BMJ Open

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

Journal:	*BMJ Open*
Manuscript ID	bmjopen-2016-011415
Article Type:	Research
Date Submitted by the Author:	06-Feb-2016
Complete List of Authors:	Gifford, Heather; Whakauae Research for Maori Health and Development, Director's Office Tautolo, El-Shadan; AUT University , Department of Public Health and Psychosocial Studies Erick, Stephanie; ASH New Zealand, Director's office Hoek, Janet; University of Otago, Marketing Gray, Rebecca; University of Otago Wellington, Public Health Edwards, Richard; University of Otago Wellington, Public Health
Primary Subject Heading:	Smoking and tobacco
Secondary Subject Heading:	Public health, Qualitative research
Keywords:	PUBLIC HEALTH, QUALITATIVE RESEARCH, SOCIAL MEDICINE

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

Heather Gifford[1], El-Shadan Tautolo[2], Stephanie Erick[3], Janet Hoek[4], Rebecca Gray[5], Richard Edwards[5]

1. Whakauae Research Services, Director's Office, Whanganui, New Zealand
2. AUT University, Department of Public Health and Psychosocial Studies, Auckland, New Zealand
3. ASH New Zealand, Director's Office, Auckland, New Zealand
4. Department of Marketing, University of Otago, Dunedin, New Zealand
5. Department of Public Health, University of Otago Wellington, Wellington, New Zealand

Corresponding Author:
Janet Hoek
Department of Marketing
University of Otago
PO Box 56
Dunedin 9054
New Zealand
Email: Janet.hoek@otago.ac.nz

Number of Tables: 1

Number of Figures: 0

Word Count: 4389 (Excluding title page, abstract, summary, references and table)

ABSTRACT

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

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

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

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

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

Article Summary

Strengths and limitations of this study

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

BACKGROUND

In October 2010, the Māori Affairs Select Committee (MASC) reported on its *Inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Māori.*[1] The Inquiry was prompted by Māori politicians and health advocates, who called for an analysis to examine the toll of tobacco use on Māori, and recognise New Zealand's striking disparities in smoking prevalence, which is much higher among Māori and Pacific peoples than among NZ European.[2]

Among other claims advanced to the MASC, tobacco company representatives argued that smoking is an 'informed adult choice'; this argument implies smokers start smoking after appraising the risks and benefits they may incur.[3] By transferring responsibility for future harm back onto smokers themselves, tobacco companies reduce their potential liability and promote beliefs that tobacco control measures undermine individuals' right to smoke.[3, 4]

Māori and Pacific take up smoking at a younger age than their European counterparts; children as young as 11 years of age may experiment with smoking and smoking may become established in children by age 14;[5] for these smokers, starting smoking is clearly not an adult choice. However, smoking uptake also occurs among Māori and Pacific young adults and prevalence remains high among those aged 18–25, despite reductions in adolescent smoking rates.[6, 7] Evidence of increasing smoking uptake among young people aged 18 and over, who are legally considered adults in New Zealand, highlights the importance of testing the tobacco industry's 'informed choice' arguments. Specifically, few studies have explored whether young adults, particularly those most impacted by inequalities, make active and informed decisions to start smoking.

Despite the superficial appeal of 'informed choice' arguments, which draw on neo-liberal views of personal responsibility,[8, 9] these overlook important socio-economic and cultural factors that influence Māori and Pacific young adults' decision-making. For example, Māori and Pacific ethnic groups typically have poverty rates around double those of the European ethnic group, regardless of the measure used, and smoking accounts for a large proportion of economic hardship experienced by Māori and Pacific peoples.[10] Levels of social inequality between Māori and European people have an independent effect on Māori smoking rates.[11] Where smoking prevalence is high, as it is among Māori and Pacific, young adults may regard it as normal, associate it with desirable social benefits,[12-14] and discount the risks communicated in health warnings and through other media. Furthermore, cultural practices such as gift giving and sharing may undermine informed choice by promoting uptake in contexts where refusal to accept or use tobacco may be regarded as impolite, or where sharing is strongly associated with hospitality and generosity.[15]

Other factors likely to affect European New Zealanders as well as Māori and Pacific young adults, include the widespread association of smoking and drinking.[16] Growing evidence suggests alcohol consumption both facilitates smoking initiation and fuels tobacco use.[16, 17] Higher rates of drinking "a large amount of alcohol" among Māori and Pacific peoples thus further undermines young people's ability to undertake the risk–benefit assessments implicit in informed choices.[18, 19]

Informed Choice Framework

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

specific diseases; third they must accurately appreciate the meaning, severity and probabilities of developing diseases caused by tobacco use. Finally, they must personally accept the risks inherent in levels 1–3 as applicable to themselves. Other factors, such as addiction and social context, may also influence informed choices by circumscribing the options available to young people. We considered these factors, together with young people's socio-economic and cultural settings, alongside Chapman and Liberman's criteria, and then used the resulting framework to investigate whether Māori and Pacific young adults make active, informed decisions when they beginning to smoke. We compared and contrasted the results from these analyses with those from a predominately New Zealand European sample, which has been reported separately.[21]

METHODS

Sample

We conducted in-depth interviews with 20 18–26-year-olds (10 Māori and 10 Pacific) who had started smoking since turning 18. Participants were recruited using whanaungatanga or kinship networks, by word of mouth, and via social media and community advertising, using approaches we have previously used successfully.[22] We also recruited via Māori and Pacific health services that offered culturally targeted primary care, where we placed notices about the research. As recruitment proceeded, we used purposive selection to promote diversity and ensure participants varied by age and gender, and displayed varied smoking behaviours (i.e., the sample included both daily and intermittent smokers, and recent quitters).

Māori participants included students, caregivers, and those in employment; just over half were in paid employment and eight of the ten were living with wider family or friends. Seven of the ten Pacific participants were living with their parents, the majority were in some form of paid employment, and three participants were also studying. (Table 1 summarises participants' characteristics). Ethics approval was obtained from the University of Otago's Human Ethics Committee, which undertook a full review of the proposed research (approval 11/297).

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

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

Protocol and Procedure

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

Data Analysis

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

RESULTS

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

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

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

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

Awareness of smoking's specific risks increased once participants had developed a regular smoking pattern and were more frequently exposed to on-pack warnings. As a result, some considered "cutting down" so they could resolve the dissonance their risk knowledge aroused: *The first thing I saw was the packet. How it had all those pictures on it, and this was when we cut down on smoking…. when I always go for a smoke I always read the pack, it has all those lung stuff. That's what I always read* (PM19c).

While many participants reported receiving information about risks, some felt they had received little information, or reported they were not fully aware of the risks: *Oh I didn't know anything when I first started……when I was 18 I didn't know that you could get killed from this stuff. And I didn't notice how bad it affects your body and stuff* (MF 19). Of those who did possess some risk understanding, most focused generally on cancer and few showed a detailed knowledge of the multiple risks caused by smoking: *That cancer thing, and I don't really know that much, ay. I just know that part.* (PM19a).

Māori participants regretted their lack of knowledge and wondered whether knowing more at a younger age might have helped them remain smokefree: *Yeah, I should've been told about it before I picked up my first cigarette* (MM 20). *I think it should be better put out there because, like me, if I had've known more about it…..* (MF19).

Levels 3 and 4: Personal acceptance and understanding the meaning of risk

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

observations over health warnings: *I see some people that smoke every day but nothing's happened to them* (PF23).

Evidence that the harms of smoking typically occurred over the long-term enabled some to rationalise their current behaviour by arguing they were unlikely to suffer any immediate harm. These participants used the lack of an instantaneous effect to discount future risks: *……..it was seeing people everywhere smoking and realising but they're not dead and they're not… I think it's the fact that it doesn't kill you straight away. And, um, somehow I thought I must have just realised that they're smoking and they're not getting sicker; it's not affecting them immediately…* (MF22).

Others reported feeling unconcerned about the risks they had seen on tobacco packages, which had no effect on their behaviour: *I saw pictures of like smoke effects and that, it didn't bother me. I just kept on smoking* (PF23). Even participants who had seen family members harmed by smoking did not feel motivated to quit: *Yep. I know more about smoking now only because smoking and the causes and the damage that it's done is close to home with me. That's why… but… and-and then, and then I look at myself and I'm still smoking so I'm just like, well I can't say anything about that but that's just how I feel…*(MF25). Only direct personal experience of harm seemed likely to motivate some participants to believe the risks they had seen were real: *And you know how you even see those pictures on the packs of smokes, I don't get put off. It's not enough to put me off. It's like "Oh yeah okay. I won't believe it until it happens"* (MF19).

Overall, while several participants indicated they had a general awareness that smoking poses risks, many struggled to identify specific risks and most used rationalisations to distance

themselves from the harms they recognised. These responses created an interesting context in which to explore whether and how they made deliberate decisions, and interpreted tobacco companies' arguments that smoking is an informed choice.

Reflective Decision Making

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

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

Social context of smoking

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

second, I just started smoking (PM19a). *Because everybody in our family were smoking too, so I thought I'd just be like them. I thought it was normal*…(MF25). Participants' social context deterred active consideration, since they had no reason to reflect on a behaviour those around them practised. Not only did their social context dissuade reflection, it promoted smoking uptake, since participants wanted to "be like" those around them.

A minority reported feeling coerced into experimenting with smoking: *Nah 'cause they kept telling me, "Try it, try it, try it." And I thought if I tried it then they'll stop bugging me* (MF19). *Cause my friends they always smoke, cause whenever I see them smoking I just feel like smoking too … I don't want to smoke but they always dare me so I just like I just can't take it I just have to smoke* (PF19). These examples suggest some participants felt strong pressure to comply with normative practices, and eventually took the path of least resistance.

However, even those who argued that starting to smoke was their own decision also acknowledged they were influenced by what they perceived as positive attributes of smoking, particularly the social connections smoking created: *I think it was my own decision, but no-one really forced me to smoke but it's just when I keep on seeing, like my friends smoke and I'll be like, oh this, that looks cool* (PM19c). For others, "coolness" was associated with sophistication and adult behaviour, as the legal purchase age of tobacco reinforced smoking as an adult activity: *Um, it-it, yeah, I think at that age it made me feel cool 'cause that was when you were growing up, that was the "growing up" age and*…(MF25).

Smoking played an important role in helping participants feel integrated with a social group; displaying the same "cool" behaviours helped them assert their group identity and develop stronger and more meaningful relationships: *Um, I don't know, I guess because my, um, my*

cousin smoked. So most of… some of my friends smoked and it just seemed like it was the in thing to do… And um I felt like whenever I went out and listened to the smokers talking, they were getting like very in-depth and talking about personal things and it seemed like a cool thing just to be able to socialise with people. It was a way to connect for me I think (MF 22).

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

Beliefs that smoking helped manage stress were widespread and several participants saw smoking as a form of self-medication that helped them cope more successfully with stressful settings. *Getting into a new relationship was a lot of stress because you know it's just stressful being in a relationship and you always tend to turn to smoking and that was how I turned to being a daily smoker* (PF24). *And then this year I went to Uni and it's my first year at Uni so um I needed it for stress, 'cause I was stressing out a lot and I just picked up smoking again* (MF19).

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

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

Addiction

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

Tobacco Companies' "Informed Choice" Argument

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

informed choice: *if you're an adult then, you know, it's their choice whether they want to do it or not, ...*(MF24). *...it's an adult choice and it's up to that person if they wanna smoke or not smoke* (PM19b). Several saw smoking as a symbol of adulthood and a means of asserting their independent identity; declaring they had made anything less than a deliberate choice would be inconsistent with the autonomy they valued: *It's my life, I choose what I do, if I want to smoke, I smoke; if I don't want to smoke, I don't smoke* (PF18). Ironically, participants' desire to affirm their independence led them to agree with tobacco companies' position, despite the lack of knowledge they outlined and the contextual factors that had shaped their actions.

DISCUSSION

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

alcohol featured strongly in participants' social environments and compromised their ability to make rational decisions.

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

Our findings help explain persistent inequalities in smoking prevalence between Māori and Pacific, and New Zealand Europeans (NZE) and highlight important differences between ethnicities. Māori and Pacific participants reported having lower awareness of smoking's general risks than participants in the NZE sample, where all participants displayed awareness of some risks caused by smoking.[27] Our participants were more likely to comment on the connecting role smoking played in their communities and family networks, which suggests social impediments may also affect how effectively young adult Māori and Pacific may make informed choices. This normative environment may also explain differing perceptions of smoking's role in their future. While NZE participants typically predicted they were "unlikely to be smoking in the future" and saw smoking as "a lifestyle phase",[21] Māori and Pacific were less certain that smoking was a temporary part of their lives. They saw smoking as a symbol of adulthood and maturity, and a sign they were capable of making adult decisions. In this context, declaring they had not made informed choices could seem akin to stating they had not yet matured fully. Pacific and Māori were more likely to report using smoking to relieve life circumstances such as stress and boredom. Yet despite these

differences, participants shared common attributes with NZE young adults. For all groups, the disinhibiting effects of alcohol undermined active risk evaluation and facilitated smoking uptake.[16, 17] Likewise most participants greatly underestimated smoking's addictiveness even though understanding this concept was pivotal to making an informed choice.[21] In common with NZE participants, many Māori and Pacific reported acting impulsively and without having reflected on the longer term consequences they might face.

Arguments that smoking is an "informed choice" bear little relationship to the social contexts young adult Māori and Pacific smokers experience. Our findings have important policy implications and highlight the urgent need to change smoking norms within Māori and Pacific communities. While existing policies have denormalised smoking in Māori and Pacific settings, these efforts need expansion and consolidation so they cover all settings, are applied consistently, recognise young adults' social environments, and evolve quickly to replace the current acceptability of smoking. Potential measures include altering environments where smoking uptake occurs, for example, by requiring all areas in bars and restaurants to be smokefree, thus reducing opportunities for tobacco and alcohol co-use. Developing a smokefree generation and increasing the age at which young adults may purchase tobacco may be particularly salient to Māori and Pacific, and will need careful input from these communities.[28, 29]

Broader policy approaches may also be required to mitigate the risks of smoking being used to counteract stress and boredom.[30] These could include increased employment opportunities and educational initiatives to ensure school success along with more nuanced health education. Low recall of school health programmes raises the possibility that health education messages may not be sufficiently targeted to meet the needs of specific cultural

groups such as Pacific or Māori, a conclusion advanced in other studies.[31, 32] Some Pacific participants had not grown up in New Zealand, so our results may also indicate a lack of exposure to education programmes run within NZ schools. Furthermore, some Māori and Pacific reported having dropped out of school, thus even those who had attended school in New Zealand may not have been exposed to all the health programmes that demonstrated smoking's harms.

Future research could explore the feasibility of these ideas with Māori and Pacific, and, if appropriate, pilot and test potential interventions to assess their uptake and impact on Māori and Pacific. More fundamentally, young adults' acceptance of smoking as normal and socially binding reflects a need for deeper change within these communities, using culturally relevant mechanisms that community members themselves determine and implement.

CONCLUSION

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

engage with, prioritise, resource and support those with greatest need to create their own interventions.

Competing interests

We have no competing interests but note, for the sake of full disclosure, that we have received funding from the New Zealand Health Research Council, Royal Society of New Zealand Marsden Fund, New Zealand Ministry of Health, Heart Foundation of New Zealand and New Zealand Cancer Society. We have no financial interest in the study and no connection to any organisation that could profit from the study findings.

Funding for the project was provided by the Royal Society of New Zealand Marsden Fund (Grant 11/134). We had full responsibility for the study design, data collection and analysis, report writing and the preparation of this MS. We had full access to all of the data in this study and take complete responsibility for the integrity of the data and the accuracy of the data analysis.

Authors' contributions

HG and JH led this phase of the project; JH conceived the project and, with RE, obtained funding. HG, SE, and DT collected the data reported, HG, SE, JH and RG undertook initial data analyses. HG and JH led the MS development; DT, SE, RG and RE provided feedback on drafts. All authors have approved the submitted MS and agree to be responsible for the data reported.

Authors' information

HG is Director of Whakauae Research Services, an iwi-based Māori Health Research Group. She has an extensive background in Māori health policies and interventions, with specific expertise in tobacco control. She is a theme leader in ASPIRE2025, a University of Otago Research Theme whose members develop, test and evaluate policy measures that support the New Zealand government's goal of becoming a smoke-free nation by 2025.

DT is a Research Fellow at AUT University. He is Associate Director of the Pacific Islands Families Study, which examines factors influencing success within Pacific families. He is a theme leader within the ASPIRE2025 collaboration.

SE is Director of ASH New Zealand and formerly managed Tala Pasifika, the Pacific Smokefree team within the NZ Heart Foundation. She has a strong background in tobacco control and particular interest in reducing smoking prevalence among Māori and Pacific peoples. She is a member of the ASPIRE2025 collaboration.

JH is a Professor of Marketing at the University of Otago. She is co-director of the ASPIRE2025 collaboration and has a long-standing interest in tobacco control policy and public health.

RG is a PhD candidate in the Department of Public Health, University of Otago Wellington. Her research has offered a new definition of informed choice in relation to young adult smokers.

RE is Professor of Public Health, co-head of the Department of Public Health and co-director of the ASPIRE2025 collaboration at the University of Otago, Wellington. He has published extensively in tobacco control and public health.

Acknowledgements

We wish to acknowledge the research participants whose willingness to be interviewed allowed the study to proceed.

Funding Statement

This work was supported by the Royal Society of New Zealand Marsden Fund (Grant 11/134).

Data Sharing

Due to the sensitive nature of the research topic, the researchers undertook to keep the interview transcripts confidential to the research team. For this reason, the data are not available to other researchers. However, the protocol used is provided as a supplementary file.

REFERENCES

[1] New Zealand Parliament. Inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Maori, Report of the Maori Affairs Committee. Wellington: New Zealand Parliament 2010.

[2] Ministry of Health. Tobacco Use 2012/13: New Zealand Health Survey. Wellington: Ministry of Health 2014.

[3] Balbach ED, Smith EA, Malone RE. How the health belief model helps the tobacco industry: Individuals, choice, and "information". *Tobacco Control* 2006;**15**:iv37-iv43

[4] Maubach N, Hoek J, Edwards R*, et al.* "The times are changing": New Zealand smokers' perceptions of the tobacco endgame. *Tobacco Control* 2012.

[5] ASH New Zealand. ASH Year 10 Snapshot Survey: ToplineResults. Auckland 2015.

[6] Edwards R, Peace J, Carter K*, et al.* An examination of smoking initiation rates by age: results from a large longitudinal study in New Zealand. *Australia and New Zealand Journal of Public Health* 2013;**37**(6):516-519

[7] Ponniah S, Bloomfield A. Sociodemographic characteristics of New Zealand adult smokers, ex-smokers, and non-smokers: results from the 2006 Census. *The New Zealand medical journal* 2008;**121**:34 - 42.

[8] Greenfield K. The myth of choice: Personal responsibility in a world of limits: Yale University Press 2011.

[9] Hoek J. Informed choice and the nanny state: learning from the tobacco industry. *Public health* 2015;**129**(8):1038-1045.

[10] Perry B. 2013 Household Incomes Report- Key Findings. In: Development MoS, ed. Wellington: Ministry of Social Development 2013.

[11] Barnett R, Pearce J, Moon G. Does social inequality matter? Changing ethnic socio-economic disparities and Maori smoking in New Zealand, 1981–1996. *Social science & medicine* 2005;**60**(7):1515-1526.

[12] McGee R, Williams S, Reeder A. Parental tobacco smoking behaviour and their children's smoking and cessation in adulthood. *Addiction* 2006;**101**(8):1193-1201.

[13] Teevale T, Denny S, Nosa V*, et al.* Predictors of cigarette use amongst Pacific youth in New Zealand. *Harm reduction journal* 2013;**10**(1):25.

[14] Gifford H, Boulton A. Is sharing tobacco within the home really good manaakitanga? In: Kepa M, Brewin M, Manu'atu L, eds. *Home: Here to Stay*. Wellington: Ngā Pae o te Māramatanga and Huia Publishers 2015:83-95.

[15] 2006 census of population and housing: Socio-economic indexes for area's (SEIFA). Canberra, Australia: Commonwealth of Australia 2008.

[16] Hoek J, Maubach N, Stevenson R*, et al.* Social smokers' management of conflicted identities. *Tob Control* 2013;**22**(4):261-265.

[17] Jiang N, Ling PM. Impact of alcohol use and bar attendance on smoking and quit attempts among young adult bar patrons. *American journal of public health* 2013;**103**(5):e53-e61.

[18] Ministry of Health. Annual Update of Key Results 2013/14: New Zealand Health Survey. In: Ministry of Health, ed. Wellington 2014.

[19] Health Mo. Annual Update of Key Results 2014/15: New Zealand Health Survey. In: Health Mo, ed. Wellington 2015.

[20] Chapman S, Liberman J. Ensuring smokers are adequately informed: Reflections on consumer rights, manufacturer responsibility, and policy implications. *Tobacco Control* 2005;**14**:8-13.

[21] Gray RJ, Hoek J, Edwards R. A qualitative analysis of 'informed choice' among young adult smokers. *Tob Control* 2016;**25**(1):46-51.

[22] Hoek J, Gifford H, Maubach N, *et al.* A qualitative analysis of messages to promote smoking cessation among pregnant women. *BMJ open* 2014;**4**(11):e006716.
[23] Dey I. Qualitative data analysis: A user-friendly guide for social scientists: Routledge 1993.
[24] Pihama L, Cram F, Walker S. Creating methodological space: A literature review of Kaupapa Maori research. *Canadian Journal of Native Education* 2002;**26**(1):30.
[25] Imperial Tobacco New Zealand Limited. Submission to the Māori Affairs Select Committee Enquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Māori. 2010.
[26] Hoek J, Hoek-Sims A, Gendall P. A qualitative exploration of young adult smokers' responses to novel tobacco warnings. *BMC Public Health* 2013;**13**(609).
[27] Gray R, Hoek J, Edwards R. Do young adults exercise informed choice about smoking? In: Walker N, Grana R, eds. *Society for Nicotine and Tobacco Research*. Chicago: Society for Nicotine and Tobacco Research 2016.
[28] Winickoff JG, McMillen R, Tanski S, *et al.* Public support for raising the age of sale for tobacco to 21 in the United States. *Tobacco control* 2015:tobaccocontrol-2014-052126.
[29] Berrick A. The tobacco-free generation proposal. *Tobacco control* 2013;**22**(suppl 1):i22-i26.
[30] Richardson K. Smoking, low income and health inequalities: thematic discussion document. ASH 2001.
[31] Tautolo ES, Schluter PJ, Paterson J, *et al.* Acculturation status has a modest effect on smoking prevalence among a cohort of Pacific fathers in New Zealand. *Australian and New Zealand journal of public health* 2011;**35**(6):509-516.
[32] Lanumata T, Thomson G, Wilson N. Pacific solutions to reducing smoking around Pacific children in New Zealand: a qualitative study of Pacific policymaker views. *New Zealand Medical Journal* 2010;**123**(1308).

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?)

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

Thoughts on addiction
Priority: HIGH

19. Of the people in your life – family, friends – do you know people who have quit or tried to quit smoking? What do you think made them try to quit? How did they go about quitting? How did it work out for them?
20. How easy do you think it would be to quit smoking completely (that is, not smoke again in any situation)? Why do you feel that way?
21. Thinking back, what did you think about quitting (did you think you would, how easy did you think it would be?) when you first started smoking (weekly/daily)? (Has your opinion changed since then, if so how?)
22. (if not already mentioned) Cigarettes are sometimes described as "addictive". What do you think it means to be addicted?

23. Do you think you'll still be smoking in five years time? Ten years? What makes you think that?

Conclusion
Priority: HIGH

24. You've described the circumstances in which you took up smoking, and some of your thoughts about smoking then and now. Do you think, knowing what you do now, if you were faced with the same circumstances (describe) that you would still take up smoking?
25. Can you think of people in your life who are about your age – say siblings or friends – who don't smoke? Why don't they/ what do you think are the influences on their decision to not smoke? (Probe: how are the things that influence them different to the things that influenced you?) Do you think, if you had been in the same circumstances/ had the same influences as they do, that you would still have started smoking? Why/ why not?

26. To finish off, I'd like to read you a recent quote from a tobacco company spokesperson in NZ.

"The risks associated with smoking are universally known…and smoking is… a matter of informed adult choice"
(Imperial Tobacco NZ Ltd 2010: Submission to the Māori Affairs Select Committee)

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

(unpack: "risks universally known", "informed" "adult choice")

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.

Note for researchers to consider at the close of pilot interview:

How long did each section take?

Were any questions hard to answer? (mark on interview schedule any questions that the participant found difficult)

Have the following all been covered off during the interview?

Level 1: having heard that smoking increases health risks

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

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

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

5: maturity of decision making processes – did they make the choice as an adult, and did they use a rational process to decide?

6: ability to make decision free of social and environmental pressures.

BMJ Open

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

Journal:	*BMJ Open*
Manuscript ID	bmjopen-2016-011415.R1
Article Type:	Research
Date Submitted by the Author:	30-Mar-2016
Complete List of Authors:	Gifford, Heather; Whakauae Research for Maori Health and Development, Director's Office Tautolo, El-Shadan; AUT University , Department of Public Health and Psychosocial Studies Erick, Stephanie; ASH New Zealand, Director's office Hoek, Janet; University of Otago, Marketing Gray, Rebecca; University of Otago Wellington, Public Health Edwards, Richard; University of Otago Wellington, Public Health
Primary Subject Heading:	Smoking and tobacco
Secondary Subject Heading:	Public health, Qualitative research
Keywords:	PUBLIC HEALTH, QUALITATIVE RESEARCH, SOCIAL MEDICINE

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

Heather Gifford[1], El-Shadan Tautolo[2], Stephanie Erick[3], Janet Hoek[4], Rebecca Gray[5], Richard Edwards[5]

1. Whakauae Research Services, Director's Office, Whanganui, New Zealand
2. AUT University, Department of Public Health and Psychosocial Studies, Auckland, New Zealand
3. ASH New Zealand, Director's Office, Auckland, New Zealand
4. Department of Marketing, University of Otago, Dunedin, New Zealand
5. Department of Public Health, University of Otago Wellington, Wellington, New Zealand

Corresponding Author:
Janet Hoek
Department of Marketing
University of Otago
PO Box 56
Dunedin 9054
New Zealand
Email: Janet.hoek@otago.ac.nz

Number of Tables: 1

Number of Figures: 0

Word Count: 4950 (Excluding title page, abstract, summary, references and table)

ABSTRACT

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

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

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

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

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

Article Summary

Strengths and limitations of this study

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

BACKGROUND

The New Zealand Parliament has several Select Committees that comprise members drawn from all political parties [1]. As well as reviewing draft legislation, these committees may establish inquiries into matters of concern to New Zealand. Following prompting by Māori politicians and health advocates, the Māori Affairs Select Committee (MASC) initiated an *Inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Māori.*[2] in October 2010. The Inquiry called for an analysis that examined the toll of tobacco use on Māori, and recognised New Zealand's striking disparities in smoking prevalence, which is much higher among Māori (38%) and Pacific peoples (25%) than among NZ European (15%) [3].

Among other claims advanced to the MASC, tobacco company representatives argued that smoking is an 'informed adult choice'; this argument implies smokers start smoking after appraising the risks and benefits they may incur.[4] By transferring responsibility for future harm back onto smokers themselves, tobacco companies reduce their potential liability and promote beliefs that tobacco control measures undermine individuals' right to smoke.[4, 5] This argument has a superficial appeal and sits easily within the neo-liberal discourse that has dominated New Zealand's political landscape. However, the premises of this argument have not been carefully tested and require closer scrutiny, given tobacco companies' use of this claim to oppose policy measures. Fully informed choices are arguably more important for tobacco than for other products, given how addictive smoking is and the enormous harm tobacco inflicts on users.

Māori and Pacific take up smoking at a younger age than their European counterparts; children as young as 11 years of age may experiment with smoking and smoking may

become established in children by age 14;[6] for these smokers, starting smoking is clearly not an adult choice. However, smoking uptake also occurs among Māori and Pacific young adults and prevalence remains high among those aged 18–25, despite reductions in adolescent smoking rates.[7, 8] Evidence of increasing smoking uptake among young people aged 18 and over, who are legally considered adults in New Zealand, highlights the importance of testing the tobacco industry's 'informed choice' arguments. Specifically, few studies have explored whether young adults, particularly those most impacted by inequalities, make active and informed decisions to start smoking.

Despite the superficial appeal of 'informed choice' arguments, which draw on neo-liberal views of personal responsibility,[9, 10] these overlook important socio-economic and cultural factors that influence Māori and Pacific young adults' decision-making. For example, Māori and Pacific ethnic groups typically have poverty rates around double those of the European ethnic group, regardless of the measure used, and smoking accounts for a large proportion of economic hardship experienced by Māori and Pacific peoples.[11] Levels of social inequality between Māori and European people have an independent effect on Māori smoking rates.[12] Where smoking prevalence is high, as it is among Māori and Pacific, young adults may regard it as normal, associate it with desirable social benefits,[13-15] and discount the risks communicated in health warnings and through other media. Furthermore, cultural practices such as gift giving and sharing may undermine informed choice by promoting uptake in contexts where refusal to accept or use tobacco may be regarded as impolite, or where sharing is strongly associated with hospitality and generosity.[16]

Other factors likely to affect European New Zealanders as well as Māori and Pacific young adults, include the widespread association of smoking and drinking.[17] Growing evidence

suggests alcohol consumption both facilitates smoking initiation and fuels tobacco use.[17, 18] Higher rates of drinking "a large amount of alcohol" among Māori and Pacific peoples thus further undermines young people's ability to undertake the risk–benefit assessments implicit in informed choices.[19, 20]

Informed Choice Framework

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

METHODS

Sample

We conducted in-depth interviews with 20 18–26-year-olds (10 Māori and 10 Pacific) who had started smoking since turning 18. Participants were recruited using whanaungatanga or kinship networks, by word of mouth, and via social media and community advertising, using approaches we have previously used successfully.[23] We also recruited via Māori and Pacific health services that offered culturally targeted primary care, where we placed notices about the research. As recruitment proceeded, we used purposive selection to promote diversity and ensure participants varied by age and gender, and displayed varied smoking behaviours (i.e., the sample included both daily and intermittent smokers, and recent quitters).

Māori participants included students, caregivers, and those in employment; just over half were in paid employment and eight of the ten were living with wider family or friends. Seven of the ten Pacific participants were living with their parents, the majority were in some form of paid employment, and three participants were also studying. (Table 1 summarises participants' characteristics). Ethics approval was obtained from the University of Otago's Human Ethics Committee, which undertook a full review of the proposed research (approval 11/297). All participants received an information sheet and provided written consent.

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

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

Protocol and Procedure

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

understood addiction (particularly prior to smoking), explored whether and how they had considered the risks smoking poses, and reviewed the social and environmental contexts in which their smoking began. A copy of the interview guide is included as a supplementary file. Interviews were carried out by Māori and Pacific interviewers, with Māori and Pacific participants respectively, in late 2011 and early 2012 and took between 25 and 50 minutes. Interviewing continued until no new idea elements had been elicited in two consecutive interviews. With participants' permission, each interview was audio recorded and then transcribed verbatim.

Data Analysis

Interviewers undertook an intensive review of their interview transcripts and developed an initial descriptive classification that drew on the interview guide and was grounded in their own cultural knowledge and perspectives.[24, 25] All interviewers (Māori, Pacific and European) then met face to face to compare and contrast the findings across all three ethnic groups. During this analysis workshop, facilitated by an independent qualitative researcher, we identified over-arching themes within the transcripts and extended the initial descriptive analyses that corresponded largely to the research protocol. This process allowed themes to be cross-validated and nuanced, and the themes reported below reflect a consensus reached by the authors. We make extensive use of participants' own comments, and signal each participant's ethnicity (M – Māori, P- Pacific); gender (F-female, M-male), and age.

RESULTS

We began by identifying themes that corresponded to Chapman and Liberman's theoretical framework[21] and then identified additional themes specific to Māori and Pacific

participants. These latter themes provided more nuanced insights into participants' risk acceptance and likelihood of making informed choices.

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

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

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

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

aroused: *The first thing I saw was the packet. How it had all those pictures on it, and this was when we cut down on smoking…. when I always go for a smoke I always read the pack, it has all those lung stuff. That's what I always read* (PM19c).

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

Māori participants regretted their lack of knowledge and wondered whether knowing more at a younger age might have helped them remain smokefree: *Yeah, I should've been told about it before I picked up my first cigarette* (MM 20). *I think it should be better put out there because, like me, if I had've known more about it…..* (MF19a).

Levels 3 and 4: Personal acceptance and understanding the meaning of risk

Rather than outline how they had (or more typically, had not) assessed and then accepted smoking's risks, most participants explained they had discounted risks by focussing on counter-evidence. Many used examples of smokers who they knew and believed were unscathed by smoking to question risk information, and repeatedly privileged their personal observations over health warnings: *I see some people that smoke every day but nothing's happened to them* (PF23).

Evidence that the harms of smoking typically occurred over the long-term enabled some to rationalise their current behaviour by arguing they were unlikely to suffer any immediate harm. These participants used the lack of an instantaneous effect to discount future risks: *…….it was seeing people everywhere smoking and realising but they're not dead and they're not… I think it's the fact that it doesn't kill you straight away. And, um, somehow I thought I must have just realised that they're smoking and they're not getting sicker; it's not affecting them immediately…* (MF22).

Others reported feeling unconcerned about the risks they had seen on tobacco packages, which had no effect on their behaviour: *I saw pictures of like smoke effects and that, it didn't bother me. I just kept on smoking* (PF23). Even participants who had seen family members harmed by smoking did not feel motivated to quit: *Yep. I know more about smoking now only because smoking and the causes and the damage that it's done is close to home with me. That's why… but… and-and then, and then I look at myself and I'm still smoking so I'm just like, well I can't say anything about that but that's just how I feel…*(MF25). Only direct personal experience of harm seemed likely to motivate some participants to believe the risks they had seen were real: *And you know how you even see those pictures on the packs of smokes, I don't get put off. It's not enough to put me off. It's like "Oh yeah okay. I won't believe it until it happens"* (MF19a).

Overall, while several participants indicated they had a general awareness that smoking poses risks, many struggled to identify specific risks and most used rationalisations to distance themselves from the harms they recognised. These responses created an interesting context in which to explore whether and how they made deliberate decisions, and interpreted tobacco companies' arguments that smoking is an informed choice.

Reflective Decision Making

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

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

Social context of smoking

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

around them practised. Not only did their social context dissuade reflection, it promoted smoking uptake, since participants wanted to "be like" those around them.

A minority reported feeling coerced into experimenting with smoking: *Nah 'cause they kept telling me, "Try it, try it, try it." And I thought if I tried it then they'll stop bugging me* (MF19a). *Cause my friends they always smoke, cause whenever I see them smoking I just feel like smoking too … I don't want to smoke but they always dare me so I just like I just can't take it I just have to smoke* (PF19). These examples suggest some participants felt strong pressure to comply with normative practices, and eventually took the path of least resistance.

However, even those who argued that starting to smoke was their own decision also acknowledged they were influenced by what they perceived as positive attributes of smoking, particularly the social connections smoking created: *I think it was my own decision, but no-one really forced me to smoke but it's just when I keep on seeing, like my friends smoke and I'll be like, oh this, that looks cool* (PM19c). For others, "coolness" was associated with sophistication and adult behaviour, as the legal purchase age of tobacco reinforced smoking as an adult activity: *Um, it-it, yeah, I think at that age it made me feel cool 'cause that was when you were growing up, that was the "growing up" age and*…(MF25b).

Smoking played an important role in helping participants feel integrated with a social group; displaying the same "cool" behaviours helped them assert their group identity and develop stronger and more meaningful relationships: *Um, I don't know, I guess because my, um, my cousin smoked. So most of… some of my friends smoked and it just seemed like it was the in thing to do… And um I felt like whenever I went out and listened to the smokers talking, they*

were getting like very in-depth and talking about personal things and it seemed like a cool thing just to be able to socialise with people. It was a way to connect for me I think (MF 22).

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

Beliefs that smoking helped manage stress were widespread and several participants saw smoking as a form of self-medication that helped them cope more successfully with stressful settings. *Getting into a new relationship was a lot of stress because you know it's just stressful being in a relationship and you always tend to turn to smoking and that was how I turned to being a daily smoker* (PF24). *And then this year I went to Uni and it's my first year at Uni so um I needed it for stress, 'cause I was stressing out a lot and I just picked up smoking again* (MF19a).

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

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

Addiction

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

Tobacco Companies' "Informed Choice" Argument

After reflecting on their understanding of smoking, their social context and smoking's addictiveness, we explored participants' reactions to a statement made by Imperial Tobacco: *"The risks associated with smoking are universally known…and smoking is… a matter of informed adult choice"*.[26] Despite many participants stating they had little knowledge of smoking's risks, particularly its addictiveness, most nonetheless agreed that smoking was an informed choice: *if you're an adult then, you know, it's their choice whether they want to do it or not, ...*(MF24). *...it's an adult choice and it's up to that person if they wanna smoke or not smoke* (PM19b). One participant summed up the conflict many experienced; he already

experienced considerable regret and felt inextricably addicted, but nonetheless asserted ownership of his situation. *For me, I regret having smoked when I was 14, cause, yeah, it just spoiled my life from that day, wasting money on it, yeah, but it's just that I can't leave it so. Yeah, but it's up to you aye.* (PM19a).

Several saw smoking as a symbol of adulthood, and it was inconceivable that an adult would not make an informed choice: *like if you're an adult, to me, like you're making an informed choice* (MF24. Smoking was also an important means of asserting their independent identity; declaring they had made anything less than a deliberate choice would be inconsistent with the autonomy they valued: *It's my life, I choose what I do, if I want to smoke, I smoke; if I don't want to smoke, I don't smoke* (PF18). None of our participants reflected on how tobacco companies' products had constrained and determined their choices; instead they saw independence, adulthood and smoking as intertwined. Ironically, participants' desire to affirm their independence led them to agree with tobacco companies' position, despite the lack of knowledge they outlined and the contextual factors that had shaped their actions.

DISCUSSION

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

informedness, occurred after their addiction, when they were more frequently exposed to warning information.

Like many young adults, most dismissed the risks presented as uncertain and unlikely.[27] Even those who had seen family members suffer from diseases caused by smoking, or who had themselves experienced ill-health from smoking, rationalised their experiences, diminished the role played by smoking, and rarely saw risks as relevant to themselves. Participants saw smoking as normal, a means of establishing social connections, and lived in social contexts where *not* smoking could have challenged group norms. The perceived supportive environment for continued smoking, and the importance many participants placed on smoking as a social behaviour that symbolised adulthood, undermined informed decision-making. So too did the strong association between alcohol and smoking; alcohol featured strongly in participants' social environments and compromised their ability to make rational decisions.

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

Our findings help explain persistent inequalities in smoking prevalence between Māori and Pacific, and New Zealand Europeans (NZE) and highlight important differences between ethnicities. Māori and Pacific participants reported having lower awareness of smoking's

general risks than participants in the NZE sample, where all participants displayed awareness of some risks caused by smoking.[28] Our participants were more likely to comment on the connecting role smoking played in their communities and family networks, which suggests social impediments may also affect how effectively young adult Māori and Pacific may make informed choices. This normative environment may also explain differing perceptions of smoking's role in their future. While NZE participants typically predicted they were "unlikely to be smoking in the future" and saw smoking as "a lifestyle phase",[22] Māori and Pacific were less certain that smoking was a temporary part of their lives. They were also less likely than NZE participants to reflect critically on the tobacco industry's role in addicting them and others to a lethal product. Instead, they saw smoking as a symbol of maturity, and a sign they were capable of making adult decisions; in this context, declaring they had not made informed choices could seem akin to stating they had not yet matured fully. Pacific and Māori were more likely to report using smoking to relieve life circumstances such as stress and boredom. Yet despite these differences, participants shared common attributes with NZE young adults. For all groups, the disinhibiting effects of alcohol undermined active risk evaluation and facilitated smoking uptake.[17, 18] Likewise most participants greatly underestimated smoking's addictiveness even though understanding this concept was pivotal to making an informed choice.[22] In common with NZE participants, many Māori and Pacific reported acting impulsively and without having reflected on the longer term consequences they might face.

Arguments that smoking is an "informed choice" bear little relationship to the social contexts young adult Māori and Pacific smokers experience. Our findings have important policy implications and highlight the urgent need to change smoking norms within Māori and Pacific communities. While existing tobacco control policies such as smokefree

environments, tobacco taxation, social marketing and supply initiatives have gone some way to denormalising smoking in Māori and Pacific settings, future efforts (including targeted funding and resources) will need to prioritise Māori and Pacific populations if we are to reduce inequalities in smoking rates across New Zealand.

Political and tribal leaders, tobacco control advocates and smokers from indigenous communities are calling for new and innovative measures, including banning tobacco and reducing tobacco supply. Many of these measures were outlined in the original MASC report, but progress in many areas has been disappointingly slow [29]. In addition to these more centralised approaches it is important for Māori and Pacific communities to build social movements where people interact in smokefree settings; examples such as Waka Ama (outrigger canoe racing) already exist. Other measures include altering environments where smoking uptake occurs, for example, (enforcing smokefree policies in schools, creating a home environment where smoking is clearly not accepted as culturally appropriate, and by reducing social supply of tobacco within families and communities). Targeted and well-resourced mass media and social marketing campaigns could illustrate the harms of smoking (including addiction), decrease social supply, increase positive messages about "smoking not being part of our culture", and expose the role of the tobacco companies in the smoking epidemic for Māori and Pacific. Requiring all areas in bars and restaurants to be smokefree, will reduce opportunities for tobacco and alcohol co-use. Developing a smokefree generation and increasing the age at which young adults may purchase tobacco may be particularly salient to Māori and Pacific, and will need careful input from these communities.[30, 31]

Broader policy approaches may also be required to mitigate the risks of smoking being used to counteract stress and boredom.[32] These could include increased employment

opportunities and educational initiatives to ensure school success along with more nuanced health education. Low recall of school health programmes raises the possibility that health education messages may not be sufficiently targeted to meet the needs of specific cultural groups such as Pacific or Māori, a conclusion advanced in other studies.[33, 34] Some Pacific participants had not grown up in New Zealand, so our results may also indicate a lack of exposure to education programmes run within NZ schools. Furthermore, some Māori and Pacific reported having dropped out of school, thus even those who had attended school in New Zealand may not have been exposed to all the health programmes that demonstrated smoking's harms.

Future research could explore the feasibility of these ideas with Māori and Pacific, and, if appropriate, pilot and test potential interventions to assess their uptake and impact on Māori and Pacific. More fundamentally, young adults' acceptance of smoking as normal and socially binding reflects a need for deeper change within these communities, using culturally relevant mechanisms that community members themselves determine and implement.

CONCLUSION

For many young people, smoking uptake occurs quickly, easily and without deliberation. Arguments that smoking is an informed choice overlook young adults' limited risk knowledge, ignore the social contexts that facilitate initiation and maintain smoking, and take no account of how addiction compromises choice. Two approaches could address the lack of informed choice evident in our findings. First, changing participants' environments by increasing the legal purchase age to at least 25, a point at which uptake becomes less likely, implementation of smokefree generation proposals, decoupling smoking and drinking, increasing the cost of smoking and decreasing where tobacco may be consumed. Second,

important contextual factors relevant to Māori and Pacific communities also require action to reduce the high smoking prevalence among these groups. Encouraging even greater participation in indigenous smokefree social movements could provide Māori and Pacific role models who re-inforce smokefree messages. More fundamentally, however, tobacco control funding must recognise Māori and Pacific needs more effectively, and the New Zealand government must be held accountable for achieving the smokefree 2025 goal, so clearly outlined in the MASC report.

Competing interests

We have no competing interests but note, for the sake of full disclosure, that we have received funding from the New Zealand Health Research Council, Royal Society of New Zealand Marsden Fund, New Zealand Ministry of Health, Heart Foundation of New Zealand and New Zealand Cancer Society. We have no financial interest in the study and no connection to any organisation that could profit from the study findings.

Funding for the project was provided by the Royal Society of New Zealand Marsden Fund (Grant 11/134). We had full responsibility for the study design, data collection and analysis, report writing and the preparation of this MS. We had full access to all of the data in this study and take complete responsibility for the integrity of the data and the accuracy of the data analysis.

Authors' contributions

HG and JH led this phase of the project; JH conceived the project and, with RE, obtained funding. HG, SE, and DT collected the data reported, HG, SE, JH and RG undertook initial data analyses. HG and JH led the MS development; DT, SE, RG and RE provided feedback on drafts. All authors have approved the submitted MS and agree to be responsible for the data reported.

Authors' information

HG is Director of Whakauae Research Services, an iwi-based Māori Health Research Group. She has an extensive background in Māori health policies and interventions, with specific expertise in tobacco control. She is a theme leader in ASPIRE2025, a University of Otago Research Theme whose members develop, test and evaluate policy measures that support the New Zealand government's goal of becoming a smoke-free nation by 2025.

DT is a Research Fellow at AUT University. He is Associate Director of the Pacific Islands Families Study, which examines factors influencing success within Pacific families. He is a theme leader within the ASPIRE2025 collaboration.

SE is Director of ASH New Zealand and formerly managed Tala Pasifika, the Pacific Smokefree team within the NZ Heart Foundation. She has a strong background in tobacco control and particular interest in reducing smoking prevalence among Māori and Pacific peoples. She is a member of the ASPIRE2025 collaboration.

JH is a Professor of Marketing at the University of Otago. She is co-director of the ASPIRE2025 collaboration and has a long-standing interest in tobacco control policy and public health.

RG is a PhD candidate in the Department of Public Health, University of Otago Wellington. Her research has offered a new definition of informed choice in relation to young adult smokers.

RE is Professor of Public Health, co-head of the Department of Public Health and co-director of the ASPIRE2025 collaboration at the University of Otago, Wellington. He has published extensively in tobacco control and public health.

Acknowledgements

We wish to acknowledge the research participants whose willingness to be interviewed allowed the study to proceed.

Funding Statement

This work was supported by the Royal Society of New Zealand Marsden Fund (Grant 11/134).

Data Sharing

No additional data available.

REFERENCES

[1] New Zealand Parliament. Parliamentary business: Select committees. Wellington: New Zealand Parliament 2016.

[2] New Zealand Parliament. Inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Maori, Report of the Maori Affairs Committee. Wellington: New Zealand Parliament 2010.

[3] Ministry of Health. Annual Update of Key Results 2014/15: New Zealand Health Survey. In: Ministry of Health, ed. Wellington 2015.

[4] Balbach ED, Smith EA, Malone RE. How the health belief model helps the tobacco industry: Individuals, choice, and "information". *Tobacco Control* 2006;**15**:iv37-iv43

[5] Maubach N, Hoek J, Edwards R*, et al.* "The times are changing": New Zealand smokers' perceptions of the tobacco endgame. *Tobacco Control* 2012;**22**(6):395-400.

[6] ASH New Zealand. ASH Year 10 Snapshot Survey: ToplineResults. Auckland 2015.

[7] Edwards R, Peace J, Carter K*, et al.* An examination of smoking initiation rates by age: results from a large longitudinal study in New Zealand. *Australia and New Zealand Journal of Public Health* 2013;**37**(6):516-519

[8] Ponniah S, Bloomfield A. Sociodemographic characteristics of New Zealand adult smokers, ex-smokers, and non-smokers: results from the 2006 Census. *The New Zealand medical journal* 2008;**121**:34 - 42.

[9] Greenfield K. The myth of choice: Personal responsibility in a world of limits: Yale University Press 2011.

[10] Hoek J. Informed choice and the nanny state: learning from the tobacco industry. *Public health* 2015;**129**(8):1038-1045.

[11] Perry B. 2013 Household Incomes Report- Key Findings. In: Development MoS, ed. Wellington: Ministry of Social Development 2013.

[12] Barnett R, Pearce J, Moon G. Does social inequality matter? Changing ethnic socio-economic disparities and Maori smoking in New Zealand, 1981–1996. *Social science & medicine* 2005;**60**(7):1515-1526.

[13] McGee R, Williams S, Reeder A. Parental tobacco smoking behaviour and their children's smoking and cessation in adulthood. *Addiction* 2006;**101**(8):1193-1201.

[14] Teevale T, Denny S, Nosa V*, et al.* Predictors of cigarette use amongst Pacific youth in New Zealand. *Harm reduction journal* 2013;**10**(1):25.

[15] Gifford H, Boulton A. Is sharing tobacco within the home really good manaakitanga? In: Kepa M, Brewin M, Manu'atu L, eds. *Home: Here to Stay*. Wellington: Ngā Pae o te Māramatanga and Huia Publishers 2015:83-95.

[16] 2006 census of population and housing: Socio-economic indexes for area's (SEIFA). Canberra, Australia: Commonwealth of Australia 2008.

[17] Hoek J, Maubach N, Stevenson R*, et al.* Social smokers' management of conflicted identities. *Tob Control* 2013;**22**(4):261-265.

[18] Jiang N, Ling PM. Impact of alcohol use and bar attendance on smoking and quit attempts among young adult bar patrons. *American journal of public health* 2013;**103**(5):e53-e61.

[19] Ministry of Health. Annual Update of Key Results 2013/14: New Zealand Health Survey. In: Ministry of Health, ed. Wellington 2014.

[20] Health Mo. Annual Update of Key Results 2014/15: New Zealand Health Survey. In: Health Mo, ed. Wellington 2015.

[21] Chapman S, Liberman J. Ensuring smokers are adequately informed: Reflections on consumer rights, manufacturer responsibility, and policy implications. *Tobacco Control* 2005;**14**:8-13.

[22] Gray RJ, Hoek J, Edwards R. A qualitative analysis of 'informed choice' among young adult smokers. *Tob Control* 2016;**25**(1):46-51.
[23] Hoek J, Gifford H, Maubach N*, et al.* A qualitative analysis of messages to promote smoking cessation among pregnant women. *BMJ open* 2014;**4**(11):e006716.
[24] Dey I. Qualitative data analysis: A user-friendly guide for social scientists: Routledge 1993.
[25] Pihama L, Cram F, Walker S. Creating methodological space: A literature review of Kaupapa Maori research. *Canadian Journal of Native Education* 2002;**26**(1):30.
[26] Imperial Tobacco New Zealand Limited. Submission to the Māori Affairs Select Committee Enquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Māori. 2010.
[27] Hoek J, Hoek-Sims A, Gendall P. A qualitative exploration of young adult smokers' responses to novel tobacco warnings. *BMC Public Health* 2013;**13**(609).
[28] Gray R, Hoek J, Edwards R. Do young adults exercise informed choice about smoking? In: Walker N, Grana R, eds. *Society for Nicotine and Tobacco Research*. Chicago: Society for Nicotine and Tobacco Research 2016.
[29] Ball J, Edwards R, Waa A*, et al.* Is the NZ Government responding adequately to the Māori Affairs Select Committee's 2010 recommendations on tobacco control? A brief review. *New Zealand Medical Journal* 2016;**129**(1428):93-97.
[30] Winickoff JG, McMillen R, Tanski S*, et al.* Public support for raising the age of sale for tobacco to 21 in the United States. *Tobacco control* 2015:tobaccocontrol-2014-052126.
[31] Berrick A. The tobacco-free generation proposal. *Tobacco control* 2013;**22**(suppl 1):i22-i26.
[32] Richardson K. Smoking, low income and health inequalities: thematic discussion document. ASH 2001.
[33] Tautolo ES, Schluter PJ, Paterson J*, et al.* Acculturation status has a modest effect on smoking prevalence among a cohort of Pacific fathers in New Zealand. *Australian and New Zealand journal of public health* 2011;**35**(6):509-516.
[34] Lanumata T, Thomson G, Wilson N. Pacific solutions to reducing smoking around Pacific children in New Zealand: a qualitative study of Pacific policymaker views. *New Zealand Medical Journal* 2010;**123**(1308).

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?)

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

Thoughts on addiction
Priority: HIGH

19. Of the people in your life – family, friends – do you know people who have quit or tried to quit smoking? What do you think made them try to quit? How did they go about quitting? How did it work out for them?
20. How easy do you think it would be to quit smoking completely (that is, not smoke again in any situation)? Why do you feel that way?
21. Thinking back, what did you think about quitting (did you think you would, how easy did you think it would be?) when you first started smoking (weekly/daily)? (Has your opinion changed since then, if so how?)
22. (if not already mentioned) Cigarettes are sometimes described as "addictive". What do you think it means to be addicted?

23. Do you think you'll still be smoking in five years time? Ten years? What makes you think that?

Conclusion
Priority: HIGH

24. You've described the circumstances in which you took up smoking, and some of your thoughts about smoking then and now. Do you think, knowing what you do now, if you were faced with the same circumstances (describe) that you would still take up smoking?
25. Can you think of people in your life who are about your age – say siblings or friends – who don't smoke? Why don't they/ what do you think are the influences on their decision to not smoke? (Probe: how are the things that influence them different to the things that influenced you?) Do you think, if you had been in the same circumstances/ had the same influences as they do, that you would still have started smoking? Why/ why not?

26. To finish off, I'd like to read you a recent quote from a tobacco company spokesperson in NZ.

"The risks associated with smoking are universally known…and smoking is… a matter of informed adult choice"
(Imperial Tobacco NZ Ltd 2010: Submission to the Māori Affairs Select Committee)

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

(unpack: "risks universally known", "informed" "adult choice")

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.

Note for researchers to consider at the close of pilot interview:

How long did each section take?

Were any questions hard to answer? (mark on interview schedule any questions that the participant found difficult)

Have the following all been covered off during the interview?

Level 1: having heard that smoking increases health risks

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

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

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

5: maturity of decision making processes – did they make the choice as an adult, and did they use a rational process to decide?

6: ability to make decision free of social and environmental pressures.

BMJ Open

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

Journal:	*BMJ Open*
Manuscript ID	bmjopen-2016-011415.R2
Article Type:	Research
Date Submitted by the Author:	19-Apr-2016
Complete List of Authors:	Gifford, Heather; Whakauae Research for Maori Health and Development, Director's Office Tautolo, El-Shadan; AUT University , Department of Public Health and Psychosocial Studies Erick, Stephanie; ASH New Zealand, Director's office Hoek, Janet; University of Otago, Marketing Gray, Rebecca; University of Otago Wellington, Public Health Edwards, Richard; University of Otago Wellington, Public Health
Primary Subject Heading:	Smoking and tobacco
Secondary Subject Heading:	Public health, Qualitative research
Keywords:	PUBLIC HEALTH, QUALITATIVE RESEARCH, SOCIAL MEDICINE

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

Heather Gifford[1], El-Shadan Tautolo[2], Stephanie Erick[3], Janet Hoek[4], Rebecca Gray[5], Richard Edwards[5]

1. Whakauae Research Services, Director's Office, Whanganui, New Zealand
2. AUT University, Department of Public Health and Psychosocial Studies, Auckland, New Zealand
3. ASH New Zealand, Director's Office, Auckland, New Zealand
4. Department of Marketing, University of Otago, Dunedin, New Zealand
5. Department of Public Health, University of Otago Wellington, Wellington, New Zealand

Corresponding Author:
Janet Hoek
Department of Marketing
University of Otago
PO Box 56
Dunedin 9054
New Zealand
Email: Janet.hoek@otago.ac.nz

Number of Tables: 1

Number of Figures: 0

Word Count: 5067 (Excluding title page, abstract, summary, references and table)

ABSTRACT

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

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

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

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

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

Article Summary

Strengths and limitations of this study

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

BACKGROUND

The New Zealand Parliament has several Select Committees that comprise members drawn from all political parties [1]. As well as reviewing draft legislation, these committees may establish inquiries into matters of concern to New Zealand. Following prompting by Māori politicians and health advocates, the Māori Affairs Select Committee (MASC) initiated an *Inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Māori.*[2] in October 2010. The Inquiry called for an analysis that examined the toll of tobacco use on Māori, and recognised New Zealand's striking disparities in smoking prevalence, which is much higher among Māori (38%) and Pacific peoples (25%) than among NZ European (15%) [3].

Among other claims advanced to the MASC, tobacco company representatives argued that smoking is an 'informed adult choice'; this argument implies smokers start smoking after appraising the risks and benefits they may incur.[4] By transferring responsibility for future harm back onto smokers themselves, tobacco companies reduce their potential liability and promote beliefs that tobacco control measures undermine individuals' right to smoke.[4, 5] This argument has a superficial appeal and sits easily within the neo-liberal discourse that has dominated New Zealand's political landscape. However, the premises of this argument have not been carefully tested and require closer scrutiny, given tobacco companies' use of this claim to oppose policy measures. Fully informed choices are arguably more important for tobacco than for other products, given how addictive smoking is and the enormous harm tobacco inflicts on users.

Māori and Pacific take up smoking at a younger age than their European counterparts; children as young as 11 years of age may experiment with smoking and smoking may

become established in children by age 14;[6] for these smokers, starting smoking is clearly not an adult choice. However, smoking uptake also occurs among Māori and Pacific young adults and prevalence remains high among those aged 18–25, despite reductions in adolescent smoking rates.[7, 8] Evidence of increasing smoking uptake among young people aged 18 and over, who are legally considered adults in New Zealand, highlights the importance of testing the tobacco industry's 'informed choice' arguments. Specifically, few studies have explored whether young adults, particularly those most impacted by inequalities, make active and informed decisions to start smoking.

Despite the superficial appeal of 'informed choice' arguments, which draw on neo-liberal views of personal responsibility,[9, 10] these overlook important socio-economic and cultural factors that influence Māori and Pacific young adults' decision-making. For example, Māori and Pacific ethnic groups typically have poverty rates around double those of the European ethnic group, regardless of the measure used, and smoking accounts for a large proportion of economic hardship experienced by Māori and Pacific peoples.[11] Levels of social inequality between Māori and European people have an independent effect on Māori smoking rates.[12] Where smoking prevalence is high, as it is among Māori and Pacific, young adults may regard it as normal, associate it with desirable social benefits,[13-15] and discount the risks communicated in health warnings and through other media. Furthermore, cultural practices such as gift giving and sharing may undermine informed choice by promoting uptake in contexts where refusal to accept or use tobacco may be regarded as impolite, or where sharing is strongly associated with hospitality and generosity.[16]

Other factors likely to affect European New Zealanders as well as Māori and Pacific young adults, include the widespread association of smoking and drinking.[17] Growing evidence

suggests alcohol consumption both facilitates smoking initiation and fuels tobacco use.[17, 18] Higher rates of drinking "a large amount of alcohol" among Māori and Pacific peoples thus further undermines young people's ability to undertake the risk–benefit assessments implicit in informed choices.[19, 20]

Informed Choice Framework

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

METHODS

Sample

We conducted in-depth interviews with 20 18–26-year-olds (10 Māori and 10 Pacific) who had started smoking since turning 18. Participants were recruited using whanaungatanga or kinship networks, by word of mouth, and via social media and community advertising, using approaches we have previously used successfully.[23] We also recruited via Māori and Pacific health services that offered culturally targeted primary care, where we placed notices about the research. As recruitment proceeded, we used purposive selection to promote diversity and ensure participants varied by age and gender, and displayed varied smoking behaviours (i.e., the sample included both daily and intermittent smokers, and recent quitters).

Māori participants included students, caregivers, and those in employment; just over half were in paid employment and eight of the ten were living with wider family or friends. Seven of the ten Pacific participants were living with their parents, the majority were in some form of paid employment, and three participants were also studying. (Table 1 summarises participants' characteristics). Ethics approval was obtained from the University of Otago's Human Ethics Committee, which undertook a full review of the proposed research (approval 11/297). All participants received an information sheet and provided written consent.

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

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

Protocol and Procedure

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

smoking. We also probed their reflections on how informed they considered their uptake of smoking was. To test the framework's completeness, we examined how participants understood addiction (particularly prior to smoking), explored whether and how they had considered the risks smoking poses, and reviewed the social and environmental contexts in which their smoking began. A copy of the interview guide is included as a supplementary file. Interviews were carried out by Māori and Pacific interviewers, with Māori and Pacific participants respectively, in late 2012 and early 2013 and took between 25 and 50 minutes. Interviewing continued until no new idea elements had been elicited in two consecutive interviews. With participants' permission, each interview was audio recorded and then transcribed verbatim.

Data Analysis

Interviewers undertook an intensive review of their interview transcripts and developed an initial descriptive classification that drew on the interview guide and was grounded in their own cultural knowledge and perspectives.[24, 25] All interviewers (Māori, Pacific and European) then met face to face to compare and contrast the findings across all three ethnic groups. During this analysis workshop, facilitated by an independent qualitative researcher, we identified over-arching themes within the transcripts and extended the initial descriptive analyses that corresponded largely to the research protocol. This process allowed themes to be cross-validated and nuanced, and the themes reported below reflect a consensus reached by the authors. We make extensive use of participants' own comments, and signal each participant using the codes outlined in Table 1.

RESULTS

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

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

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

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

Awareness of smoking's specific risks increased once participants had developed a regular smoking pattern and were more frequently exposed to on-pack warnings. As a result, some considered "cutting down" so they could resolve the dissonance their risk knowledge aroused: *The first thing I saw was the packet. How it had all those pictures on it, and this was when we cut down on smoking…. when I always go for a smoke I always read the pack, it has all those lung stuff. That's what I always read* (PM19c).

While many participants reported receiving information about risks, some felt they had received little information, or reported they were not fully aware of the risks: *Oh I didn't know anything when I first started……when I was 18 I didn't know that you could get killed from this stuff. And I didn't notice how bad it affects your body and stuff* (MF19b). Of those who did possess some risk understanding, most focused generally on cancer and few showed a detailed knowledge of the multiple risks caused by smoking: *That cancer thing, and I don't really know that much, ay. I just know that part.* (PM19a).

Māori participants regretted their lack of knowledge and wondered whether knowing more at a younger age might have helped them remain smokefree: *Yeah, I should've been told about it before I picked up my first cigarette* (MM20). *I think it should be better put out there because, like me, if I had've known more about it…..* (MF19a).

Levels 3 and 4: Personal acceptance and understanding the meaning of risk

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

observations over health warnings: *I see some people that smoke every day but nothing's happened to them* (PF23).

Evidence that the harms of smoking typically occurred over the long-term enabled some to rationalise their current behaviour by arguing they were unlikely to suffer any immediate harm. These participants used the lack of an instantaneous effect to discount future risks: *……..it was seeing people everywhere smoking and realising but they're not dead and they're not… I think it's the fact that it doesn't kill you straight away. And, um, somehow I thought I must have just realised that they're smoking and they're not getting sicker; it's not affecting them immediately…* (MF22).

Others reported feeling unconcerned about the risks they had seen on tobacco packages, which had no effect on their behaviour: *I saw pictures of like smoke effects and that, it didn't bother me. I just kept on smoking* (PF23). Even participants who had seen family members harmed by smoking did not feel motivated to quit: *Yep. I know more about smoking now only because smoking and the causes and the damage that it's done is close to home with me. That's why… but… and-and then, and then I look at myself and I'm still smoking so I'm just like, well I can't say anything about that but that's just how I feel…*(MF25). Only direct personal experience of harm seemed likely to motivate some participants to believe the risks they had seen were real: *And you know how you even see those pictures on the packs of smokes, I don't get put off. It's not enough to put me off. It's like "Oh yeah okay. I won't believe it until it happens"* (MF19a).

Overall, while several participants indicated they had a general awareness that smoking poses risks, many struggled to identify specific risks and most used rationalisations to distance

themselves from the harms they recognised. These responses created an interesting context in which to explore whether and how they made deliberate decisions, and interpreted tobacco companies' arguments that smoking is an informed choice.

Reflective Decision Making

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

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

Social context of smoking

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

second, I just started smoking (PM19a). *Because everybody in our family were smoking too, so I thought I'd just be like them. I thought it was normal*…(MF25b). Participants' social context deterred active consideration, since they had no reason to reflect on a behaviour those around them practised. Not only did their social context dissuade reflection, it promoted smoking uptake, since participants wanted to "be like" those around them.

A minority reported feeling coerced into experimenting with smoking: *Nah 'cause they kept telling me, "Try it, try it, try it." And I thought if I tried it then they'll stop bugging me* (MF19a). *Cause my friends they always smoke, cause whenever I see them smoking I just feel like smoking too … I don't want to smoke but they always dare me so I just like I just can't take it I just have to smoke* (PF19). These examples suggest some participants felt strong pressure to comply with normative practices, and eventually took the path of least resistance.

However, even those who argued that starting to smoke was their own decision also acknowledged they were influenced by what they perceived as positive attributes of smoking, particularly the social connections smoking created: *I think it was my own decision, but no-one really forced me to smoke but it's just when I keep on seeing, like my friends smoke and I'll be like, oh this, that looks cool* (PM19c). For others, "coolness" was associated with sophistication and adult behaviour, as the legal purchase age of tobacco reinforced smoking as an adult activity: *Um, it-it, yeah, I think at that age it made me feel cool 'cause that was when you were growing up, that was the "growing up" age and*…(MF25b).

Smoking played an important role in helping participants feel integrated with a social group; displaying the same "cool" behaviours helped them assert their group identity and develop stronger and more meaningful relationships: *Um, I don't know, I guess because my, um, my*

cousin smoked. So most of… some of my friends smoked and it just seemed like it was the in thing to do… And um I felt like whenever I went out and listened to the smokers talking, they were getting like very in-depth and talking about personal things and it seemed like a cool thing just to be able to socialise with people. It was a way to connect for me I think (MF22).

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

Beliefs that smoking helped manage stress were widespread and several participants saw smoking as a form of self-medication that helped them cope more successfully with stressful settings. *Getting into a new relationship was a lot of stress because you know it's just stressful being in a relationship and you always tend to turn to smoking and that was how I turned to being a daily smoker* (PF24). *And then this year I went to Uni and it's my first year at Uni so um I needed it for stress, 'cause I was stressing out a lot and I just picked up smoking again* (MF19a).

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

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

Addiction

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

Tobacco Companies' "Informed Choice" Argument

After reflecting on their understanding of smoking, their social context and smoking's addictiveness, we explored participants' reactions to a statement made by Imperial Tobacco: *"The risks associated with smoking are universally known…and smoking is… a matter of informed adult choice"*.[26] Despite many participants stating they had little knowledge of smoking's risks, particularly its addictiveness, most nonetheless agreed that smoking was an

informed choice: *if you're an adult then, you know, it's their choice whether they want to do it or not, ...*(MF24). *...it's an adult choice and it's up to that person if they wanna smoke or not smoke* (PM19b). One participant summed up the conflict many experienced; he already experienced considerable regret and felt inextricably addicted, but nonetheless asserted ownership of his situation. *For me, I regret having smoked when I was 14, cause, yeah, it just spoiled my life from that day, wasting money on it, yeah, but it's just that I can't leave it so. Yeah, but it's up to you aye.* (PM19a).

Several saw smoking as a symbol of adulthood, and it was inconceivable that an adult would not make an informed choice: *like if you're an adult, to me, like you're making an informed choice* (MF24. Smoking was also an important means of asserting their independent identity; declaring they had made anything less than a deliberate choice would be inconsistent with the autonomy they valued: *It's my life, I choose what I do, if I want to smoke, I smoke; if I don't want to smoke, I don't smoke* (PF18). None of our participants reflected on how tobacco companies' products had constrained and determined their choices; instead they saw independence, adulthood and smoking as intertwined. Ironically, participants' desire to affirm their independence led them to agree with tobacco companies' position, despite the lack of knowledge they outlined and the contextual factors that had shaped their actions.

DISCUSSION

Many participants had not progressed beyond Chapman and Liberman's first stage of informed choice. However, despite considering they had limited knowledge of smoking's risks, feeling influenced by social factors, and rarely considering future consequences, most nevertheless thought they had made an informed choice. Participants generally learned about the specific risks of smoking from on-pack warnings, which they typically accessed only after

becoming addicted. While developing this knowledge left them more informed, it could not influence their actions retrospectively; paradoxically, participants' assessment of their informedness, occurred after their addiction, when they were more frequently exposed to warning information.

Like many young adults, most dismissed the risks presented as uncertain and unlikely.[27] Even those who had seen family members suffer from diseases caused by smoking, or who had themselves experienced ill-health from smoking, rationalised their experiences, diminished the role played by smoking, and rarely saw risks as relevant to themselves. Participants saw smoking as normal, a means of establishing social connections, and lived in social contexts where *not* smoking could have challenged group norms. The perceived supportive environment for continued smoking, and the importance many participants placed on smoking as a social behaviour that symbolised adulthood, undermined informed decision-making. So too did the strong association between alcohol and smoking; alcohol featured strongly in participants' social environments and compromised their ability to make rational decisions.

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

Our findings help explain persistent inequalities in smoking prevalence between Māori and Pacific, and New Zealand Europeans (NZE) and highlight important differences between ethnicities. Māori and Pacific participants reported having lower awareness of smoking's general risks than participants in the NZE sample, where all participants displayed awareness of some risks caused by smoking.[28] Participants were more likely to comment on the connecting role smoking played in their communities and family networks, which suggests social impediments influence Māori and Pacific young adults' actions. This normative environment may also explain differing perceptions of smoking's role in their future. While NZE participants typically predicted they were "unlikely to be smoking in the future" and saw smoking as "a lifestyle phase",[22] Māori and Pacific were less certain that smoking was a temporary part of their lives. They were also less likely than NZE participants to reflect critically on the tobacco industry's role in addicting them and others to a lethal product. Instead, they saw smoking as a symbol of maturity, and a sign they were capable of making adult decisions; in this context, declaring they had not made informed choices could seem akin to stating they had not yet matured fully.

Pacific and Māori were more likely to report using smoking to relieve life circumstances such as stress and boredom. Yet despite these differences, participants shared common attributes with NZE young adults. For all groups, the disinhibiting effects of alcohol undermined active risk evaluation and facilitated smoking uptake.[17, 18] Likewise most participants greatly underestimated smoking's addictiveness even though understanding this concept was pivotal to making an informed choice.[22] In common with NZE participants, many Māori and Pacific reported acting impulsively and without having reflected on the longer term consequences they might face. Nor do "informed choice" arguments correspond to the social

contexts young adult Māori and Pacific smokers experience, where smoking is less a choice than a rite of passage.

Our findings suggest "informed choice" arguments propose an illusory concept; young people cannot choose addiction when they do not understand what it will entail any more than they can accept risks they do not believe will affect them. Engaging with tobacco companies' claims that smokers should make "informed choices" deflects attention from the industry's role in developing highly addictive and lethal products. Furthermore, "informed choice" arguments erroneously suggest education will enhance young adults' decision-making. Crucially, these arguments overlook the role of regulatory measures in creating environments that recognise smoking uptake is neither rational nor informed, and that protect young people from addiction to a product that will reduce their well-being. As well as highlighting the crucial role of policy measures to change environments that facilitate smoking uptake, our findings also reveal the urgent need to change smoking norms within Māori and Pacific communities. While existing tobacco control policies such as smokefree environments, tobacco taxation, social marketing and supply initiatives have gone some way to denormalising smoking in Māori and Pacific settings, future efforts (including targeted funding and resources) will need to prioritise Māori and Pacific populations if we are to reduce inequalities in smoking rates across New Zealand.

Political and tribal leaders, tobacco control advocates and smokers from indigenous communities are calling for new and innovative measures, including banning tobacco and reducing tobacco supply. Many of these measures were outlined in the original MASC report, but progress in many areas has been disappointingly slow [29]. In addition to these more centralised approaches it is important for Māori and Pacific communities to build social

movements where people interact in smokefree settings; examples such as Waka Ama (outrigger canoe racing) already exist. Other measures include altering environments where smoking uptake occurs, for example, (enforcing smokefree policies in schools, creating a home environment where smoking is clearly not accepted as culturally appropriate, and by reducing social supply of tobacco within families and communities). Targeted and well-resourced mass media and social marketing campaigns could illustrate the harms of smoking (including addiction), decrease social supply, increase positive messages about "smoking not being part of our culture", and expose the role of the tobacco companies in the smoking epidemic for Māori and Pacific. Requiring all areas in bars and restaurants to be smokefree, will reduce opportunities for tobacco and alcohol co-use. Developing a smokefree generation and increasing the age at which young adults may purchase tobacco may be particularly salient to Māori and Pacific, and will need careful input from these communities.[30, 31]

Broader policy approaches may also be required to mitigate the risks of smoking being used to counteract stress and boredom.[32] These could include increased employment opportunities and educational initiatives to ensure school success along with more nuanced health education. Low recall of school health programmes raises the possibility that health education messages may not be sufficiently targeted to meet the needs of specific cultural groups such as Pacific or Māori, a conclusion advanced in other studies.[33, 34] Some Pacific participants had not grown up in New Zealand, so our results may also indicate a lack of exposure to education programmes run within NZ schools. Furthermore, some Māori and Pacific reported having dropped out of school, thus even those who had attended school in New Zealand may not have been exposed to all the health programmes that demonstrated smoking's harms.

Future research could explore the feasibility of these ideas with Māori and Pacific, and, if appropriate, pilot and test potential interventions to assess their uptake and impact on Māori and Pacific. More fundamentally, young adults' acceptance of smoking as normal and socially binding reflects a need for deeper change within these communities, using culturally relevant mechanisms that community members themselves determine and implement.

CONCLUSION

For many young people, smoking uptake occurs quickly, easily and without deliberation. Arguments that smoking is an informed choice overlook young adults' limited risk knowledge, ignore the social contexts that facilitate initiation and maintain smoking, and take no account of how addiction compromises choice. Two approaches could address the lack of informed choice evident in our findings. First, changing participants' environments by increasing the legal purchase age to at least 25, a point at which uptake becomes less likely, implementation of smokefree generation proposals, decoupling smoking and drinking, and increasing the cost of smoking and decreasing where tobacco may be consumed. Second, important contextual factors relevant to Māori and Pacific communities also require action to reduce the high smoking prevalence among these groups. Encouraging even greater participation in indigenous smokefree social movements could provide Māori and Pacific role models who re-inforce smokefree messages. More fundamentally, however, tobacco control funding must recognise Māori and Pacific needs more effectively, and the New Zealand government must be held accountable for achieving the smokefree 2025 goal, so clearly outlined in the MASC report.

Competing interests

We have no competing interests but note, for the sake of full disclosure, that we have received funding from the New Zealand Health Research Council, Royal Society of New Zealand Marsden Fund, New Zealand Ministry of Health, Heart Foundation of New Zealand and New Zealand Cancer Society. We have no financial interest in the study and no connection to any organisation that could profit from the study findings.

Funding for the project was provided by the Royal Society of New Zealand Marsden Fund (Grant 11/134). We had full responsibility for the study design, data collection and analysis, report writing and the preparation of this MS. We had full access to all of the data in this study and take complete responsibility for the integrity of the data and the accuracy of the data analysis.

Authors' contributions

HG and JH led this phase of the project; JH conceived the project and, with RE, obtained funding. HG, SE, and DT collected the data reported, HG, SE, JH and RG undertook initial data analyses. HG and JH led the MS development; DT, SE, RG and RE provided feedback on drafts. All authors have approved the submitted MS and agree to be responsible for the data reported.

Authors' information

HG is Director of Whakauae Research Services, an iwi-based Māori Health Research Group. She has an extensive background in Māori health policies and interventions, with specific expertise in tobacco control. She is a theme leader in ASPIRE2025, a University of Otago

Research Theme whose members develop, test and evaluate policy measures that support the New Zealand government's goal of becoming a smoke-free nation by 2025.

DT is a Research Fellow at AUT University. He is Associate Director of the Pacific Islands Families Study, which examines factors influencing success within Pacific families. He is a theme leader within the ASPIRE2025 collaboration.

SE is Director of ASH New Zealand and formerly managed Tala Pasifika, the Pacific Smokefree team within the NZ Heart Foundation. She has a strong background in tobacco control and particular interest in reducing smoking prevalence among Māori and Pacific peoples. She is a member of the ASPIRE2025 collaboration.

JH is a Professor of Marketing at the University of Otago. She is co-director of the ASPIRE2025 collaboration and has a long-standing interest in tobacco control policy and public health.

RG is a PhD candidate in the Department of Public Health, University of Otago Wellington. Her research has offered a new definition of informed choice in relation to young adult smokers.

RE is Professor of Public Health, co-head of the Department of Public Health and co-director of the ASPIRE2025 collaboration at the University of Otago, Wellington. He has published extensively in tobacco control and public health.

Acknowledgements

We wish to acknowledge the research participants whose willingness to be interviewed allowed the study to proceed.

Funding Statement

This work was supported by the Royal Society of New Zealand Marsden Fund (Grant 11/134).

Data Sharing

Due to the sensitive nature of the research topic, the researchers undertook to keep the interview transcripts confidential to the research team. For this reason, the data are not available to other researchers. However, the protocol used is provided as a supplementary file.

REFERENCES

[1] New Zealand Parliament. Parliamentary business: Select committees. Wellington: New Zealand Parliament 2016.

[2] New Zealand Parliament. Inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Maori, Report of the Maori Affairs Committee. Wellington: New Zealand Parliament 2010.

[3] Ministry of Health. Annual Update of Key Results 2014/15: New Zealand Health Survey. In: Ministry of Health, ed. Wellington 2015.

[4] Balbach ED, Smith EA, Malone RE. How the health belief model helps the tobacco industry: Individuals, choice, and "information". *Tobacco Control* 2006;**15**:iv37-iv43

[5] Maubach N, Hoek J, Edwards R*, et al.* "The times are changing": New Zealand smokers' perceptions of the tobacco endgame. *Tobacco Control* 2012;**22**(6):395-400.

[6] ASH New Zealand. ASH Year 10 Snapshot Survey: ToplineResults. Auckland 2015.

[7] Edwards R, Peace J, Carter K*, et al.* An examination of smoking initiation rates by age: results from a large longitudinal study in New Zealand. *Australia and New Zealand Journal of Public Health* 2013;**37**(6):516-519

[8] Ponniah S, Bloomfield A. Sociodemographic characteristics of New Zealand adult smokers, ex-smokers, and non-smokers: results from the 2006 Census. *The New Zealand medical journal* 2008;**121**:34 - 42.

[9] Greenfield K. The myth of choice: Personal responsibility in a world of limits: Yale University Press 2011.

[10] Hoek J. Informed choice and the nanny state: learning from the tobacco industry. *Public health* 2015;**129**(8):1038-1045.

[11] Perry B. 2013 Household Incomes Report- Key Findings. In: Development MoS, ed. Wellington: Ministry of Social Development 2013.

[12] Barnett R, Pearce J, Moon G. Does social inequality matter? Changing ethnic socio-economic disparities and Maori smoking in New Zealand, 1981–1996. *Social science & medicine* 2005;**60**(7):1515-1526.

[13] McGee R, Williams S, Reeder A. Parental tobacco smoking behaviour and their children's smoking and cessation in adulthood. *Addiction* 2006;**101**(8):1193-1201.

[14] Teevale T, Denny S, Nosa V*, et al.* Predictors of cigarette use amongst Pacific youth in New Zealand. *Harm reduction journal* 2013;**10**(1):25.

[15] Gifford H, Boulton A. Is sharing tobacco within the home really good manaakitanga? In: Kepa M, Brewin M, Manu'atu L, eds. *Home: Here to Stay*. Wellington: Ngā Pae o te Māramatanga and Huia Publishers 2015:83-95.

[16] 2006 census of population and housing: Socio-economic indexes for area's (SEIFA). Canberra, Australia: Commonwealth of Australia 2008.

[17] Hoek J, Maubach N, Stevenson R*, et al.* Social smokers' management of conflicted identities. *Tob Control* 2013;**22**(4):261-265.

[18] Jiang N, Ling PM. Impact of alcohol use and bar attendance on smoking and quit attempts among young adult bar patrons. *American journal of public health* 2013;**103**(5):e53-e61.

[19] Ministry of Health. Annual Update of Key Results 2013/14: New Zealand Health Survey. In: Ministry of Health, ed. Wellington 2014.

[20] Health Mo. Annual Update of Key Results 2014/15: New Zealand Health Survey. In: Health Mo, ed. Wellington 2015.

[21] Chapman S, Liberman J. Ensuring smokers are adequately informed: Reflections on consumer rights, manufacturer responsibility, and policy implications. *Tobacco Control* 2005;**14**:8-13.

[22] Gray RJ, Hoek J, Edwards R. A qualitative analysis of 'informed choice' among young adult smokers. *Tob Control* 2016;**25**(1):46-51.
[23] Hoek J, Gifford H, Maubach N*, et al.* A qualitative analysis of messages to promote smoking cessation among pregnant women. *BMJ open* 2014;**4**(11):e006716.
[24] Dey I. Qualitative data analysis: A user-friendly guide for social scientists: Routledge 1993.
[25] Pihama L, Cram F, Walker S. Creating methodological space: A literature review of Kaupapa Maori research. *Canadian Journal of Native Education* 2002;**26**(1):30.
[26] Imperial Tobacco New Zealand Limited. Submission to the Māori Affairs Select Committee Enquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Māori. 2010.
[27] Hoek J, Hoek-Sims A, Gendall P. A qualitative exploration of young adult smokers' responses to novel tobacco warnings. *BMC Public Health* 2013;**13**(609).
[28] Gray R, Hoek J, Edwards R. Do young adults exercise informed choice about smoking? In: Walker N, Grana R, eds. *Society for Nicotine and Tobacco Research*. Chicago: Society for Nicotine and Tobacco Research 2016.
[29] Ball J, Edwards R, Waa A*, et al.* Is the NZ Government responding adequately to the Māori Affairs Select Committee's 2010 recommendations on tobacco control? A brief review. *New Zealand Medical Journal* 2016;**129**(1428):93-97.
[30] Winickoff JG, McMillen R, Tanski S*, et al.* Public support for raising the age of sale for tobacco to 21 in the United States. *Tobacco control* 2015:tobaccocontrol-2014-052126.
[31] Berrick A. The tobacco-free generation proposal. *Tobacco control* 2013;**22**(suppl 1):i22-i26.
[32] Richardson K. Smoking, low income and health inequalities: thematic discussion document. ASH 2001.
[33] Tautolo ES, Schluter PJ, Paterson J*, et al.* Acculturation status has a modest effect on smoking prevalence among a cohort of Pacific fathers in New Zealand. *Australian and New Zealand journal of public health* 2011;**35**(6):509-516.
[34] Lanumata T, Thomson G, Wilson N. Pacific solutions to reducing smoking around Pacific children in New Zealand: a qualitative study of Pacific policymaker views. *New Zealand Medical Journal* 2010;**123**(1308).

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?)

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

Thoughts on addiction
Priority: HIGH

19. Of the people in your life – family, friends – do you know people who have quit or tried to quit smoking? What do you think made them try to quit? How did they go about quitting? How did it work out for them?
20. How easy do you think it would be to quit smoking completely (that is, not smoke again in any situation)? Why do you feel that way?
21. Thinking back, what did you think about quitting (did you think you would, how easy did you think it would be?) when you first started smoking (weekly/daily)? (Has your opinion changed since then, if so how?)
22. (if not already mentioned) Cigarettes are sometimes described as "addictive". What do you think it means to be addicted?

23. Do you think you'll still be smoking in five years time? Ten years? What makes you think that?

Conclusion
Priority: HIGH

24. You've described the circumstances in which you took up smoking, and some of your thoughts about smoking then and now. Do you think, knowing what you do now, if you were faced with the same circumstances (describe) that you would still take up smoking?
25. Can you think of people in your life who are about your age – say siblings or friends – who don't smoke? Why don't they/ what do you think are the influences on their decision to not smoke? (Probe: how are the things that influence them different to the things that influenced you?) Do you think, if you had been in the same circumstances/ had the same influences as they do, that you would still have started smoking? Why/ why not?

26. To finish off, I'd like to read you a recent quote from a tobacco company spokesperson in NZ.

"The risks associated with smoking are universally known…and smoking is… a matter of informed adult choice"
(Imperial Tobacco NZ Ltd 2010: Submission to the Māori Affairs Select Committee)

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

(unpack: "risks universally known", "informed" "adult choice")

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.

Note for researchers to consider at the close of pilot interview:

How long did each section take?

Were any questions hard to answer? (mark on interview schedule any questions that the participant found difficult)

Have the following all been covered off during the interview?

Level 1: having heard that smoking increases health risks

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

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

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

5: maturity of decision making processes – did they make the choice as an adult, and did they use a rational process to decide?

6: ability to make decision free of social and environmental pressures.