Adolescents’ reactions to, and perceptions of, dissuasive cigarettes: A focus group study in Scotland

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ABSTRACT

The cigarette stick, as the primary form of packaging and the object of consumption, is an increasingly important marketing tool for tobacco companies. It could, however, also be used to communicate health messaging. We therefore explore adolescents’ perceptions of cigarettes designed to dissuade smoking. Eight focus groups were conducted with 16-17 year-olds in Scotland (n=36) between November 2017 and November 2018. Groups were segmented by gender and smoking status. Participants were shown four dissuasive cigarettes; one displaying the warning ‘Smoking kills’; one featuring the word ‘TOXIC’ and a skull and crossbones image; and two unattractively colored cigarettes (darker and lighter green). For comparison, participants were also shown a standard cigarette (white cigarette paper and imitation cork filter). All four dissuasive cigarettes were considered less attractive and more harmful than the standard cigarette, particularly among never-smokers. Some participants considered the green cigarettes to be ugly, and the on-cigarette warnings to be embarrassing and off-putting. Although reactions were mostly negative for all four dissuasive cigarettes, participants considered the on-cigarette warnings more off-putting than the green cigarettes. Participants did not generally believe that the dissuasive cigarettes would encourage cessation among established smokers, but that they may deter uptake among young people.
INTRODUCTION

As countries worldwide are increasingly adopting standardized tobacco packaging (six countries to date), or introducing large pictorial health warnings on packaging (over 100 countries to date), the cigarette stick has assumed greater importance as a marketing tool (Moodie, Hoek, Scheffels, Gallopel-Morvan & Lindorff, 2018; Moodie et al., 2019b). This is perhaps best demonstrated by the significant global growth of ‘capsule’ cigarettes, which contain one or more capsules in the filter that can be burst to change the flavor (Moodie, Thrasher, Cho, Barnoya & Chaloupka, 2019). Other cigarette designs, such as longer and slimmer cigarettes, are often perceived as stylish, particularly among female smokers (Anderson, Glantz & Ling, 2005; Carpenter Wayne & Connolly, 2005; Doxey & Hammond, 2011). Tobacco companies have a long history of exploiting any gaps in tobacco control legislation (WHO, 2009), and recent studies suggest that they are also doing so in markets with standardized packaging, particularly via filter innovation (Moodie et al., 2018). For example, aside from the introduction of new capsule brand variants in the United Kingdom (UK), one tobacco company has introduced cigarettes with star shaped filter tips, named Sterling Dual Star Edition (Figure 1).

[Figure 1]

The UK’s standardized packaging legislation requires cigarettes to have a white or imitation cork filter and white paper casing (Department of Health, 2016; Moodie et al., 2019a). The legislation also permits the display of a brand variant name in a standardized font just below the filter, unlike in Australia and New Zealand where only an alphanumeric code can be displayed (WHO, 2018). Although a ban on flavors in cigarettes, including flavor-changing capsules, will take effect in May 2020, there have been no other attempts to control the design of cigarettes in the UK (UK Government, 2016). There is a growing body of evidence,
however, which suggests that ‘dissuasive cigarettes’ provide a further opportunity to promote cessation and reduce uptake, and can transfer some of the health messaging from the secondary packaging (e.g. pictorial and written health warnings on the outer packaging) onto the actual object of consumption. Suggested dissuasive designs include unattractively colored cigarettes (e.g. green and yellow) and on-cigarette warnings (e.g. average minutes of life lost from smoking each cigarette, smoking kills, short and long-term harms, and financial and social costs) (Drovandi, Teague, Glass, & Malau-Aduli, 2019a, 2019b; Gendall, Eckert, & Louviere, 2016; Hassan & Shiu, 2013; Moodie, Hiscock, Thrasher & Reid, 2018).

Dissuasive cigarettes are considered a low cost opportunity to reach consumers at the point of consumption (Moodie, 2018). They are supported by research with consumers, marketing experts, and healthcare practitioners, with findings suggesting that they reduce the appeal of smoking and intentions to try cigarettes, and increase perceptions of harm and cessation (Drovandi, et al., 2019a, 2019b, 2019c; Hassan & Shiu, 2013; Hoek, Scheffels, Gallopel-Morvan & Lindorff, 2019; Gendall, Eckert & Louviere, 2016; Lund & Scheffels, 2018; Moodie, 2016; Moodie, MacKintosh, Gallopel-Morvan, Hastings, & Ford, 2016; Moodie et al., 2017b; Moodie, Hiscock, Thrasher & Reid, 2018; Moodie, Hoek; Moodie et al., 2019b; Moodie, Purves, McKell & Andrade, 2015). Recent research has also suggested that the ability of dissuasive cigarettes to deter young people from smoking may be enhanced through the inclusion of images (e.g. skull and crossbones warning symbol), rather than just a colour or text warning (Gallopel-Morvan, Droulers, & Pantin-Sohier, 2019).

There are at least five reasons why adolescents are an important target audience for dissuasive cigarettes. First, adolescents have been an important target market for tobacco companies for decades (Ford, Moodie, MacKintosh, & Hastings, 2013; Hastings & MacFadyen, 2000; Kotnowski & Hammond 2013; MacFadyen, Hastings & MacKintosh, 2001), and this continues to be the case through innovations such as capsule cigarettes (Moodie...
et al., 2019). Second, adolescents often obtain single cigarettes, commonly from friends or family members, or by purchasing single cigarettes from retail outlets, including in countries where this is not permitted (Donaghy et al., 2013; Tjelta, Ritchie & Amos, 2016; Wackowski et al., 2017). In doing so, adolescents may therefore avoid the on-pack pictorial health warnings or dissuasive influence of standardized packaging. Third, with prices continuing to increase in many markets, single cigarettes are an increasingly affordable option for price-sensitive young people. In the UK, for instance, tobacco was 30% less affordable in 2017 than in 2007 (NHS Digital, 2018), and prices have continued to rise after standardized packaging was implemented (Critchlow et al., 2019). Fourth, as of May 2017, a minimum pack size of 20 factory-made cigarettes and 30 grams of rolling tobacco became mandatory across the EU, which has removed the option of the smaller and more affordable pack sizes favored by young people (e.g. 10 cigarettes or 12.5 grams of rolling tobacco) (Centre for Tobacco Control Research, 2012). Finally, research has found that the cigarette itself may be considered cool or stylish among adolescents, particularly slim cigarettes, those with decorative designs, and capsule cigarettes (Ford, Moodie, MacKintosh & Hastings, 2014; Moodie, Ford, MacKintosh & Purves, 2014). It is therefore possible that this communicative power could be used to promote health behaviors, while simultaneously removing an opportunity to promote tobacco brands and smoking.

While previous research consistently suggests that dissuasive cigarettes reduce the appeal of smoking, there remain gaps in the evidence. There is limited qualitative research with adolescents, despite their importance as a target audience. In addition, few studies have examined the influence of dissuasive cigarettes in a market where standardized packaging is mandatory (Drovandi et al., 2019a, 2019b, 2019c), or the effect of including warning images on the cigarette. In this study, we therefore explore perceptions of, and responses to, four dissuasive cigarette designs among adolescents in Scotland. This population is important given
that the Scottish Government plans to review the evidence on dissuasive cigarettes as part of their current tobacco control plan (Scottish Government, 2018).

METHODS

Design and sample

Semi-structured focus groups were conducted with 16-17 year olds in secondary schools in Scotland (Stirling, West Lothian and North Ayrshire), between November 2017 (six months after standardized packaging became mandatory) and November 2018 (18 months after standardized packaging became mandatory). This timeframe was determined by the speed of response by local authorities and schools, and availability to conduct the groups (e.g. accounting for school holidays). The focus groups covered both reactions to standardized packaging (reference removed for anonymization) and alternative methods of discouraging smoking uptake (e.g. dissuasive cigarettes and audio warnings on packs). Only the data related to dissuasive cigarettes are reported here. In return for taking part, all participants were given the opportunity to enter a ballot to win a personal computer tablet.

As with previous research on tobacco packaging, groups were segmented by gender (Ford et al., 2013a; Ford et al., 2013b) and smoking status (never smoker, ever smoker) (Drovandi et al., 2019a) using a pre-group questionnaire. Participants were asked how often they smoked, with five response options ranging from ‘I have never smoked, not even a puff or two’ to ‘I smoke every day’ (Bauld et al., 2017). Those who selected ‘I have never smoked not even a puff or two’ were categorized as never-smokers, and those who selected any other option were categorized as ‘ever-smokers’.

Eight focus groups were conducted, comprising three ever-smoker groups (two female, one male) and five never-smoker groups (three male, two female). Due to a fault with the
recording equipment, the section on dissuasive cigarettes was not captured from one of the
never-smoker female groups. Therefore, only seven groups were used in the analysis, providing
a final sample of 36 participants (Table 1).

[Table 1]

Materials

Participants were exposed to, and given the chance to handle, five cigarettes. Four of the
cigarettes had designs intended to be dissuasive: (1) a cigarette with the text warning ‘smoking
crashes’; (2) a cigarette with the text message ‘TOXIC’ and a skull and cross bones image; (3) a
dark green cigarette; and (4) a lighter green cigarette’ (Figure 2). The warning ‘smoking kills’
was chosen as this message is commonly communicated by public health bodies (e.g. World
Health Organization, 2019), it is frequently recalled by adolescents from the outer packaging
(Moodie, MacKintosh & Hastings, 2013), and it is a design used in previous dissuasive
cigarette research (Moodie et al., 2015; Moodie et al., 2019). The green cigarettes were chosen
based on previous research, where they have been deemed to be unappealing (Hoek et al., 2016;
Lund & Scheffels, 2018; Moodie et al., 2018b). We featured two green designs to examine
whether colour tone influenced reactions. The ‘TOXIC’ design, a combination unique to this
study, was intended to show cigarettes as being dangerous and harmful, and therefore featured
language and iconography that is often mandated on (or associated with) other hazardous and
harmful substances (e.g. on chemicals such as bleach) (Health and Safety Executive, 2019).

While pairing both an image of a skull and crossbones and the wording ‘TOXIC’ is unique to
this study, the image used is similar to a design previously investigated (Gallopel-Morvan et
al., 2019). We also included a ‘standard’ cigarette with an imitation cork filter to provide a
comparator to the dissuasive cigarettes.
The research team made the five cigarettes using specially designed printed stickers, which were applied to the cigarettes. The cigarette paper on each sticker had the wording ‘Brand, King Size’ below the filter in a standardised font, where the brand name would usually appear, similar to how brand variant name would appear on cigarette sticks in the UK post-standardised packaging. This approach is consistent with previous research on dissuasive cigarettes (Moodie et al., 2017) and ensured that the presence of a recognizable brand name did not influence perceptions or reactions.

PROCEDURE

Ethical approval was obtained from [Institution name removed for blind review]. Permission to conduct the research was sought from local authorities and, once obtained, schools in those jurisdictions were contacted by letter and followed up one or two weeks later with an email and phone call. In schools that agreed to participate, potential participants were informed about the study aims by the researcher or a designated teacher within the school, and provided with an information sheet, privacy notice, consent forms, and also pre-group questionnaires (to perform group segmentation).

All groups were conducted in assigned rooms at the school, and were facilitated by DM. To avoid potential response bias or non-disclosure among participants, teachers were not present during the groups. At the start of each group, participants were reminded that their involvement was voluntary, they were free to withdraw at any time, their answers would be confidential, and all data provided would be anonymized. Groups lasted between 30-45 minutes, with length dictated by scheduled class period in each school. Within each group, approximately 15 minutes were allocated to discuss the dissuasive cigarettes, and this took...
place after discussing reactions to standardized packaging (reference removed for anonymization).

Before being shown any of the cigarette stimuli, the section began by asking participants what they thought cigarettes look like, where they recall seeing them, and who they recalling seeing with cigarettes. In the first group conducted, all five cigarettes were then shown simultaneously. This, however, resulted in participants only focusing on certain cigarettes, rather than gaining their perspective on all five individually. Therefore, in all other groups, participants were shown the standard cigarette and ‘smoking kills’ cigarette first. They were given time to look at them, pass them around, and discuss reactions. The ‘TOXIC’ cigarette was then passed around on its own and, finally, both green cigarettes were distributed together. The dissuasive cigarettes were given out in this order so that participants were first commenting on two designs that explicitly carried on-cigarette warnings (i.e. smoking kills and ‘TOXIC’), followed by two designs with dissuasive colours, thus allowing participants to discuss their reactions to different dissuasive approaches. All five cigarettes were brought out of a standardized cigarette pack to simulate a real cigarette being taken from packs available in the UK market.

Once all cigarettes had been distributed, participants were asked whether they liked or disliked any of the cigarettes, how each cigarette made them feel about smoking, and to imagine what kind of person each cigarette may be – a personification technique used in previous cigarette packaging research (Ford et al., 2013a). Participants were also asked if they thought people their age would find the cigarette designs appealing or unappealing, and if they thought the dissuasive cigarette designs were off-putting. To help facilitate discussions, participants were also asked to rank each cigarette based on appeal, harm and taste (Ford et al., 2013a). Show cards were placed on the table (most appealing/least appealing, strongest tasting/weakest
tasting and most harmful/least harmful) and participants were asked to place the cigarettes based on what they thought; they were encouraged to work together and discuss their decisions.

**ANALYSIS**

All groups were audio recorded and transcribed verbatim by DM. Transcripts were analyzed using NVivo 11. Consistent with previous qualitative tobacco control research with adolescents in the UK (Ford et al., 2013a; Moodie et al., 2019), we identified shared meaning and common attitudes across the groups using the six sequential stages of thematic analysis recommended by Braun and Clarke (2012). Initially, DM read over the transcripts several times to enable familiarization with the groups and discussion, and checked the transcripts against the audio recordings to ensure accuracy. A thematic coding framework was created in Nvivo based on initial common themes identified in the transcripts. All emerging themes were subsequently refined based on the framework created. DM generated the initial thematic codes (e.g. dissuasive cigarettes being off-putting and embarrassing) and these were refined based on discussions with NC and CM, and then organised under key headings based on the key areas explored in the topic guide: (1) general perceptions of, and exposure to, cigarettes; (2) initial reactions to, and perceptions of, the dissuasive cigarettes; (3) harm perceptions of dissuasive cigarettes; and (4) perceived impact on smoking attitudes and behaviour of dissuasive cigarettes. Matrix coding was also used in NVivo to categorize themes by smoking status and gender to explore any between group differences. Concerning the cigarette sorting activity, images were taken of the cigarettes only once they had been organized. This section was analyzed separately by denoting the order from each group alongside the conversation from the transcripts during the activity, to identify any differences between groups (e.g. smoking status and gender).
RESULTS

General perceptions of, and exposure to, cigarettes

Across all groups, participants recalled seeing cigarettes frequently, with several participants suggesting that they see them every day. Places where participants recalled seeing cigarettes included public spaces, at home (if family members smoked), or at school (e.g. pupils or parents picking up their children). Some participants mentioned that they recalled seeing the cigarette more often than the outer packaging.

I probably see them every day, if you’re walking home, you’ll always see someone walking with a cigarette in their hand or something (Male ever-smoker)

It depends on who you’re with, really, if your family smoke you’ll see them a lot, if your friends smoke you’ll see them a lot (Female ever-smoker)

At home, in the street, at school, at work (Female ever-smoker)

Everywhere, if I’m walking home I see someone walking their dog and they’ve got one [a cigarette], picking their children up from school (Female never-smoker)

When asked to describe what cigarettes are like, most participants described the ‘standard’ cigarette design (i.e. imitation cork filter and white paper). Some female ever-smokers, however, were knowledgeable of different cigarette types (e.g. capsule cigarettes) and
indicated that they thought these alternative features or designs might encourage consumption. Several participants, both male and female, also referred to cigarettes made with hand-rolling tobacco (roll-your-own cigarettes).

You get white ones, you get ones with the wee Crushball [a flavor-changing capsule] (Female ever-smoker)

They’re like improving them cause like you get the like the wee things that you squish that makes it like menthol or something… like that’s encouraging people to try it cause they want to know what that’s like (Female never-smoker)

**Initial reactions to, and perceptions of, the dissuasive cigarettes**

In general, participants considered the explicit on-cigarette warnings to reduce the appeal of smoking and to be off-putting. Specifically, both the ‘TOXIC’ and ‘smoking kills’ cigarettes were deemed to be embarrassing, particularly among female ever-smokers. Some female ever-smokers also considered the ‘TOXIC’ cigarette to be scary, and that the presence of the word toxic would elicit a negative reaction, with one participant mentioning that it would give you a ‘bad feeling’. While some participants placed slightly greater emphasis on the skull and crossbones image than the word ‘TOXIC’, in general the image and text appeared to be viewed holistically. While the ‘TOXIC’ cigarette was viewed negatively by most participants, there was mention in one female ever-smoker group that the cigarette was cool and that it may become a trend and encourage people to want to try them.
Yeah they are well more embarrassing, can you imagine Justin Bieber [popular music artist] smoking a fag [colloquial term for cigarette] and it says smoking kills in red ink on it (Female ever-smoker)

If you’re seeing something with toxic on it, you’re not going to want to take it (Male ever-smoker)

They’re scary, like it gives you a bad feeling looking at it, it says toxic on it (Female ever-smoker)

Honestly, if they [toxic cigarette] came out, you’d want to buy them to see what they were like (Female ever-smoker).

Initial responses towards both green cigarettes were generally negative for most participants, however, there was further discussion in some groups that colored designs may have an element of appeal to some consumers. Several female ever-smokers thought that the green cigarettes, in particular the lighter green, were embarrassing, ugly and unattractive, compared to the standard cigarette e.g. “They’re just ugly, yeah they are a lot uglier than the white ones” (Female ever-smoker). It was also suggested by several male participants that both green cigarettes were horrible, bland, or dull, and that the standard cigarette (white paper and imitation cork filter) was more appealing. Some male never-smokers suggested that the green color, ‘TOXIC’ symbol and ‘smoking kills’ could be used together. These perceptions, however, were not unanimous as some participants, particularly some female ever and never-
smokers, thought that the use of an unusual or different color, and the lack of health warnings, may create some appeal, while one male ever-smoker group suggested the lighter green cigarette was ‘slightly’ appealing.

They would be less attractive as well [the green cigarettes], like normal fags [white with imitation cork filter] kind of appeal to like the Hollywood image (Male ever-smoker)

Yeah, they [green cigarettes] just look almost fancy, like if I saw someone with that I’d think, ‘oh what is that’ (Female never-smoker)

The lighter green is a wee bit more like appealing than the heavy dark green (Male ever-smoker)

But the green ones don’t say anything, so like you just think it was a fancy green cigarette (Female ever-smoker)

**Harm perceptions of dissuasive cigarettes**

The cigarette carrying the ‘TOXIC’ warning and skull and crossbones image was described as a constant reminder of the harms of smoking, with both males and females suggesting that the use of the skull and cross bones image reminded them of death and other dangerous substances, (e.g. bleach). This perception of harm was also reflected in the show card activity, with the ‘TOXIC’ cigarette rated as being most harmful in most of the groups. Several participants, mostly ever-smokers, mentioned that the ‘smoking kills’ message would not be as effective as
the ‘TOXIC’ message, with the rationale being that people are used to seeing it, possibly on the outer packaging. Some participants, mostly males, also suggested that the ‘smoking kills’ warning was not always clear, and may not always be seen when the cigarette is being smoked.

The yellow one I think really sticks out, like toxic, that wee [a slang term for small] sign always reminded me death, like you get told not to touch anything like bleach and they’ve got that sign on it (Female never-smoker)

You’d be like a walking warning sign [‘TOXIC’ cigarette] (Female ever-smoker)

I feel like the smoking kills one is pretty pointless because everyone is so used to hearing that… but the toxic one I feel like that would be better (Female ever-smoker)

I feel like the warning is good but you can’t always really see it [smoking kills warning] very well (Male never-smoker)

When ranking the cigarettes based on harm, three of the seven groups (one female ever-smoker and two male never-smoker groups) considered all cigarettes equally as harmful, including the standard cigarette. In the rest of the groups the standard cigarette was ranked the least harmful and the toxic cigarette the most harmful, apart from in the female never-smoker group where both green cigarettes were considered the least harmful.
Perceived impact of dissuasive cigarettes on smoking attitudes and behavior

Participants generally agreed that the dissuasive cigarettes would make them feel differently about smoking and would be off-putting, in particular, the ‘TOXIC’ cigarette and, for some males, the green cigarettes.

I feel like the toxic one makes you feel worse about it [smoking] (Male never-smoker)

I think the green ones are the worst out of the bunch, because with the kind of light colors you think [cigarettes with white paper], aw it’s kind of normal, then you see something that’s like a dark green stick and your like, ew, never mind (Male never-smoker)

Concerning smoking attitudes and behavior among other people, most participants believed that the explicit on-cigarette warnings would likely dissuade non-smokers and newer smokers. Specifically, some female ever-smokers suggested that individuals might become cautious and self-conscious about the impact of the cigarettes on their appearance. They also mentioned that there may be an immediate effect in deterring smokers, however, this may diminish over time as they may become desensitized to the messages and designs. There was a consensus, that the cigarettes would have the least impact on established smokers, with some suggesting that such individuals are used to seeing the warnings on the pack already, and any additional affect the cigarettes may have, would fade.

Maybe first timers, it would put them off (Female never-smoker)
I reckon a lot of it is to do with appearance nowadays and that’s not going to be good for your appearance (Female ever-smoker).

Unless you’ve been smoking for a long time then aye [slang for yes] it would put you off (Male ever-smoker).

I don’t know, but I feel like for the first year they would make an impact, but once you’re walking about and every single person you see is doing it [smoking dissuasive cigarettes], it would become less embarrassing. Because everyone is in the same boat (Female ever-smoker).

**DISCUSSION**

Adolescents in Scotland had negative reactions towards the four dissuasive cigarette designs and considered them to be embarrassing and off-putting, in particular those with explicit health warnings. They suggested that dissuasive cigarettes would likely be a deterrent for susceptible never-smokers and those who have just begun smoking, but that effectiveness may be limited in established or long-term smokers.

We found that adolescents reported seeing cigarettes on a regular basis, and some reported daily or almost daily exposure. They also suggested that they saw the cigarette more than the outer packaging, which means they are not necessarily exposed to the pictorial warnings and other health messages on standardized packs. Some participants were aware of different types of cigarettes and new design features, such as capsule cigarettes. This is
consistent with past research which suggests young people notice, and pay attention to, cigarette design (Abad-Vivero et al., 2016; Moodie, MacKintosh, Thrasher, McNeill & Hitchman, 2018). That the cigarette stick is an increasingly important promotional tool for tobacco companies, and as our findings show that adolescents in Scotland are regularly exposed to cigarettes, supports the idea that the cigarette provides a high-reach opportunity to communicate health messages to young people (Moodie et al., 2019).

While adolescents mostly reacted negatively to all four dissuasive designs, the cigarettes which featured explicit warnings were considered the most effective and off-putting, particularly the ‘TOXIC’ cigarette. The inclusion of a skull and cross bones image – a universal sign of hazardous substances – elicited associations with harm from other dangerous chemicals (e.g. bleach). This is consistent with packaging research which suggests that pictorial warnings have a greater impact than text-only warnings (Hammond, 2011), and a recent qualitative study which found that a cigarette with an image of a ‘skull and cross bones’ was considered particularly dissuasive (Gallopel-Morvan et al., 2019). Nevertheless, in this study, some female ever-smokers did still suggest that the potential risk factor associated with the ‘TOXIC’ warning might encourage trial. Consistent with previous research, we also found that some adolescent female ever-smokers considered the ‘smoking kills’ cigarette warning to be embarrassing (Moodie et al., 2016). Some participants, however, mentioned this message might not be as effective as the ‘TOXIC’ cigarette, as established smokers may have become desensitized to the message through repeated exposure over time. While initial reactions to the green cigarettes were generally negative, some participants (mostly females) suggested that the color may be considered appealing and some male ever-smokers deemed the lighter green cigarette slightly more appealing than the darker green cigarette. This is not consistent with previous research where different shades of green cigarettes were considered unappealing (Hoek et al., 2016; Moodie et al., 2018b), suggesting that further research into effectiveness of
dissuasive colors is required. Some male never-smokers thought a combination of different
dissuasive features (unappealing colour, toxic symbol and ‘smoking kills’) should be
considered. Future research should therefore build upon previous studies that have combined a
variety of dissuasive features (Gallopel-Morvan et al., 2019).

Participants generally agreed that the dissuasive cigarettes would put them off smoking,
echoing previous quantitative research with adolescents and adults (Drovandi et al., 2019a,
2019b; Hoek et al., 2016; Lund & Scheffels, 2018; Moodie et al., 2016). Concerning the impact
on others, it was consistently suggested that the cigarettes would have the strongest impact on
deterring newer smokers and susceptible never-smokers, and the effect would be reduced
among established smokers. For any impact to be sustained, and given that participants
mentioned desensitisation, one option could be to rotate dissuasive designs, for example in a
manner similar to the on-pack warnings in the European Union, which are rotated annually. It
would be feasible to have text-only warnings on sticks for the first year, unattractively coloured
cigarettes for the next year, combined (pictorial and text) warnings for the third year, and so
on, particularly as these designs should be considered complementary (Moodie et al., 2018b).

The use of a health message (or dissuasive color) on the cigarette stick is already being
considered by the Scottish and Canadian governments (Health Canada, 2018; Scottish
Government, 2018). While our study was one of the first to explore adolescents’ qualitative
responses to dissuasive cigarettes, survey research is needed to examine what extent, if at all,
reactions to dissuasive cigarettes are associated with reduced trial intentions among
adolescents. Research exploring dissuasive cigarettes in a naturalistic context with existing
smokers would also be of value, with similar studies conducted with young female smokers
prior to the implementation of standardized tobacco packaging (Moodie & MacKintosh, 2013).
Concerning limitations, we recruited fewer ever-smokers than never-smokers. This may have been due, in part, to participants feeling uncomfortable disclosing their smoking status, or the low smoking prevalence in Scotland among younger people (Scottish Government, 2016). The groups were subject to time constraints to fit in with the school schedule, which somewhat limited our ability to probe participants in more detail, and was the reason we explored only four dissuasive cigarette designs. Future research could explore how the current findings compare to cigarettes with different warnings or colours, or other dissuasive designs (e.g. minutes of life lost). The sample size was small, meaning the results cannot be generalized beyond this study, and one group was excluded due a technical fault with the audio recorder.

As groups were conducted with pupils from peer groups in a school environment, it is possible that participants provided socially desirable answers, although teachers were deliberately not present to limit potential concerns about disclosure. The cigarettes used in the study had no branding, filter innovation (e.g. flavor-changing capsules) or filter tip design (e.g. star shaped filters), which may have influenced participants’ responses. Finally, the focus groups also initially explored knowledge of, and response to, standardized tobacco packaging policy, where participants were free to handle and open the packs (reference removed for blind review). These existing discussions about the potential negative effects of smoking, health warning salience and potential exposure to ‘regular’ cigarettes (imitation cork filter and white paper casing), may have influenced how participants responded in the dissuasive cigarettes section.

In this study, adolescents reported frequent exposure to cigarettes and some were knowledgeable about their use for promotional purposes. Participants had negative reactions to the dissuasive cigarettes, particularly those with warnings, and felt that they would discourage uptake among non-smokers and cessation in newer smokers. Dissuasive cigarettes provide a high-reach opportunity to communicate health messages about smoking to young
people and should therefore form an important component of tobacco control policy concerning
the cigarette.

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REFERENCES


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Figure 1: Sterling Dual Star Edition

359x155mm (96 x 96 DPI)
Table 1: Gender, smoking status and number of participants in each group

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Figure 2: Standard cigarette (top) and the four dissuasive cigarettes (in descending order: Toxic, Smoking Kills, Dark Green, Lighter Green)

359x155mm (96 x 96 DPI)