects in order to reinvent a new biography).
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12 For the never smokers, „not smoking“ was a process that needed to be worked on in the face of
13 adversity and the high rates of smoking in their communities and social groups. While their
14 *smoking identity* had not changed (they were still never-smokers), participants talked about the
15 ways in which their identities, perspectives and outlooks had changed:
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19 *“I changed to diet coke and took up judo... When I did judo, I started it when I was 24 or*
20 *something like that and started socialising. Extremely social, you know, things like*
21 *barbecues and movies. Quiz nights, restaurants, out and stuff. And I was respected. I*
22 *came as a person who wanted to learn and my reason I told them, was that I never*
23 *wanted to punch anybody ever again. But um, now I’m in a position in my life where I’ve*
24 *got close friends, a home, I pay tax. I haven’t been in hospital now for almost 11 years*
25 *now and it’s all good. So if I’d been a smoker, all those things wouldn’t have happened...*
26 *I’m valued at judo... And college. So life right now is pretty darn close to the life I would*
27 *have liked for myself when I was growing up”.* (M, 42, mental illness group, never
28 smoker)
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32 Another participant who was a never-smoker also talked about the process she went through of
33 maintaining her abstinence from smoking, which we would conceptualise as biographical
34 reinforcement. This participant made a conscious decision to “*move away from my previous*
35 *life*”, to go to University and gain qualifications and to „choose“ her friends, partly on the basis of
36 their smoking status. In this way, she was making active decisions about both the way in which
37 she lived her life and her social networks on the basis of them reinforcing her non-smoking
38 status.
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45 **Discussion and concluding comments**

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47 Our findings highlight the variety of ways in which people in particular population groups
48 manage to quit smoking or never actually start. Given the high prevalence of smoking in these
49 groups, coupled with the poorer social and economic conditions, we conceptualise „not smoking“
50 as resulting from resilience, since these individuals have managed to „buck the trend“. In other
51 words, their social and economic circumstances almost pre-dispose them to smoke, whereas
52 the participants in this study managed to utilise a variety of strategies in order to develop
53 resilience (and draw on previous life experiences) which then enabled them to quit or never start
54 smoking.
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6 While other studies have identified barriers and enablers to quitting, this paper is innovative in
7 that we have introduced and developed the concepts of additive and subtractive resilience
8 strategies, which provide potentially more concrete examples of the ways in which policy
9 makers and practitioners can help to reduce smoking prevalence, especially in such population
10 groups. These concepts also provide a heuristic device for researchers and policy makers to
11 identify more concrete and specific strategies either for different population groups or in different
12 geographical or cultural contexts. In other words, the particular resilience strategies that were
13 perceived to have worked for participants in this study may not necessarily work for different
14 population groups, but the concepts of additive and subtractive resilience strategies may well
15 have applicability and credibility. Nevertheless, this was a qualitative study and we cannot
16 make any claims to representativeness outside of the participants we interviewed.
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26 This paper has highlighted the importance of attending to participants' narratives in order to
27 examine smoking in the context of their lives, histories and biographies. A number of issues
28 arose in the interviews which are novel, insightful and compelling. This paper has identified the
29 additive and subtractive resilience strategies used by participants to quit or never start smoking,
30 and also linked this with sociological ideas about biographical reinforcement and reinvention.
31 Our proposition is that for participants who quit smoking, resilience strategies helped them to
32 quit smoking in a pragmatic sense (like a toolkit or repository), but this was given both *rationale*
33 and *meaning* through biographical reinvention which became the driving force, or generative
34 mechanism (Danermark, Ekstrom, Jakobsen, & Karlsson, 2002), for quitting and remaining
35 abstinent. For the never smokers, they also utilised a variety of resilience strategies in order to
36 maintain their abstinence, although the maintenance of their *identity as a non-smoker* became a
37 driving force, in which resilience strategies were used (in an active process) to reinforce this
38 identity, through what we term biographical reinforcement. In this way, we have linked the,
39 largely psychological, concept of resilience with the, largely sociological, concept of biographical
40 reinvention and reinforcement.
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53 Smoking is a complex habit and notoriously addictive, but our results have highlighted a
54 common motivation to quit and many stories of successful quitting, even in the face of
55 considerable challenges to resilience. In order to quit smoking, our participants took on a range
56 of new roles, practices and activities (additive resilience strategies) while also getting rid of what
57 they regarded as „unhealthy“ practices and relationships (subtractive resilience strategies).
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4 Since we cannot generalise the findings from our study, it would be extremely worthwhile to
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6 examine the similarities or differences between the additive and subtractive resilience strategies
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8 in our study, with those of different population groups and also with similar population groups,
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10 but in different geographical and cultural contexts. In addition, further quantitative research
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12 needs to be undertaken in order to identify both the most applicable resilience strategies (or
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14 interventions) for use between and across populations and to identify the personal, social and
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16 behavioural characteristics of people most likely to benefit from such resilience strategies.

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18 In terms of policy and practice responses, both of these types of resilience strategies can be
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20 promoted within a salutogenic or assets based framework. For example, a focus on additive
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22 resilience strategies may assist policy makers and practitioners to develop and implement
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24 interventions such as promotional activities (provided during smoking cessation services,
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26 primary care consultations etc) and social marketing campaigns around the importance of
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28 sports/fitness clubs, faith-based organisations, educational opportunities, opportunities for „help
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30 giving" within communities. In addition, a focus on subtractive resilience strategies will involve
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32 understanding the issues which reinforce smoking (biographical reinforcement) and then
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34 targeting them (e.g. abusive relationships, mental health problems, work-based smoking
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36 cultures), rather than solely the individual smoker per se. Obviously, the specific resilience
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38 strategies used in such circumstances would depend on the geographical, social and cultural
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40 context, although our research provides a starting point for the development of such
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42 interventions. While our participants were generally supportive of the legislative changes which
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44 have increased accessibility to non-smoking environments and which help to change attitudes
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46 to smoking and passive smoking, we suggest that, in addition, smoking needs social solutions
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48 and that mainstream public health and health promotion programs aimed at smoking cessation
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50 need to be part of more general social welfare supports, group/peer programs and community
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52 activities that assist with the adoption of additive and subtractive resilience strategies as part of
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54 healthy lifestyle change and biographical reinvention.
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Figure 1

Figure 1 – The psycho-social model of resilience developed during this study

