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A qualitative analysis of Māori and Pacific smokers' views on informed choice and smoking

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3 1 **A qualitative analysis of Māori and Pacific smokers' views on informed choice and**
4 **smoking**
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27 **ABSTRACT**

28 **Objectives:** Tobacco companies frame smoking as an informed choice, a strategy that holds
29 individuals responsible for harms they incur. Few studies have tested this argument, and even
30 fewer have examined how informed indigenous smokers or those from minority ethnicities
31 are when they start smoking. We explored how young adult Māori and Pacific smokers
32 interpreted “informed choice” in relation to smoking.

33 **Participants:** Using qualitative in-depth interviews, we recruited and interviewed 20 Māori
34 and Pacific young adults aged 18-26 who smoked.

35 **Analyses:** Data were analysed using an informed-choice framework developed by Chapman
36 and Liberman. We used a thematic analysis approach to identify themes that extended this
37 framework.

38 **Results:** Few participants considered themselves well-informed and none met more than the
39 framework’s initial criteria. Most reflected on their unthinking uptake and subsequent
40 addiction, and identified environmental factors that had facilitated uptake. Nonetheless,
41 despite this context, most agreed that they had made an informed choice to smoke.

42 **Conclusions:** The discrepancy between participants’ reported knowledge and understanding
43 of smoking’s risks, and their assessment of smoking as an informed choice, reflects their
44 view of smoking as a symbol of adulthood. Policies that make tobacco more difficult to use
45 in social settings could help change social norms around smoking and the ease with which
46 initiation and addiction currently occur.

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3 47 **Article Summary**
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5 48 **Strengths and limitations of this study**
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8 49 • Use of in-depth qualitative methods allowed detailed probing of participants' smoking
9
10 50 uptake and their understanding and personal acceptance of smoking's risks.
11
12 51 • Our findings illustrate how young adult Māori and Pacific see smoking as usual within
13
14 52 their communities and highlight potential interventions that could denormalise smoking
15
16 53 and reduce its perceived acceptability.
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19 54 • The study is deliberately exploratory and our findings thus require testing with a wider
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21 55 sample before they can be generalised further.
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Peer review only

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3 57 **BACKGROUND**
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5 58 In October 2010, the Māori Affairs Select Committee (MASC) reported on its *Inquiry into*
6
7 59 *the tobacco industry in Aotearoa and the consequences of tobacco use for Māori*. [1] The
8
9
10 60 Inquiry was prompted by Māori politicians and health advocates, who called for an analysis
11
12 61 to examine the toll of tobacco use on Māori, and recognise New Zealand’s striking disparities
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14 62 in smoking prevalence, which is much higher among Māori and Pacific peoples than among
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16 63 NZ European. [2]
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21 65 Among other claims advanced to the MASC, tobacco company representatives argued that
22
23 66 smoking is an ‘informed adult choice’; this argument implies smokers start smoking after
24
25 67 appraising the risks and benefits they may incur. [3] By transferring responsibility for future
26
27 68 harm back onto smokers themselves, tobacco companies reduce their potential liability and
28
29 69 promote beliefs that tobacco control measures undermine individuals’ right to smoke. [3, 4]
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32 70
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34 71 Māori and Pacific take up smoking at a younger age than their European counterparts;
35
36 72 children as young as 11 years of age may experiment with smoking and smoking may
37
38 73 become established in children by age 14; [5] for these smokers, starting smoking is clearly
39
40 74 not an adult choice. However, smoking uptake also occurs among Māori and Pacific young
41
42 75 adults and prevalence remains high among those aged 18–25, despite reductions in adolescent
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44 76 smoking rates. [6, 7] Evidence of increasing smoking uptake among young people aged 18
45
46 77 and over, who are legally considered adults in New Zealand, highlights the importance of
47
48 78 testing the tobacco industry’s ‘informed choice’ arguments. Specifically, few studies have
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50 79 explored whether young adults, particularly those most impacted by inequalities, make active
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52 80 and informed decisions to start smoking.
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3 82 Despite the superficial appeal of ‘informed choice’ arguments, which draw on neo-liberal
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5 83 views of personal responsibility,[8, 9] these overlook important socio-economic and cultural
6
7 84 factors that influence Māori and Pacific young adults’ decision-making. For example, Māori
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9
10 85 and Pacific ethnic groups typically have poverty rates around double those of the European
11
12 86 ethnic group, regardless of the measure used, and smoking accounts for a large proportion of
13
14 87 economic hardship experienced by Māori and Pacific peoples.[10] Levels of social inequality
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16 88 between Māori and European people have an independent effect on Māori smoking rates.[11]
17
18 89 Where smoking prevalence is high, as it is among Māori and Pacific, young adults may
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21 90 regard it as normal, associate it with desirable social benefits,[12-14] and discount the risks
22
23 91 communicated in health warnings and through other media. Furthermore, cultural practices
24
25 92 such as gift giving and sharing may undermine informed choice by promoting uptake in
26
27 93 contexts where refusal to accept or use tobacco may be regarded as impolite, or where
28
29 94 sharing is strongly associated with hospitality and generosity.[15]
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34 96 Other factors likely to affect European New Zealanders as well as Māori and Pacific young
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36 97 adults, include the widespread association of smoking and drinking.[16] Growing evidence
37
38 98 suggests alcohol consumption both facilitates smoking initiation and fuels tobacco use.[16,
39
40 99 17] Higher rates of drinking “a large amount of alcohol” among Māori and Pacific peoples
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43 100 thus further undermines young people’s ability to undertake the risk–benefit assessments
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45 101 implicit in informed choices.[18, 19]
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103 **Informed Choice Framework**

104 Chapman and Liberman proposed four levels of understanding and knowledge that smokers
105 should possess before they can make an informed choice.[20] First, smokers need to have
106 heard that smoking increases health risks; second, they must be aware that smoking causes

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3 107 specific diseases; third they must accurately appreciate the meaning, severity and
4
5 108 probabilities of developing diseases caused by tobacco use. Finally, they must personally
6
7 109 accept the risks inherent in levels 1–3 as applicable to themselves. Other factors, such as
8
9
10 110 addiction and social context, may also influence informed choices by circumscribing the
11
12 111 options available to young people. We considered these factors, together with young
13
14 112 people’s socio-economic and cultural settings, alongside Chapman and Liberman’s criteria,
15
16 113 and then used the resulting framework to investigate whether Māori and Pacific young adults
17
18 114 make active, informed decisions when they beginning to smoke. We compared and contrasted
19
20 115 the results from these analyses with those from a predominately New Zealand European
21
22 116 sample, which has been reported separately.[21]
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29 119 **METHODS**

30 120 **Sample**

31
32 121 We conducted in-depth interviews with 20 18–26-year-olds (10 Māori and 10 Pacific) who
33
34 122 had started smoking since turning 18. Participants were recruited using whanaungatanga or
35
36 123 kinship networks, by word of mouth, and via social media and community advertising, using
37
38 124 approaches we have previously used successfully.[22] We also recruited via Māori and
39
40 125 Pacific health services that offered culturally targeted primary care, where we placed notices
41
42 126 about the research. As recruitment proceeded, we used purposive selection to promote
43
44 127 diversity and ensure participants varied by age and gender, and displayed varied smoking
45
46 128 behaviours (i.e., the sample included both daily and intermittent smokers, and recent
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48 129 quitters).
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131 Māori participants included students, caregivers, and those in employment; just over half
 132 were in paid employment and eight of the ten were living with wider family or friends. Seven
 133 of the ten Pacific participants were living with their parents, the majority were in some form
 134 of paid employment, and three participants were also studying. (Table 1 summarises
 135 participants' characteristics). Ethics approval was obtained from the University of Otago's
 136 Human Ethics Committee, which undertook a full review of the proposed research (approval
 137 11/297).

138
 139 **Table 1: Participants' Characteristics**

Participant	Age	Gender	Smoking status
M1	26	Male	Daily
M2	24	Female	Recent quitter
M3	20	Male	Daily
M4	19	Female	Intermittent
M5	23	Male	Daily
M6	25	Female	Daily
M7	19	Female	Daily
M8	22	Female	Daily
M9	25	Female	Daily
M10	25	Male	Daily
P1	18	Female	Intermittent
P2	23	Female	Daily
P3	20	Female	Daily
P4	24	Female	Intermittent
P5 (19a) ¹	19	Male	Daily
P6 (19b) ¹	19	Male	Daily
P7	19	Female	Daily
P8 (19c) ¹	19	Male	Intermittent
P9	19	Male	Intermittent
P10	19	Female	Daily

140 1. Participants are referred to as 19a, 19b and 19c in the text to differentiate them from each other.

141 Protocol and Procedure

142 We used a semi-structured interview guide to explore participants' smoking initiation and
143 each component of Chapman and Liberman's informed choice framework. Specifically, we
144 explored participants' awareness and knowledge of smoking's risks, and their acceptance of
145 those risks when they began smoking. We also probed their reflections on how informed
146 they considered their uptake of smoking was. To test the framework's completeness, we
147 examined how participants understood addiction (particularly prior to smoking), explored
148 whether and how they had considered the risks smoking poses, and reviewed the social and
149 environmental contexts in which their smoking began. A copy of the interview guide is
150 included as a supplementary file. Interviews were carried out by Māori and Pacific
151 interviewers in late 2011 and early 2012 and took between 25 and 50 minutes. With
152 participants' permission, each interview was audio recorded and then transcribed verbatim.

154 Data Analysis

155 Interviewers undertook an intensive review of their interview transcripts and developed an
156 initial descriptive classification that drew on the interview guide and was grounded in their
157 own cultural knowledge and perspectives.[23, 24] All interviewers (Māori, Pacific and
158 European) then met face to face to compare and contrast the findings across all three ethnic
159 groups. During this analysis workshop, we identified over-arching themes within the
160 transcripts and extended the initial descriptive analyses that corresponded largely to the
161 research protocol. This process allowed themes to be cross-validated and nuanced, and the
162 themes reported below reflect a consensus reached by the authors. We make extensive use of
163 participants' own comments, and signal each participant's ethnicity (M – Māori, P- Pacific);
164 gender (F-female, M-male), and age.

165

166 **RESULTS**

167 We began by identifying themes that corresponded to Chapman and Liberman's theoretical
168 framework[20] and then identified additional themes specific to Māori and Pacific
169 participants. These latter themes provided more nuanced insights into participants' risk
170 acceptance and likelihood of making informed choices.

171
172 **Levels 1 and 2: Awareness of general and specific health risks**

173 Most participants had received some information about smoking's health risks from sources
174 including television advertising, and family and friends. However, as the participant below
175 explained, this information often conflicted with their immediate environment: *Um, just, mum*
176 *and dad, and the tv, like they have all those ads on the TV and, we were just brought*
177 *up, knowing that, it's bad for you, and like, even though like, we had older cousins and that*
178 *doing it (MF24).*

179
180 Others reported learning about smoking's risks from school programmes and, once they
181 started smoking, from warnings on packs: *I was in school, I was in 5th form. People from the*
182 *hospital they came to school and did an interview about smoking and that, and showed us*
183 *some photos of little kids smoking.... it put me off for like, all those pictures (PF18). Both*
184 Māori and Pacific participants reported gleaning information from tobacco packaging, which
185 had had a strong visual impact on them: *The first thing I saw was the packet. How it had all*
186 *those pictures on it (PM19c). Others went on to read the warning labels and learned about*
187 *smoking's risks from these: I learnt more reading off the packets.... How it affects your*
188 *lungs. And as I said you get looks of the pictures. Gangrene on your feet and stuff (MF19).*
189 *Yeah I read about it (risks of smoking) on the packet (PM19b).*

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3 191 Awareness of smoking's specific risks increased once participants had developed a regular
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5 192 smoking pattern and were more frequently exposed to on-pack warnings. As a result, some
6
7 193 considered "cutting down" so they could resolve the dissonance their risk knowledge
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9
10 194 aroused: *The first thing I saw was the packet. How it had all those pictures on it, and this*
11
12 195 *was when we cut down on smoking.... when I always go for a smoke I always read the pack,*
13
14 196 *it has all those lung stuff. That's what I always read* (PM19c).
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19 198 While many participants reported receiving information about risks, some felt they had
20
21 199 received little information, or reported they were not fully aware of the risks: *Oh I didn't*
22
23 200 *know anything when I first started.....when I was 18 I didn't know that you could get killed*
24
25 201 *from this stuff. And I didn't notice how bad it affects your body and stuff* (MF 19). Of those
26
27 202 who did possess some risk understanding, most focused generally on cancer and few showed
28
29 203 a detailed knowledge of the multiple risks caused by smoking: *That cancer thing, and I don't*
30
31 204 *really know that much, ay. I just know that part.* (PM19a).
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36 206 Māori participants regretted their lack of knowledge and wondered whether knowing more at
37
38 207 a younger age might have helped them remain smokefree: *Yeah, I should've been told about it*
39
40 208 *before I picked up my first cigarette* (MM 20). *I think it should be better put out there*
41
42 209 *because, like me, if I had've known more about it.....* (MF19).
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210 211 **Levels 3 and 4: Personal acceptance and understanding the meaning of risk**

212 Rather than outline how they had (or more typically, had not) assessed and then accepted
213 smoking's risks, most participants explained they had discounted risks by focussing on
214 counter-evidence. Many used examples of smokers who they knew and believed were
215 unscathed by smoking to question risk information, and repeatedly privileged their personal

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3 216 observations over health warnings: *I see some people that smoke every day but nothing's*
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5 217 *happened to them* (PF23).
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9 219 Evidence that the harms of smoking typically occurred over the long-term enabled some to
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11 220 rationalise their current behaviour by arguing they were unlikely to suffer any immediate
12
13 221 harm. These participants used the lack of an instantaneous effect to discount future risks:
14
15 222*it was seeing people everywhere smoking and realising but they're not dead and they're*
16
17 223 *not... I think it's the fact that it doesn't kill you straight away. And, um, somehow I thought I*
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19 224 *must have just realised that they're smoking and they're not getting sicker; it's not affecting*
20
21 225 *them immediately...* (MF22).
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25 227 Others reported feeling unconcerned about the risks they had seen on tobacco packages,
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27 228 which had no effect on their behaviour: *I saw pictures of like smoke effects and that, it didn't*
28
29 229 *bother me. I just kept on smoking* (PF23). Even participants who had seen family members
30
31 230 harmed by smoking did not feel motivated to quit: *Yep. I know more about smoking now only*
32
33 231 *because smoking and the causes and the damage that it's done is close to home with me.*
34
35 232 *That's why... but... and-and then, and then I look at myself and I'm still smoking so I'm just*
36
37 233 *like, well I can't say anything about that but that's just how I feel...* (MF25). Only direct
38
39 234 personal experience of harm seemed likely to motivate some participants to believe the risks
40
41 235 they had seen were real: *And you know how you even see those pictures on the packs of*
42
43 236 *smokes, I don't get put off. It's not enough to put me off. It's like "Oh yeah okay. I won't*
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45 237 *believe it until it happens"* (MF19).
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49 239 Overall, while several participants indicated they had a general awareness that smoking poses
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51 240 risks, many struggled to identify specific risks and most used rationalisations to distance
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3 241 themselves from the harms they recognised. These responses created an interesting context in
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5 242 which to explore whether and how they made deliberate decisions, and interpreted tobacco
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7 243 companies' arguments that smoking is an informed choice.
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245 **Reflective Decision Making**

246 Several participants spoke about smoking as something that had happened with little or no
247 forethought, reflection or risk acceptance: *Nah I haven't really thought about it. It's just, I*
248 *don't really, I'm... when I'm in the moment I just you know, I don't really think back, I'm like,*
249 *it's just it happened so...(MF19). We were just hanging out in the grounds and we wanted to*
250 *have a smoke... I started from there (PM19a).*
251

252 Participants' sense of something that had "just happened", typically while they were
253 "hanging out", suggests smoking occurred without active reflection; instead, it was an
254 unthinking transition from other activities. Some later found it difficult to understand their
255 lack of analysis: *Mmmm, I actually thought that, you know, maybe a year later that it was*
256 *strange how little I thought about it, the fact that I was actively taking up a highly addictive,*
257 *you know, substance (MM 26). Like others, this participant's retrospection positioned him as*
258 "actively" taking up a behaviour. However, the "little ...thought" he gave to what he was
259 doing questions how active his behaviour was and suggests other factors shaped participants'
260 actions and how they interpret these.

261

262 **Social context of smoking**

263 Because most participants, particularly Māori, saw smoking as normal and ubiquitous within
264 their social setting, few reported reflecting on whether they should start smoking: *Cause my*
265 *family, everyone at home, smokes as well. So yeah, I really didn't even think about it for a*

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3 266 *second, I just started smoking (PM19a). Because everybody in our family were smoking too,*
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5 267 *so I thought I'd just be like them. I thought it was normal...(MF25).* Participants' social
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7 268 context deterred active consideration, since they had no reason to reflect on a behaviour those
8
9 269 around them practised. Not only did their social context dissuade reflection, it promoted
10
11 270 smoking uptake, since participants wanted to "be like" those around them.
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16 272 A minority reported feeling coerced into experimenting with smoking: *Nah 'cause they kept*
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18 273 *telling me, "Try it, try it, try it." And I thought if I tried it then they'll stop bugging me*
19
20 274 *(MF19). Cause my friends they always smoke, cause whenever I see them smoking I just feel*
21
22 275 *like smoking too ... I don't want to smoke but they always dare me so I just like I just can't*
23
24 276 *take it I just have to smoke (PF19).* These examples suggest some participants felt strong
25
26 277 pressure to comply with normative practices, and eventually took the path of least resistance.
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32 279 However, even those who argued that starting to smoke was their own decision also
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34 280 acknowledged they were influenced by what they perceived as positive attributes of smoking,
35
36 281 particularly the social connections smoking created: *I think it was my own decision, but no-*
37
38 282 *one really forced me to smoke but it's just when I keep on seeing, like my friends smoke and*
39
40 283 *I'll be like, oh this, that looks cool (PM19c).* For others, "coolness" was associated with
41
42 284 sophistication and adult behaviour, as the legal purchase age of tobacco reinforced smoking
43
44 285 as an adult activity: *Um, it-it, yeah, I think at that age it made me feel cool 'cause that was*
45
46 286 *when you were growing up, that was the "growing up" age and...(MF25).*
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51 288 Smoking played an important role in helping participants feel integrated with a social group;
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53 289 displaying the same "cool" behaviours helped them assert their group identity and develop
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55 290 stronger and more meaningful relationships: *Um, I don't know, I guess because my, um, my*
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3 291 *cousin smoked. So most of... some of my friends smoked and it just seemed like it was the in*
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5 292 *thing to do... And um I felt like whenever I went out and listened to the smokers talking, they*
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7 293 *were getting like very in-depth and talking about personal things and it seemed like a cool*
8
9 294 *thing just to be able to socialise with people. It was a way to connect for me I think (MF 22).*

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14 296 As well as providing a point of connection, some found that smoking counteracted boredom
15
16 297 created by unemployment, particularly when they had left school. In situations where young
17
18 298 people had little else to do, smoking provided a distraction and united the group: *I dropped*
19
20 299 *out of school, yeah so I was staying home and yeah that's when I started smoking every day*
21
22 300 *cause yeah, just like the yeah, I was hanging round my mates every day. There was no school*
23
24 301 *so we just had a smoke (PM19a).*

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29 303 Beliefs that smoking helped manage stress were widespread and several participants saw
30
31 304 smoking as a form of self-medication that helped them cope more successfully with stressful
32
33 305 settings. *Getting into a new relationship was a lot of stress because you know it's just*
34
35 306 *stressful being in a relationship and you always tend to turn to smoking and that was how I*
36
37 307 *turned to being a daily smoker (PF24). And then this year I went to Uni and it's my first year*
38
39 308 *at Uni so um I needed it for stress, 'cause I was stressing out a lot and I just picked up*
40
41 309 *smoking again (MF19).*

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44 310

46 311 Several participants reported an association between drinking and smoking. Alcohol fuelled
47
48 312 greatly increased consumption, particularly among participants who were otherwise lighter
49
50 313 smokers: *When I'm sober I'll have one in the morning and one at lunch but when it's a party*
51
52 314 *it's like two packets (PF23) and The more you drink, the more you smoke (MF 25).*

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2
3 315 In summary, smoking was a social norm for many participants and was positively reinforced
4
5 316 by a sense of group belonging. The perception that smoking alleviated stress further
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7 317 reinforced it while alcohol consumption and boredom fuelled consumption.
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319 **Addiction**

320 Some participants had great faith in their ability to stop smoking and felt they would quit
321 when they chose, using will power and positive thinking: *I could say easy if I put my mind to*
322 *it... (MF19)*. However, others felt less confident because they had become addicted before
323 they realised what was happening and only understood addiction once they had experienced
324 it: *...you don't think about it cos it just sneaks up on you, like I said, it just suddenly, suddenly*
325 *you're addicted and, and you don't quite realise it until it's too late (MF26)*. The realisation
326 they were addicted led some to talk regretfully about having started to smoke: *I was just*
327 *thinking I shouldn't have started (laughs), and yeah regretted it (MM20)*. Although some
328 participants regretted smoking and a small number had felt pressured into initiating smoking,
329 others saw smoking as a badge of maturity and a behaviour that connected them more
330 strongly to their social groups. For these participants, addiction posed fewer concerns
331 because smoking signalled their social standing. These perceptions influenced how
332 participants interpreted industry arguments.

333

334 **Tobacco Companies' "Informed Choice" Argument**

335 After reflecting on their understanding of smoking, their social context and smoking's
336 addictiveness, we explored participants' reactions to a statement made by Imperial Tobacco:
337 *"The risks associated with smoking are universally known...and smoking is... a matter of*
338 *informed adult choice".[25]* Despite many participants stating they had little knowledge of
339 smoking's risks, particularly its addictiveness, most nonetheless agreed that smoking was an

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3 340 informed choice: *if you're an adult then, you know, it's their choice whether they want to do*
4
5 341 *it or not, ...*(MF24). *...it's an adult choice and it's up to that person if they wanna smoke or*
6
7 342 *not smoke* (PM19b). Several saw smoking as a symbol of adulthood and a means of asserting
8
9 343 their independent identity; declaring they had made anything less than a deliberate choice
10
11 344 would be inconsistent with the autonomy they valued: *It's my life, I choose what I do, if I*
12
13 345 *want to smoke, I smoke; if I don't want to smoke, I don't smoke* (PF18). Ironically,
14
15 346 participants' desire to affirm their independence led them to agree with tobacco companies'
16
17 347 position, despite the lack of knowledge they outlined and the contextual factors that had
18
19 348 shaped their actions.
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350 **DISCUSSION**

351 Many participants had not progressed beyond Chapman and Liberman's first stage of
352 informed choice. However, despite considering they had limited knowledge of smoking's
353 risks, feeling influenced by social factors, and rarely considering future consequences, several
354 nevertheless thought they had made an informed choice. Participants generally learned about
355 the specific risks of smoking from on-pack warnings, which they typically accessed only after
356 becoming addicted. Like many young adults, most dismissed the risks presented as uncertain
357 and unlikely.[26] Even those who had seen family members suffer from diseases caused by
358 smoking, or who had themselves experienced ill-health from smoking, rationalised their
359 experiences, diminished the role played by smoking, and rarely saw risks as relevant to
360 themselves. Participants saw smoking as normal, a means of establishing social connections,
361 and lived in social contexts where *not* smoking could have challenged group norms. The
362 perceived supportive environment for continued smoking, and the importance many
363 participants placed on smoking as a social behaviour that symbolised adulthood, undermined
364 informed decision-making. So too did the strong association between alcohol and smoking;

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3 365 alcohol featured strongly in participants' social environments and compromised their ability
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5 366 to make rational decisions.
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9 368 Study limitations include the small sample; while interviewing continued until data saturation
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11 369 had occurred, a larger study is required to assess whether the knowledge patterns and
12
13 370 perceptions we identified reflect those of the wider population. Strengths include the use of
14
15 371 in-depth interviews, which allowed us to elicit rich data that offer the first insights into how
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17 372 young adults from indigenous and minority ethnicities experience and interpret informed
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19 373 choice.
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22
23 375 Our findings help explain persistent inequalities in smoking prevalence between Māori and
24
25 376 Pacific, and New Zealand Europeans (NZE) and highlight important differences between
26
27 377 ethnicities. Māori and Pacific participants reported having lower awareness of smoking's
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29 378 general risks than participants in the NZE sample, where all participants displayed awareness
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31 379 of some risks caused by smoking.[27] Our participants were more likely to comment on the
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33 380 connecting role smoking played in their communities and family networks, which suggests
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35 381 social impediments may also affect how effectively young adult Māori and Pacific may make
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37 382 informed choices. This normative environment may also explain differing perceptions of
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39 383 smoking's role in their future. While NZE participants typically predicted they were
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41 384 "unlikely to be smoking in the future" and saw smoking as "a lifestyle phase",[21] Māori and
42
43 385 Pacific were less certain that smoking was a temporary part of their lives. They saw smoking
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45 386 as a symbol of adulthood and maturity, and a sign they were capable of making adult
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47 387 decisions. In this context, declaring they had not made informed choices could seem akin to
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49 388 stating they had not yet matured fully. Pacific and Māori were more likely to report using
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51 389 smoking to relieve life circumstances such as stress and boredom. Yet despite these
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3 390 differences, participants shared common attributes with NZE young adults. For all groups,
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5 391 the disinhibiting effects of alcohol undermined active risk evaluation and facilitated smoking
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7 392 uptake.[16, 17] Likewise most participants greatly underestimated smoking's addictiveness
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10 393 even though understanding this concept was pivotal to making an informed choice.[21] In
11
12 394 common with NZE participants, many Māori and Pacific reported acting impulsively and
13
14 395 without having reflected on the longer term consequences they might face.
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17
18 397 Arguments that smoking is an “informed choice” bear little relationship to the social contexts
19
20 398 young adult Māori and Pacific smokers experience. Our findings have important policy
21
22 399 implications and highlight the urgent need to change smoking norms within Māori and
23
24 400 Pacific communities. While existing policies have denormalised smoking in Māori and
25
26 401 Pacific settings, these efforts need expansion and consolidation so they cover all settings, are
27
28 402 applied consistently, recognise young adults' social environments, and evolve quickly to
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30 403 replace the current acceptability of smoking. Potential measures include altering
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32 404 environments where smoking uptake occurs, for example, by requiring all areas in bars and
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34 405 restaurants to be smokefree, thus reducing opportunities for tobacco and alcohol co-use.
35
36 406 Developing a smokefree generation and increasing the age at which young adults may
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38 407 purchase tobacco may be particularly salient to Māori and Pacific, and will need careful input
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40 408 from these communities.[28, 29]
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47 410 Broader policy approaches may also be required to mitigate the risks of smoking being used
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49 411 to counteract stress and boredom.[30] These could include increased employment
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51 412 opportunities and educational initiatives to ensure school success along with more nuanced
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53 413 health education. Low recall of school health programmes raises the possibility that health
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55 414 education messages may not be sufficiently targeted to meet the needs of specific cultural
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3 415 groups such as Pacific or Māori, a conclusion advanced in other studies.[31, 32] Some Pacific
4
5 416 participants had not grown up in New Zealand, so our results may also indicate a lack of
6
7 417 exposure to education programmes run within NZ schools. Furthermore, some Māori and
8
9 418 Pacific reported having dropped out of school, thus even those who had attended school in
10
11 419 New Zealand may not have been exposed to all the health programmes that demonstrated
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13 420 smoking's harms.
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18 422 Future research could explore the feasibility of these ideas with Māori and Pacific, and, if
19
20 423 appropriate, pilot and test potential interventions to assess their uptake and impact on Māori
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22 424 and Pacific. More fundamentally, young adults' acceptance of smoking as normal and
23
24 425 socially binding reflects a need for deeper change within these communities, using culturally
25
26 426 relevant mechanisms that community members themselves determine and implement.
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427

428 **CONCLUSION**

429 For many young people, smoking uptake occurs quickly, easily and without deliberation.
430 Arguments that smoking is an informed choice overlook young adults' limited risk
431 knowledge, ignore the social contexts that facilitate initiation and maintain smoking, and take
432 no account of how addiction compromises choice. Two approaches could address the lack of
433 informed choice evident in our findings. First, changing participants' environments by
434 increasing the legal purchase age to at least 25, a point at which uptake becomes less likely,
435 implementation of smokefree generation proposals, decoupling smoking and drinking,
436 increasing the cost of smoking and decreasing where tobacco may be consumed. Second,
437 important contextual factors relevant to Māori and Pacific communities also require action to
438 reduce the high smoking prevalence among these groups. While broader policies such as
439 those outlined above will work across the whole population, additional efforts are required to

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3 440 engage with, prioritise, resource and support those with greatest need to create their own
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5 441 interventions.
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7 442

9 443 **Competing interests**

11 444 We have no competing interests but note, for the sake of full disclosure, that we have
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14
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16
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20
21
22
23

24 449

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29
30 452 report writing and the preparation of this MS. We had full access to all of the data in this
31
32 453 study and take complete responsibility for the integrity of the data and the accuracy of the
33
34 454 data analysis.
35
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39 455

41 456 **Authors' contributions**

43 457 HG and JH led this phase of the project; JH conceived the project and, with RE, obtained
44
45 458 funding. HG, SE, and DT collected the data reported, HG, SE, JH and RG undertook initial
46
47 459 data analyses. HG and JH led the MS development; DT, SE, RG and RE provided feedback
48
49 460 on drafts. All authors have approved the submitted MS and agree to be responsible for the
50
51 461 data reported.
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3 463 **Authors' information**
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11
12 467 Research Theme whose members develop, test and evaluate policy measures that support the
13
14 468 New Zealand government's goal of becoming a smoke-free nation by 2025.
15
16

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23
24

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27 473 Smokefree team within the NZ Heart Foundation. She has a strong background in tobacco
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30
31 475 peoples. She is a member of the ASPIRE2025 collaboration.
32
33

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36
37 477 ASPIRE2025 collaboration and has a long-standing interest in tobacco control policy and
38
39 478 public health.
40
41

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43
44 480 Her research has offered a new definition of informed choice in relation to young adult
45
46 481 smokers.
47
48

49
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52 483 of the ASPIRE2025 collaboration at the University of Otago, Wellington. He has published
53
54 484 extensively in tobacco control and public health.
55
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5

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15

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18
19 492 11/134).
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25 494 **Data Sharing**
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27
28 495 Due to the sensitive nature of the research topic, the researchers undertook to keep the
29
30 496 interview transcripts confidential to the research team. For this reason, the data are not
31
32 497 available to other researchers. However, the protocol used is provided as a supplementary
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34 498 file.
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Supplementary file

SMOKING AS AN 'INFORMED CHOICE'

In-depth Focused Interview Protocol

Note for interviewers: each section is marked with a priority (low, medium, high, critical) to given an indication of how much time should be spent prompting answers

Introduction

Hello, my name is ... and this is ..., who will be sitting in on the interview today. Just so you know, the reason we have two people here is that we are in the process of trying out this questionnaire. Bearing that in mind, please do let me know if you find any of the questions difficult to understand or to answer.

Before we start talking about the research topic, I have an information sheet about my work and I would like you to read this so I can answer any questions you might have about my work.

As a participant you retain the right to ask questions at any time, receive a copy of the findings, withdraw from the research at any time and to decline answering any questions.

- Explain recording of the interview and participant's rights in relation to this. **Once participant has agreed to the recording of the interview turn on dictaphone.**
- Check if participant has any questions about the interview.
- Ask the participant to sign the consent form.
- State their rights on the recorder (right to ask questions at any time; right to withdraw from the work; right to have a copy of the results; right to ask for the recorder to be turned off; remind them that the research is confidential and their comments won't be attributed to them personally).

"Smoking journey" focused discussion**Priority: LOW – not too much time**

1. Looking back, can you tell me about the first time you smoked a cigarette? How old were you? Where were you, who were you with? How did you feel about it? What did you think? What made you want to have that cigarette? How did you feel about smoking at the time?

Priority: MEDIUM

2. How do you describe your smoking at the moment? (social smoker/ occasional/ daily etc) How many cigarettes do you usually smoke per day/ per week?
3. Can you describe the context in which you smoke? Who are you with, where are you, what are you doing (probe for detail about role of alcohol, work, social cues). Are there any particular reasons why you smoke at those times?
4. Can you describe the situations where you don't smoke? Are there places or times when you don't smoke? Are there any particular reasons why you don't smoke in these places and times?

Priority: CRITICAL

5. Tell me about how you moved from being someone who may have /or has had just tried smoking a few times to being someone who smokes most weeks/every day (as appropriate)?
6. How old were you when you started smoking with this pattern? What was happening in your life at that time? (probe: where were you , were you living at home or had you moved away, who were you spending time with, were you working, at college etc)

Smoking decision process**Priority: CRITICAL**

7. Can you tell me about how you made the decision to smoke at that time? (Who influenced that decision, what did you feel at the time, what did you think about?)
8. Can you relate this decision to other decisions you were making at the time? eg drinking alcohol, getting into relationships, job or study decisions?
9. How did you weigh up the decision to smoke or not to smoke at that time?

Knowledge of risk at time of uptake**Priority: CRITICAL**

10. At the time that you started smoking (weekly/daily/whatever): What had you been told about smoking? What had you read? Where? (probe: what specifically do you remember was said about smoking?) Where did you get most of your messages about smoking? (eg friends family etc)
11. You said you'd been told (x,y,z).. what did you think about that, did it seem important/true? Did it concern you? Why?
12. And how did you find smoking compared with what you'd been told about it? (include: addictiveness, effects on your body, health consequences, social consequences)

Knowledge of risk currently**Priority: HIGH**

13. Have you changed your thinking about smoking since you started smoking more regularly? How do you feel about smoking now? What else do you know about smoking now? Does it concern you? Why?
14. If you keep smoking for the rest of your life, what do you think might happen? How do you feel about that? How likely do you think it is that (each thing you mentioned) could happen to you? (very likely, somewhat likely, somewhat unlikely, very unlikely, don't know?)
15. What (other) health effects do you know of that can be caused by smoking? (interviewer – note down each condition mentioned)
16. What do you think having (that condition – each one mentioned at 14 and 15) would be like? What symptoms might a person get, how might it affect their life?)
17. Out of 100 people who have smoked throughout their life, how many of them do you think are likely to end up dying from something related to smoking? (probe discussion: what information did you draw on to come up with that number?)

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2
3 18. So given what you've just described about what you know about risk – how do you
4 do you think your knowledge and understanding at the time that you started
5 smoking regularly compares to what you know now? (Probe: in what way has it
6 changed?)
7
8

9 **Thoughts on addiction**

10 **Priority: HIGH**

- 11
12 19. Of the people in your life – family, friends – do you know people who have quit or
13 tried to quit smoking? What do you think made them try to quit? How did they go
14 about quitting? How did it work out for them?
15
16 20. How easy do you think it would be to quit smoking completely (that is, not smoke
17 again in any situation)? Why do you feel that way?
18
19 21. Thinking back, what did you think about quitting (did you think you would, how easy
20 did you think it would be?) when you first started smoking (weekly/daily)? (Has your
21 opinion changed since then, if so how?)
22
23 22. (if not already mentioned) Cigarettes are sometimes described as “addictive”. What
24 do you think it means to be addicted?
25
26 23. Do you think you'll still be smoking in five years time? Ten years? What makes you
27 think that?
28
29

30 **Conclusion**

31 **Priority: HIGH**

- 32
33 24. You've described the circumstances in which you took up smoking, and some of your
34 thoughts about smoking then and now. Do you think, knowing what you do now, if
35 you were faced with the same circumstances (describe) that you would still take up
36 smoking?
37
38 25. Can you think of people in your life who are about your age – say siblings or friends
39 – who don't smoke? Why don't they/ what do you think are the influences on their
40 decision to not smoke? (Probe: how are the things that influence them different to
41 the things that influenced you?) Do you think, if you had been in the same
42 circumstances/ had the same influences as they do, that you would still have started
43 smoking? Why/ why not?
44
45
46 26. To finish off, I'd like to read you a recent quote from a tobacco company
47 spokesperson in NZ.
48

49 *“The risks associated with smoking are universally known...and smoking is... a matter of*
50 *informed adult choice”*

51 (Imperial Tobacco NZ Ltd 2010: Submission to the Māori Affairs Select Committee)
52
53

54 We'd be interested to know what you think about this statement...how does it relate to your
55 experience and what you've just described about how you started to smoke?
56

57 (unpack: “risks universally known”, “informed” “adult choice”)
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27. So in order to make an informed adult choice..What exactly do you think people should know and understand, before they decide to start smoking? How much should they know in order to make that decision?
28. And given that you have said that people should know and understand x,y,z; did you have that knowledge and understanding when you took up smoking? What proportion of people aged xx (whatever age person was when they became a regular smoker) do you think have that knowledge and understanding?
29. Do you have any other comments you'd like to add about what we've been discussing?

I just have a short questionnaire for you to complete, please. Like the rest of the discussion, the information you provide will be completely confidential and only members of the research team will be able to access it.

Thank, assure confidentiality, check that demographic sheet has been filled out, close.

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3 **Note for researchers to consider at the close of pilot interview:**
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5 How long did each section take?
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10 Were any questions hard to answer? (mark on interview schedule any questions that the
11 participant found difficult)
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16
17 Have the following all been covered off during the interview?
18

19 Level 1: having heard that smoking increases health risks
20

21 Level 2: being aware that specific diseases are caused by smoking
22

23 Level 3: accurately appreciating the meaning, severity, and probabilities of developing
24 tobacco related diseases
25

26 Level 4: personally accepting that the risks inherent in levels 1-3 apply to one's own risk of
27 contracting such diseases (note: a person's view of the addictiveness of smoking and
28 confidence in their own ability to quit before suffering harms will come into this)
29

30 5: maturity of decision making processes – did they make the choice as an adult, and did
31 they use a rational process to decide?
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33 6: ability to make decision free of social and environmental pressures.
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BMJ Open

A qualitative analysis of Māori and Pacific smokers' views on informed choice and smoking

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Manuscripts

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3 1 **A qualitative analysis of Māori and Pacific smokers' views on informed choice and**
4 **smoking**
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7

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27 **ABSTRACT**

28 **Objectives:** Tobacco companies frame smoking as an informed choice, a strategy that holds
29 individuals responsible for harms they incur. Few studies have tested this argument, and even
30 fewer have examined how informed indigenous smokers or those from minority ethnicities
31 are when they start smoking. We explored how young adult Māori and Pacific smokers
32 interpreted “informed choice” in relation to smoking.

33 **Participants:** Using recruitment via advertising, existing networks and word of mouth, we
34 recruited and undertook qualitative in-depth interviews with 20 Māori and Pacific young
35 adults aged 18-26 who smoked.

36 **Analyses:** Data were analysed using an informed-choice framework developed by Chapman
37 and Liberman. We used a thematic analysis approach to identify themes that extended this
38 framework.

39 **Results:** Few participants considered themselves well-informed and none met more than the
40 framework’s initial criteria. Most reflected on their unthinking uptake and subsequent
41 addiction, and identified environmental factors that had facilitated uptake. Nonetheless,
42 despite this context, most agreed that they had made an informed choice to smoke.

43 **Conclusions:** The discrepancy between participants’ reported knowledge and understanding
44 of smoking’s risks, and their assessment of smoking as an informed choice, reflects their
45 view of smoking as a symbol of adulthood. Policies that make tobacco more difficult to use
46 in social settings could help change social norms around smoking and the ease with which
47 initiation and addiction currently occur.

1
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3 48 **Article Summary**

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5 49 **Strengths and limitations of this study**

- 6
7
8 • Use of in-depth qualitative methods allowed detailed probing of participants' smoking
9 uptake and their understanding and personal acceptance of smoking's risks.
10
11
12 • Our findings illustrate how young adult Māori and Pacific see smoking as usual within
13 their communities and highlight potential interventions that could denormalise smoking
14 and reduce its perceived acceptability.
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17 • The study is deliberately exploratory and our findings thus require testing with a wider
18 sample before they can be generalised further.
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Peer review only

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3 58 **BACKGROUND**
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5 59 The New Zealand Parliament has several Select Committees that comprise members drawn
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7 60 from all political parties [1]. As well as reviewing draft legislation, these committees may
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9 61 establish inquiries into matters of concern to New Zealand. Following prompting by Māori
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11 62 politicians and health advocates, the Māori Affairs Select Committee (MASC) initiated an
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13 63 *Inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for*
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15 64 *Māori*. [2] in October 2010. The Inquiry called for an analysis that examined the toll of
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17 65 tobacco use on Māori, and recognised New Zealand's striking disparities in smoking
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19 66 prevalence, which is much higher among Māori (38%) and Pacific peoples (25%) than among
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21 67 NZ European (15%) [3].
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27 69 Among other claims advanced to the MASC, tobacco company representatives argued that
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29 70 smoking is an 'informed adult choice'; this argument implies smokers start smoking after
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31 71 appraising the risks and benefits they may incur.[4] By transferring responsibility for future
32
33 72 harm back onto smokers themselves, tobacco companies reduce their potential liability and
34
35 73 promote beliefs that tobacco control measures undermine individuals' right to smoke.[4, 5]
36
37 74 This argument has a superficial appeal and sits easily within the neo-liberal discourse that has
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39 75 dominated New Zealand's political landscape. However, the premises of this argument have
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41 76 not been carefully tested and require closer scrutiny, given tobacco companies' use of this
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43 77 claim to oppose policy measures. Fully informed choices are arguably more important for
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45 78 tobacco than for other products, given how addictive smoking is and the enormous harm
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47 79 tobacco inflicts on users.
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54 81 Māori and Pacific take up smoking at a younger age than their European counterparts;
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56 82 children as young as 11 years of age may experiment with smoking and smoking may
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3 83 become established in children by age 14;[6] for these smokers, starting smoking is clearly
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5 84 not an adult choice. However, smoking uptake also occurs among Māori and Pacific young
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7 85 adults and prevalence remains high among those aged 18–25, despite reductions in adolescent
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10 86 smoking rates.[7, 8] Evidence of increasing smoking uptake among young people aged 18
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12 87 and over, who are legally considered adults in New Zealand, highlights the importance of
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14 88 testing the tobacco industry’s ‘informed choice’ arguments. Specifically, few studies have
15
16 89 explored whether young adults, particularly those most impacted by inequalities, make active
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18 90 and informed decisions to start smoking.
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23 92 Despite the superficial appeal of ‘informed choice’ arguments, which draw on neo-liberal
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25 93 views of personal responsibility,[9, 10] these overlook important socio-economic and
26
27 94 cultural factors that influence Māori and Pacific young adults’ decision-making. For example,
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29 95 Māori and Pacific ethnic groups typically have poverty rates around double those of the
30
31 96 European ethnic group, regardless of the measure used, and smoking accounts for a large
32
33 97 proportion of economic hardship experienced by Māori and Pacific peoples.[11] Levels of
34
35 98 social inequality between Māori and European people have an independent effect on Māori
36
37 99 smoking rates.[12] Where smoking prevalence is high, as it is among Māori and Pacific,
38
39 100 young adults may regard it as normal, associate it with desirable social benefits,[13-15] and
40
41 101 discount the risks communicated in health warnings and through other media. Furthermore,
42
43 102 cultural practices such as gift giving and sharing may undermine informed choice by
44
45 103 promoting uptake in contexts where refusal to accept or use tobacco may be regarded as
46
47 104 impolite, or where sharing is strongly associated with hospitality and generosity.[16]
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54 106 Other factors likely to affect European New Zealanders as well as Māori and Pacific young
55
56 107 adults, include the widespread association of smoking and drinking.[17] Growing evidence
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108 suggests alcohol consumption both facilitates smoking initiation and fuels tobacco use.[17,
109 18] Higher rates of drinking “a large amount of alcohol” among Māori and Pacific peoples
110 thus further undermines young people’s ability to undertake the risk–benefit assessments
111 implicit in informed choices.[19, 20]

112

113 **Informed Choice Framework**

114 Chapman and Liberman proposed four levels of understanding and knowledge that smokers
115 should possess before they can make an informed choice.[21] First, smokers need to have
116 heard that smoking increases health risks; second, they must be aware that smoking causes
117 specific diseases; third they must accurately appreciate the meaning, severity and
118 probabilities of developing diseases caused by tobacco use. Finally, they must personally
119 accept the risks inherent in levels 1–3 as applicable to themselves. Other factors, such as
120 addiction and social context, may also influence informed choices by circumscribing the
121 options available to young people. We considered these factors, together with young
122 people’s socio-economic and cultural settings, alongside Chapman and Liberman’s criteria,
123 and then used the resulting framework to investigate whether Māori and Pacific young adults
124 make active, informed decisions when they beginning to smoke. We compared and contrasted
125 the results from these analyses with those from a predominately New Zealand European
126 sample, which has been reported separately [22] Our overall research question explored how
127 smoking uptake occurred, particularly the risk awareness and understanding our participants
128 displayed, and the contexts in which their behaviour evolved.

129

130

131 **METHODS**

132 **Sample**

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3 133 We conducted in-depth interviews with 20 18–26-year-olds (10 Māori and 10 Pacific) who
4
5 134 had started smoking since turning 18. Participants were recruited using whanaungatanga or
6
7 135 kinship networks, by word of mouth, and via social media and community advertising, using
8
9
10 136 approaches we have previously used successfully.[23] We also recruited via Māori and
11
12 137 Pacific health services that offered culturally targeted primary care, where we placed notices
13
14 138 about the research. As recruitment proceeded, we used purposive selection to promote
15
16 139 diversity and ensure participants varied by age and gender, and displayed varied smoking
17
18 140 behaviours (i.e., the sample included both daily and intermittent smokers, and recent
19
20
21 141 quitters).

22
23 142
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25 143 Māori participants included students, caregivers, and those in employment; just over half
26
27 144 were in paid employment and eight of the ten were living with wider family or friends. Seven
28
29 145 of the ten Pacific participants were living with their parents, the majority were in some form
30
31 146 of paid employment, and three participants were also studying. (Table 1 summarises
32
33 147 participants' characteristics). Ethics approval was obtained from the University of Otago's
34
35 148 Human Ethics Committee, which undertook a full review of the proposed research (approval
36
37 149 11/297). All participants received an information sheet and provided written consent.

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152 **Table 1: Participants' Characteristics**

Participant	Age	Gender	Smoking status
M1	26	Male	Daily
M2	24	Female	Recent quitter
M3	20	Male	Daily
M4 (19a)	19	Female	Intermittent
M5	23	Male	Daily
M6 (25a)	25	Female	Daily
M7 (19b)	19	Female	Daily
M8	22	Female	Daily
M9 (25b)	25	Female	Daily
M10	25	Male	Daily
P1	18	Female	Intermittent
P2	23	Female	Daily
P3	20	Female	Daily
P4	24	Female	Intermittent
P5 (19a) ¹	19	Male	Daily
P6 (19b) ¹	19	Male	Daily
P7 (19Fa)	19	Female	Daily
P8 (19c) ¹	19	Male	Intermittent
P9	19	Male	Intermittent
P10 (19Fb)	19	Female	Daily

153 1. Participants are referred to as 19a, 19b and 19c in the text to differentiate them from each other.

154 **Protocol and Procedure**

155 We used a semi-structured interview guide to explore participants' smoking initiation and
 156 each component of Chapman and Liberman's informed choice framework. The interview
 157 guide was developed collaboratively within the research team and underwent cognitive pre-
 158 testing before interviewing commenced. Specifically, we explored participants' awareness
 159 and knowledge of smoking's risks, and their acceptance of those risks when they began
 160 smoking. We also probed their reflections on how informed they considered their uptake of
 161 smoking was. To test the framework's completeness, we examined how participants

1
2
3 162 understood addiction (particularly prior to smoking), explored whether and how they had
4
5 163 considered the risks smoking poses, and reviewed the social and environmental contexts in
6
7 164 which their smoking began. A copy of the interview guide is included as a supplementary
8
9 165 file. Interviews were carried out by Māori and Pacific interviewers, with Māori and Pacific
10
11 166 participants respectively, in late 2011 and early 2012 and took between 25 and 50 minutes.
12
13
14 167 Interviewing continued until no new idea elements had been elicited in two consecutive
15
16 168 interviews. With participants' permission, each interview was audio recorded and then
17
18 169 transcribed verbatim.
19
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22 23 171 **Data Analysis**

24
25 172 Interviewers undertook an intensive review of their interview transcripts and developed an
26
27 173 initial descriptive classification that drew on the interview guide and was grounded in their
28
29 174 own cultural knowledge and perspectives.[24, 25] All interviewers (Māori, Pacific and
30
31 175 European) then met face to face to compare and contrast the findings across all three ethnic
32
33 176 groups. During this analysis workshop, facilitated by an independent qualitative researcher,
34
35 177 we identified over-arching themes within the transcripts and extended the initial descriptive
36
37 178 analyses that corresponded largely to the research protocol. This process allowed themes to
38
39 179 be cross-validated and nuanced, and the themes reported below reflect a consensus reached
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41 180 by the authors. We make extensive use of participants' own comments, and signal each
42
43 181 participant's ethnicity (M – Māori, P- Pacific); gender (F-female, M-male), and age.
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49 183 **RESULTS**

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52 184 We began by identifying themes that corresponded to Chapman and Liberman's theoretical
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54 185 framework[21] and then identified additional themes specific to Māori and Pacific
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186 participants. These latter themes provided more nuanced insights into participants' risk
187 acceptance and likelihood of making informed choices.

188

189 **Levels 1 and 2: Awareness of general and specific health risks**

190 Most participants had received some information about smoking's health risks from sources
191 including television advertising, and family and friends. However, as the participant below
192 explained, this information often conflicted with their immediate environment: *Um, just, mum*
193 *and dad, and the tv, like they have all those ads on the TV and, we were just brought*
194 *up, knowing that, it's bad for you, and like, even though like, we had older cousins and that*
195 *doing it* (MF24).

196

197 Others reported learning about smoking's risks from school programmes and, once they
198 started smoking, from warnings on packs: *I was in school, I was in 5th form. People from the*
199 *hospital they came to school and did an interview about smoking and that, and showed us*
200 *some photos of little kids smoking.... it put me off for like, all those pictures* (PF18). Both
201 Māori and Pacific participants reported gleaning information from tobacco packaging, which
202 had had a strong visual impact on them: *The first thing I saw was the packet. How it had all*
203 *those pictures on it* (PM19c). Others went on to read the warning labels and learned about
204 smoking's risks from these: *I learnt more reading off the packets.... How it affects your*
205 *lungs. And as I said you get looks of the pictures. Gangrene on your feet and stuff* (MF19b).
206 *Yeah I read about it (risks of smoking) on the packet* (PM19b).

207

208 Awareness of smoking's specific risks increased once participants had developed a regular
209 smoking pattern and were more frequently exposed to on-pack warnings. As a result, some
210 considered "cutting down" so they could resolve the dissonance their risk knowledge

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3 211 aroused: *The first thing I saw was the packet. How it had all those pictures on it, and this*
4
5 212 *was when we cut down on smoking.... when I always go for a smoke I always read the pack,*
6
7 213 *it has all those lung stuff. That's what I always read (PM19c).*
8
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10 214

11 215 While many participants reported receiving information about risks, some felt they had
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13
14 216 received little information, or reported they were not fully aware of the risks: *Oh I didn't*
15
16 217 *know anything when I first started.....when I was 18 I didn't know that you could get killed*
17
18 218 *from this stuff. And I didn't notice how bad it affects your body and stuff (MF 19b).* Of those
19
20 219 who did possess some risk understanding, most focused generally on cancer and few showed
21
22
23 220 a detailed knowledge of the multiple risks caused by smoking: *That cancer thing, and I don't*
24
25 221 *really know that much, ay. I just know that part. (PM19a).*
26
27

28 222

29 223 Māori participants regretted their lack of knowledge and wondered whether knowing more at
30
31 224 a younger age might have helped them remain smokefree: *Yeah, I should've been told about it*
32
33 225 *before I picked up my first cigarette (MM 20). I think it should be better put out there*
34
35 226 *because, like me, if I had've known more about it..... (MF19a).*
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39 228 **Levels 3 and 4: Personal acceptance and understanding the meaning of risk**

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42 229 Rather than outline how they had (or more typically, had not) assessed and then accepted
43
44 230 smoking's risks, most participants explained they had discounted risks by focussing on
45
46 231 counter-evidence. Many used examples of smokers who they knew and believed were
47
48 232 unscathed by smoking to question risk information, and repeatedly privileged their personal
49
50 233 observations over health warnings: *I see some people that smoke every day but nothing's*
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52 234 *happened to them (PF23).*
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3 236 Evidence that the harms of smoking typically occurred over the long-term enabled some to
4
5 237 rationalise their current behaviour by arguing they were unlikely to suffer any immediate
6
7 238 harm. These participants used the lack of an instantaneous effect to discount future risks:
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9
10 239it was seeing people everywhere smoking and realising but they're not dead and they're
11
12 240 not... I think it's the fact that it doesn't kill you straight away. And, um, somehow I thought I
13
14 241 must have just realised that they're smoking and they're not getting sicker; it's not affecting
15
16 242 them immediately... (MF22).
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19 243

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21 244 Others reported feeling unconcerned about the risks they had seen on tobacco packages,
22
23 245 which had no effect on their behaviour: *I saw pictures of like smoke effects and that, it didn't*
24
25 246 *bother me. I just kept on smoking* (PF23). Even participants who had seen family members
26
27 247 harmed by smoking did not feel motivated to quit: *Yep. I know more about smoking now only*
28
29 248 *because smoking and the causes and the damage that it's done is close to home with me.*
30
31 249 *That's why... but... and-and then, and then I look at myself and I'm still smoking so I'm just*
32
33 250 *like, well I can't say anything about that but that's just how I feel...* (MF25). Only direct
34
35 251 personal experience of harm seemed likely to motivate some participants to believe the risks
36
37 252 they had seen were real: *And you know how you even see those pictures on the packs of*
38
39 253 *smokes, I don't get put off. It's not enough to put me off. It's like "Oh yeah okay. I won't*
40
41 254 *believe it until it happens"* (MF19a).
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256 Overall, while several participants indicated they had a general awareness that smoking poses
257 risks, many struggled to identify specific risks and most used rationalisations to distance
258 themselves from the harms they recognised. These responses created an interesting context in
259 which to explore whether and how they made deliberate decisions, and interpreted tobacco
260 companies' arguments that smoking is an informed choice.

261

262 Reflective Decision Making

263 Several participants spoke about smoking as something that had happened with little or no
264 forethought, reflection or risk acceptance: *Nah I haven't really thought about it. It's just, I*
265 *don't really, I'm... when I'm in the moment I just you know, I don't really think back, I'm like,*
266 *it's just it happened so...(MF19b). We were just hanging out in the grounds and we wanted*
267 *to have a smoke... I started from there (PM19a).*

268

269 Participants' sense of something that had "just happened", typically while they were
270 "hanging out", suggests smoking occurred without active reflection; instead, it was an
271 unthinking transition from other activities. Some later found it difficult to understand their
272 lack of analysis: *Mmmm, I actually thought that, you know, maybe a year later that it was*
273 *strange how little I thought about it, the fact that I was actively taking up a highly addictive,*
274 *you know, substance (MM 26). Like others, this participant's retrospection positioned him as*
275 "actively" taking up a behaviour. However, the "little ...thought" he gave to what he was
276 doing questions how active his behaviour was and suggests other factors shaped participants'
277 actions and how they interpret these.

278

279 Social context of smoking

280 Because most participants, particularly Māori, saw smoking as normal and ubiquitous within
281 their social setting, few reported reflecting on whether they should start smoking: *Cause my*
282 *family, everyone at home, smokes as well. So yeah, I really didn't even think about it for a*
283 *second, I just started smoking (PM19a). Because everybody in our family were smoking too,*
284 *so I thought I'd just be like them. I thought it was normal...(MF25b). Participants' social*
285 context deterred active consideration, since they had no reason to reflect on a behaviour those

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3 286 around them practised. Not only did their social context dissuade reflection, it promoted
4
5 287 smoking uptake, since participants wanted to “be like” those around them.
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10 289 A minority reported feeling coerced into experimenting with smoking: *Nah ‘cause they kept*
11
12 290 *telling me, “Try it, try it, try it.” And I thought if I tried it then they’ll stop bugging me*
13
14 291 *(MF19a). Cause my friends they always smoke, cause whenever I see them smoking I just feel*
15
16 292 *like smoking too ... I don’t want to smoke but they always dare me so I just like I just can’t*
17
18 293 *take it I just have to smoke (PF19). These examples suggest some participants felt strong*
19
20 294 *pressure to comply with normative practices, and eventually took the path of least resistance.*
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25 296 However, even those who argued that starting to smoke was their own decision also
26
27 297 acknowledged they were influenced by what they perceived as positive attributes of smoking,
28
29 298 particularly the social connections smoking created: *I think it was my own decision, but no-*
30
31 299 *one really forced me to smoke but it’s just when I keep on seeing, like my friends smoke and*
32
33 300 *I’ll be like, oh this, that looks cool (PM19c). For others, “coolness” was associated with*
34
35 301 *sophistication and adult behaviour, as the legal purchase age of tobacco reinforced smoking*
36
37 302 *as an adult activity: Um, it-it, yeah, I think at that age it made me feel cool ‘cause that was*
38
39 303 *when you were growing up, that was the “growing up” age and...(MF25b).*
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45 305 Smoking played an important role in helping participants feel integrated with a social group;
46
47 306 displaying the same “cool” behaviours helped them assert their group identity and develop
48
49 307 stronger and more meaningful relationships: *Um, I don’t know, I guess because my, um, my*
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51 308 *cousin smoked. So most of... some of my friends smoked and it just seemed like it was the in*
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53 309 *thing to do... And um I felt like whenever I went out and listened to the smokers talking, they*
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3 310 *were getting like very in-depth and talking about personal things and it seemed like a cool*
4
5 311 *thing just to be able to socialise with people. It was a way to connect for me I think (MF 22).*

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7 312

8
9 313 As well as providing a point of connection, some found that smoking counteracted boredom
10
11 314 created by unemployment, particularly when they had left school. In situations where young
12
13 315 people had little else to do, smoking provided a distraction and united the group: *I dropped*
14
15 316 *out of school, yeah so I was staying home and yeah that's when I started smoking every day*
16
17 317 *cause yeah, just like the yeah, I was hanging round my mates every day. There was no school*
18
19 318 *so we just had a smoke (PM19a).*

20
21 319

22
23 320 Beliefs that smoking helped manage stress were widespread and several participants saw
24
25 321 smoking as a form of self-medication that helped them cope more successfully with stressful
26
27 322 settings. *Getting into a new relationship was a lot of stress because you know it's just*
28
29 323 *stressful being in a relationship and you always tend to turn to smoking and that was how I*
30
31 324 *turned to being a daily smoker (PF24). And then this year I went to Uni and it's my first year*
32
33 325 *at Uni so um I needed it for stress, 'cause I was stressing out a lot and I just picked up*
34
35 326 *smoking again (MF19a).*

36
37 327

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39 328 Several participants reported an association between drinking and smoking. Alcohol fuelled
40
41 329 greatly increased consumption, particularly among participants who were otherwise lighter
42
43 330 smokers: *When I'm sober I'll have one in the morning and one at lunch but when it's a party*
44
45 331 *it's like two packets (PF23) and The more you drink, the more you smoke (MF 25a).*

46
47 332 In summary, smoking was a social norm for many participants and was positively reinforced
48
49 333 by a sense of group belonging. The perception that smoking alleviated stress further
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51 334 reinforced it while alcohol consumption and boredom fuelled consumption.

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5 336 **Addiction**

6
7 337 Some participants had great faith in their ability to stop smoking and felt they would quit
8
9 338 when they chose, using will power and positive thinking: *I could say easy if I put my mind to*
10
11 339 *it...*(MF19). However, others felt less confident because they had become addicted before
12
13 340 they realised what was happening and only understood addiction once they had experienced
14
15 341 *it: ...you don't think about it cos it just sneaks up on you, like I said, it just suddenly, suddenly*
16
17 342 *you're addicted and, and you don't quite realise it until it's too late* (MF26). The realisation
18
19 343 they were addicted led some to talk regretfully about having started to smoke: *I was just*
20
21 344 *thinking I shouldn't have started (laughs), and yeah regretted it* (MM20). Although some
22
23 345 participants regretted smoking and a small number had felt pressured into initiating smoking,
24
25 346 others saw smoking as a badge of maturity and a behaviour that connected them more
26
27 347 strongly to their social groups. For these participants, addiction posed fewer concerns
28
29 348 because smoking signalled their social standing. These perceptions influenced how
30
31 349 participants interpreted industry arguments.

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38 351 **Tobacco Companies' "Informed Choice" Argument**

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40 352 After reflecting on their understanding of smoking, their social context and smoking's
41
42 353 addictiveness, we explored participants' reactions to a statement made by Imperial Tobacco:
43
44 354 *"The risks associated with smoking are universally known...and smoking is... a matter of*
45
46 355 *informed adult choice"*.^[26] Despite many participants stating they had little knowledge of
47
48 356 smoking's risks, particularly its addictiveness, most nonetheless agreed that smoking was an
49
50 357 informed choice: *if you're an adult then, you know, it's their choice whether they want to do*
51
52 358 *it or not, ...*(MF24). *...it's an adult choice and it's up to that person if they wanna smoke or*
53
54 359 *not smoke* (PM19b). One participant summed up the conflict many experienced; he already

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2
3 360 experienced considerable regret and felt inextricably addicted, but nonetheless asserted
4
5 361 ownership of his situation. *For me, I regret having smoked when I was 14, cause, yeah, it just*
6
7 362 *spoiled my life from that day, wasting money on it, yeah, but it's just that I can't leave it so.*
8
9 363 *Yeah, but it's up to you aye. (PM19a).*
10
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12 364

13
14 365 Several saw smoking as a symbol of adulthood, and it was inconceivable that an adult would
15
16 366 not make an informed choice: *like if you're an adult, to me, like you're making an informed*
17
18 367 *choice (MF24. Smoking was also an important means of asserting their independent identity;*
19
20 368 *declaring they had made anything less than a deliberate choice would be inconsistent with the*
21
22 369 *autonomy they valued: It's my life, I choose what I do, if I want to smoke, I smoke; if I don't*
23
24 370 *want to smoke, I don't smoke (PF18). None of our participants reflected on how tobacco*
25
26 371 *companies' products had constrained and determined their choices; instead they saw*
27
28 372 *independence, adulthood and smoking as intertwined. Ironically, participants' desire to affirm*
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30 373 *their independence led them to agree with tobacco companies' position, despite the lack of*
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32 374 *knowledge they outlined and the contextual factors that had shaped their actions.*
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376 **DISCUSSION**

377 Many participants had not progressed beyond Chapman and Liberman's first stage of
378 informed choice. However, despite considering they had limited knowledge of smoking's
379 risks, feeling influenced by social factors, and rarely considering future consequences, most
380 nevertheless thought they had made an informed choice. Participants generally learned about
381 the specific risks of smoking from on-pack warnings, which they typically accessed only after
382 becoming addicted. While developing this knowledge left them more informed, it could not
383 influence their actions retrospectively; paradoxically, participants' assessment of their

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3 384 informedness, occurred after their addiction, when they were more frequently exposed to
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5 385 warning information.
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10 387 Like many young adults, most dismissed the risks presented as uncertain and unlikely.[27]

11 388 Even those who had seen family members suffer from diseases caused by smoking, or who

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14 389 had themselves experienced ill-health from smoking, rationalised their experiences,

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16 390 diminished the role played by smoking, and rarely saw risks as relevant to themselves.

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18
19 391 Participants saw smoking as normal, a means of establishing social connections, and lived in

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21 392 social contexts where *not* smoking could have challenged group norms. The perceived

22
23 393 supportive environment for continued smoking, and the importance many participants placed

24
25 394 on smoking as a social behaviour that symbolised adulthood, undermined informed decision-

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27 395 making. So too did the strong association between alcohol and smoking; alcohol featured

28
29 396 strongly in participants' social environments and compromised their ability to make rational

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31 397 decisions.
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36 399 Study limitations include the small sample; while interviewing continued until data saturation

37
38 400 had occurred, a larger study is required to assess whether the knowledge patterns and

39
40 401 perceptions we identified reflect those of the wider population. Strengths include the use of

41
42 402 in-depth interviews, which allowed us to elicit rich data that offer the first insights into how

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44 403 young adults from indigenous and minority ethnicities experience and interpret informed

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46 404 choice.
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51 406 Our findings help explain persistent inequalities in smoking prevalence between Māori and

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53 407 Pacific, and New Zealand Europeans (NZE) and highlight important differences between

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55 408 ethnicities. Māori and Pacific participants reported having lower awareness of smoking's
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3 409 general risks than participants in the NZE sample, where all participants displayed awareness
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5 410 of some risks caused by smoking.[28] Our participants were more likely to comment on the
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7 411 connecting role smoking played in their communities and family networks, which suggests
8
9 412 social impediments may also affect how effectively young adult Māori and Pacific may make
10
11 413 informed choices. This normative environment may also explain differing perceptions of
12
13 414 smoking's role in their future. While NZE participants typically predicted they were
14
15 415 "unlikely to be smoking in the future" and saw smoking as "a lifestyle phase",[22] Māori and
16
17 416 Pacific were less certain that smoking was a temporary part of their lives. They were also less
18
19 417 likely than NZE participants to reflect critically on the tobacco industry's role in addicting
20
21 418 them and others to a lethal product. Instead, they saw smoking as a symbol of maturity, and a
22
23 419 sign they were capable of making adult decisions; in this context, declaring they had not
24
25 420 made informed choices could seem akin to stating they had not yet matured fully. Pacific and
26
27 421 Māori were more likely to report using smoking to relieve life circumstances such as stress
28
29 422 and boredom. Yet despite these differences, participants shared common attributes with NZE
30
31 423 young adults. For all groups, the disinhibiting effects of alcohol undermined active risk
32
33 424 evaluation and facilitated smoking uptake.[17, 18] Likewise most participants greatly
34
35 425 underestimated smoking's addictiveness even though understanding this concept was pivotal
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37 426 to making an informed choice.[22] In common with NZE participants, many Māori and
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39 427 Pacific reported acting impulsively and without having reflected on the longer term
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41 428 consequences they might face.
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430 Arguments that smoking is an "informed choice" bear little relationship to the social contexts
431 young adult Māori and Pacific smokers experience. Our findings have important policy
432 implications and highlight the urgent need to change smoking norms within Māori and
433 Pacific communities. While existing tobacco control policies such as smokefree

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2
3 434 environments, tobacco taxation, social marketing and supply initiatives have gone some way
4
5 435 to denormalising smoking in Māori and Pacific settings, future efforts (including targeted
6
7 436 funding and resources) will need to prioritise Māori and Pacific populations if we are to
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9
10 437 reduce inequalities in smoking rates across New Zealand.

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14 439 Political and tribal leaders, tobacco control advocates and smokers from indigenous
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16 440 communities are calling for new and innovative measures, including banning tobacco and
17
18 441 reducing tobacco supply. Many of these measures were outlined in the original MASC report,
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20 442 but progress in many areas has been disappointingly slow [29]. In addition to these more
21
22 443 centralised approaches it is important for Māori and Pacific communities to build social
23
24 444 movements where people interact in smokefree settings; examples such as Waka Ama
25
26 445 (outrigger canoe racing) already exist. Other measures include altering environments where
27
28 446 smoking uptake occurs, for example, (enforcing smokefree policies in schools, creating a
29
30 447 home environment where smoking is clearly not accepted as culturally appropriate, and by
31
32 448 reducing social supply of tobacco within families and communities). Targeted and well-
33
34 449 resourced mass media and social marketing campaigns could illustrate the harms of smoking
35
36 450 (including addiction), decrease social supply, increase positive messages about “smoking not
37
38 451 being part of our culture”, and expose the role of the tobacco companies in the smoking
39
40 452 epidemic for Māori and Pacific. Requiring all areas in bars and restaurants to be smokefree,
41
42 453 will reduce opportunities for tobacco and alcohol co-use. Developing a smokefree generation
43
44 454 and increasing the age at which young adults may purchase tobacco may be particularly
45
46 455 salient to Māori and Pacific, and will need careful input from these communities.[30, 31]

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49
50 457 Broader policy approaches may also be required to mitigate the risks of smoking being used
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52 458 to counteract stress and boredom.[32] These could include increased employment
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3 459 opportunities and educational initiatives to ensure school success along with more nuanced
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5 460 health education. Low recall of school health programmes raises the possibility that health
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7 461 education messages may not be sufficiently targeted to meet the needs of specific cultural
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9
10 462 groups such as Pacific or Māori, a conclusion advanced in other studies.[33, 34] Some Pacific
11
12 463 participants had not grown up in New Zealand, so our results may also indicate a lack of
13
14 464 exposure to education programmes run within NZ schools. Furthermore, some Māori and
15
16 465 Pacific reported having dropped out of school, thus even those who had attended school in
17
18 466 New Zealand may not have been exposed to all the health programmes that demonstrated
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20
21 467 smoking's harms.
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24
25 469 Future research could explore the feasibility of these ideas with Māori and Pacific, and, if
26
27 470 appropriate, pilot and test potential interventions to assess their uptake and impact on Māori
28
29 471 and Pacific. More fundamentally, young adults' acceptance of smoking as normal and
30
31 472 socially binding reflects a need for deeper change within these communities, using culturally
32
33 473 relevant mechanisms that community members themselves determine and implement.
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36 474

37 38 475 **CONCLUSION**

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40 476 For many young people, smoking uptake occurs quickly, easily and without deliberation.
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42 477 Arguments that smoking is an informed choice overlook young adults' limited risk
43
44 478 knowledge, ignore the social contexts that facilitate initiation and maintain smoking, and take
45
46 479 no account of how addiction compromises choice. Two approaches could address the lack of
47
48 480 informed choice evident in our findings. First, changing participants' environments by
49
50 481 increasing the legal purchase age to at least 25, a point at which uptake becomes less likely,
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52 482 implementation of smokefree generation proposals, decoupling smoking and drinking,
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54 483 increasing the cost of smoking and decreasing where tobacco may be consumed. Second,
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3 484 important contextual factors relevant to Māori and Pacific communities also require action to
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5 485 reduce the high smoking prevalence among these groups. Encouraging even greater
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7 486 participation in indigenous smokefree social movements could provide Māori and Pacific role
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9 487 models who re-inforce smokefree messages. More fundamentally, however, tobacco control
10
11 488 funding must recognise Māori and Pacific needs more effectively, and the New Zealand
12
13 489 government must be held accountable for achieving the smokefree 2025 goal, so clearly
14
15 490 outlined in the MASC report.
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491

492 **Competing interests**

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21
22
23 493 We have no competing interests but note, for the sake of full disclosure, that we have
24
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26
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28
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31 497 connection to any organisation that could profit from the study findings.
32
33
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41
42 501 report writing and the preparation of this MS. We had full access to all of the data in this
43
44 502 study and take complete responsibility for the integrity of the data and the accuracy of the
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46 503 data analysis.
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3 506 **Authors' contributions**
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5

6 507 HG and JH led this phase of the project; JH conceived the project and, with RE, obtained
7
8 508 funding. HG, SE, and DT collected the data reported, HG, SE, JH and RG undertook initial
9
10 509 data analyses. HG and JH led the MS development; DT, SE, RG and RE provided feedback
11
12 510 on drafts. All authors have approved the submitted MS and agree to be responsible for the
13
14 511 data reported.
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28
29 517 Research Theme whose members develop, test and evaluate policy measures that support the
30
31 518 New Zealand government's goal of becoming a smoke-free nation by 2025.
32
33
34

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4
5 530 Her research has offered a new definition of informed choice in relation to young adult
6
7 531 smokers.
8
9

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12 533 of the ASPIRE2025 collaboration at the University of Otago, Wellington. He has published
13
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15
16

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42 544 **Data Sharing**

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Supplementary file

SMOKING AS AN 'INFORMED CHOICE'

In-depth Focused Interview Protocol

Note for interviewers: each section is marked with a priority (low, medium, high, critical) to given an indication of how much time should be spent prompting answers

Introduction

Hello, my name is ... and this is ..., who will be sitting in on the interview today. Just so you know, the reason we have two people here is that we are in the process of trying out this questionnaire. Bearing that in mind, please do let me know if you find any of the questions difficult to understand or to answer.

Before we start talking about the research topic, I have an information sheet about my work and I would like you to read this so I can answer any questions you might have about my work.

As a participant you retain the right to ask questions at any time, receive a copy of the findings, withdraw from the research at any time and to decline answering any questions.

- Explain recording of the interview and participant's rights in relation to this. **Once participant has agreed to the recording of the interview turn on dictaphone.**
- Check if participant has any questions about the interview.
- Ask the participant to sign the consent form.
- State their rights on the recorder (right to ask questions at any time; right to withdraw from the work; right to have a copy of the results; right to ask for the recorder to be turned off; remind them that the research is confidential and their comments won't be attributed to them personally).

"Smoking journey" focused discussion**Priority: LOW – not too much time**

1. Looking back, can you tell me about the first time you smoked a cigarette? How old were you? Where were you, who were you with? How did you feel about it? What did you think? What made you want to have that cigarette? How did you feel about smoking at the time?

Priority: MEDIUM

2. How do you describe your smoking at the moment? (social smoker/ occasional/ daily etc) How many cigarettes do you usually smoke per day/ per week?
3. Can you describe the context in which you smoke? Who are you with, where are you, what are you doing (probe for detail about role of alcohol, work, social cues). Are there any particular reasons why you smoke at those times?
4. Can you describe the situations where you don't smoke? Are there places or times when you don't smoke? Are there any particular reasons why you don't smoke in these places and times?

Priority: CRITICAL

5. Tell me about how you moved from being someone who may have /or has had just tried smoking a few times to being someone who smokes most weeks/every day (as appropriate)?
6. How old were you when you started smoking with this pattern? What was happening in your life at that time? (probe: where were you , were you living at home or had you moved away, who were you spending time with, were you working, at college etc)

Smoking decision process**Priority: CRITICAL**

7. Can you tell me about how you made the decision to smoke at that time? (Who influenced that decision, what did you feel at the time, what did you think about?)
8. Can you relate this decision to other decisions you were making at the time? eg drinking alcohol, getting into relationships, job or study decisions?
9. How did you weigh up the decision to smoke or not to smoke at that time?

Knowledge of risk at time of uptake**Priority: CRITICAL**

10. At the time that you started smoking (weekly/daily/whatever): What had you been told about smoking? What had you read? Where? (probe: what specifically do you remember was said about smoking?) Where did you get most of your messages about smoking? (eg friends family etc)
11. You said you'd been told (x,y,z).. what did you think about that, did it seem important/true? Did it concern you? Why?
12. And how did you find smoking compared with what you'd been told about it? (include: addictiveness, effects on your body, health consequences, social consequences)

Knowledge of risk currently**Priority: HIGH**

13. Have you changed your thinking about smoking since you started smoking more regularly? How do you feel about smoking now? What else do you know about smoking now? Does it concern you? Why?
14. If you keep smoking for the rest of your life, what do you think might happen? How do you feel about that? How likely do you think it is that (each thing you mentioned) could happen to you? (very likely, somewhat likely, somewhat unlikely, very unlikely, don't know?)
15. What (other) health effects do you know of that can be caused by smoking? (interviewer – note down each condition mentioned)
16. What do you think having (that condition – each one mentioned at 14 and 15) would be like? What symptoms might a person get, how might it affect their life?)
17. Out of 100 people who have smoked throughout their life, how many of them do you think are likely to end up dying from something related to smoking? (probe discussion: what information did you draw on to come up with that number?)

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2
3 18. So given what you've just described about what you know about risk – how do you
4 do you think your knowledge and understanding at the time that you started
5 smoking regularly compares to what you know now? (Probe: in what way has it
6 changed?)
7
8

9 **Thoughts on addiction**

10 **Priority: HIGH**

- 11
12 19. Of the people in your life – family, friends – do you know people who have quit or
13 tried to quit smoking? What do you think made them try to quit? How did they go
14 about quitting? How did it work out for them?
15
16 20. How easy do you think it would be to quit smoking completely (that is, not smoke
17 again in any situation)? Why do you feel that way?
18
19 21. Thinking back, what did you think about quitting (did you think you would, how easy
20 did you think it would be?) when you first started smoking (weekly/daily)? (Has your
21 opinion changed since then, if so how?)
22
23 22. (if not already mentioned) Cigarettes are sometimes described as “addictive”. What
24 do you think it means to be addicted?
25
26 23. Do you think you'll still be smoking in five years time? Ten years? What makes you
27 think that?
28
29

30 **Conclusion**

31 **Priority: HIGH**

- 32
33 24. You've described the circumstances in which you took up smoking, and some of your
34 thoughts about smoking then and now. Do you think, knowing what you do now, if
35 you were faced with the same circumstances (describe) that you would still take up
36 smoking?
37
38 25. Can you think of people in your life who are about your age – say siblings or friends
39 – who don't smoke? Why don't they/ what do you think are the influences on their
40 decision to not smoke? (Probe: how are the things that influence them different to
41 the things that influenced you?) Do you think, if you had been in the same
42 circumstances/ had the same influences as they do, that you would still have started
43 smoking? Why/ why not?
44
45
46 26. To finish off, I'd like to read you a recent quote from a tobacco company
47 spokesperson in NZ.
48

49 *“The risks associated with smoking are universally known...and smoking is... a matter of*
50 *informed adult choice”*

51 (Imperial Tobacco NZ Ltd 2010: Submission to the Māori Affairs Select Committee)
52
53

54 We'd be interested to know what you think about this statement...how does it relate to your
55 experience and what you've just described about how you started to smoke?
56

57 (unpack: “risks universally known”, “informed” “adult choice”)
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27. So in order to make an informed adult choice..What exactly do you think people should know and understand, before they decide to start smoking? How much should they know in order to make that decision?
28. And given that you have said that people should know and understand x,y,z; did you have that knowledge and understanding when you took up smoking? What proportion of people aged xx (whatever age person was when they became a regular smoker) do you think have that knowledge and understanding?
29. Do you have any other comments you'd like to add about what we've been discussing?

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I just have a short questionnaire for you to complete, please. Like the rest of the discussion, the information you provide will be completely confidential and only members of the research team will be able to access it.

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Thank, assure confidentiality, check that demographic sheet has been filled out, close.

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3 **Note for researchers to consider at the close of pilot interview:**
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5 How long did each section take?
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10 Were any questions hard to answer? (mark on interview schedule any questions that the
11 participant found difficult)
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16
17 Have the following all been covered off during the interview?
18

19 Level 1: having heard that smoking increases health risks
20

21 Level 2: being aware that specific diseases are caused by smoking
22

23 Level 3: accurately appreciating the meaning, severity, and probabilities of developing
24 tobacco related diseases
25

26 Level 4: personally accepting that the risks inherent in levels 1-3 apply to one's own risk of
27 contracting such diseases (note: a person's view of the addictiveness of smoking and
28 confidence in their own ability to quit before suffering harms will come into this)
29

30 5: maturity of decision making processes – did they make the choice as an adult, and did
31 they use a rational process to decide?
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33 6: ability to make decision free of social and environmental pressures.
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BMJ Open

A qualitative analysis of Māori and Pacific smokers' views on informed choice and smoking

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Manuscripts

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3 1 **A qualitative analysis of Māori and Pacific smokers' views on informed choice and**
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5
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7

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27 **ABSTRACT**

28 **Objectives:** Tobacco companies frame smoking as an informed choice, a strategy that holds
29 individuals responsible for harms they incur. Few studies have tested this argument, and even
30 fewer have examined how informed indigenous smokers or those from minority ethnicities
31 are when they start smoking. We explored how young adult Māori and Pacific smokers
32 interpreted “informed choice” in relation to smoking.

33 **Participants:** Using recruitment via advertising, existing networks and word of mouth, we
34 recruited and undertook qualitative in-depth interviews with 20 Māori and Pacific young
35 adults aged 18-26 who smoked.

36 **Analyses:** Data were analysed using an informed-choice framework developed by Chapman
37 and Liberman. We used a thematic analysis approach to identify themes that extended this
38 framework.

39 **Results:** Few participants considered themselves well-informed and none met more than the
40 framework’s initial two criteria. Most reflected on their unthinking uptake and subsequent
41 addiction, and identified environmental factors that had facilitated uptake. Nonetheless,
42 despite this context, most agreed that they had made an informed choice to smoke.

43 **Conclusions:** The discrepancy between participants’ reported knowledge and understanding
44 of smoking’s risks, and their assessment of smoking as an informed choice, reflects their
45 view of smoking as a symbol of adulthood. Policies that make tobacco more difficult to use
46 in social settings could help change social norms around smoking and the ease with which
47 initiation and addiction currently occur.

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2
3 48 **Article Summary**
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5 49 **Strengths and limitations of this study**
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- 7
8 • Use of in-depth qualitative methods allowed detailed probing of participants' smoking
9 uptake and their understanding and personal acceptance of smoking's risks.
10
11
12 • Our findings illustrate how young adult Māori and Pacific see smoking as usual within
13 their communities and highlight potential interventions that could denormalise smoking
14 and reduce its perceived acceptability.
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17 • The study is deliberately exploratory and our findings thus require testing with a wider
18 sample before they can be generalised further.
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Peer review only

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3 58 **BACKGROUND**
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5 59 The New Zealand Parliament has several Select Committees that comprise members drawn
6
7 60 from all political parties [1]. As well as reviewing draft legislation, these committees may
8
9 61 establish inquiries into matters of concern to New Zealand. Following prompting by Māori
10
11 62 politicians and health advocates, the Māori Affairs Select Committee (MASC) initiated an
12
13 63 *Inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for*
14
15 64 *Māori*. [2] in October 2010. The Inquiry called for an analysis that examined the toll of
16
17 65 tobacco use on Māori, and recognised New Zealand's striking disparities in smoking
18
19 66 prevalence, which is much higher among Māori (38%) and Pacific peoples (25%) than among
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21 67 NZ European (15%) [3].
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27 69 Among other claims advanced to the MASC, tobacco company representatives argued that
28
29 70 smoking is an 'informed adult choice'; this argument implies smokers start smoking after
30
31 71 appraising the risks and benefits they may incur. [4] By transferring responsibility for future
32
33 72 harm back onto smokers themselves, tobacco companies reduce their potential liability and
34
35 73 promote beliefs that tobacco control measures undermine individuals' right to smoke. [4, 5]
36
37 74 This argument has a superficial appeal and sits easily within the neo-liberal discourse that has
38
39 75 dominated New Zealand's political landscape. However, the premises of this argument have
40
41 76 not been carefully tested and require closer scrutiny, given tobacco companies' use of this
42
43 77 claim to oppose policy measures. Fully informed choices are arguably more important for
44
45 78 tobacco than for other products, given how addictive smoking is and the enormous harm
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47 79 tobacco inflicts on users.
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54 81 Māori and Pacific take up smoking at a younger age than their European counterparts;
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56 82 children as young as 11 years of age may experiment with smoking and smoking may
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3 83 become established in children by age 14;[6] for these smokers, starting smoking is clearly
4
5 84 not an adult choice. However, smoking uptake also occurs among Māori and Pacific young
6
7 85 adults and prevalence remains high among those aged 18–25, despite reductions in adolescent
8
9
10 86 smoking rates.[7, 8] Evidence of increasing smoking uptake among young people aged 18
11
12 87 and over, who are legally considered adults in New Zealand, highlights the importance of
13
14 88 testing the tobacco industry’s ‘informed choice’ arguments. Specifically, few studies have
15
16 89 explored whether young adults, particularly those most impacted by inequalities, make active
17
18 90 and informed decisions to start smoking.
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21 91
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23 92 Despite the superficial appeal of ‘informed choice’ arguments, which draw on neo-liberal
24
25 93 views of personal responsibility,[9, 10] these overlook important socio-economic and
26
27 94 cultural factors that influence Māori and Pacific young adults’ decision-making. For example,
28
29 95 Māori and Pacific ethnic groups typically have poverty rates around double those of the
30
31 96 European ethnic group, regardless of the measure used, and smoking accounts for a large
32
33 97 proportion of economic hardship experienced by Māori and Pacific peoples.[11] Levels of
34
35 98 social inequality between Māori and European people have an independent effect on Māori
36
37 99 smoking rates.[12] Where smoking prevalence is high, as it is among Māori and Pacific,
38
39 100 young adults may regard it as normal, associate it with desirable social benefits,[13-15] and
40
41 101 discount the risks communicated in health warnings and through other media. Furthermore,
42
43 102 cultural practices such as gift giving and sharing may undermine informed choice by
44
45 103 promoting uptake in contexts where refusal to accept or use tobacco may be regarded as
46
47 104 impolite, or where sharing is strongly associated with hospitality and generosity.[16]
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54 106 Other factors likely to affect European New Zealanders as well as Māori and Pacific young
55
56 107 adults, include the widespread association of smoking and drinking.[17] Growing evidence
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108 suggests alcohol consumption both facilitates smoking initiation and fuels tobacco use.[17,
109 18] Higher rates of drinking “a large amount of alcohol” among Māori and Pacific peoples
110 thus further undermines young people’s ability to undertake the risk–benefit assessments
111 implicit in informed choices.[19, 20]

112

113 **Informed Choice Framework**

114 Chapman and Liberman proposed four levels of understanding and knowledge that smokers
115 should possess before they can make an informed choice.[21] First, smokers need to have
116 heard that smoking increases health risks; second, they must be aware that smoking causes
117 specific diseases; third they must accurately appreciate the meaning, severity and
118 probabilities of developing diseases caused by tobacco use. Finally, they must personally
119 accept the risks inherent in levels 1–3 as applicable to themselves. Other factors, such as
120 addiction and social context, may also influence informed choices by circumscribing the
121 options available to young people. We considered these factors, together with young
122 people’s socio-economic and cultural settings, alongside Chapman and Liberman’s criteria,
123 and then used the resulting framework to investigate whether Māori and Pacific young adults
124 make active, informed decisions when they beginning to smoke. We compared and contrasted
125 the results from these analyses with those from a predominately New Zealand European
126 sample, which has been reported separately [22] Our overall research question explored how
127 smoking uptake occurred, particularly the risk awareness and understanding our participants
128 displayed, and the contexts in which their behaviour evolved.

129

130

131 **METHODS**

132 **Sample**

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2
3 133 We conducted in-depth interviews with 20 18–26-year-olds (10 Māori and 10 Pacific) who
4
5 134 had started smoking since turning 18. Participants were recruited using whanaungatanga or
6
7 135 kinship networks, by word of mouth, and via social media and community advertising, using
8
9 136 approaches we have previously used successfully.[23] We also recruited via Māori and
10
11 137 Pacific health services that offered culturally targeted primary care, where we placed notices
12
13 138 about the research. As recruitment proceeded, we used purposive selection to promote
14
15 139 diversity and ensure participants varied by age and gender, and displayed varied smoking
16
17 140 behaviours (i.e., the sample included both daily and intermittent smokers, and recent
18
19 141 quitters).

22
23 142
24
25 143 Māori participants included students, caregivers, and those in employment; just over half
26
27 144 were in paid employment and eight of the ten were living with wider family or friends. Seven
28
29 145 of the ten Pacific participants were living with their parents, the majority were in some form
30
31 146 of paid employment, and three participants were also studying. (Table 1 summarises
32
33 147 participants' characteristics). Ethics approval was obtained from the University of Otago's
34
35 148 Human Ethics Committee, which undertook a full review of the proposed research (approval
36
37 149 11/297). All participants received an information sheet and provided written consent.

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152 **Table 1: Participants' Characteristics**

Participant Code ¹	Ethnicity	Age	Gender	Smoking status
MM26	Māori	26	Male	Daily
MF24	Māori	24	Female	Recent quitter
MM20	Māori	20	Male	Daily
MF19a	Māori	19	Female	Intermittent
MM23	Māori	23	Male	Daily
MF25a	Māori	25	Female	Daily
MF19b	Māori	19	Female	Daily
MF22	Māori	22	Female	Daily
MF25b	Māori	25	Female	Daily
MM25	Māori	25	Male	Daily
PF18	Pacific	18	Female	Intermittent
PF23	Pacific	23	Female	Daily
PF20	Pacific	20	Female	Daily
PF24	Pacific	24	Female	Intermittent
PM19a	Pacific	19	Male	Daily
PM19b	Pacific	19	Male	Daily
PF19a	Pacific	19	Female	Daily
PM19c	Pacific	19	Male	Intermittent
PM19d	Pacific	19	Male	Intermittent
PF19b	Pacific	19	Female	Daily

153 1. We have used the codes shown to attribute quotations, but note that we did not quote each
 154 respondent, thus not all codes are used in the Results section.

155

156 **Protocol and Procedure**

157 We used a semi-structured interview guide to explore participants' smoking initiation and
 158 each component of Chapman and Liberman's informed choice framework. The interview
 159 guide was developed collaboratively within the research team and underwent cognitive pre-
 160 testing before interviewing commenced. Specifically, we explored participants' awareness
 161 and knowledge of smoking's risks, and their acceptance of those risks when they began

1
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3 162 smoking. We also probed their reflections on how informed they considered their uptake of
4
5 163 smoking was. To test the framework's completeness, we examined how participants
6
7 164 understood addiction (particularly prior to smoking), explored whether and how they had
8
9 165 considered the risks smoking poses, and reviewed the social and environmental contexts in
10
11 166 which their smoking began. A copy of the interview guide is included as a supplementary
12
13 167 file. Interviews were carried out by Māori and Pacific interviewers, with Māori and Pacific
14
15 168 participants respectively, in late 2012 and early 2013 and took between 25 and 50 minutes.
16
17 169 Interviewing continued until no new idea elements had been elicited in two consecutive
18
19 170 interviews. With participants' permission, each interview was audio recorded and then
20
21 171 transcribed verbatim.
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27 173 **Data Analysis**

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29 174 Interviewers undertook an intensive review of their interview transcripts and developed an
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31 175 initial descriptive classification that drew on the interview guide and was grounded in their
32
33 176 own cultural knowledge and perspectives.[24, 25] All interviewers (Māori, Pacific and
34
35 177 European) then met face to face to compare and contrast the findings across all three ethnic
36
37 178 groups. During this analysis workshop, facilitated by an independent qualitative researcher,
38
39 179 we identified over-arching themes within the transcripts and extended the initial descriptive
40
41 180 analyses that corresponded largely to the research protocol. This process allowed themes to
42
43 181 be cross-validated and nuanced, and the themes reported below reflect a consensus reached
44
45 182 by the authors. We make extensive use of participants' own comments, and signal each
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47 183 participant using the codes outlined in Table 1.
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3 186 **RESULTS**

4
5 187 We began by identifying themes that corresponded to Chapman and Liberman's theoretical
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7 188 framework[21] and then identified additional themes specific to Māori and Pacific
8
9 189 participants. These latter themes provided more nuanced insights into participants' risk
10
11 190 acceptance and likelihood of making informed choices.
12
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16 192 **Levels 1 and 2: Awareness of general and specific health risks**

17
18 193 Most participants had received some information about smoking's health risks from sources
19
20 194 including television advertising, and family and friends. However, as the participant below
21
22 195 explained, this information often conflicted with their immediate environment: *Um, just, mum*
23
24 196 *and dad, and the tv, like they have all those ads on the TV and, we were just brought*
25
26 197 *up, knowing that, it's bad for you, and like, even though like, we had older cousins and that*
27
28 198 *doing it (MF24).*
29

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34 200 Others reported learning about smoking's risks from school programmes and, once they
35
36 201 started smoking, from warnings on packs: *I was in school, I was in 5th form. People from the*
37
38 202 *hospital they came to school and did an interview about smoking and that, and showed us*
39
40 203 *some photos of little kids smoking.... it put me off for like, all those pictures (PF18). Both*
41
42 204 Māori and Pacific participants reported gleaning information from tobacco packaging, which
43
44 205 had had a strong visual impact on them: *The first thing I saw was the packet. How it had all*
45
46 206 *those pictures on it (PM19c). Others went on to read the warning labels and learned about*
47
48 207 *smoking's risks from these: I learnt more reading off the packets.... How it affects your*
49
50 208 *lungs. And as I said you get looks of the pictures. Gangrene on your feet and stuff (MF19b).*
51
52 209 *Yeah I read about it (risks of smoking) on the packet (PM19b).*
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3 211 Awareness of smoking's specific risks increased once participants had developed a regular
4
5 212 smoking pattern and were more frequently exposed to on-pack warnings. As a result, some
6
7 213 considered "cutting down" so they could resolve the dissonance their risk knowledge
8
9
10 214 aroused: *The first thing I saw was the packet. How it had all those pictures on it, and this*
11
12 215 *was when we cut down on smoking.... when I always go for a smoke I always read the pack,*
13
14 216 *it has all those lung stuff. That's what I always read* (PM19c).
15

217

18 218 While many participants reported receiving information about risks, some felt they had
19
20 219 received little information, or reported they were not fully aware of the risks: *Oh I didn't*
21
22 220 *know anything when I first started.....when I was 18 I didn't know that you could get killed*
23
24 221 *from this stuff. And I didn't notice how bad it affects your body and stuff* (MF19b). Of those
25
26 222 who did possess some risk understanding, most focused generally on cancer and few showed
27
28 223 a detailed knowledge of the multiple risks caused by smoking: *That cancer thing, and I don't*
29
30 224 *really know that much, ay. I just know that part.* (PM19a).
31
32

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36 226 Māori participants regretted their lack of knowledge and wondered whether knowing more at
37
38 227 a younger age might have helped them remain smokefree: *Yeah, I should've been told about it*
39
40 228 *before I picked up my first cigarette* (MM20). *I think it should be better put out there*
41
42 229 *because, like me, if I had've known more about it.....* (MF19a).
43
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231 **Levels 3 and 4: Personal acceptance and understanding the meaning of risk**

232 Rather than outline how they had (or more typically, had not) assessed and then accepted
233 smoking's risks, most participants explained they had discounted risks by focussing on
234 counter-evidence. Many used examples of smokers who they knew and believed were
235 unscathed by smoking to question risk information, and repeatedly privileged their personal

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3 236 observations over health warnings: *I see some people that smoke every day but nothing's*
4
5 237 *happened to them* (PF23).
6
7 238
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9 239 Evidence that the harms of smoking typically occurred over the long-term enabled some to
10
11 240 rationalise their current behaviour by arguing they were unlikely to suffer any immediate
12
13 241 harm. These participants used the lack of an instantaneous effect to discount future risks:
14
15 242 *.....it was seeing people everywhere smoking and realising but they're not dead and they're*
16
17 243 *not... I think it's the fact that it doesn't kill you straight away. And, um, somehow I thought I*
18
19 244 *must have just realised that they're smoking and they're not getting sicker; it's not affecting*
20
21 245 *them immediately...* (MF22).
22
23 246
24
25 247 Others reported feeling unconcerned about the risks they had seen on tobacco packages,
26
27 248 which had no effect on their behaviour: *I saw pictures of like smoke effects and that, it didn't*
28
29 249 *bother me. I just kept on smoking* (PF23). Even participants who had seen family members
30
31 250 harmed by smoking did not feel motivated to quit: *Yep. I know more about smoking now only*
32
33 251 *because smoking and the causes and the damage that it's done is close to home with me.*
34
35 252 *That's why... but... and-and then, and then I look at myself and I'm still smoking so I'm just*
36
37 253 *like, well I can't say anything about that but that's just how I feel...* (MF25). Only direct
38
39 254 personal experience of harm seemed likely to motivate some participants to believe the risks
40
41 255 they had seen were real: *And you know how you even see those pictures on the packs of*
42
43 256 *smokes, I don't get put off. It's not enough to put me off. It's like "Oh yeah okay. I won't*
44
45 257 *believe it until it happens"* (MF19a).
46
47 258
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49 259 Overall, while several participants indicated they had a general awareness that smoking poses
50
51 260 risks, many struggled to identify specific risks and most used rationalisations to distance
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3 261 themselves from the harms they recognised. These responses created an interesting context in
4
5 262 which to explore whether and how they made deliberate decisions, and interpreted tobacco
6
7 263 companies' arguments that smoking is an informed choice.
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264

265 **Reflective Decision Making**

266 Several participants spoke about smoking as something that had happened with little or no
267 forethought, reflection or risk acceptance: *Nah I haven't really thought about it. It's just, I*
268 *don't really, I'm... when I'm in the moment I just you know, I don't really think back, I'm like,*
269 *it's just it happened so... (MF19b). We were just hanging out in the grounds and we wanted*
270 *to have a smoke... I started from there (PM19a).*
271

272 Participants' sense of something that had "just happened", typically while they were
273 "hanging out", suggests smoking occurred without active reflection; instead, it was an
274 unthinking transition from other activities. Some later found it difficult to understand their
275 lack of analysis: *Mmmm, I actually thought that, you know, maybe a year later that it was*
276 *strange how little I thought about it, the fact that I was actively taking up a highly addictive,*
277 *you know, substance (MM 26). Like others, this participant's retrospection positioned him as*
278 "actively" taking up a behaviour. However, the "little ...thought" he gave to what he was
279 doing questions how active his behaviour was and suggests other factors shaped participants'
280 actions and how they interpret these.

281

282 **Social context of smoking**

283 Because most participants, particularly Māori, saw smoking as normal and ubiquitous within
284 their social setting, few reported reflecting on whether they should start smoking: *Cause my*
285 *family, everyone at home, smokes as well. So yeah, I really didn't even think about it for a*

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3 286 *second, I just started smoking (PM19a). Because everybody in our family were smoking too,*
4
5 287 *so I thought I'd just be like them. I thought it was normal...(MF25b).* Participants' social
6
7 288 context deterred active consideration, since they had no reason to reflect on a behaviour those
8
9 289 around them practised. Not only did their social context dissuade reflection, it promoted
10
11 290 smoking uptake, since participants wanted to "be like" those around them.
12
13

14 291
15
16 292 A minority reported feeling coerced into experimenting with smoking: *Nah 'cause they kept*
17
18 293 *telling me, "Try it, try it, try it." And I thought if I tried it then they'll stop bugging me*
19
20 294 *(MF19a). Cause my friends they always smoke, cause whenever I see them smoking I just feel*
21
22 295 *like smoking too ... I don't want to smoke but they always dare me so I just like I just can't*
23
24 296 *take it I just have to smoke (PF19).* These examples suggest some participants felt strong
25
26 297 pressure to comply with normative practices, and eventually took the path of least resistance.
27
28
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30 298
31
32 299 However, even those who argued that starting to smoke was their own decision also
33
34 300 acknowledged they were influenced by what they perceived as positive attributes of smoking,
35
36 301 particularly the social connections smoking created: *I think it was my own decision, but no-*
37
38 302 *one really forced me to smoke but it's just when I keep on seeing, like my friends smoke and*
39
40 303 *I'll be like, oh this, that looks cool (PM19c).* For others, "coolness" was associated with
41
42 304 sophistication and adult behaviour, as the legal purchase age of tobacco reinforced smoking
43
44 305 as an adult activity: *Um, it-it, yeah, I think at that age it made me feel cool 'cause that was*
45
46 306 *when you were growing up, that was the "growing up" age and...(MF25b).*
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49 307
50
51 308 Smoking played an important role in helping participants feel integrated with a social group;
52
53 309 displaying the same "cool" behaviours helped them assert their group identity and develop
54
55 310 stronger and more meaningful relationships: *Um, I don't know, I guess because my, um, my*
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3 311 *cousin smoked. So most of... some of my friends smoked and it just seemed like it was the in*
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5 312 *thing to do... And um I felt like whenever I went out and listened to the smokers talking, they*
6
7 313 *were getting like very in-depth and talking about personal things and it seemed like a cool*
8
9 314 *thing just to be able to socialise with people. It was a way to connect for me I think (MF22).*

315

14 316 As well as providing a point of connection, some found that smoking counteracted boredom
15
16 317 created by unemployment, particularly when they had left school. In situations where young
17
18 318 people had little else to do, smoking provided a distraction and united the group: *I dropped*
19
20 319 *out of school, yeah so I was staying home and yeah that's when I started smoking every day*
21
22 320 *cause yeah, just like the yeah, I was hanging round my mates every day. There was no school*
23
24 321 *so we just had a smoke (PM19a).*

322

29 323 Beliefs that smoking helped manage stress were widespread and several participants saw
30
31 324 smoking as a form of self-medication that helped them cope more successfully with stressful
32
33 325 settings. *Getting into a new relationship was a lot of stress because you know it's just*
34
35 326 *stressful being in a relationship and you always tend to turn to smoking and that was how I*
36
37 327 *turned to being a daily smoker (PF24). And then this year I went to Uni and it's my first year*
38
39 328 *at Uni so um I needed it for stress, 'cause I was stressing out a lot and I just picked up*
40
41 329 *smoking again (MF19a).*

330

47 331 Several participants reported an association between drinking and smoking. Alcohol fuelled
48
49 332 greatly increased consumption, particularly among participants who were otherwise lighter
50
51 333 smokers: *When I'm sober I'll have one in the morning and one at lunch but when it's a party*
52
53 334 *it's like two packets (PF23) and The more you drink, the more you smoke (MF 25a).*

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3 335 In summary, smoking was a social norm for many participants and was positively reinforced
4
5 336 by a sense of group belonging. The perception that smoking alleviated stress further
6
7 337 reinforced it while alcohol consumption and boredom fuelled consumption.
8
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338

339 **Addiction**

14 340 Some participants had great faith in their ability to stop smoking and felt they would quit
15
16 341 when they chose, using will power and positive thinking: *I could say easy if I put my mind to*
17
18 342 *it... (MF19)*. However, others felt less confident because they had become addicted before
19
20 343 they realised what was happening and only understood addiction once they had experienced
21
22 344 it: *...you don't think about it cos it just sneaks up on you, like I said, it just suddenly, suddenly*
23
24 345 *you're addicted and, and you don't quite realise it until it's too late (MF26)*. The realisation
25
26 346 they were addicted led some to talk regretfully about having started to smoke: *I was just*
27
28 347 *thinking I shouldn't have started (laughs), and yeah regretted it (MM20)*. Although some
29
30 348 participants regretted smoking and a small number had felt pressured into initiating smoking,
31
32 349 others saw smoking as a badge of maturity and a behaviour that connected them more
33
34 350 strongly to their social groups. For these participants, addiction posed fewer concerns
35
36 351 because smoking signalled their social standing. These perceptions influenced how
37
38 352 participants interpreted industry arguments.
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354 **Tobacco Companies' "Informed Choice" Argument**

46 355 After reflecting on their understanding of smoking, their social context and smoking's
47
48 356 addictiveness, we explored participants' reactions to a statement made by Imperial Tobacco:
49
50 357 *"The risks associated with smoking are universally known...and smoking is... a matter of*
51
52 358 *informed adult choice".[26]* Despite many participants stating they had little knowledge of
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54 359 smoking's risks, particularly its addictiveness, most nonetheless agreed that smoking was an
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3 360 informed choice: *if you're an adult then, you know, it's their choice whether they want to do*
4
5 361 *it or not, ...*(MF24). *...it's an adult choice and it's up to that person if they wanna smoke or*
6
7 362 *not smoke* (PM19b). One participant summed up the conflict many experienced; he already
8
9 363 experienced considerable regret and felt inextricably addicted, but nonetheless asserted
10
11 364 ownership of his situation. *For me, I regret having smoked when I was 14, cause, yeah, it just*
12
13 365 *spoiled my life from that day, wasting money on it, yeah, but it's just that I can't leave it so.*
14
15 366 *Yeah, but it's up to you aye.* (PM19a).
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21 368 Several saw smoking as a symbol of adulthood, and it was inconceivable that an adult would
22
23 369 not make an informed choice: *like if you're an adult, to me, like you're making an informed*
24
25 370 *choice* (MF24). Smoking was also an important means of asserting their independent identity;
26
27 371 declaring they had made anything less than a deliberate choice would be inconsistent with the
28
29 372 autonomy they valued: *It's my life, I choose what I do, if I want to smoke, I smoke; if I don't*
30
31 373 *want to smoke, I don't smoke* (PF18). None of our participants reflected on how tobacco
32
33 374 companies' products had constrained and determined their choices; instead they saw
34
35 375 independence, adulthood and smoking as intertwined. Ironically, participants' desire to affirm
36
37 376 their independence led them to agree with tobacco companies' position, despite the lack of
38
39 377 knowledge they outlined and the contextual factors that had shaped their actions.
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43 378 44 45 379 **DISCUSSION**

46
47 380 Many participants had not progressed beyond Chapman and Liberman's first stage of
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49 381 informed choice. However, despite considering they had limited knowledge of smoking's
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51 382 risks, feeling influenced by social factors, and rarely considering future consequences, most
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53 383 nevertheless thought they had made an informed choice. Participants generally learned about
54
55 384 the specific risks of smoking from on-pack warnings, which they typically accessed only after
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3 385 becoming addicted. While developing this knowledge left them more informed, it could not
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5 386 influence their actions retrospectively; paradoxically, participants' assessment of their
6
7 387 informedness, occurred after their addiction, when they were more frequently exposed to
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9 388 warning information.

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14 390 Like many young adults, most dismissed the risks presented as uncertain and unlikely.[27]

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16 391 Even those who had seen family members suffer from diseases caused by smoking, or who
17
18 392 had themselves experienced ill-health from smoking, rationalised their experiences,
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20 393 diminished the role played by smoking, and rarely saw risks as relevant to themselves.

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22 394 Participants saw smoking as normal, a means of establishing social connections, and lived in
23
24 395 social contexts where *not* smoking could have challenged group norms. The perceived
25
26 396 supportive environment for continued smoking, and the importance many participants placed
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28 397 on smoking as a social behaviour that symbolised adulthood, undermined informed decision-
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30 398 making. So too did the strong association between alcohol and smoking; alcohol featured
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32 399 strongly in participants' social environments and compromised their ability to make rational
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34 400 decisions.

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40 402 Study limitations include the small sample; while interviewing continued until data saturation
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42 403 had occurred, a larger study is required to assess whether the knowledge patterns and
43
44 404 perceptions we identified reflect those of the wider population. Strengths include the use of
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46 405 in-depth interviews, which allowed us to elicit rich data that offer the first insights into how
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48 406 young adults from indigenous and minority ethnicities experience and interpret informed
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50 407 choice.

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3 409 Our findings help explain persistent inequalities in smoking prevalence between Māori and
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5 410 Pacific, and New Zealand Europeans (NZE) and highlight important differences between
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7 411 ethnicities. Māori and Pacific participants reported having lower awareness of smoking's
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9 412 general risks than participants in the NZE sample, where all participants displayed awareness
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11 413 of some risks caused by smoking.[28] Participants were more likely to comment on the
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13 414 connecting role smoking played in their communities and family networks, which suggests
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15 415 social impediments influence Māori and Pacific young adults' actions. This normative
16
17 416 environment may also explain differing perceptions of smoking's role in their future. While
18
19 417 NZE participants typically predicted they were "unlikely to be smoking in the future" and
20
21 418 saw smoking as "a lifestyle phase",[22] Māori and Pacific were less certain that smoking was
22
23 419 a temporary part of their lives. They were also less likely than NZE participants to reflect
24
25 420 critically on the tobacco industry's role in addicting them and others to a lethal product.
26
27 421 Instead, they saw smoking as a symbol of maturity, and a sign they were capable of making
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29 422 adult decisions; in this context, declaring they had not made informed choices could seem
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31 423 akin to stating they had not yet matured fully.
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38 425 Pacific and Māori were more likely to report using smoking to relieve life circumstances such
39
40 426 as stress and boredom. Yet despite these differences, participants shared common attributes
41
42 427 with NZE young adults. For all groups, the disinhibiting effects of alcohol undermined active
43
44 428 risk evaluation and facilitated smoking uptake.[17, 18] Likewise most participants greatly
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46 429 underestimated smoking's addictiveness even though understanding this concept was pivotal
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48 430 to making an informed choice.[22] In common with NZE participants, many Māori and
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50 431 Pacific reported acting impulsively and without having reflected on the longer term
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52 432 consequences they might face. Nor do "informed choice" arguments correspond to the social
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3 433 contexts young adult Māori and Pacific smokers experience, where smoking is less a choice
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5 434 than a rite of passage.
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9 436 Our findings suggest “informed choice” arguments propose an illusory concept; young
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11 437 people cannot choose addiction when they do not understand what it will entail any more
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13 438 than they can accept risks they do not believe will affect them. Engaging with tobacco
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15 439 companies’ claims that smokers should make “informed choices” deflects attention from the
16
17 440 industry’s role in developing highly addictive and lethal products. Furthermore, “informed
18
19 441 choice” arguments erroneously suggest education will enhance young adults’ decision-
20
21 442 making. Crucially, these arguments overlook the role of regulatory measures in creating
22
23 443 environments that recognise smoking uptake is neither rational nor informed, and that protect
24
25 444 young people from addiction to a product that will reduce their well-being. As well as
26
27 445 highlighting the crucial role of policy measures to change environments that facilitate
28
29 446 smoking uptake, our findings also reveal the urgent need to change smoking norms within
30
31 447 Māori and Pacific communities. While existing tobacco control policies such as smokefree
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33 448 environments, tobacco taxation, social marketing and supply initiatives have gone some way
34
35 449 to denormalising smoking in Māori and Pacific settings, future efforts (including targeted
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37 450 funding and resources) will need to prioritise Māori and Pacific populations if we are to
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39 451 reduce inequalities in smoking rates across New Zealand.
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47 453 Political and tribal leaders, tobacco control advocates and smokers from indigenous
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49 454 communities are calling for new and innovative measures, including banning tobacco and
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51 455 reducing tobacco supply. Many of these measures were outlined in the original MASC report,
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53 456 but progress in many areas has been disappointingly slow [29]. In addition to these more
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55 457 centralised approaches it is important for Māori and Pacific communities to build social
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3 458 movements where people interact in smokefree settings; examples such as Waka Ama
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5 459 (outrigger canoe racing) already exist. Other measures include altering environments where
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7 460 smoking uptake occurs, for example, (enforcing smokefree policies in schools, creating a
8
9 461 home environment where smoking is clearly not accepted as culturally appropriate, and by
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11 462 reducing social supply of tobacco within families and communities). Targeted and well-
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13 463 resourced mass media and social marketing campaigns could illustrate the harms of smoking
14
15 464 (including addiction), decrease social supply, increase positive messages about “smoking not
16
17 465 being part of our culture”, and expose the role of the tobacco companies in the smoking
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19 466 epidemic for Māori and Pacific. Requiring all areas in bars and restaurants to be smokefree,
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21 467 will reduce opportunities for tobacco and alcohol co-use. Developing a smokefree generation
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23 468 and increasing the age at which young adults may purchase tobacco may be particularly
24
25 469 salient to Māori and Pacific, and will need careful input from these communities.[30, 31]
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31 471 Broader policy approaches may also be required to mitigate the risks of smoking being used
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33 472 to counteract stress and boredom.[32] These could include increased employment
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35 473 opportunities and educational initiatives to ensure school success along with more nuanced
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37 474 health education. Low recall of school health programmes raises the possibility that health
38
39 475 education messages may not be sufficiently targeted to meet the needs of specific cultural
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41 476 groups such as Pacific or Māori, a conclusion advanced in other studies.[33, 34] Some Pacific
42
43 477 participants had not grown up in New Zealand, so our results may also indicate a lack of
44
45 478 exposure to education programmes run within NZ schools. Furthermore, some Māori and
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47 479 Pacific reported having dropped out of school, thus even those who had attended school in
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49 480 New Zealand may not have been exposed to all the health programmes that demonstrated
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51 481 smoking’s harms.
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3 483 Future research could explore the feasibility of these ideas with Māori and Pacific, and, if
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5 484 appropriate, pilot and test potential interventions to assess their uptake and impact on Māori
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7 485 and Pacific. More fundamentally, young adults' acceptance of smoking as normal and
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9 486 socially binding reflects a need for deeper change within these communities, using culturally
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11 487 relevant mechanisms that community members themselves determine and implement.
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15 16 489 **CONCLUSION**

17
18 490 For many young people, smoking uptake occurs quickly, easily and without deliberation.
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20 491 Arguments that smoking is an informed choice overlook young adults' limited risk
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22 492 knowledge, ignore the social contexts that facilitate initiation and maintain smoking, and take
23
24 493 no account of how addiction compromises choice. Two approaches could address the lack of
25
26 494 informed choice evident in our findings. First, changing participants' environments by
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28 495 increasing the legal purchase age to at least 25, a point at which uptake becomes less likely,
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30 496 implementation of smokefree generation proposals, decoupling smoking and drinking, and
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32 497 increasing the cost of smoking and decreasing where tobacco may be consumed. Second,
33
34 498 important contextual factors relevant to Māori and Pacific communities also require action to
35
36 499 reduce the high smoking prevalence among these groups. Encouraging even greater
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38 500 participation in indigenous smokefree social movements could provide Māori and Pacific role
39
40 501 models who re-inforce smokefree messages. More fundamentally, however, tobacco control
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42 502 funding must recognise Māori and Pacific needs more effectively, and the New Zealand
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44 503 government must be held accountable for achieving the smokefree 2025 goal, so clearly
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46 504 outlined in the MASC report.
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52 53 506 **Competing interests**

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3 507 We have no competing interests but note, for the sake of full disclosure, that we have
4
5 508 received funding from the New Zealand Health Research Council, Royal Society of New
6
7 509 Zealand Marsden Fund, New Zealand Ministry of Health, Heart Foundation of New Zealand
8
9
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11
12 511 connection to any organisation that could profit from the study findings.
13

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17
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19
20 514 (Grant 11/134). We had full responsibility for the study design, data collection and analysis,
21
22 515 report writing and the preparation of this MS. We had full access to all of the data in this
23
24 516 study and take complete responsibility for the integrity of the data and the accuracy of the
25
26 517 data analysis.
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31 32 33 519 **Authors' contributions**

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35
36 520 HG and JH led this phase of the project; JH conceived the project and, with RE, obtained
37
38 521 funding. HG, SE, and DT collected the data reported, HG, SE, JH and RG undertook initial
39
40 522 data analyses. HG and JH led the MS development; DT, SE, RG and RE provided feedback
41
42 523 on drafts. All authors have approved the submitted MS and agree to be responsible for the
43
44 524 data reported.
45
46

47 525

48 49 526 **Authors' information**

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53 527 HG is Director of Whakauae Research Services, an iwi-based Māori Health Research Group.
54
55 528 She has an extensive background in Māori health policies and interventions, with specific
56
57 529 expertise in tobacco control. She is a theme leader in ASPIRE2025, a University of Otago
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3 530 Research Theme whose members develop, test and evaluate policy measures that support the
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5 531 New Zealand government's goal of becoming a smoke-free nation by 2025.
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8 532 DT is a Research Fellow at AUT University. He is Associate Director of the Pacific Islands
9
10 533 Families Study, which examines factors influencing success within Pacific families. He is a
11
12 534 theme leader within the ASPIRE2025 collaboration.
13
14

15 535 SE is Director of ASH New Zealand and formerly managed Tala Pasifika, the Pacific
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17 536 Smokefree team within the NZ Heart Foundation. She has a strong background in tobacco
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20
21 538 peoples. She is a member of the ASPIRE2025 collaboration.
22
23
24

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26
27 540 ASPIRE2025 collaboration and has a long-standing interest in tobacco control policy and
28
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30
31

32 542 RG is a PhD candidate in the Department of Public Health, University of Otago Wellington.
33
34 543 Her research has offered a new definition of informed choice in relation to young adult
35
36 544 smokers.
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40 545 RE is Professor of Public Health, co-head of the Department of Public Health and co-director
41
42 546 of the ASPIRE2025 collaboration at the University of Otago, Wellington. He has published
43
44 547 extensively in tobacco control and public health.
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48 548

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78
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11 555 11/134).
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17 557 **Data Sharing**
1819
20 558 Due to the sensitive nature of the research topic, the researchers undertook to keep the
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22 559 interview transcripts confidential to the research team. For this reason, the data are not
23
24 560 available to other researchers. However, the protocol used is provided as a supplementary
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26 561 file.
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Supplementary file

SMOKING AS AN 'INFORMED CHOICE'

In-depth Focused Interview Protocol

Note for interviewers: each section is marked with a priority (low, medium, high, critical) to given an indication of how much time should be spent prompting answers

Introduction

Hello, my name is ... and this is ..., who will be sitting in on the interview today. Just so you know, the reason we have two people here is that we are in the process of trying out this questionnaire. Bearing that in mind, please do let me know if you find any of the questions difficult to understand or to answer.

Before we start talking about the research topic, I have an information sheet about my work and I would like you to read this so I can answer any questions you might have about my work.

As a participant you retain the right to ask questions at any time, receive a copy of the findings, withdraw from the research at any time and to decline answering any questions.

- Explain recording of the interview and participant's rights in relation to this. **Once participant has agreed to the recording of the interview turn on dictaphone.**
- Check if participant has any questions about the interview.
- Ask the participant to sign the consent form.
- State their rights on the recorder (right to ask questions at any time; right to withdraw from the work; right to have a copy of the results; right to ask for the recorder to be turned off; remind them that the research is confidential and their comments won't be attributed to them personally).

"Smoking journey" focused discussion

Priority: LOW – not too much time

1. Looking back, can you tell me about the first time you smoked a cigarette? How old were you? Where were you, who were you with? How did you feel about it? What did you think? What made you want to have that cigarette? How did you feel about smoking at the time?

Priority: MEDIUM

2. How do you describe your smoking at the moment? (social smoker/ occasional/ daily etc) How many cigarettes do you usually smoke per day/ per week?
3. Can you describe the context in which you smoke? Who are you with, where are you, what are you doing (probe for detail about role of alcohol, work, social cues). Are there any particular reasons why you smoke at those times?
4. Can you describe the situations where you don't smoke? Are there places or times when you don't smoke? Are there any particular reasons why you don't smoke in these places and times?

Priority: CRITICAL

5. Tell me about how you moved from being someone who may have /or has had just tried smoking a few times to being someone who smokes most weeks/every day (as appropriate)?
6. How old were you when you started smoking with this pattern? What was happening in your life at that time? (probe: where were you , were you living at home or had you moved away, who were you spending time with, were you working, at college etc)

Smoking decision process**Priority: CRITICAL**

7. Can you tell me about how you made the decision to smoke at that time? (Who influenced that decision, what did you feel at the time, what did you think about?)
8. Can you relate this decision to other decisions you were making at the time? eg drinking alcohol, getting into relationships, job or study decisions?
9. How did you weigh up the decision to smoke or not to smoke at that time?

Knowledge of risk at time of uptake**Priority: CRITICAL**

10. At the time that you started smoking (weekly/daily/whatever): What had you been told about smoking? What had you read? Where? (probe: what specifically do you remember was said about smoking?) Where did you get most of your messages about smoking? (eg friends family etc)
11. You said you'd been told (x,y,z).. what did you think about that, did it seem important/true? Did it concern you? Why?
12. And how did you find smoking compared with what you'd been told about it? (include: addictiveness, effects on your body, health consequences, social consequences)

Knowledge of risk currently**Priority: HIGH**

13. Have you changed your thinking about smoking since you started smoking more regularly? How do you feel about smoking now? What else do you know about smoking now? Does it concern you? Why?
14. If you keep smoking for the rest of your life, what do you think might happen? How do you feel about that? How likely do you think it is that (each thing you mentioned) could happen to you? (very likely, somewhat likely, somewhat unlikely, very unlikely, don't know?)
15. What (other) health effects do you know of that can be caused by smoking? (interviewer – note down each condition mentioned)
16. What do you think having (that condition – each one mentioned at 14 and 15) would be like? What symptoms might a person get, how might it affect their life?)
17. Out of 100 people who have smoked throughout their life, how many of them do you think are likely to end up dying from something related to smoking? (probe discussion: what information did you draw on to come up with that number?)

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2
3 18. So given what you've just described about what you know about risk – how do you
4 do you think your knowledge and understanding at the time that you started
5 smoking regularly compares to what you know now? (Probe: in what way has it
6 changed?)
7
8

Thoughts on addiction

9
10 **Priority: HIGH**

- 11
12 19. Of the people in your life – family, friends – do you know people who have quit or
13 tried to quit smoking? What do you think made them try to quit? How did they go
14 about quitting? How did it work out for them?
15
16 20. How easy do you think it would be to quit smoking completely (that is, not smoke
17 again in any situation)? Why do you feel that way?
18
19 21. Thinking back, what did you think about quitting (did you think you would, how easy
20 did you think it would be?) when you first started smoking (weekly/daily)? (Has your
21 opinion changed since then, if so how?)
22
23 22. (if not already mentioned) Cigarettes are sometimes described as “addictive”. What
24 do you think it means to be addicted?
25
26 23. Do you think you'll still be smoking in five years time? Ten years? What makes you
27 think that?
28
29

Conclusion

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31 **Priority: HIGH**

- 32
33 24. You've described the circumstances in which you took up smoking, and some of your
34 thoughts about smoking then and now. Do you think, knowing what you do now, if
35 you were faced with the same circumstances (describe) that you would still take up
36 smoking?
37
38 25. Can you think of people in your life who are about your age – say siblings or friends
39 – who don't smoke? Why don't they/ what do you think are the influences on their
40 decision to not smoke? (Probe: how are the things that influence them different to
41 the things that influenced you?) Do you think, if you had been in the same
42 circumstances/ had the same influences as they do, that you would still have started
43 smoking? Why/ why not?
44
45
46 26. To finish off, I'd like to read you a recent quote from a tobacco company
47 spokesperson in NZ.
48

49 *“The risks associated with smoking are universally known...and smoking is... a matter of*
50 *informed adult choice”*

51 (Imperial Tobacco NZ Ltd 2010: Submission to the Māori Affairs Select Committee)
52
53

54 We'd be interested to know what you think about this statement...how does it relate to your
55 experience and what you've just described about how you started to smoke?
56

57 (unpack: “risks universally known”, “informed” “adult choice”)
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27. So in order to make an informed adult choice..What exactly do you think people should know and understand, before they decide to start smoking? How much should they know in order to make that decision?
28. And given that you have said that people should know and understand x,y,z; did you have that knowledge and understanding when you took up smoking? What proportion of people aged xx (whatever age person was when they became a regular smoker) do you think have that knowledge and understanding?
29. Do you have any other comments you'd like to add about what we've been discussing?

I just have a short questionnaire for you to complete, please. Like the rest of the discussion, the information you provide will be completely confidential and only members of the research team will be able to access it.

Thank, assure confidentiality, check that demographic sheet has been filled out, close.

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3 **Note for researchers to consider at the close of pilot interview:**
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5 How long did each section take?
6
7

8
9
10 Were any questions hard to answer? (mark on interview schedule any questions that the
11 participant found difficult)
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17 Have the following all been covered off during the interview?
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19 Level 1: having heard that smoking increases health risks
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21 Level 2: being aware that specific diseases are caused by smoking
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23 Level 3: accurately appreciating the meaning, severity, and probabilities of developing
24 tobacco related diseases
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26 Level 4: personally accepting that the risks inherent in levels 1-3 apply to one's own risk of
27 contracting such diseases (note: a person's view of the addictiveness of smoking and
28 confidence in their own ability to quit before suffering harms will come into this)
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30 5: maturity of decision making processes – did they make the choice as an adult, and did
31 they use a rational process to decide?
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33 6: ability to make decision free of social and environmental pressures.
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