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MASTERS THESIS

FROM SMOKING TO VAPING: VAPERS' PERSPECTIVES OF POLICY RELATED FACILITATORS AND BARRIERS

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“A man's mind, stretched by new ideas, may never return to its original dimensions.”

Oliver Wendell Holmes Jr.

Abstract

FROM SMOKING TO VAPING: VAPERS' PERSPECTIVES OF POLICY RELATED FACILITATORS AND BARRIERS

BACKGROUND

New Zealand aims to be 'smoke free' by 2025. The impact of punitive policies upon quit rates had slowed drastically while stressing the most vulnerable members of society. Tobacco Harm Reduction (THR) supports switching to greatly risk-reduced alternative products. One example is vaping which has been found to be more effective than nicotine replacement therapies. Despite this, vaping is often seen by policy makers and influencers as a moral slippery slope. Vapers are often seen as cheats who try to get around bans on smoking. Instead of listening to those who have successfully used THR to stop smoking, vapers have been characterised as 'naughty smokers."

AIM

This study aimed to determine how Tobacco Harm Reduction related policy options could influence a person's decision to attempt to stop smoking via vaping.

METHOD

Nine former smokers who had switched completely to vaping participated. Four vignettes describing different vaping policy environments were read to participants. Participants were asked how a smoker thinking of using vaping to stop smoking might think or feel in each circumstance. Responses were recorded, transcribed and then qualitative content analysis was conducted. The four environments were 1) highly permissive and largely unregulated, 2) moderately permissive with some regulation, 3) moderately restrictive with stringent regulations, and 4) highly prohibitive law where vaping nicotine is illegal.

RESULTS:
Conditions which favoured vaping acted as facilitators that supported behavioural change. Conditions that were not supportive of vaping and conditions that were neutral or confusing acted as barriers to behavioural change. Age, strength of motivation and the reasons for considering smoking cessation moderated the decision-making process.

CONCLUSION:
Results indicate a distinct gap between proposed vaping related policy in New Zealand and policy that is likely to be most effective in reducing smoking rates. Mixed messaging results in psychological non-congruence which is problematic. This study would interest those who are open to novel solutions to the negative impact of smoking upon community members.

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Glossary

Vape *(n)* – an electronic nicotine delivery device

Vape *(v)* - to inhale vapour from vaping device

Vapour – exhaled product

Vaping *(v)* – the act of inhaling vapour

Harm Reduction – reducing harm

Tobacco Harm Reduction – (THR) reducing harm from inhaling tobacco

WHO –

Smoke-Free Environments Act 1990 (SFEA)

WHO Framework Convention on Tobacco Control (FCTC)

Chapter 1

Introduction

Introduction

Policy impacts the everyday lives of individuals in many ways both intentional and unintentional. By researching vapers' perceptions of the impact of policy, research can help policy makers better understand the effects of their regulations upon the lives of everyday people. This chapter will describe the rationale as well as the aims, objectives and hypothesis. The research is put into context before an outline of the thesis structure is provided.

Research Rationale

About 8 million people are expected to die this year from tobacco related harm (World Health Organisation, 2020). Most of those people are expected to die as a direct result of their smoking. These deaths are preventable.

Currently, the most effective tool to help people stop smoking is vaping (Hajek, et al., 2019). In New Zealand a liberal vaping market has been projected to save the country 236,000 quality-life years (Petrović-Van Der Deen, et al., 2019). It was also projected that New Zealand would save $3.4billion in health costs if people who smoke converted to vaping at a rate of 14% annually.

In New Zealand vaping has been well received by consumers. Many vapers have reported that they stopped smoking using vaping products in a largely unregulated market. Regulation of the sale, purchase and use of vaping products is an area of focus for public health officials. This focus has raised fears that vapers may need to resort to illegal measures to ensure access to their vaping products of choice. If not resorting to illegal measures, some fear they will return to smoking.

While government officials claim to be proposing well balanced amendments to our Smoke-free Environments Act 1990, it seems they are far more focused upon ‘saving the children’ from imagined harm than trying to help people stop smoking. This is despite there being little evidence that our young people are at any significant level of risk (Attorney General of New Zealand, 2020).

Vapers, a group of key stakeholders, have been largely left out of the conversation. When included, it appears they are being paid little more than lip service. Perhaps they cannot complete with the dangerous sounding but false claims of potential harm.

Vapers are experts in their own lived experiences. People who vape have every right to expect genuine inclusion in matters that can impact their lives. Their inclusion in the conversation was an important factor in research design. Furthermore, it is their right to participate in research as a matter of social justice (National Ethics Advisory Committee, 2019).

There is a lack of research conducted by vapers about vaping along with a lack of research being conducted with vapers (Fraser, Glover, & Truman, 2018), this goes against a fundamental principle of Harm Reduction as an approach. By conducting insider researcher, the principle of ‘nothing about us without us’ is honoured. In addition, there have been incidents where the conduct of researchers may have led to vapers being more wary of participating in research or expression their views if they do participate (Fraser, Glover, & Truman, 2018). An example of such research is the use of ‘tweets’ by researchers without the knowledge or consent of those who made the tweets (Cole-Lewis et. Al., 2015). These tweets were then portrayed in a negative light. This behaviour at best shows a disregard for the psychological effect this may have upon those who have had their tweets used by researchers.

Statistician Tukey (1962), pointed out that an approximate answer to a right question is more beneficial than a precise answer to a wrong question. Instead of asking ‘What should vaping policy in New Zealand look like?” from a regulators perspective, it seems more helpful to ask “How might different policy impact upon the choice to use vaping to stop smoking?” using the experience of those who used vaping as a means of stopping smoking to help to inform policy.

Aims, Objectives and Hypotheses

Aims

This research has one aim:

1.To identify public health policy based barriers to, and facilitators of, the decision to take up vaping to stop smoking.

Research Objectives

In order to achieve the research aims, three objectives were undertaken:

1. A literature review to provide background to vaping and vaping related issues. First a brief history of tobacco will be provided. This background will also include the smoking of tobacco from a global perspective, strategies to address the perceived issues with smoking and problems associated with these strategies. The concept of harm reduction and subsequent tobacco harm reduction will be reviewed. The invent and evolution of vaping products will also be included as well as reactions to vaping products. An overview of New Zealand based smoking statistics and tobacco related policies will be provided. Finally, recent issues regarding vaping and policy in New Zealand will be summarised.

2. Interview will be conducted with up to 10 participants.

3. Recommendations to inform policy will be made regarding maximising the facilitators of, and minimising barriers to, the uptake of vaping by people who smoke to assist them to stop smoking.

Hypotheses

There were three hypotheses:

Hypothesis 1.
Participants would perceive that permissive scenarios would act as facilitators to the decision to take up vaping to stop smoking.

Hypothesis 2
Participants would perceive that prohibitive scenarios would act as barriers to the decision to take up vaping to stop smoking.

Hypothesis 3.
Participants would perceive that different policy conditions would be assigned different priority when making decisions about taking up vaping to stop smoking.

Putting the Research into Context

In New Zealand, as around the world, the smoking of tobacco has been one of the leading preventable causes of death and disease (New Zealand Ministry of Health Manatū Hauora, 2020). Vaping, which is consumer demand driven, has emerged as a way of stopping smoking that is more successful than medicalised smoking cessation products such as nicotine patches (Petrović-Van Der Deen, et al., 2019) and is at least 95% safer than smoking tobacco (McNeill, et al., 2015), despite this, the use of vaping products remains an issue of contention. Politicians in New Zealand, like elsewhere in the world are grappling with how to best regulate this relatively new technology. Adding to the volume of literature available that provides credible information about how policy may impact upon uptake of vaping by people who smoke is one way to try and counter the introduction of policies that may impede vaping uptake.

Thesis structure

This thesis consists of six chapters. Chapter One lays out the rationale, aims and objectives of this research. Chapter Two provides a background literature review that provides an overview of tobacco smoking and policy globally and in New Zealand. Harm reduction and tobacco harm reduction are also outlined. Chapter Two also reviews the evolution of vaping and how vaping is currently situated. Chapter Three describes the methodology used in this research. Chapter Four consists of the results. Chapter Five contains discussion of findings and the limitations. Finally, Chapter Six provides recommendations for policy and for future research before concluding this thesis.

Chapter 2

Background

Introduction

This background reviews literature that provides an overview of the context in which the issue of policy relating to vaping and vaping products is situated. First the literature review method is detailed and then, a brief history of tobacco smoking is provided. Next, the smoking of tobacco from a global perspective, strategies to address the perceived issues with smoking and problems associated with these strategies are summarised. The concept of harm reduction and subsequent tobacco harm reduction will be reviewed. The advent and evolution of vaping products will also be included as well as reactions to vaping products. An overview of New Zealand based smoking statistics and tobacco related policies will be provided. Finally, recent issues regarding vaping and policy in New Zealand will be summarised.

Method

To complete a literature review, an initial search of databases was conducted, and literature was reviewed. Due to this being a fast-moving area where changes can be sudden and significant, parts of the literature review process were repeated from time to time.

Search terms used alone or in combination

“vaping”, “vaping policy”, “vapers” , “vapers’ perspectives”, “invention of e-cigarettes”, “e-cigarettes”, “e-cigarette policy”, “smoking”, “smoking history”, “tobacco”, “tobacco control”, “historic use of tobacco”, “harm reduction”, “tobacco harm reduction”

Known New Zealand authors and organisations were also searched for "Hoek, J.", "Glover, M.", "Fraser, T" and "Truman, P."
"Aspire 2025", "Tobacco Free Kids", "New Zealand Ministry of Health", "Cancer Society".

Search engines
Discover, Google Scholar, Google, Scopus, Science Direct.

New Zealand Government and New Zealand Ministry of Health internal search features were also used to search for documents.

Exclusion & Inclusion criteria

Only literature written in English was included, literature with similar content that did not contribute new information was excluded. Literature outside of the scope of the background areas was also excluded. Literature within the scope of the structure of this background was reviewed for relevant content.

Literature was supplemented with manual searches of some references from retrieved articles.

Tobacco Smoking: A very brief history

'Smoking', that is the act of inhaling smoke from burning organic plant matter, dates back at least as far as the shamanistic rituals in the Americas around 5000BC. Europeans spread the cultivation, consumption and trading of tobacco in the 16th century (Doyle, 2001).

Pipe tobacco, cigars and 'roll your own' tobacco were most popular with tobacco cigarettes gaining some popularity around 1900 after the development of the first safety match (Knowledge-Action-Change, 2018). During World War II tobacco cigarettes were issued as part of military rations (New Zealand Electronic Text Collection, 1924). which led to tobacco cigarettes becoming the most popular form of tobacco consumption.

The Smoking of Tobacco from a Global Perspective

According to the World Health Organisation (WHO, 2019), the “tobacco epidemic” is one of the greatest public health threats the human population has ever faced (WHO, 2019). On average, smokers die to years earlier than non-smokers (Jha, 2011). WHO (2019) asserts that globally tobacco consumption is the leading cause of death, illness and impoverishment with up to half of tobacco users dying as a result of tobacco use. It is estimated that tobacco use causes more than 7 million deaths globally every year (WHO, 2017). The majority of tobacco users are said to be living in low to middle income countries (WHO, 2019).

Despite tobacco control measures, the use of tobacco is growing globally rather than declining. If patterns of tobacco use are not changed to successfully reduce the numbers of tobacco users and frequency of use, the trend of increased use will continue (WHO, 2017). Based upon current usage trends, it is estimated that the annual global death toll from smoking related illnesses will be in excess of 8 million by the year 2030 (WHO, 2017).

In addition to premature death, tobacco users are at higher risk of a variety of health conditions. For example, those who use tobacco are at higher risk of dental conditions such as apical periodontitis, a type of inflammatory lesion in the periodontal tissues that is associated with bacterial infection in the root canal system of the teeth (Sopińska & Boltacz-Rzepkowska, 2020). Tobacco use is also associated with increased risk of non-fatal cardiovascular disease such as myocardial infarctions not resulting in death (Banks, et al.,

2019) .

Strategies to Address Smoking Globally

For some time, tobacco control has enjoyed prominence within international health having been elevated in status by the WHO Framework Convention on Tobacco Control (FCTC), a worldwide public health agenda (Collin, 2012). Many strategies have been ratified to address the problem of smoking tobacco. For example, there is an annual World no Tobacco Day which focuses on disseminating the negative effects of smoking and promotes not smoking on that day (PLOS Medicine Editors, 2017). Another strategy is the initiating of excise taxes to inflate the cost of smoking and increasing the excise taxes over time. The aim of the excise tax is to reduce the appeal of smoking through increased cost of product. Denormalisation strategies are also used such as bans in public areas to reduce the visibility of smoking creating the impression that smoking is not a normal everyday activity in society (Brown-Johnson & Prochaska, 2015). Ad campaigns that convey the idea that the smoke of a person who smokes is a health risk to those around them promotes the exclusion of those people from groups while they have a cigarette. Bans on the advertising of tobacco products by the tobacco industry have also been implemented. In addition, provision has been made for widespread smoking cessation programmes (Collin, 2012).

Problems Associated with Global Strategies to Address Smoking

Whether intentional or not, strategies designed to reduce the use of tobacco can be harmful to the very people they are purported to help. Excise taxes can financially hurt those who cannot or are unwilling to stop smoking. Those of lower socio-economic status bear a disproportionate burden as a result of inflation of the cost of tobacco (PLOS Medicine Editors, 2017; Marsh, et al., 2016). These are the people who are most likely to continue to smoke tobacco but are the least likely to have the financial means to do so without sacrificing money that would otherwise be spent upon basic needs such as food and heating costs.

Denomalisation of tobacco smoking has resulted in the ostracising and marginalising of people who smoke through stigmatising (Brown-Johnson & Prochaska, 2015). Given that people who smoke are likely to be vulnerable in other ways such as living in poverty, being part of a minority (ethnic minority or rainbow community for example) or are living with mental illness, further stigmatisation seems incredibly callous rather than helpful.

With respect to health outcomes, it is likely that inequities in Healthcare impact upon Healthcare access for smokers and other vulnerable groups who are more likely to be smokers (Köhler & Righton, 2006). Campaigns designed to denormalise smoking and turn public opinion against smoking (and smokers by extension) may well have resulted in Healthcare Professionals neglecting to provide the same standard of care for smokers (Köhler & Righton, 2006) and encourage discrimination against smokers that detrimentally impacts upon their employment opportunities (Irvine & Nguyen, 2014).

Furthermore, most smoking cessation programmes appear to be designed with a highly prescriptive clinical approach more suited to the designers and implementers of such programmes rather than being suited to those who are trying to stop smoking. Overall, long term quit rates remain low (Hajek, et al., 2019) so service users are not gaining a large degree of benefit. Low quit rates can benefit service providers because it helps to justify the need for more funding however, given the effort the service providers put in to trying to help smokers to quit, the possible funding gains, are likely a cold comfort. Low long-term success rates can also benefit smoking cessation product developers and manufacturers as those who attempt to stop smoking and are unable to do so repeat their quit attempts again and again.

From Harm Reduction to Tobacco Harm Reduction

In 1926 it was decided by a committee of UK doctors that prescribing morphine, heroin and cocaine to drug dependent patients as a means of managing their dependency was a legitimate medical service to provide to their patients (Seddon, 2008). This illustrates the pragmatism of harm reduction – rather than focusing on elimination of high-risk health behaviours, the focus is upon reduction of the risk of harm. Underpinning harm reduction is an ethos of non-coercive cooperation and the rights of drug users to life, security and health protection (Stimson & O'Hare, 2010). In keeping with the ethos of non-coercive cooperation, there is a principle of 'nothing about us without us' that applies to research. There is an expectation that research is done by or in collaboration with those who engage in the activities that are the focus of the research.

In a broader sense, harm reduction is a part of everyday society, in the safer packaging of food, the building of safer roads and cars, and car seats for babies. None eliminate the risks of harms entirely, but they improve safety.

Upon the arrival of the HIV/Aids epidemic, harm reduction strategies included the 'safe sex' campaign. Here in New Zealand the needle exchange programme greatly reduces the harm to intravenous drug users. Both the 'safe sex' programme and the needle exchange programme helped to reduce other risks of harm as well as reducing the risk of contracting and spreading HIV. For example, the risks of spreading sexually transmitted diseases and hepatitis were reduced also (How the NEP Developed, 2019).

Currently the covid-19 pandemic dominates international discussion, while New Zealand attempts to eradicate the disease, the strategy of putting measures in place to 'slow the spread' so that the disease spreads slowly and does not overwhelm medical resources (We Can All Slow the Spread, 2020) is a harm reduction.

Tobacco harm reduction, that is, providing tobacco users with lower risk alternatives, however, is less readily accepted as a legitimate health response (O'Leary & Polosa, 2020). While the same principles apply to tobacco harm reduction as apply to harm reduction more (Stimson G. V., 2016), the non-judgmental harm reduction approach is so at odds with the traditional cessation only focus of tobacco control that it has led to resistance (Erku, Steadman, Kisely, Morphett, & Gartner, 2020). Fears of youth addiction that lack evidence, sensationalised media headlines and misconceptions about nicotine as a substance have resulted in the further entrenching of resistance (O'Leary & Polosa, 2020).

The Advent of the E-cigarette

It is believed the first patent filed for an electronic device of this nature was on the 25th of May 1927 by Joseph Robinson (Google Patents, 2019).The patent was granted in May 1931. The purpose of the patented 'electronic vaporiser' however, remains unknown. In 1963 Herbert Gilbert filed a patent for a 'smokeless non-tobacco cigarette' (White, 2018). This device was powered by a battery and more like devices as we know them today although nicotine free (it is possible to use current vape devices with or without nicotine). Before making it to market the prototypes were lost in a warehouse fire, never making it to market (White, 2018).

In 1979 a Dr Jacobson presented a "device for inhalation or vaping" introducing the term 'vaping' for the first time known. The device was plastic and cigarette shaped. Paper soaked in nicotine was present inside the device for inhalation (Dunworth, n.d.). This product, brand named 'Favor" failed through a combination of product design (which saw the nicotine rapidly degrade postproduction) and regulatory issues.

It wasn't until 2001 that someone devised and begun to work on what would become the modern ‘e-cigarette’ (Roy, 2018). Hon Lik was a heavy smoker like his father before him, smoking two to three packets of tobacco cigarettes a day. Lik tried to stop smoking using nicotine patches, a form of nicotine replacement therapy that delivers a dose of nicotine continuously through the skin. While he did not find nicotine patches directly helpful for smoking cessation, he credits forgetting to remove his nicotine patch with triggering the dream that led to successful innovation (Isontech, 2017). Nicotine patches are known to result in vivid and unusual dreams when left on overnight (Page, Coleman, & Conduit, 2006).

In Liks’ case, he dreamt of drowning in a deep sea and then floating in a brightly coloured fog upon the sea being vaporized. It is difficult to ascertain whether Lik interpreted the sea that was drowning him to represent nicotine patches that were failing to satisfy him sufficiently to address his smoking or the smoking itself (Isontech, 2017). The vapour in his dreams led him to conclude that a delivery system which delivered nicotine via a vapour would be more satisfying and therefore more successful solution. Lik begun to work on the device that would lead to a product that would go to market and succeed as consumer product.

The Evolution of the E-cigarette to the Modern Day Vape

First Generation E-cigarettes

The e-cigarette has evolved rapidly since Hon Liks’ first system consisting of a large console with food additives as solvents (Isontech, 2017). The devices are many and varied but can generally be grouped into ‘generations’ as we have done with mobile phone technology (Williams & Talbot, 2019). It is worth keeping in mind that vaping is consumer driven thus it is consumers that determine the demand for different types of devices and vaping related products. The first-generation e-cigarettes typically closely resembled an analogue cigarette (that is, a factory produced cigarettes that is supplied ready to smoke, also commonly referred to as a ‘tailor made’). These first-generation e-cigarettes, commonly referred to as ‘cigalikes’ (Figure 1) consisted of a cartridge at the butt end, a long cylindrical battery and a light on the end which lit up when the user puffed on the device (Williams & Talbot, 2019). Given the appearance of these devices, it is understandable that the rather unfortunate term e-cigarette, short for electronic cigarette, took hold. Some cigalikes were single use, an ‘all in one’ unit. Others had a disposable attachment on the end that was drawn upon known as a cartridge or cart. The cartridge was discarded once the nicotine and flavour it contained was empty.

Figure 1. First Generation "Cigalike" (above) and Tobacco Cigarette. Sourced from: https://www.flickr.com/photos/ecigclick/15103533386/

Second Generation Vaping Products

Second-generation products typically retained the long slim tubular battery but less resembled the analogue cigarette (Figure 2). Instead of a cartridge on one end that resembled a tailor made cigarette butt, they had small tank systems that could be filled and refilled, known as 'clearomizers' (Williams & Talbot, 2019). These vapes produced a more satisfying vapour in terms of flavour and 'throat hit' (the feeling of the vapour in the back of the throat). Some second-generation products had replaceable coils – the heating element that converts e-liquid into a vapour. Some of these devices were also capable of adjustable airflow which enable customization of draw strength required and the volume of vapour.

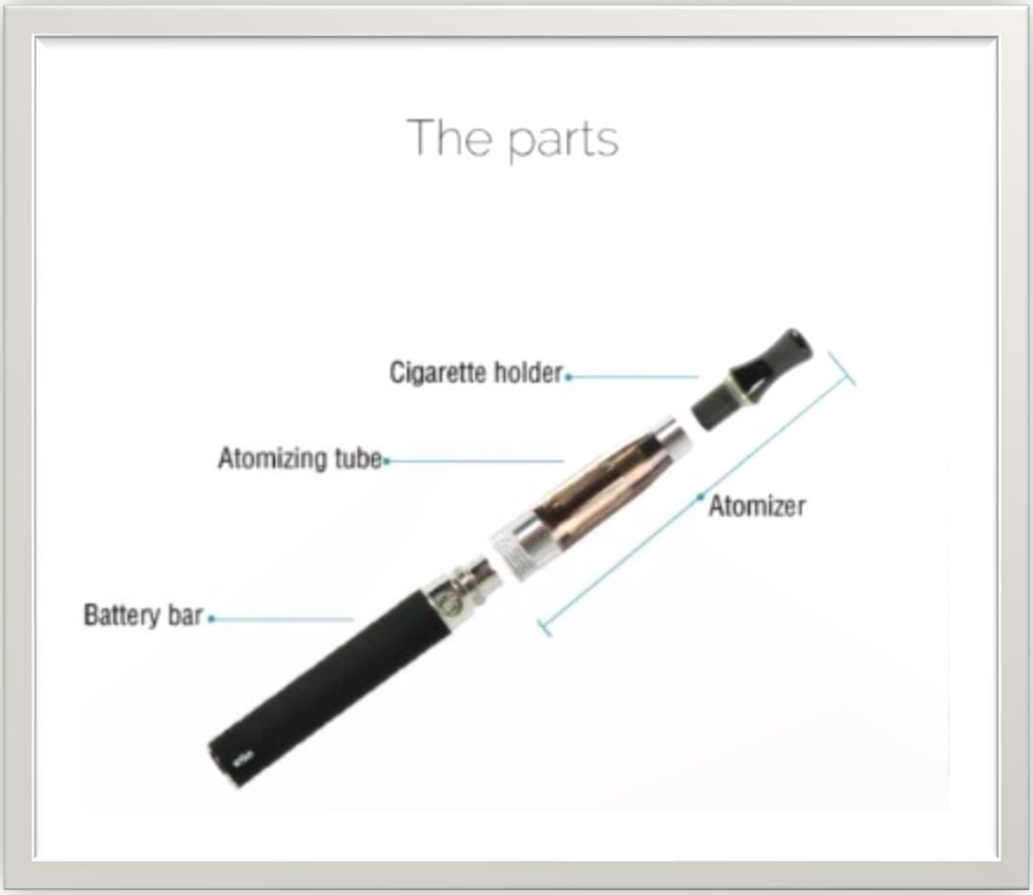


Figure 2. Second Generation Clearomiser.
Sourced from: https://economyvapes.com/products/ego-ce4-vape-pen-starter-kit-for-e-liquid

Third Generation Vapes

Third generation products (Figure 3) were generally box shaped and commonly referred to as 'mods' (Williams & Talbot, 2019) although use of the term 'vape' to refer to vaping hardware was increasingly being used. The design and customizability options grew rapidly with interchangeable tanks (usually glass), variable wattage, more variable coil resistance to name but a few. While many still just used these devices to stop smoking, hobbyists developed an interest in a range of vaping focused do it yourself activities such as making their own e-liquids and 'building' their own coils.

Figure 3. Third Generation Box Mod.
Sourced from: https://ecigarettereviewed.com/100-watt-box-mods/

While these third-generation products are still readily available, vaping products have evolved further and pod systems (Williams & Talbot, 2019) have emerged alongside nicotine salts. Nicotine salts enable a higher strength of nicotine in e-liquids from a lower powered device with a much ‘smoother hit’. With conventional freebase nicotine, higher strengths were typically harsh and unpleasant for the user to vape. This resulted in some difficulty delivering enough nicotine to satisfy nicotine cravings, a problem that could only be resolved previously by, vaping more frequently, use of higher power or, a return to smoking tobacco.

Vapes Beyond the Third Generation

Arguably the best-known pod system would be the JUUL (Figure 4). In the United States of America at least, JUUL has been a target of choice for anti-vaping/anti-tobacco organisations and those given to moral panic. In part this appears to be fuelled by the involvement of tobacco company Altria who purchased a significant stake in JUUL (Zaleski, 2018). It seems however, that moral panic is also fuelled, at least in part by misconceptions regarding youth vaping.

Reportedly, youth are ‘attracted’ to JUUL due to ease of concealment and the purported ‘sleek attractive design’ being intended to attract youth (Bach, 2019). I question this position however given that JUUL is, in appearance at least, quite unremarkable. It is also claimed that youth may use vaping products to ‘get high’ (The learning counsel, 2020). While it may be true that some youth believe they will get high from the use of nicotine e-liquids and experiment with them as a result, it seems likely that this is a placebo effect, perhaps as a result of the anti-vaping narrative. Another claim is that youth have some unique quality that leads them to become instantly addicted due to the high nicotine content of the JUUL. However, given that the high nicotine strength of JUUL results in a dose that is close to that delivered by an analogue cigarette it seems unlikely that it would be any more addictive (Hajek, et al., 2020). The speed of evolution of vaping products makes it difficult to keep up with developments. JUUL is just one example of the many varieties of pod systems.

Figure 4. Juul Pod Kit.
Sourced from: https://www.juul.co.uk/shop/devices/starter-kit

Smoking in New Zealand

According to the Ministry of Health, as of May 2018, approximately 529,000 adult New Zealanders were current smokers.

Key statistics from the 2016/2017 New Zealand Health survey indicate that:

- 35% of Maori adults were smokers
- 24% of Pacific adults were smokers

Since 2011/2012, there had been no significant change to adult smoking rates in those aged 35 years and older in New Zealand but smoking rates amongst younger adults had declined.

After adjustment for sex, age and ethnicity, adults who live in the most deprived areas of New Zealand were three times more likely to be currently smoking when compared against those in the least deprived areas.

As is the case globally, people who smoke New Zealand in are vulnerable to ostracism and marginalising. They do not enjoy protection against discrimination in the way an individual might if discrimination is based upon their sexuality or marital status (New Zealand Ministry of Justice, 2020). Landlords can refuse to accept people who smoke as tenants and employers can refuse to employ people who smoke. Business owners, as employers are advised that smokers are less productive and take more time off work for illness. In addition, they are told that when people who smoke are at work, on average they will work a month less than non-smokers over the course of the year due to their stopping work to go and have a smoke (Wellplace.nz, 2019).

Tobacco Control in New Zealand

The New Zealand Ministry of Health (2019) provides an outline of key tobacco control measures in New Zealand along with the events of high relevance to tobacco control:

1948: The Department of Health produced the first posters in New Zealand linking cancer with smoking.
1963: Cigarette advertising on New Zealand television and radio banned by

broadcasting authorities in response to the Medical Association's call for a ban on advertising.
1964: Release of the US Surgeon General's report on smoking and health linked smoking to heart disease, other kinds of cancer, and many other health problems.
1974: First health warning on cigarette packets.
1984: Māori men and women had highest rates of lung cancer in the world. First Government tobacco control programme begun.
1987: New, varied and strong health warnings linking smoking to heart and lung disease appear on the front and back of cigarette packets sold in New Zealand. Strong public support for restrictions on smoking at work and indoors in public.
2004: All licensed premises (bars, restaurants, cafes, sports clubs, casinos) and other workplaces (including offices, factories, warehouses, work canteens and 'smoko' rooms) become smokefree indoors in New Zealand.
2011: Following the Māori Affairs Select Committee process in 2010, the New Zealand Government responded with a goal of a Smokefree New Zealand by 2025.
2018: Tobacco standardised packaging introduced.

Other controls such as the introduction of an annual 10% excise tax increase to inflate the cost of tobacco purchases were also introduced over time.

Vaping in New Zealand

After the commercial release of vaping products, vaping made its way to New Zealand. As of 2016, the New Zealand Government had already declared vaping products to be banned under the Smoke-Free Environments Act 1990 (SFEA) if they contained nicotine (Fraser, Glover, & Truman, 2018). Nonetheless, smokers seeking to stop smoking took up vaping. The promise of a safer, cheaper alternative to smoking tobacco and positive experiences on health lead to vapers becoming more organised as a community and setting up informal networks to ensure supply of nicotine e-liquids (Fraser, Glover, & Truman, 2018). In addition, the vaping community advocated for a repeal of the ban. The government of the day announced a repeal of the ban albeit with considerable restrictions remaining in place (Fraser, Glover, & Truman, 2018). Before any changes to legislation were made, New Zealand had a change of government. The incoming government promised risk proportionate (Oakley, Martin, & Edwards, 2019) and evidence based regulation of vaping and vaping products (Erku, Steadman, Kisely, Morphett, & Gartner, 2020). However, before any amendments to the SFEA were drafted, Judge Butler ruled that reduced risk products were not subject to the constraints of the SFEA and any attempts to constrain them would be contrary to the purposes of the Act which was to reduce the harms of smoking (Ministry of Health vs Phillip Morris (New Zealand) Limited, 2018). Vaping products, including those containing nicotine could be sold openly without fear of prosecution. There were no vaping specific regulations that limited where it was permissible to vape in public.

However, as has happened in other places (Stimson G. V., 2016), the draft amendments to the SFEA (Parliament of New Zealand, 2020) contain numerous restrictions that are not in keeping with the promise of risk proportionate, evidence based, regulation. For example, despite no evidence of risk to the health of bystanders (New Zealand Ministry of Health Manatū Hauora, 2020), vaping in public is banned wherever smoking is banned. Restrictions to the availability of flavours is also proposed with non-speciality stores being limited to tobacco, mint and menthol flavours only. It is claimed that this restriction is to deter youth from vaping. However, the Attorney General of New Zealand (2020) has made clear that the evidence shows very little risk of youth who do not smoke taking up vaping so the rationale for the flavour restrictions does not stand up under scrutiny. There are also concerns that we do not yet know enough about vaping (Asthma and Respiratory Foundation NZ, 2019) but one has to wonder if there will never be enough research to satisfy those who are opposed for ideological reasons.

As we head into the 2020 election, the draft amendments have passed their second reading with support from most political parties.

Conclusion

In summary, the background has provided an overview of the tobacco history and global harms from smoking. Global strategies to address smoking harms and problems associated with those strategies were examined. Harm reduction, including tobacco harm reduction, as an approach were discussed. An outline of the evolution of the e-cigarette was provided. Smoking and tobacco control in New Zealand were outlined. Finally, vaping in a New Zealand context was revised.

Chapter 3

Methodology

Introduction

This chapter will describe the method used for this research project. It begins by restating the aims and objective before outlining the research design. Development of the vignettes will be discussed followed by an outline of the ethics process. The preliminary trial, recruitment process and research setting will be described. Next a list of materials used in this research will be provided and detailed. The randomisation method will then be outlined, Lastly, the interview procedure and analysis process will be described.

Aims and Objectives

The aims of the research were to:
To identify public health policy-based barriers to, and facilitators of, the decision to take up vaping to stop smoking.

To achieve the research aims, the following steps were undertaken:

1. A literature review to provide background to vaping and vaping related issues. This background included: a brief history of, the smoking of tobacco from a global perspective, strategies to reduce smoking behaviour and problems associated with these strategies. The concepts of harm reduction and tobacco harm reduction were reviewed. The invent and evolution of vaping products were also be included as well as reactions to vaping products. An overview of New Zealand based smoking statistics and tobacco related policies was also included. Finally, recent issues regarding vaping and policy in New Zealand were summarised (see Chapter 2).

2. Data was gathered through recorded interviews with 9 participants.

3. Using qualitative methods, the data was analysed twice. First data was analysed by vignette. Secondly the data regrouped by policy condition and reanalysed.

Research Design

This study seeks to learn from the subjective views of vapers how policy could impact upon the decision of people who smoke to try vaping as a means of stopping smoking. A qualitative design is suited to this purpose because qualitative research is text-based and is well suited to studies that seek to understand the health experiences of individuals or communities (National Ethics Advisory Committee, 2019). The Qualitative paradigm is of the view that truth is subjective, and a social construct, thus is particularly well matched with methods that are designed to collect data which consists of subjective views (Broom & Willis, 2007).

It is an ethical expectation that researchers consider the impact of research upon the participant (National Ethics Advisory Committee, 2019). In one aspect in particular, there was a potential issue identified that may cause some level of discomfort during interviews. Focusing upon the topic of vaping may trigger an urge to vape. For this reason, a natural setting that allowed participants to vape was deemed appropriate. Qualitative research considers natural settings to be more conducive to the gathering of authentic data and stepping outside the perceived notion of what is ‘right’ or ‘wrong’ (Pope & Mays, 2000).

Where research exists, it can be the case that research involving people who vape is something done on vapers rather than with vapers (Fraser, Glover, & Truman, 2018). That is to say that people who vape are often treated as objects of study. It can also be the case that researchers use vapers’ contributions to research against their perceived interests in order to fit with the researcher's ideological position. When researchers behave in such a manner, this can have a negative impact upon participants involved in research and create distrust of researchers as outsiders (Fraser, Glover, & Truman, 2018). Qualitative insider research can help to address this.

Where quantitative research attempts to position the researcher as an impartial onlooker, qualitative research design recognises the researcher as an instrument of the research (Broom & Willis, 2007). The question being explored, how the study is conducted, the participant-researcher relationship and how responses are interpreted are all researcher influenced and acknowledged. As the researcher in this instance is also a vaper, 'insider research' is possible – honouring the demand for 'nothing about us without us'. Thus, the research becomes a study done by a vaper with fellow vapers as participants as is in keeping with a tobacco harm reduction approach to research (Stimson G. V., 2016).

The Use of Vignettes in Qualitative Research

Vignettes may be used in social research for three purposes:

- To permit actions to be explored in context
- For clarification of peoples' judgements and views
- To explore sensitive topics in a way that is less personal and therefore less threatening

Through the use of vignettes, participants are able to define any given situation in their own to terms. When exploring situations and structures, stories about individuals provide important points of reference for discussion (Hughes, 1998).

Highly detailed vignettes enable participants to more readily project themselves into the scenario described. Using an imaginary third person was designed to address socially desirable responses. One question included legal implications and although the participants are not identified, they may feel exposed or otherwise vulnerable if asked to respond to the scenario described in the first person. By asking them to hypothesise how a third party might respond, the risk of a socially desirable response and potential discomfort were reduced because participants were not implicated by virtue of their responses.

Development of Vignettes

A series of vignettes were developed. The vignettes reflected various overviews of different policy conditions ranging from highly permissive and lacking government input or regulation, to highly restrictive with costly penalties. Rather than use a Likert scale type continuum, which, when read, seemed both unrealistic and unnatural, the researcher drew upon real-life policies and plausible potential policies governing vaping in New Zealand.

One of the features of vignettes is to enable the participant to imagine themselves in the scenario described (Jenkins, Bloor, Fischer, Berney, & Neale, 2010) and answer questions accordingly. To assist participants in this task, two sets of vignettes were made which were identical except for the gender and name of the actor. For male participants, the male set of cards were read which used a typically male name for the actor and used the pronoun ‘he’. For female participants, the female cards were read which used a typically female name for the actor and used the pronoun ‘she’. A third set of vignettes was considered using a gender-neutral name and ‘they’ as the pronoun, it was decided that this could be added later if a participant did not identify as either male or female.

The most permissive and least regulated vignette was reflective of the current New Zealand situation prior to vaping specific regulation being introduced. The most restrictive and punitive vignette reflects current policy in Queensland, Australia. Between the two, in the midrange between permissive and prohibitive, two vignettes were written to reflect probable New Zealand regulation and regulatory conditions supported by ASPIRE2025 (2017). The probable New Zealand vaping policy was extrapolated from the recommendations of the New Zealand Ministry of Health.

Each vignette included four different areas likely to be impacted by policy making which, I have called policy conditions. The policy conditions were the role of health care professionals in imparting health related information and offering a medical opinion on vaping, related to health and safety. The second condition was media influence with respect to vaping related information. The third condition was accessibility including locations where vaping devices and products would be available and age restrictions. The fourth condition reflected how different vaping related policies may affect the cost of purchasing vaping products. In one vignette, the most prohibitive, illegality and potential fines were also considered.

The first policy condition regarding health care professionals, as people in positions of authority, had clear guidance regarding their role in supporting or discouraging vaping among patients and what health information they may be able to provide about vaping as a means of smoking cessation. Lack of regulation was reflected through inconsistency across health care professionals. In a highly regulated prohibitive environment, health care professionals were unable to support or encourage the use of nicotine containing vaping products as nicotine was illegal and officially regarded as a toxic substance. Negative information relating to nicotine could be disseminated. The more permissive midrange vignette enabled health care professionals to provide information that was consistent with the findings of the Ministry of Health. The more restrictive midrange vignette, prescriptions for vaping products was available from health care professionals alongside information sheets on the possible health risks associated with vaping.

The second condition described in the scenario reflects the how vaping is portrayed in the media and relates to information seeking. For example, when the media reports that the New Zealand Associate Minister of Health is introducing regulations to help manage the risks to youth from vaping and introducing fines for both vaping and smoking tobacco in cars that may be interpreted as vaping being dangerous to our youth and akin to smoking.

In the most permissive scenario, all vaping related information, accurate or not, was reported by media. In the most restrictive vignette, the bulk of the reporting echoed that governments official position that nicotine is a toxic substance that is dangerous to health. In the midrange vignettes, the more permissive policy conditions promote vaping as a much safer alternative to smoking. The more restrictive midrange vignette primarily emphasises the dangers of nicotine and perceived risks of vaping with some media sources challenging the accuracy of the information.

The next condition described in the vignettes pertained to access to vaping hardware and supplies. The most permissive and least regulatory condition was a free market situation where equipment and supplies were able to be purchased online and at a wide variety of physical stores. There were no limits upon nicotine strength, flavours or quantities. In the most restrictive regulatory environment, nicotine e-liquids were unable to be purchased legally thus could only be obtained illegally (on the black market).

In the midrange, the more permissive scenario provided for the purchase of vaping hardware and e-liquids in a variety of retail stores, like access to cigarettes and could also be purchased online. Access was restricted to those 18 years and above. There was a maximum nicotine strength of 24mg. The more restrictive midrange scenario allowed vaping supplies and liquids to be purchased only in specialty vape stores and pharmacies. Specialty vape stores required a special license and vendors had to complete smoking cessation advice training. The minimum age for access was 18 years and smoking cessation advice was to be given alongside purchases.

Interviewee cards were made to be paired with each vignette which had bullet pointed key concepts. Each vignette and paired interviewee card were colour coded rather than numbered to avoid any perception of an order or preference.

Ethics

Documents were prepared as detailed below and submitted for peer review. The study was recorded as a low risk study Ethics Notification Number: 4000018694 under the working title: Successful Switching: Vapers' perspectives on psychological and social factors that helped them to switch from tobacco smoking to vaping. The title was later changed to remove the term 'successful' which implies those who do not switch have failed and to make the title more succinct.

Sample Frame

As a pilot study with a small sample size runs the risk of disproportionate representation, a sample frame was drawn up (Appendix 1). The sample frame acted as a guide to participant selection, aiming to fill as many characteristics as possible. A mix of gender, ethnicities, socioeconomic status, location and mental health status were sought. Inclusion criteria included being 18 years and above, residing in New Zealand and being a vaper who did not smoke tobacco cigarettes. Those with a mental health condition were eligible to participate provided they lived independently in the community and their condition was well managed. The inclusion of those with mental illness was an important feature of this low risk project.

Table 1. Sample Frame (Appendix 1)

Characteristics	*Participants*	1	2	3	4	5	6	7	8	9		*Totals*
European		x					x	x	x	x		5
Maori		x	x	x	x							4
Other Ethnicity						x	x					2
Male		x			x	x		x	x	x		6
Female			x	x			x					3
18-34 years				x	x				x	x		4
35-50 years			x				x					2
51+ years		x				x		x				3
Urban		x	x	x	x		x	x	x			7
Non-urban						x				x		2
NIPE*									x			
Entry level employment			x			x						
Trade					x			x		x		
Professional		x		x			x					
MH Condition				x		x	x					

* Not in Paid Employment

Recruitment Notice

A recruitment notice was prepared announcing the study and inviting capers who are now non-smokers to participate. The recruitment notice provided contact details for both researcher and supervisor (Appendix 2).

Participant Information Sheet

The participant information sheet provided a broad overview of the study. It also included contact details, ethics approval number and information on participants rights. (Appendix 3.1-3.4)

Informed Consent

An informed consent form was prepared for participants. Participants have the right to withdraw at any time within reason and this was stated. The form asked participants to confirm that the research had been explained, that they had time to ask any questions they may have had and that they agreed to participate in the research and to the collection of their demographic date (Appendix 4).

Participant Demographics

Participants demographics were recorded on a demographics form and returned prior to scheduling interviews. For most of the information a dotted line was used for the prospective participants to fill in the details. Prospective participants could fill in whichever gender identity they felt was appropriate (Appendix 5).

The interview introduction, vignettes and interviewee key points cards are detailed in the materials subsection of the methodology chapter.

Trial Participant

A naïve trial participant was selected based upon convenience. The trial participant was provided with an information sheet to read and had the opportunity to ask questions. An informed consent was signed, and a mock interview was conducted. The purpose of the trial was to ensure that the vignettes and interview process had been adequately prepared and worded in a way that was clearly understandable. Data from the trial was kept separate and not used for any other purpose.

Recruitment

An invitation to participate was extended to people who currently vape but do not smoke by electronic upload of the recruitment notice (Appendix 2) to social media platforms Facebook and Twitter. An email address was provided for potential participants to make contact. In addition, vaping industry vendors assisted with the sourcing of a rural participant and a European male aged in their 20's. Participants were sent a participant information sheet (Appendix 3.1-3.4) and a brief demographics questionnaire (Appendix 5) by return email. Upon receipt of the demographic information, interviews were scheduled at a place, time and location of the participants choosing.

Research Setting

Interviews took place in a naturalistic setting at the convenience of the participant. Five interviews took place in the home of the participant. One participant chose an outdoor setting. One participant was interviewed in a room at a counselling centre, this participant preferred to meet the interviewer in one of the larger cities, where a room could be booked in advance, rather in their own small township. A private room at a vape shop was the setting for two interviews. In all settings, refreshments were provided by the researcher in lieu of a koha as a token of appreciation. In all settings, participants could vape freely.

Materials

- Sample Frame (Appendix 1)
- Recruitment Notice (Appendix 2)
- Participant information sheet (Appendix 3.1-3.4)
- Informed Consent Form (Appendix 4)
- Participant Demographics form (Appendix 5)

Primary Audio recording device:
The primary device was a Samsung s9 smartphone set to record audio only.

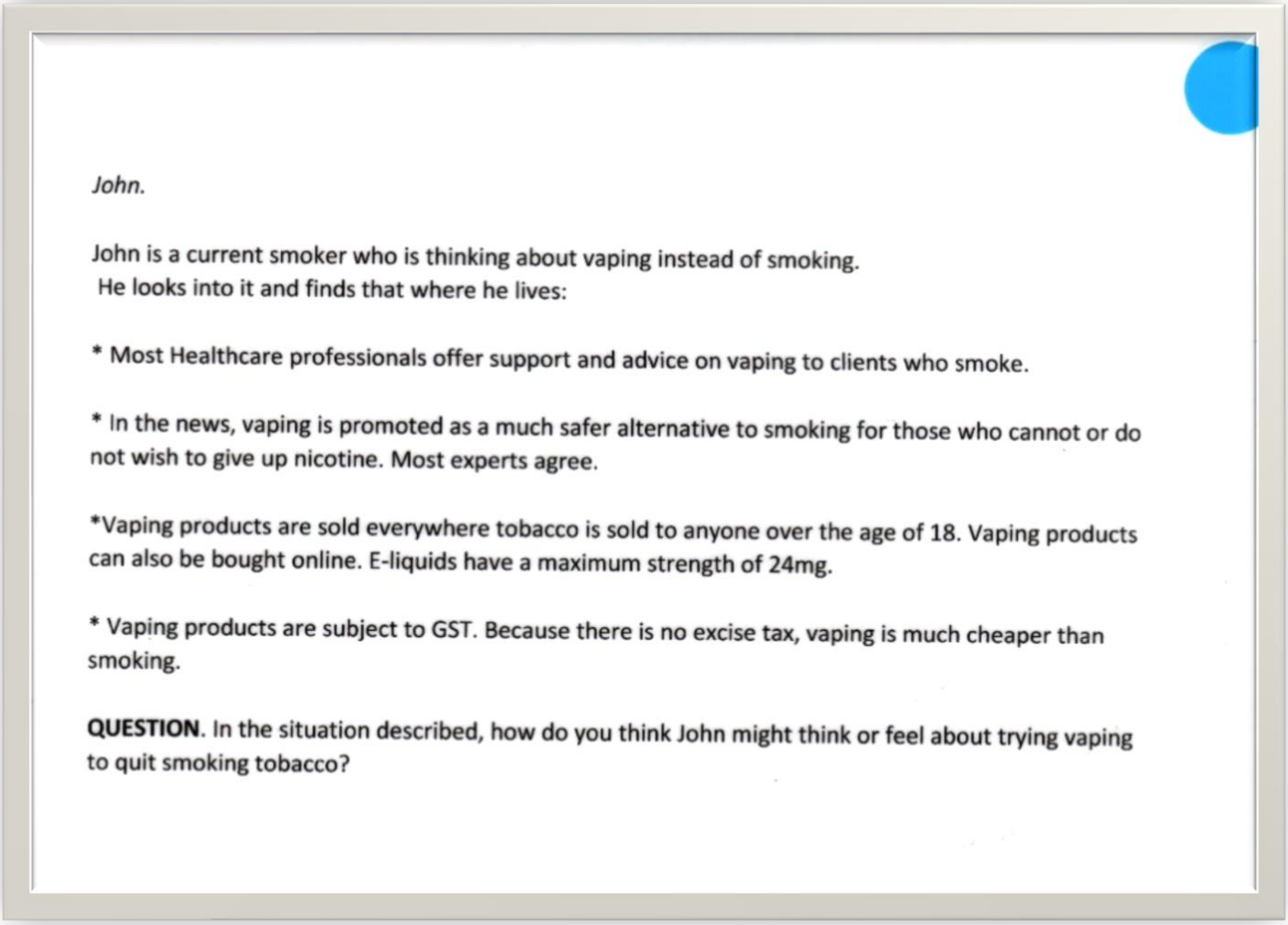
Secondary Audio recording device:
A Phillips Voice Tracker, 3 mic system was used as a backup recording device.

Introduction script (Appendix 6)
The introduction script thanked participants for agreeing to participate and explained that they would be read a series of scenarios and then be asked some questions regarding each scenario.

Vignettes.
An example scanned copy of the actual interviewer and interviewee cards used has been provided after each description.

4x Vignette Interviewer Cards – Male (Appendices 7-10)

The vignette interviewer cards described a range of scenarios with differing degrees of control/restriction over what was permitted in respect to purchase, use and information relating to vaping along with cost relative to smoking tobacco. One card also included potential fines and lack of lawful access to nicotine containing vaping products. The actor in the scenario had a typically male name and male pronouns were used. The cards were colour coded. For use with male participants.



John.

John is a current smoker who is thinking about vaping instead of smoking.
He looks into it and finds that where he lives:

* Most Healthcare professionals offer support and advice on vaping to clients who smoke.

* In the news, vaping is promoted as a much safer alternative to smoking for those who cannot or do not wish to give up nicotine. Most experts agree.

*Vaping products are sold everywhere tobacco is sold to anyone over the age of 18. Vaping products can also be bought online. E-liquids have a maximum strength of 24mg.

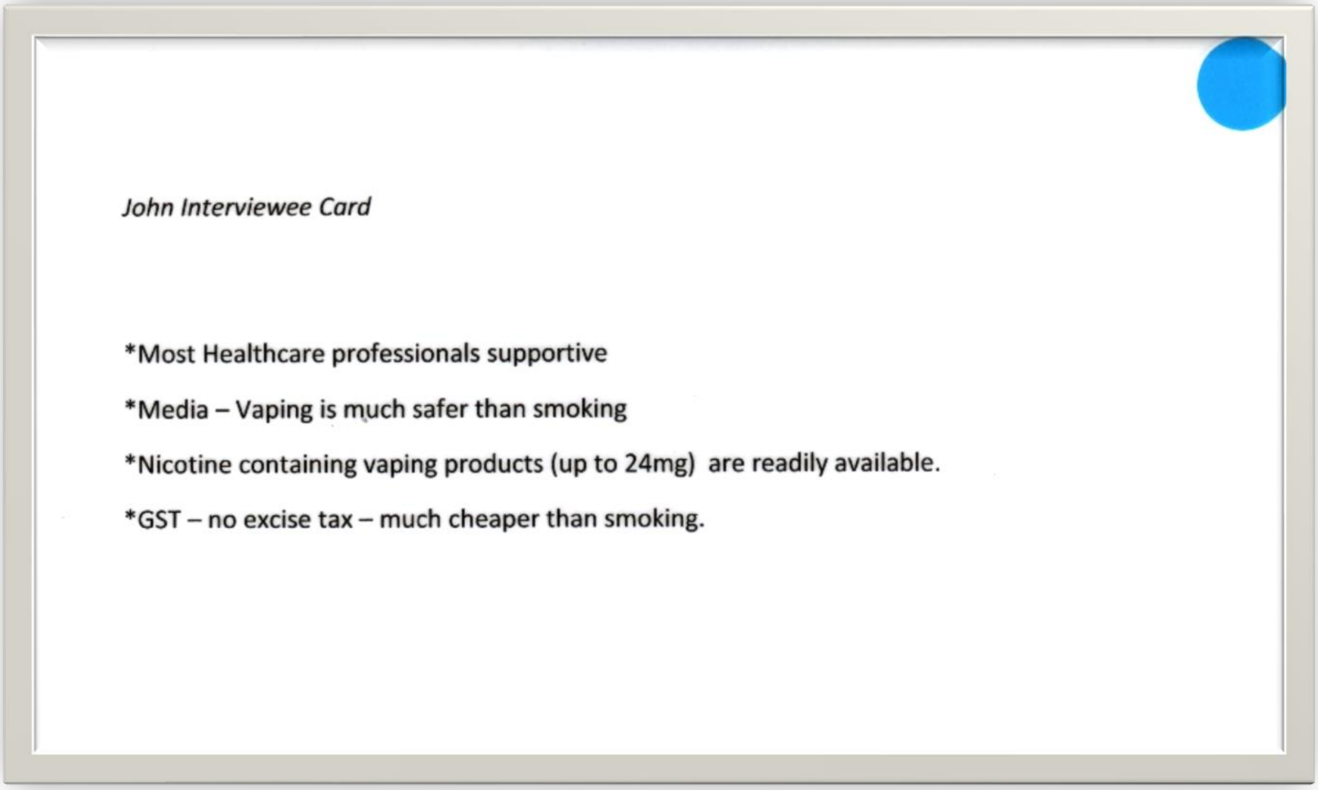
* Vaping products are subject to GST. Because there is no excise tax, vaping is much cheaper than smoking.

QUESTION. In the situation described, how do you think John might think or feel about trying vaping to quit smoking tobacco?

Figure 5. Blue Male Interviewer Vignette - Moderately Permissive Conditions

4x Interviewee Cue Cards – Male (Appendices 11-14)

The vignette interviewee cards were colour coded to match the corresponding interviewer cards. They provided key bullet points covering differing degrees of control/restriction over what was permitted in respect to purchase, use and information relating to vaping along with cost relative to smoking tobacco. One card also included potential fines and lack of lawful access to nicotine containing vaping products. The actor in the scenario had a typically male name and male pronouns were used. The cards were to assist the participant to recall of detail of the scenarios described by the interviewer in order to answer the question asked. For use with male participants.



John Interviewee Card

*Most Healthcare professionals supportive

*Media – Vaping is much safer than smoking

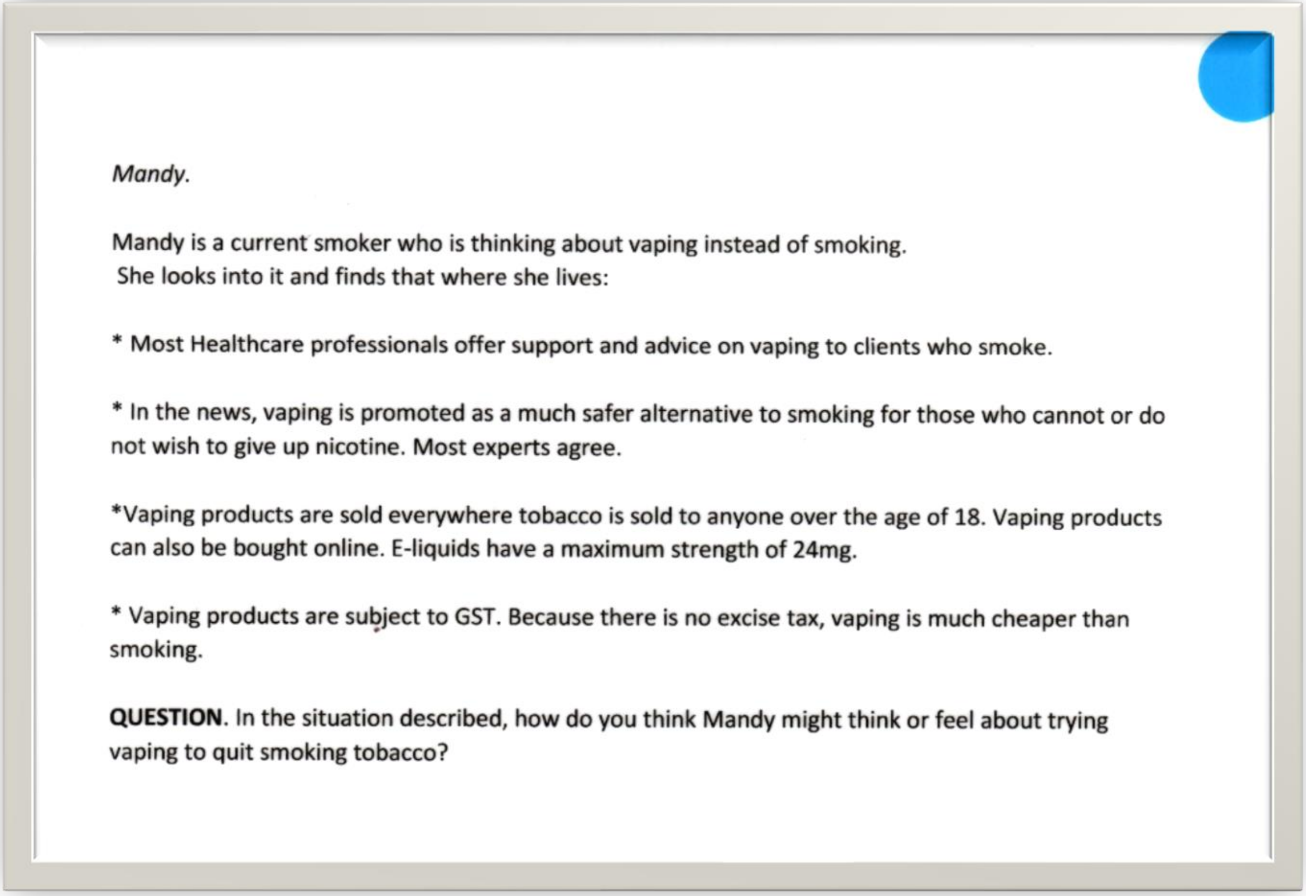
*Nicotine containing vaping products (up to 24mg) are readily available.

*GST – no excise tax – much cheaper than smoking.

Figure 6. Blue Male Interviewee Cue Card – Moderately Permissive Conditions

4x Vignette Interviewer Cards – Female (Appendices 15-18)

The vignette interviewer cards described a range of scenarios with differing degrees of control/restriction over what was permitted in respect to purchase, use and information relating to vaping along with cost relative to smoking tobacco. One card also included potential fines and lack of lawful access to nicotine containing vaping products. The actor in the scenario had a typically female name and female pronouns were used. The cards were colour coded. For use with female participants



Mandy.

Mandy is a current smoker who is thinking about vaping instead of smoking.
She looks into it and finds that where she lives:

* Most Healthcare professionals offer support and advice on vaping to clients who smoke.

* In the news, vaping is promoted as a much safer alternative to smoking for those who cannot or do not wish to give up nicotine. Most experts agree.

*Vaping products are sold everywhere tobacco is sold to anyone over the age of 18. Vaping products can also be bought online. E-liquids have a maximum strength of 24mg.

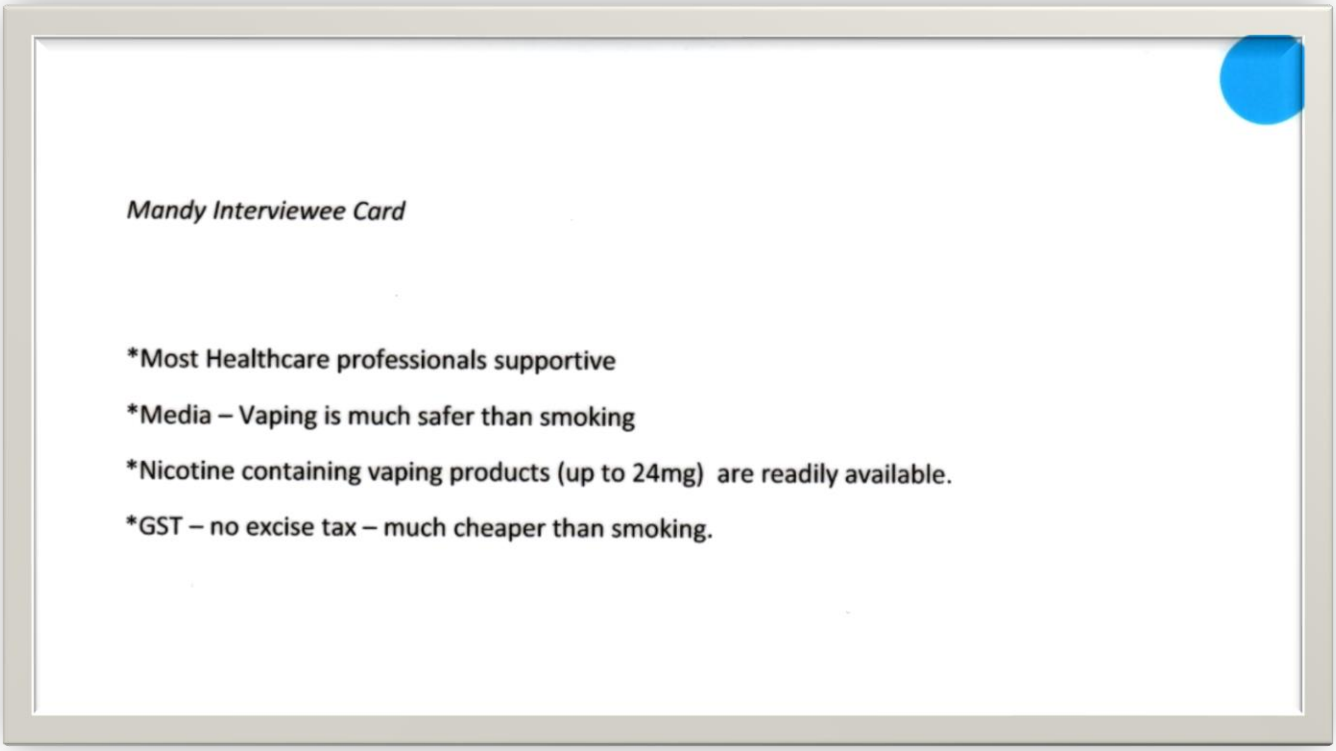
* Vaping products are subject to GST. Because there is no excise tax, vaping is much cheaper than smoking.

QUESTION. In the situation described, how do you think Mandy might think or feel about trying vaping to quit smoking tobacco?

Figure 7. Blue Female Interviewer Vignette – Moderately Permissive Conditions

4x Vignette Interviewee Cue Cards – Female (Appendices 19-22)

The vignette interviewee cards were colour coded to match the corresponding interviewer cards. They provided bullet pointed key points covering differing degrees of control/restriction over what was permitted in respect to purchase, use and information relating to vaping along with cost relative to smoking tobacco. One card also included potential fines and lack of lawful access to nicotine containing vaping products. The actor in the scenario had a typically female name and female pronouns were used. The cards were to assist the participant to recall of detail of the scenarios described by the interviewer in order to answer the question asked. For use with female participants.



Mandy Interviewee Card

*Most Healthcare professionals supportive

*Media – Vaping is much safer than smoking

*Nicotine containing vaping products (up to 24mg) are readily available.

*GST – no excise tax – much cheaper than smoking.

Figure 8. Blue Female Interviewee Cue Card – Moderately Permissive Conditions

Randomisation

The order of vignettes for each interview was also randomised using a randomising tool on the website https://www.randomizer.org/. As the randomiser was numerical, each colour was assigned a number for randomisation as follows:

1. Red
2.Yellow
3. Blue
4. Green

Randomisation assigned a position, either 1, 2, 3 or 4 which determined which order the vignettes were read to each participant. An extra randomisation was completed to allow for the possibility of an additional participant being sought, for example, if a participant withdrew and another enrolled.

Table 2: Vignette Randomised Order

Vignette	Randomised order
Red	4,2,3,3,4,1,4,4,3,4
Yellow	3,4,1,4,2,4,3,1,2,2
Blue	1,3,4,2,1,3,2,3,1,1
Green	2,1,2,1,3,2,1,2,4,3

To reduce the possibility of reader error, then the numbers were recoded back to the corresponding colour. The randomised position was then written out as a schedule to specify the order that the vignettes would be read to each participant.

Table 3. Randomised Vignette Order by Participant

Participant	Vignette Order
Participant 1	Blue, Green, Yellow, Red
Participant 2	Green, Red, Blue, Yellow
Participant 3	Yellow, Green, Red, Blue
Participant 4	Green, Blue, Red, Yellow
Participant 5	Blue, Yellow, Green, Red
Participant 6	Red, Green, Blue, Yellow
Participant 7	Green, Blue, Yellow, Red
Participant 8	Yellow, Green, Blue, Red
Participant 9	Blue, Yellow, Red, Green
Participant 10	Blue, Yellow, Green, Red

Interview Procedure

Participants were greeted upon arrival and a short time was spent for general chatting before ensuring they had read the participant information sheet (Appendix 3.1-3.4) going over informed consent and the informed consent form signed (Appendix 4) and dated along with checking demographic information and choosing an alternative name for the participant (Appendix 5).

Audio recorders were switched on and an introduction containing instructions was read to the participant (Appendix 6) which finished with asking if the participant had any questions or would they like to start the interview.

The first randomised vignette was read out loud by the interviewer finishing with the question “In the situation described, how do you think ‘name’ might think or feel about trying vaping to quit smoking tobacco?“ and the participant was then given a card with the main points of the vignette for reference. The interviewee would then answer the question with minimal input from the interviewer. The participant was thanked for their answer and the process was repeated with each vignette in the set. At the completion of all vignettes in the set, the participant was thanked for their time and audio recorders were switched off.

Interview recordings were transferred to a secure storage device and a copy of the recordings sent to an independent transcriber. Upon receipt of transcripts a sample was checked for accuracy and superfluous interviewer text was deleted. The text consisted of scripted readings such as the introduction and the vignettes were also mostly deleted. Some small sections such as the trail end of the vignettes was retained. Any interviewer comment that provided context for a participant’s response was also retained.

Analysis

Analysis by Vignette

A new document was created for each scenario and each participants’ comments relating to a specific vignette were pasted into the corresponding document.

Each document was then coded for the type of response indicated – whether the response was positive (facilitators that would very likely actively encourage a smoker to try vaping as a means of giving up smoking tobacco cigarettes), whether a response was negative (would likely actively discourage a smoker considering trying vaping as a means of stopping smoking) or 'something else'.

Once all the vignette documents had been completed, the 'something else' data was revised. This data was found to fall into two separate categories: data that indirectly acted as a barrier to trying vaping as a means of giving up smoking tobacco cigarettes due to inertia and data that could be characterized as individual factors.

For each vignette, consideration was given as to whether policy was more or less likely to encourage or discourage a smoker from trying vaping as a means of giving up smoking tobacco cigarettes relative to other scenarios described.

Analysis by policy variation

A new document was created for each policy variation – appeal to authority (Healthcare Professionals' opinions), information sourcing (media portrayal of vaping), accessibility (locations where available, nicotine strength, flavours), cost (the price paid) and illegality (fines and criminality). Not all policy variations applied to all vignettes.

For each transcript, each comment relating to each policy variation was copied and pasted into the corresponding policy variation document so that all comments relating to 'cost' for example were included in the cost policy variation document. Where a comment was related to more than one policy variation, it was included in each policy variation it was related to.

While the prior framework (direct and indirect barriers, facilitators and individual factors) were also considered for this analysis, there was considerable difference in which aspects were focused upon, which was taken as an indicator of perceived relative importance.

Conclusion

This methodology chapter outlined the procedures and materials required to make it possible to replicate the research conducted. Aims and objectives were reiterated, and research design was justified. Ethics, the interview trial and the recruitment process were also described. Details of the randomisation and interview processes were provided. Analysis was explained by vignette and by policy variation.

Chapter 4

Results

Introduction

This chapter presents the research results. First participants are described followed by a broad finding regarding facilitators and barriers. Next, results by vignette are presented; highly permissive conditions, moderately permissive conditions, moderately prohibitive conditions and highly prohibitive conditions. Then findings related to individual differences are presented. Lastly, results by policy condition are presented, cost, access, legality, media and finally Healthcare Professionals.

Participants

Of the nine participants, six were male and three were female. Four participants identified as Maori, one as Samoan, one as British and five as European. Two participants identified as having multiple ethnicities hence, the total number of ethnicities exceeded the number of participants. One participant reported having experienced depression in the past. Two participants reported having depression at the time of the study and one participant had anxiety. All participants reported that their conditions were stable and well managed.

Four participants came from major North Island cities, one from a smaller North Island city and two from North Island townships. One participant came from a South Island city and one lived in a rural South Island location. Four participants were professionals, two were trade people and two held entry level jobs. One participant was not employed at the time of the interview.

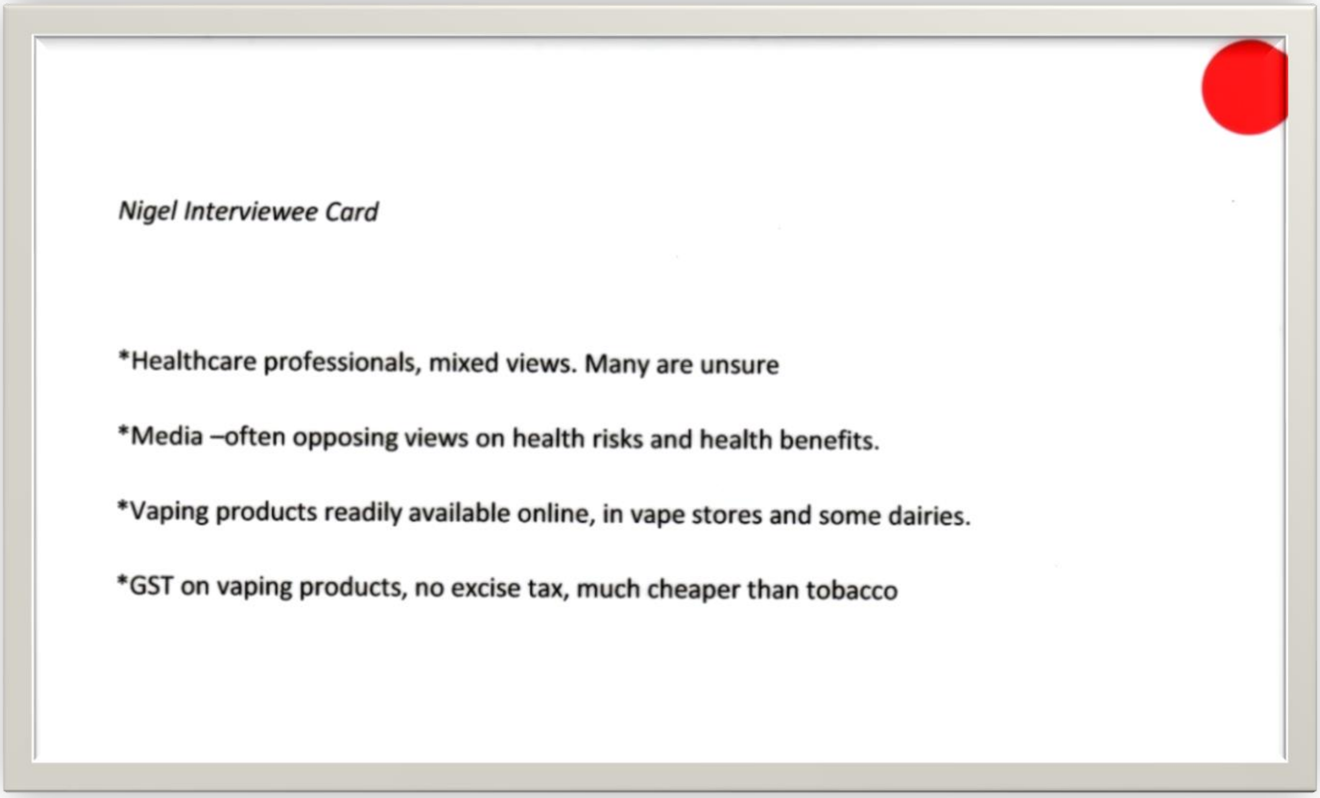
One participant, who would have been the 10th participant, ceased contact without explanation and her details were withdrawn upon attempting arrange an interview. As a result of this, females and participants with current mental health difficulties were not as well represented as they otherwise might have been.

Key Theme Underlying Facilitators and Barriers

A key theme was that conditions which supported vaping acted as facilitators to switch from smoking to vaping. Conditions that were not supportive of vaping acted as barriers attempting to stop smoking using vaping as a tool. Conditions that were neutral or confusing tended also to act as barriers of change from smoking to vaping.

Highly Permissive Conditions with Low Regulation and High Levels of Freedom Can Create Confusion

Hypothesis 1.
Participants would perceive that highly permissive scenarios would act as a facilitator to the decision to take up vaping to stop smoking. Hypothesis 1 was primarily inconsistent with results which came from consideration of the highly permissive conditions.



Nigel Interviewee Card

*Healthcare professionals, mixed views. Many are unsure

*Media –often opposing views on health risks and health benefits.

*Vaping products readily available online, in vape stores and some dairies.

*GST on vaping products, no excise tax, much cheaper than tobacco

Figure 9. Male Interviewee Cue Card - Highly Permissive Conditions

Highly permissive conditions provided neither comprehensive regulation nor any clear official guidance with respect to vaping products and their role as a tool to aid stopping smoking. As a result of lack of clear statement of position by health officials, there exists a void. This void is filled by individual opinions of health care professionals and those who make use of the media to communicate their personal views on the topic of vaping. Vaping products are readily accessible and are relatively cheap compared to tobacco cigarettes.

In a highly permissive and largely unregulated environment, where vaping supplies were much cheaper than smoking, some participants thought that the scenario character may try vaping as a means of stopping smoking.

"I think that Nigel will go ahead and try it."

(Wong, 52 years, male, Maori/NZ European)

"I'd say that, yeah, Nigel would probably have a go and see if he likes it."

(George, 59 years, male, European)

Other participants thought the uptake of vaping as a means of stopping smoking might be specific to the scenario character's circumstance as TK says:

"… I have no doubt, unless Mandy absolutely loves smoking, she would definitely start vaping with this kind of environment behind her."

(TK, 25 years, female, Maori)

Some participants thought a person who smokes may choose to continue with the status quo in response to mixed information related to vaping or as a result of confusion;

"So, he sits in the middle and doesn't know where he needs to be."

(Jarred, 24 years, male, Maori)

Dave noted that an important element was missing from the scenario – support to stop smoking through vaping:

"Like I say, vaping to quit is not just about buy a unit and puffing away, it's about support…"

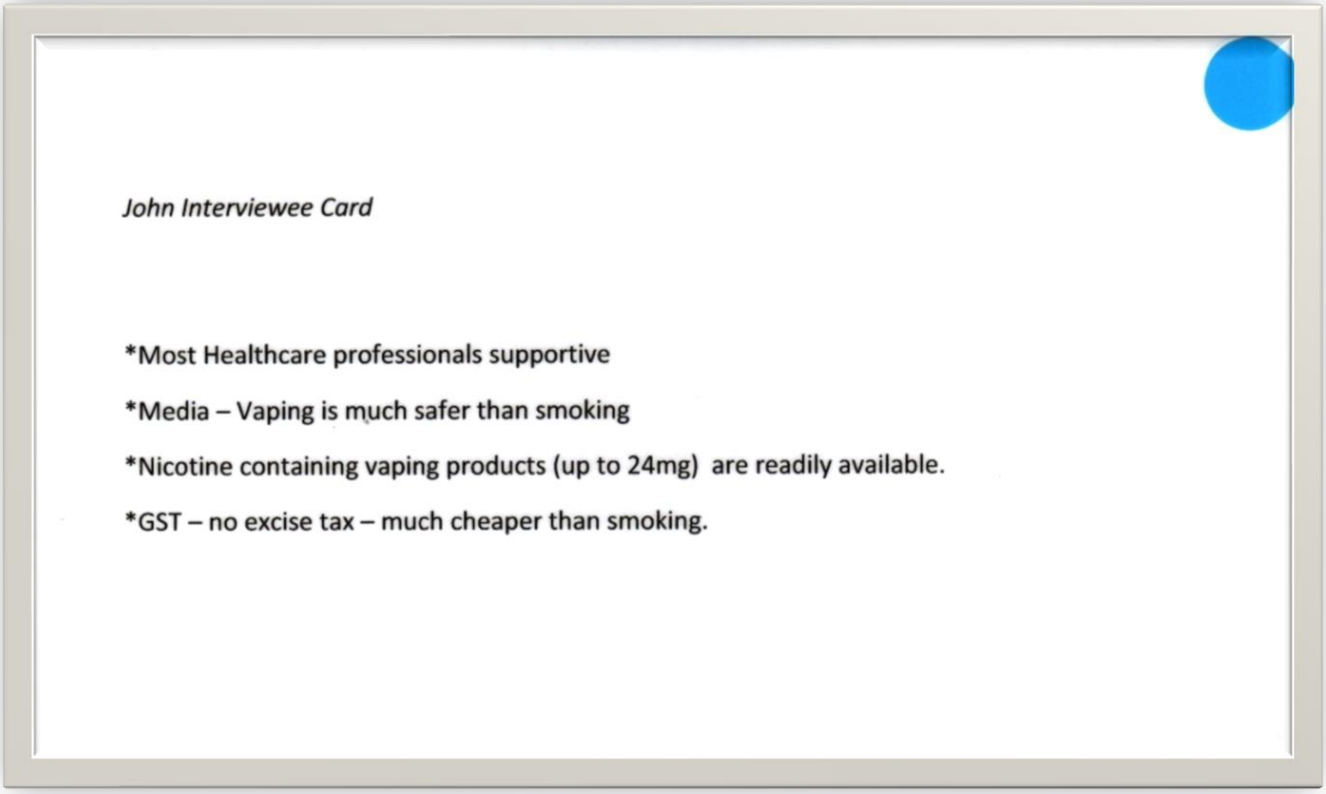
(Dave, 51 years, male, British)

Trying Vaping to Stop Smoking Quite Likely in Moderately Permissive Conditions

Hypothesis 1.

Participants would perceive that highly permissive scenarios would act as a facilitator to the decision to take up vaping to stop smoking. Hypothesis 1 was primarily consistent with results from this scenario.

Moderately permissive conditions where there was strong consistent support for vaping as a means of smoking cessation and little negative reporting resulted in high agreement that a smoker would try vaping and a means of smoking cessation.



John Interviewee Card

*Most Healthcare professionals supportive

*Media – Vaping is much safer than smoking

*Nicotine containing vaping products (up to 24mg) are readily available.

*GST – no excise tax – much cheaper than smoking.

Figure 10. Male Interviewee Cue Card - Moderately Permissive Conditions

Moderately permissive policy conditions were viewed most favourably in encouraging a person who smokes to try vaping as a means of stopping smoking as TK articulates:

"It's a bit of a perfect world scenario for vapers … I probably would have vaped a lot earlier if I had this."

(TK, 25 years, female, Maori)

Kitty built upon the idea of the moderately permissive policy conditions motivating the vignette character to try vaping to stop smoking. Smokers are routinely shamed and made to feel guilty about their smoking as part of the denormalising strategy, if vaping is treated like smoking then guilt would also follow. An environment that privileges vaping over smoking and sends a clear message that vaping is supported to stop smoking, provides an avenue to relieve 'smokers guilt' without causing vapers guilt to take its place.

"She won't even think, she will just do it. But she will do it without all that horrible guilt put on her."

(Kitty, 52 years, female, NZ European/Samoan)

George considered the outcome as a matter of fact, if aware of the benefits of vaping, the vignette character would choose to try it as a tool to help stop smoking:

"The fact of the matter is, if he is aware of the benefits of it and if it was a route out of smoking, he would take it."

(George, 59 years, male, European)

Julz considers all aspects of the scenario to positively encourage vaping rather than smoking:

"In this scenario all four positively encourages her to vaping instead of smoking."

(Julz, 38 years, female, Maori)

Kevin was very definite that the vignette character would choose to try vaping:

"Ok, if I was John, I would definitely go for vaping or at least try it with those rules."

(Kevin, 23 years, male, European)

Some reservation was expressed about having vaping available only at tobacconists however, illustrating that not all locations are equally helpful:

"If he's like me, his issue may be the fact that vaping products are sold in tobacconists- 'cause you walk in to get vaping stuff and you're immediately faced with cigarette stuff and the smells …. In that sort of scenario, he's practically set himself up to fail."

(Dave, 51 years, male, British)

Kevin also expressed a few specific concerns about the moderately permissive scenario, namely, online access and the strength of nicotine available:

"Online it would go to underage too easily, way too easily."

and:

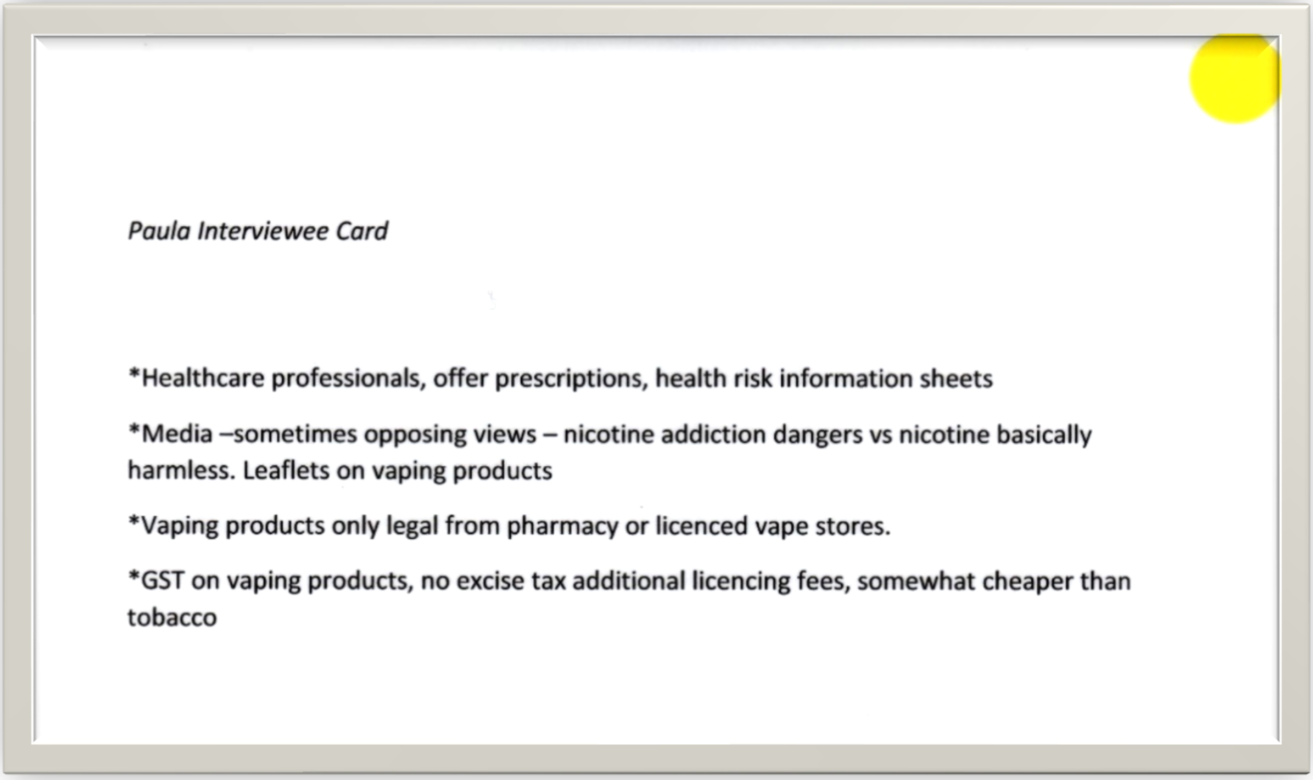
"24mg in my opinion is a bit too high, depending upon what type of nicotine it is."

(Kevin, 23 years, male, European)

Moderately Prohibitive Conditions May Result in Mixed Messaging and Deter Vaping as a Means of Stopping Smoking.

Hypothesis 2

Participants would perceive that prohibitive scenario would act as barriers to the decision to take up vaping to stop smoking. Hypothesis 2 was primarily consistent with results that emerged from moderately permissive conditions.



Paula Interviewee Card

*Healthcare professionals, offer prescriptions, health risk information sheets

*Media –sometimes opposing views – nicotine addiction dangers vs nicotine basically harmless. Leaflets on vaping products

*Vaping products only legal from pharmacy or licenced vape stores.

*GST on vaping products, no excise tax additional licencing fees, somewhat cheaper than tobacco

Figure 11. Female Interviewee Cue Card Moderately Conditions

In a legal but tightly regulated environment, vaping is, at least in principle, accepted as a valid approach to attempting to stop smoking. However, the information being provided is risk focused and vaping products are less readily accessed due to restrictions and the cost of products increased by manufacturer and retailer compliance costs being passed on to consumers.

Tightly controlled regulatory environments created more uncertainty resulting in inertia or delay in trying vaping to stop smoking. As Kitty illustrates, the scenario characters may feel unable to make a decision:

"I feel like poor old Paula isn't going to know what to do."

(Kitty, 52 years, female, NZ European/Samoan)

Jarred talked about conflicting information from different sources being overwhelming, thus making decisions more difficult:

"He doesn't know what to believe because again it's the media ... but Healthcare Professionals are offering prescriptions but are telling him there are health risks."

(Jarred, 24 years, male, NZ Maori)

Kevin thought highly regulated conditions would put him off completely:

"But overall I'd probably be quite put off from going down that route."

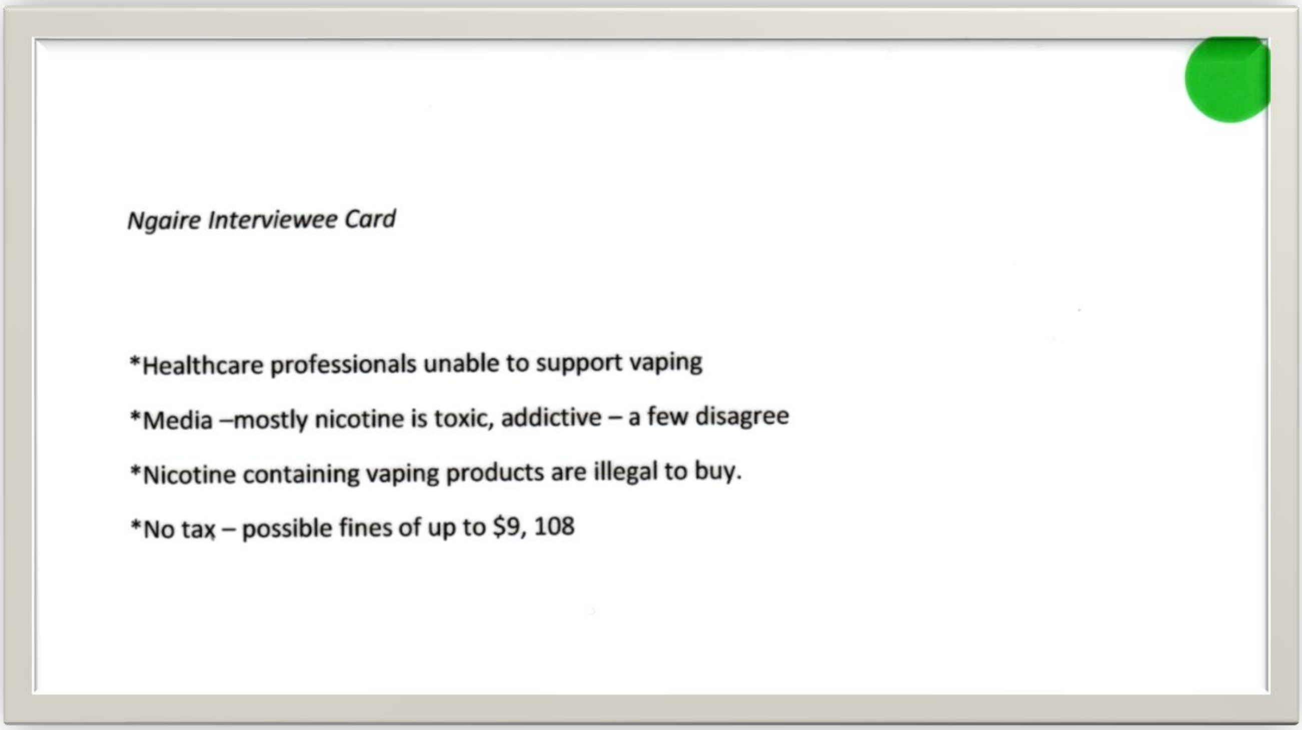
(Kevin, 23 years, male, European)

Highly Prohibitive Conditions May Deter People Who Smoke from Attempting to Stop Smoking

Hypothesis 2.

Participants would perceive that prohibitive policy scenarios would act as a barrier to the decision to take up vaping to stop smoking. Hypothesis 2 was primarily consistent with results from evaluation of the highly prohibitive conditions.

The highly prohibitive conditions, where vaping was illegal, were based upon a deliberate attempt to try and deter vaping through policy and punitive measures.



Ngaire Interviewee Card

*Healthcare professionals unable to support vaping

*Media –mostly nicotine is toxic, addictive – a few disagree

*Nicotine containing vaping products are illegal to buy.

*No tax – possible fines of up to $9, 108

Figure 12. Female Interviewee Cue Card – Highly Prohibitive Conditions

A severely prohibitive policy environment was perceived as highly likely to deter a smoker from attempting to quit smoking via vaping. For example, participants thought some people wouldn't want to break the law, as Julz said:

"She may feel that it's illegal and therefore something that she may not want to do."

(Julz, 38 years, female, NZ Maori)

Kevin also said he would be put off vaping:

"No, if I was James, I wouldn't go anywhere near it, pretty much I would just be smoking."

(Kevin, 23 years, male, European)

Sam did not think vaping would be a viable option under the restrictive circumstances:

"There would be no point in switching to vaping if he's trying to give up."

(Sam, 25 years, male, European)

Some other participants thought if a person was if strongly motivated to try, they might be prepared to risk the potential legal recriminations associated with breaking a law to vape. As Kitty clearly articulates:

"I think it still comes down to money and I think she will still try it."

(Kitty, 52 years, female, NZ European/Samoan)

George also thought a motivated person would not be deterred by legal repercussions:

"I don't think it will stop him. Quite frankly he'll go ahead and do it."

(George, 59 years, male, European)

The Role of Individual Differences in Decision Making

While differences in the environments created by policy were seen to be influential by participants, the ways in which people may differ from each other, their individual differences, was also raised by some participants. These individual differences were thought to be important to the reaction to policy conditions when deciding whether to try vaping as a way to stop smoking. Age was given as an example of an individual difference that may be influential. If we were to place inertia at the apex of a triangle, deciding to try to stop smoking using vaping at the bottom right of the triangle and the conscious decision to remaining a smoker at the bottom left, a person's age or other individual differences, may have a strong influence which position on the triangle they decide to take, thus acting as a moderator.

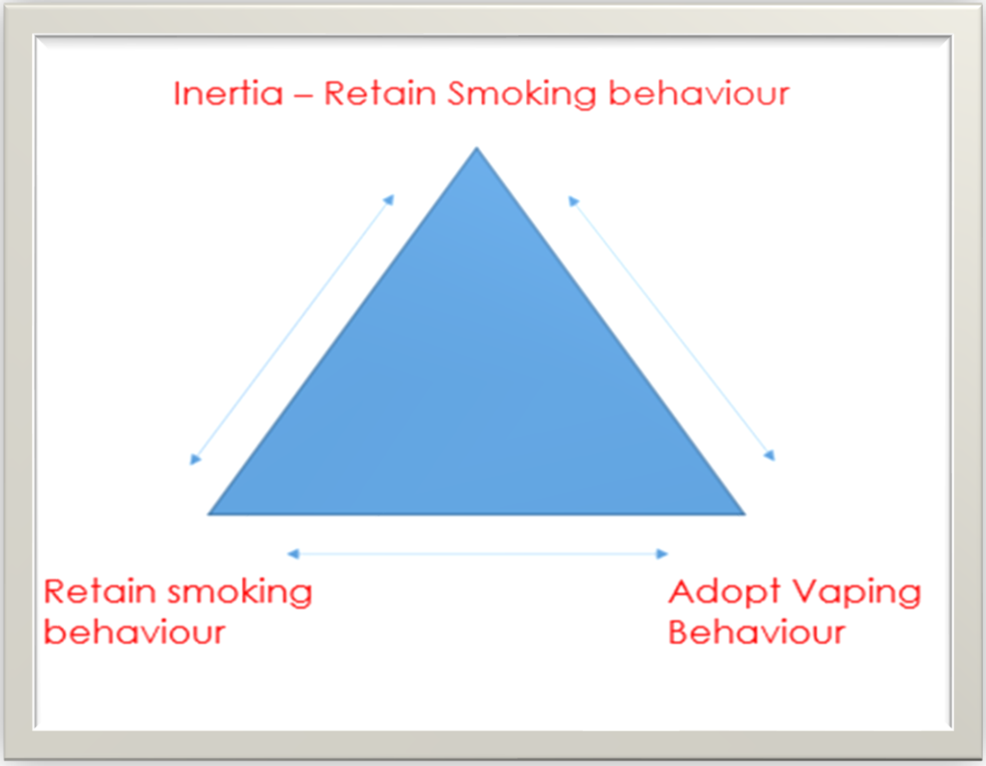


Figure 13. Dual Choice Outcome Model with Individual Differences as Moderators

Individual differences appeared to act as mediators when deciding whether to quit smoking using vaping. An example of this was the strength of a person's intrinsic motivation, that is, how much the scenario character wanted to give up smoking. The type of individual differences perceived as influential varied between participants.

"I think he would still be inclined to try it depending upon how strongly he wanted to give up tobacco."

(Wong, 52 years, male, Maori/NZ European)

It was suggested that a younger person may be more willing to "jump through hoops" whereas an older person may be less likely to try vaping as a means of stopping smoking under the same circumstances.

"If he was an older guy, I would say … you wouldn't even want to try vaping even more because … it's not really worth going through …all the hoops to … essentially get what you … need and should get access to. If he was younger, he might go through all of it."

(Kevin, 23 years, male, European)

Information overload, or too much information about vaping risks and benefits, was also identified as a barrier to trying vaping to stop smoking.

"I think sometimes we get bombarded with health risk information. Quite often …that sorta thing almost turns you off trying to do stuff."

(Dave, 51 years, male, British)

Results by Policy Condition

Hypothesis 3.

Participants would perceive that different policy conditions would be assigned different priority when making decisions about taking up vaping to stop smoking. Hypothesis 3 was primarily consistent with results with different participants having different priorities.

Vignettes contained policy related variations when compared with each other. These variations were cost, access, legality, medical professionals and health care professionals. To explore how each of these variations might impact upon the decision to try vaping as a means of giving up smoking, the data for each variation was gathered as a single document and analysed.

Cost Policy Condition

Cost took into account monetary areas that would impact upon the amount paid for vaping products by comparison to smoking tobacco and any financial risks being taken such as the risk of fines.

Table 4. Cost Policy Condition

Cost Policy Condition	
Vignette Blue	Vaping products are subject to GST. Because there is no excise tax, vaping is much cheaper than smoking.
Vignette Green	Because nicotine containing vaping products are banned there is no tax on these products. Fines of up to $9,108 may be imposed upon those caught with nicotine containing vaping products in their possession.
Vignette Red	While normal GST is applied to all vaping products there is no additional tax like there is on tobacco, this means vaping is much cheaper than smoking tobacco.
Vignette Yellow	Normal GST is applied to vaping products there is no additional tax like there is on tobacco. Retailer licencing means higher overheads and increased cost of vaping products. It is somewhat cheaper than smoking tobacco.

The reduced cost of vaping in comparison to smoking combustible tobacco was perceived to be a motivator for considering using vaping to stop smoking tobacco cigarettes.

"...I still think it comes down to money and she will want to try it."

(Kitty, 52 years, female, NZ European/Samoan)

GST being applied to vaping products was not perceived to be a barrier to trying vaping to stop smoking. Fear was expressed with respect to whether vaping products would remain excise tax free long term. If products were eventually subject to excise tax, then, people would be dissuaded from trying them.

"I'm afraid that if the government decides to place excise tax on it then that motivation might lessen for a lot of people and I think [that] is a bit of a worry."

(Wong,52 years, Male, Maori/NZ European)

But another participant was accepting of taxes:

"You know, everyone needs a bit of tax, so I don't have an issue for tax on anything apart from kids' clothes and fruit and veg."

(Dave, 51 years, male, British)

Another participant pointed out that not everyone is money motivated so relative cost may not be influential in a person's decision to try vaping to quit smoking:

"I mean it's not the cost for everyone."

(Julz, 38 years, female, Maori)

Where there was substantial risk of financial penalty due to fines but no tax at all upon vaping products, the absence of tax was identified as an incentive while the fine was identified as a barrier to behavioural change. Perception of the extent to which the cost benefit outweighed the risk of being fined varied. Views ranged from the risk of being fined being an unsurmountable barrier to the lower cost at point of sale being a motivator that would act as a definite catalyst for behavioural change, as Dave explains:

"But the risk to me is the fines, is just too great – then basically it would just be a no-no."

(Dave, 51 years, male, British)

Kitty thought the short-term cost benefit of trying vaping to stop smoking outweighed the potential risks of fines:

"Well, I think it still comes down to money and I think she will still try it."

(Kitty, 52 years, female, European/Samoan)

Some participants thought that prescriptions being available would mean that subsidized access would be available, thus reducing cost. Where participants interpreted prescriptions to mean 'subsidized prescriptions', prescriptions were identified as a facilitator of behavioural change.

"But the offer of a prescription makes it cheaper."

(Julz, 38 years, female, Maori)

Access Policy Condition

Access was considered across several areas:
What can be purchased, flavours and nicotine containing e-liquids.
Where products can be purchased both online and physical stores and who can purchase them.

Table 5. Access Policy Condition

Access Policy Condition	
Vignette Blue	Vaping products are sold everywhere tobacco is sold to anyone over the age of 18. Vaping products can also be bought online. E-liquids have a maximum strength of 24mg
Vignette Green	Vaping products containing nicotine cannot be legally sold, bought or possessed – there is a phone line to report the selling or possession of nicotine containing e-cigarettes
Vignette Red	Vaping products are can be bought in many places. They can be bought over the internet or in stores known as vape shops. Some dairies also sell vaping products
Vignette Yellow	For those over 18 with proof of age, devices can be bought legally from two places - pharmacies or licenced Vape Specialty Stores. Every buyer must be given stop smoking advice. E-liquid flavours, product packaging and vaping hardware that youth like are taken off the market

Policy affecting access yielded very mixed responses. Very broadly increased access was regarded as a motivator to try vaping as a means of stopping smoking.

"More readily accessible and basically wherever cigarettes are sold vaping products are there so, like I say, readily accessible so pretty sure John would go that way."

(Jarred, 24 years, male, Maori)

However, lack of easy legal access was not necessarily a barrier as participants believed that products, be it tobacco or vaping products could be sourced on the black market.

"…maybe she will look at people she can buy tobacco [from] on the black market or vaping or e-juice on the black market."

(Kitty, 52 years, female, European/Samoan)

Highly restricted access (legal or otherwise) was also regarded as a barrier to trying vaping to stop smoking.

"Vaping products only legal from pharmacies and licenced vape stores, if there weren't much in her area then that could discourage me from starting because I know I can access cigarettes in every dairy and supermarket and BP station but, if I had to find a pharmacy or licenced vape store that could get a bit stressful."

(TK, 25 years, female, Maori)

While age restrictions for under 18-year-olds generally did not elicit a response, the removal of flavours that supposedly appeal to youth was perceived as a barrier to switching from smoking to vaping.

"However, the flavours then become the main motivation and I'm able to lose the nicotine completely and continue vaping because I enjoy the flavours."

(George, 59 years, male, European)

Lack of access to nicotine was thought to be a barrier to switching from smoking to vaping.

*"So, no nicotine at all and he's going off smoking. *pause* and you can't even have one on you *laughs* No, I wouldn't like that. *laughs* I wouldn't. No, if I was James, I wouldn't be going near it, pretty much, I'd just be smoking."*

(Kevin, 23 years, male, European)

"There would be no point in switching to vaping if he's trying to give up and can't get the nicotine that he's craving, so yeah, definitely against that one."

(Sam, 25 years, male, European)

Views on suitable locations for vaping products varied greatly. Some participants supported access to vaping products wherever tobacco is sold:

"….if the products be readily available including dairies, I would probably say that yeah, Nigel would probably have a go at it and see if he likes it."

(George, 59 years, male, European)

Some participants had concern regarding vaping products being too readily accessible, as Dave articulates in the following two quotes:

"Yeah, I'm not sure if I agree with the fact that vaping products are available online because it opens the whole industry to people who shouldn't be getting it."

(Dave, 51 years, Male, British)

and:

"If I was Nigel and I started vaping, I was going to give it a go, I wouldn't be going to a dairy, I find dairies are untrustworthy."

(Dave, 51 years, male, British)

Legality Policy Condition

Of four vignettes, one included policy that made vaping nicotine products illegal and this was reinforced by a dedicated phone number to report offending and substantial fines. In the other three vignettes, vaping products were legal to purchase for those aged 18 years and above.

Table 6. Legality Policy Condition

Legality Policy Condition	
Vignette Blue	Legal to purchase for consumers over the age of 18 years
Vignette Red	Legal to purchase for consumers
Vignette Yellow	Legal to purchase for consumers over the age of 18 years
Vignette Green	Vaping products containing nicotine cannot be legally sold, bought or possessed – there is a phone line to report the selling or possession of nicotine containing e-cigarettes Because nicotine containing vaping products are banned there is no tax on these products. Fines of up to $9,108 may be imposed upon those caught with nicotine containing vaping products in their possession

Many participants thought bans on vaping products would be a major barrier to deter a change from smoking to vaping. Some participants thought bans on vaping/vaping products were illogical, for example Sam said:

“That’s crazy, like people are trying to give up smoking and get into trouble and it’s a bigger fine than say, getting caught with drugs, it’s like you're trying to do something good for yourself and then you get into trouble for it.”

(Sam, 25 years, male, European)

Dave also saw vaping products being illegal as a major barrier:

"So first thing for me is, he wouldn't even give it a go because of the risk of fines and criminal charges is too much."

(Dave, 51 years, male, British)

However, some participants perceived the possibility of negative legal repercussions to be more of a minor technicality for some smokers.

"No, if I was a smoker I'm getting nicotine anyway, I'm not worried about the legality of it, the same as you might not be worried about the legality of pot for example."

(George, 59 years, male, European)

Some participants reflected upon the New Zealand experience that, for a number of years, it was believed that the selling of nicotine e-liquids was technically illegal and many people chose to buy and sell vaping products containing nicotine regardless.

"Umm yeah if you just – nicotine containing vapes are illegal to buy. 'Cause I think it was illegal to buy here, up until a while ago but we started vaping, like a year ago and we've always had access to nicotine."

(TK, 25 years, female, Maori)

This served to demonstrate that at least some people would expose themselves to potential legal jeopardy if necessary, to achieve potential health gains from switching from smoking combustible tobacco to vaping.

Where a comparison was made between vignettes, the vignette where vaping nicotine was illegal and one where vaping was legal, vaping nicotine products legally was viewed as a motivator:

"I would say he's a hell of a lot more encouraged than if it was illegal etcetera."

(George, 59 years, male, European)

Media Policy Condition

Each vignette positioned media, on balance, to perform slightly differing roles in communicating information regarding vaping as detailed in Table 6. In the moderately permissive vignette, media was primarily positive in their reporting of vaping products whereas in the highly prohibitive vignette, media representations of vaping were mainly negative. Media reporting in the highly permissive vignette concentrates upon the potential impact of vaping upon physical health with no consensus. The moderately prohibitive vignette included media reporting negative outcomes related to both physical and mental health.

Table 7. Media Policy Condition.

Media Policy Condition	
Vignette Blue	In the news, vaping is promoted as a much safer alternative to smoking for those who cannot or do not wish to give up nicotine. Most experts agree.
Vignette Green	In the news nicotine is described as a poison by many experts – they claim nicotine is toxic and highly addictive. A few experts say that it is relatively harmless and should be widely available.
Vignette Red	Vaping often appears in news media and current affairs programmes. Some experts talk about vaping as a serious health risk while others say it can save lives and may even improve people's health if it helps them stop smoking.
Vignette Yellow	In the media some experts talk about the dangers of vaping related nicotine addiction and serious health risks while others say nicotine is relatively harmless and should be more readily available. There are health warnings on all vaping products.

Participants' views of/on the influence of the media in and of itself was very mixed. While some participants were very dismissive of the influence of media reporting:

"I don't care what the media say so I would do what is right for me which, for me, would be to find out whether vaping does it for me."

(George, 59 years, male, European)

"The media – I don't listen to 'coz they're ridiculous."

(Julz, 38 years, female, Maori)

Dave perceived media content to contribute to the decision-making process, where the content confirmed vaping as a safer alternative to smoking combustible tobacco.

"…The fact that the media is you know, it's now pretty much well known that, you know, vaping is 95% safer than smoking and it's out there in your face all the time nowadays. I would think that's a plus point that could again, that – that would push him enough to keep trying[vaping]."

(Dave, 51 years, male, British)

Media content that was critical of vaping could act as a barrier without necessarily fully believing what is reported by the media:

"Yeah but just a little bit more hesitant with the media views because a lot of people could push either way; against it or for it."

(Sam, 25 years, male, European)

One reason given for why negative media reporting may act as a barrier is where a person has insufficient personal knowledge to be able to objectively assess the information as Kevin explains:

"It's the views that people put out there that it is worse than smoking or thinking of cancer and things like that. That would obviously put you off if you're not really knowledgeable on it [vaping] at all and that's all you see

about it on the news."

(Kevin, 23 years, male, European)

Very mixed in its reporting of the risks and benefits of vaping was believed to be more likely to act as a barrier:

"But getting mixed views all over the place saying it's good or 'it's bad, I mean it will just be hard."

(Jarred, 24 years, male, Maori)

Healthcare Professionals Policy Condition.

Health care professionals are subject to rules and regulations regarding the information they communicate in the moderately permissive vignette, health care professionals are supportive and informative on the issue of using vaping as a means of stopping smoking. At the other extreme, in the highly prohibitive vignette, laws prevent health care professionals from offering supportive advice on using vaping as a means of stopping smoking. In the highly permissive vignette, where there is no significant regulation or guidance, health care professionals are left to make up their own mind as to whether vaping to give up smoking is safe and helpful. In a moderately prohibitive policy environment, standardised health information is available and vaping products are available on prescription.

Table 8. Healthcare Professional Policy Condition.

Health Care Professional Policy Condition	
Vignette Blue	Most Healthcare Professionals offer support and advice on vaping to clients who smoke.
Vignette Green	Healthcare Professionals are unable to support vaping
Vignette Red	Healthcare Professionals have mixed views about vaping. Some are supportive of vaping and others are against it. Many are uncertain about whether they should support vaping or not.
Vignette Yellow	Healthcare Professionals can offer smokers prescriptions for vaping products if the client asks for one. They also have an information sheet on possible health risks.

The perceived influence of health care professionals on people's decision making about choosing to smoke or vape was a topic of contention. Information on vaping provided by Healthcare Professionals may be accepted whether accurate or not, rejected whether accurate or not or, in some cases the Healthcare professional may be rejected and a new one sought out.

Some participants regarded the health care professionals' views on vaping as irrelevant due to rejection of health care professionals as a credible source of information.

"No, I personally think that anything that says 'Healthcare professions' blah blah blah, I tend not to listen. "

(Julz, 38 years, female, Maori)

Dave also spoke of rejection of Healthcare Professionals whose information regarding vaping was not favourable. Dave's preferred solution was to reject the individual as his Healthcare professional and seek out a Healthcare professional whose views on vaping were more accurate.

"If I was Nigel, if I run down the list, if my Healthcare professional wasn't pro vaping, I would probably want to move to another one."

(Dave, 51 years, male, British)

Dave went on to explain that health care professionals who are pro-vaping tend to be more credible and better informed:

"Because I find people who are pro vaping in the health, they tend to have looked into it a bit more. To me, if someone says straight out 'Nah it's bad', they probably haven't looked into it but, if they are saying yes, they probably have looked into it more – their reputation is on the line."

(Dave, 51 years, male, British)

Too much information about vaping and the health impacts was identified as a barrier to trying vaping as a means of stopping smoking. Information overload and lack of agreement about the potential health benefits and risks among Healthcare Professionals was seen to be a potential cause of inertia as 'Dave' explains, minimal information and strong encouragement to try vaping may be a more successful approach if the goal is to stop smoking:

"..We get bombarded with the health risk information quite often and that sort of thing, well it does me, almost turns you off trying to do stuff."

and

"Sometimes you're better off to give people the – the bare bones – just the basic information and go, go for your life, how do you feel? You know. That's what will, um, what would change your mind. You know if you didn't have the information and you just had the fact that vaping, it could help you give up smoking you would do it in a heartbeat, well I would."

(Dave, 51 years, male, British)

Jarred considered the issue of mixed views among health professionals to be problematic in itself:

"..If he was to go to his doctors and they said 'Oh look, you shouldn't do it.' And he goes to another doctor and they say, 'Yeah you should do it', those are two different people giving two different opinions and are on totally on the opposite [ends] of the spectrum… He knows he wants to stop smoking and he wants to go to vaping but the views from professionals is what's going to throw him out of line."

(Jarred, 24 years, male, Maori)

There was also the issue of health care professionals providing selective information about vaping by giving information relating to the possible health risks of vaping without a direct comparison with the health risks of smoking:

"…It's good that they give a health risk information sheet but they also don't

inform you of how much better it is from smoking. They just tell you how bad it [vaping] is and not compare it to smoking and I feel like that should be part of it…. The "Yes, you want to look at vaping. This is why vaping is better than smoking." You're not promoting vaping; you're just making sure they know if is better than smoking."

(TK, 25 years, female, Maori)

Conclusion

This chapter outlined key results: policy that was supportive of vaping generally acted as a facilitator while policy that was not supportive of vaping acted as a barrier. Neutral policy of conflicting information tended to result in inertia. Highly permissive conditions acted as indirect barriers whereas moderately permissive conditions acted as facilitators of the uptake of vaping. Moderately prohibitive conditions posed some barriers and highly prohibitive conditions posed the most direct barriers. Individual differences moderated the decision-making process. Difference policy conditions are prioritised in accordance with individual values and preferences.

Chapter 5

Discussion and Limitations

Introduction

The discussion chapter will consist of four sections the first of which includes general discussion, comment on the potential effect of randomisation and introduces the concept of congruence and its role in decision making. The second section will discuss the results by vignette followed by comment upon the results by policy variation. The third section will consist of discussion of direct barriers, indirect barriers and individual differences. The fourth and final section will be a summary of the chapter in the form of a conclusion.

General Discussion

Of particular interest from a psychological perspective was the way in which a particular set of surface level policy conditions elicited a response from participants, the underlying features of the vignette being responded to which may have contributed to the delivery of participants responses as well as the delivery of those responses by participants.

Qualitative research encourages the viewing of participants responses to vignettes as social interactions in their own right (Pope & Mays, 2000). These interactions, the reactions to situational settings require examination of the settings as well as the responses. Therefore, the vignette, its policy conditions and underlying features will be discussed first in order to provide context for the responses of participants and their delivery of those responses.

Findings were the result of both deductive and inductive reasoning. Deductive reasoning was evident in the working backwards to test the hypothesis that policy would impact upon the decision to try vaping as a means of stopping smoking. Inductive reasoning allowed for new themes or ideas to emerge from the data. Findings and quotes as examples are detailed in this chapter. Key findings included policy that could be construed as anti-vaping or was explicitly against vaping acted as barriers to trying vaping as a way of stopping smoking, mixed messaging also acted as a barrier although more indirectly. While mixed messaging deterred the uptake of vaping to stop smoking, this was likely to be due to inertia or lack of active decision making rather than a conscious choice to continue to smoke. Policy resulting in information and interactions that were primarily pro-vaping along with facilitating relative ease of access encouraged the uptake of vaping as a means of stopping smoking.

Randomisation May Account for Some Differences in Results.

While vignettes were stand alone, it was noticed that in some instance's comparisons were made between vignettes. When a vignette where vaping was legal was read after the vignette where vaping was illegal for example, one participant commented that the legal vignette was better than it being illegal. At least to some extent, responses to any given vignette were relative to the vignette/s that preceded the vignette being responded to. This may be non-consequential or may have had a large influence upon responses. While the order was random, it was often the case that the most permissive vignette was first and the most prohibitive vignette was last. Results may have been different if there had been a more even distribution of order of reading or if the sample had been sufficiently large to offset this pattern in the order of reading of vignettes.

The Underlying Psychological Concept of Congruence.

There are superficial, pragmatic messages conveying support and encouragement of vaping as a valid was to attempt to stop smoking, running through three vignettes but, there is also an underlying congruence issue in some vignettes. The outcomes of the imagined risk proportionate regulation in the moderately permissive vignette are in harmony with the position that vaping to stop smoking is a valid and supported alternative to continuing to smoke tobacco products.

This congruence could be understood as a form of value congruence (Lysek, 2018). More typically value congruence is a term applied to the way in which individuals balance different areas of their lives considering their personal values (Lysek, 2018). The honouring or achieving of that which is held valuable and the successful conciliation of competing values (such as work and personal life balance) is said to increase wellbeing as well as sense of accomplishment and self-efficacy.

It is reasonable to apply the same observations, at least in principle, at a governmental level whereby different areas affected by policy (policy conditions) are in harmony with the values underpinning that policy. This can be done successfully while still addressing areas of concern such as concerns some may hold about youth uptake and any views concerned with potential toxicity and 'nicotine addiction'. For congruence to be achieved, it is not necessary to hold those concerns and respond to them with the same degree of value that others (for example some in the general public or a minority of 'experts' in the field) may hold them but rather to find a way to acknowledge and address those concerns that is not out of sync with the value of vaping as a way to stop smoking.

Key theme: Conditions that supported vaping acted as facilitators that encouraged trying vaping to stop smoking.

Results showed that conditions which supported vaping acted as perceived facilitators to encourage a person who smokes to stop smoking using vaping products. However, when one looks more closely at the details of that finding and related results, there is more to be learned.

Vignettes and Policy Conditions

Discussion Moderately Permissive Conditions.

Key finding: Moderately permissive policy is likely to send consistent and positive messages that encourage the uptake of vaping to stop smoking.

The vignette viewed as the most likely to encourage a person who smokes to try vaping as a means of stopping smoking was the Blue vignette which, was moderately permissive. This vignette was created based upon the idea of risk proportionate regulation of vaping products and their use within New Zealand. It was imagined that government regulation would be in keeping with the weight of scientific credible evidence to date, namely, that vaping is at least 95% safer than smoking (McNeil, Brose, Calder, Bauld, & Robson, 2018). While it is impossible to state with absolute certainty that vaping will not cause some form of unforeseen long-term harm, it is likely that vaping does not adversely affect the health of the vaper significantly nor the health of bystanders who may inhale some of the vapour. There is also credible research that suggests that vaping is a very effective stop smoking tool – more effective than pharmacological NRT products manufactured by pharmaceutical companies (Hajek, et al., 2019).

The vignette addresses the social concern about youth uptake through a straightforward age restriction, vaping products can be legally purchased by anyone over the age of 18 years only. Concerns about potential toxicity and potential for addiction (if any) are addressed through a reasonable restriction upon the maximum strength of nicotine allowable in any e-liquids available for purchase. Nicotine strengths of up to 24 mgs are allowed.

It should be noted that at the time of the construction of vignettes, nicotine salts were only just beginning to emerge and were somewhat of an unknown quantity. The higher strength of nicotine salts was poorly understood at the time and regarded with cynicism by some. It was not until the later stages of conducting interviews that the relative strength of nicotine salts by comparison to the effective level of nicotine delivered via smoking was at least somewhat better understood by consumers with 50mg nicotine salts resulting is a close to by not equal 'hit' of nicotine from smoking tobacco to the vaper (Hajek, et al., 2020).

A review of online New Zealand based vaping stores showed that typical strength freebase nicotine in e-liquid ranges from 3mg to about 18mg with some stores selling freebase nicotine e-liquids with no higher than 6mg. It is unclear as to why the nicotine strengths are so low, but it does serve to illustrate that 24mg strength nicotine e-liquids would generally be regarded as sufficiently high to satisfy the nicotine cravings of most smokers who use vaping as a way of stopping smoking.

It was also envisaged that risk proportionate regulation would result in clearly supportive guidelines and information being disseminated by the Ministry of Health to promote healthier alternatives to tobacco smoking, including vaping. As a result, Healthcare Professionals would have access to relatively uniform and accurate information about vaping to stop smoking. In an environment where there is strong and relatively consistent support of vaping within the government and amongst Healthcare Professionals, it becomes more plausible that media reporting of vaping related topics would also become more accurate and less sensationalised.

This is the situational setting that 'TK' describes as "*a bit of a perfect world scenario for vapers*".

Vaping products are readily accessible, they are available wherever cigarettes are sold. There are several implications when this is the case. The first, on the practical level is that whenever a person who smokes goes to purchase tobacco, vaping products will be available as an alternative to their smoking tobacco. This ensures with greater certainty that vaping products will be present where people who smoke go to purchase their smoking tobacco. Thus, people who smoke will have greater exposure to vaping products and are presented with the opportunity to buy vaping products instead of smoking tobacco on impulse. It also means that if they do decide to try to stop smoking using vaping products, they will have the same ease of access to vaping products as they had previously with smoking tobacco.

On a deeper level, having vaping products available wherever smoking products are sold may help people who smoked and have chosen to try vaping to preserve some of the routines and relationships that have developed over the course of the time that they have been smoking. Thus, less is 'lost' in the attempt to stop smoking and likelihood of a successful quit attempt may well increase.

The reason provided in the vignette for vaping products being much cheaper than smoking tobaccos was because GST (Goods and services tax) was the only additional cost applied to vaping products. This meant that they attracted only the same tax as other ordinary consumer products. There was no 'sin tax' applied to products. Sin tax can be understood as a form of reverse virtue signally, whereby punitive and (in the case of tobacco) exorbitant excise tax on products to punish those who choose those products for their bad choices, presumably for their own good. The government responsible for the sin tax, profit from the process while claiming to be holding the moral high ground. With no sin tax and no additional costs being passed on to the consumer such as the cost of special licences to permit a retailer to sell vaping products, there is a potential financial incentive, or reward, for trying vaping as a means of stopping smoking. In addition to the direct financial incentive, the absence of any sin tax sends a message about the status of the vaping products, validating them as a healthier option – sufficiently so that imposing additional expenses that add to the cost are entirely unnecessary.

When considering the way in which participants have engaged with the moderately permissive blue vignette, there are some interesting features to their responses. Firstly, despite having a small and deliberately diverse sample, there are only a few instances where participants took exception to aspects of the vignette. These exceptions were quite specific and can be understood as being areas where the conditions in the situational setting were not congruent with some values that were important to the participants. Dave was concerned that vaping products being available wherever smoking tobacco was sold would mean vaping products being sold in tobacconists stores and the potential exposure of the vignette character being exposed to tobacco related sensory input while accessing vaping supplies. These sensory triggers were perceived to be a potential catalyst for relapse into smoking. Kevin on the other hand did not agree with the 24mg maximum freebase nicotine strength in e-liquids, he was of the view that the upper limit was a little high for freebase but not for nicotine salts. Kevin also viewed vaping products being available in supermarkets as unnecessary.

Those specific concerns notwithstanding, 'Kevin' was still of the view that 'John', the character in the vignette, would definitely try vaping in the situation described in the vignette. Indeed, there was a high level of agreement overall for moderately permissive conditions encouraging the character in the vignette to try vaping to stop smoking. It would require a more focused study with a larger number of participants to draw firmer conclusions about this area of seeming commonality but for it to be observable in such a small study would suggest that it would be worth further examination.

Another interesting trend with respect to participants responses to the moderately permissive vignette was the delivery of the message; participants conveyed a strong sense of certainty in their responses, speaking with considerable conviction. They were very definite in their responses rather than using terms that suggested uncertainty, for example using terms such as "definitely" and "won't even think about, will just do it".

Access to information and low-cost, easily accessed, vaping products cannot adequately account for the degree of commonality across participants with respect to the benefit of the scenario described to people who smoke and are considering vaping as a means of stopping smoking. The Red vignette, which was highly permissive, also features those characteristics with respect to access to information and low-cost, easily accessed vaping products but was perceived to be more of a barrier than the moderately permissive Blue vignette'

The strong value congruence could possibly account for the phenomena more effectively than ease of access alone and can do so from multiple perspectives :

1. It is generally easier to trust information that is consistent across sources of information – that is to say, placing higher value upon information that is congruent across individuals and organisation disseminating that information. Ownership of the decision to trust the information could easily be retained by the person trying to decide if they will try vaping as a way of stopping smoking as the perceived risk that the information is incorrect

would be low.

2. It would generally be easier to trust ‘others’, be that individuals or bodies or institutions, when the actions of that individual, body or institution are in accord with their stated position. By way of example, consider the approach to children identified as having special needs by virtue of some perceived deficit within our mainstream education system. To say that such children are ‘just different’ or ‘differently able’ does not have the same meaning when those same children are treated as ‘disabled’ by the very people making the claim. Which message of the two should one trust when they are not congruent, the message conveyed in the words or the message conveyed via their actions? Or perhaps any messaging from such a person should be dismissed out of hand by virtue of their incongruence making them unreliable. Rejection of the message, or information, is therefore easily justified. The congruence imbedded in the Blue vignette could foster a greater trust in the very *idea* that vaping to stop smoking is a valid option – one very worthy of consideration.

3, Deferring to authority when uncertain may make it easier to take the risk that vaping is safe and could potentially help a person to stop smoking if the person trying to make the decision has low confidence in their ability to accurately assess the credibility of the information being provided. This serves the function of enabling a person to take a particular action perceived as a risk without holding themselves responsible for choosing that action.

4. Lastly, incongruence, unless reconciled, can act as a barrier to decision making. In the scenario, the messaging signals an external expectation for and approval of vaping to stop smoking being attempted. Thus, if a person is wanting to try vaping to stop smoking, there is no external-internal incongruence to reconcile.

Discussion of Highly Permissive Conditions.

Key finding: Inertia may result from conditions brought about by lack of regulation

The conditions described in the Red vignette are highly permissive due to lack of regulation rather than being due to highly permissive regulation. There was an imagined absence of clear guidance and statement of position regarding vaping from health officials and government.

It was surmised that in the absence of clear direction, the 'war on vaping' and the battle for recognition of vaping as a helpful tool to move us towards our Smoke-Free 2025 aim would continue unmoderated. In an ideal world, Healthcare Professionals at least would have access to the most rigorously investigated scientific findings and reports of the highest standard. However, we do not live in an ideal world and there is every possibility that Healthcare Professionals are exposed to and will draw their conclusions from bad information and misrepresentations. There is also the matter of Healthcare Professionals being people that are, like other people, susceptible to being led by their pre-existing biases.

The media, in this setting, acts in its own best interests rather than a desire to 'shed light' so any 'news' that can draw attention, whether factual or not, is reported. Specific detail of the content of 'mixed views' were not provided in the vignettes themselves but were able to be provided if clarification was needed. Clarification was required on one occasion with respect to the media section of the Red vignette. The 'backstory' envisaged by the interviewer enabled the interviewer to provide clarification without specific details about the content, allowing the participant to continue to draw upon their own experience of those making representations in the media about vaping.

In the Red vignette the locations where vaping products could be purchased were entirely dependent upon retailers choosing to make them available, or not, as the case may be. Similarly, there were no rules governing what products could be sold other than the Consumer Guarantees Act 1993 which requires that goods be 'fit for purpose'. In absence of regulation, any age restrictions placed upon the purchase of vaping products was entirely at the discretion of those selling the products.

Lack of regulations means that there are not additional compliance costs incurred by those who sell vaping products therefore, no need to pass compliance costs on to the customer. Similarly, without regulation there is no excise tax to inflate the price of vaping products.

This situational setting was similar to the situation that New Zealand was in for quite some time. One difference was that many people, including health officials, believed that vaping was covered by the Smoke-Free Environments Act (year) when in fact reduced risk products were not covered by the act. We were, and still are at the time of submission, 'pre-regulation'. The New Zealand Ministry of Health has spoken publicly and positively about the potential for vaping to help those who currently smoke stop smoking. The circumstances under which participants had chosen to take up vaping to stop smoking were similar to those in the Red highly permissive vignette.

Despite the parallels with real life, there was considerable hesitancy when participants were asked to tell the interviewer how they think the vignette character may think of feel. Some thought that the vignette character would try vaping to stop smoking. In some cases it is likely that ready access to relatively cheap alternatives were valued more highly by participants than the judgements of Healthcare Professionals and media report or there was some other way of resolving any issues relating to non-congruence and mixed messaging as indicated by their responses to the Red highly permissive vignette.

While understanding the mechanisms behind what may lead a person who smokes to choose to try vaping to stop smoking is helpful, not everything can be usefully explored in a project of this size so priority has been given to ways in which policy may, intentionally or otherwise, deter or delay the decision to try to stop smoking. .

Some thought the vignette character would not try vaping to stop smoking that that the vignette character might try vaping to give up smoking if other factors were present such as if they wanted to stop smoking badly enough.

If an individual who smokes holds the views of Healthcare Professionals in high regard, in absence of an ability to be able to determine the relative accuracy of different opinions and information about smoking, that individual may well become stuck in a 'no-man's land' … an issue which comes down to knowledge congruence (Lysek, 2018). Knowledge congruence refers to both internal and external forms of knowledge. The congruence or lack of congruence may be pieces of knowledge within the individual that are, or are not, in agreement. Similarly, the congruence or lack thereof, may consist of different pieces of knowledge from external sources that are not in accord. A third type of knowledge congruence or lack thereof is knowledge from an external source being at odds with internal knowledge.

When knowledge is congruent, the decision-making proceeds and is actioned provided that the mechanisms and/or resources are in place to act upon the decision. Where knowledge is not congruent, if knowledge can be reconciled to either make knowledge congruent or allow to 'sit' without conflict. For example, if one piece of knowledge is that vaping is *good* because it is known to be much safer than smoking and another piece of knowledge is that vaping is *bad* because we have not studied the longer term possible effects upon health, it is possible to reconcile both pieces of knowledge as being correct and relevant depending upon context. It is possible for it to be a *good* choice right now compared to continuing to smoke irrespective of the possibility of what may be in the long term.

Where different pieces of knowledge cannot be reconciled and there is no means by which a person is able to determine which piece of knowledge should be rejected, decision-making may be suspended leaving the person in a state of inertia in area it relates to. While inertia would lead to the outcome of continuing to smoke tobacco in this instance, it is not the same thing as making an active decision to continue to smoke. The continuance of smoking behaviour is an indirect result, i.e. it occurs due to an indirect barrier or barriers.

If a person or organisation is wanting to dissuade a person who smokes from taking up vaping, it would not be necessary to present them with factual anti-vaping information, it would be sufficient to expose them to claims, factual or otherwise that hinder the choice to take up vaping. By way of example, if we were to take a nonsense claim such as 'vaping causes fluid on the lungs because you are inhaling liquids.', if the knowledge comes from someone perceived to be speaking with some authority, this can still be problematic. It would take some form of prior pieces of knowledge or acquiring new information to be able to dismiss such as claim or to know to question it. A person who knew that vaping involves inhaling vapour rather than liquid and that the average humidity in New Zealand is between 73% and 92% humidity would be less susceptible to such a claim affecting their decision-making than someone who did not have those same pieces of knowledge.

This raises a serious health issue , if everyday people cannot be reasonably expected to have specialised knowledge to enable them to reject misinformation or information presented out of context, then whose responsibility is it to ensure that correct information is readily accessible? If public health services are prevented from being able to present the medical facts as best as they are known or is limited in their ability to do so due to ideological opposition – then surely those who are causing the barriers to access to accurate information are in fact responsible for any negative health outcomes that may result from that? How do we collectively deal with too much information, much of which may not be helping us towards improvements in the health of vulnerable populations?

Discussion of Moderately Prohibitive Policy Conditions.

Key findings: Too much information may be as difficult to navigate as misinformation when trying to make vaping related decisions.

As with both the moderately permissive and the and highly permissive policy conditions, some participants thought that the vignette character would try vaping to give up smoking with moderately prohibitive policy conditions present. The moderately prohibitive policy conditions were very restrictive in terms of where vaping products could be accessed, they are regulated as being available only at pharmacies or specialty stores that hold a licence that allows them to sell the products. Not a great deal of attention was paid to the specific locations yet one did comment that they thought it was “a bit weird but ok” having vaping products in pharmacies. Another participant was of the view that the restriction to licenced vape stores and pharmacies only was ‘how it should be’. There was some discussion around concern about sales through dairies which, some saw as untrustworthy. Another participant still was of the view that lack of access in the places where smoking tobacco can be sold would be discouraging, and therefore a barrier to taking up vaping. While diverse views are not unexpected when deliberately choosing a diverse sample, it would be interesting and potentially insightful to explore the matter of access further, ensuring that vulnerable and marginalised smokers and vapers have an opportunity to speak to the subject,

The ability to obtain vaping products on prescription was interpreted by some to mean that the products would be subsidised, available at a reduced cost through Healthcare Professionals. Where that was the case, it was considered a motivating factor that would increase the likelihood the vignette character would try vaping to stop smoking.

However, despite this possibility of prescriptions and subsidies it was thought by some that the vignette character might struggle to decide whether to try vaping to stop smoking or not. The main reason given for the difficulty was informational issues. Inertia once again arises as an issue. In part this inertia is due to lack of knowledge congruence.

One participant found a lack of congruence not just with knowledge but between knowledge and action in this instance the information presented in the media conflicts in its own right and then is connected with the actions of Healthcare Professionals: So on one hand those in the media claiming that vaping is a health risk are given credibility by the information on the purported health risks associated with vaping but the actions of the Health professional seems to be in accord with the claim that vaping is relatively harmless and should be more freely available.

An extension of that is the question of why access is so restricted if vaping is a healthier option than smoking – after all, smoking tobacco is more freely available.

It seems that one of the most expedient ways of reconciling these congruence issues would to be to choose to distrust Healthcare Professionals thereby devaluing information they provide – but at what cost to their general regard for Healthcare Professionals, certainly there is evidence that some participants have done just that – rejected the notion of health care professionals as a whole being health experts who can be trusted to advise them. There is potential for important public health information being disregarded due to lack of confidence in the scientific basis for the information being provided.

Information overload is also raised as a barrier to the uptake of vaping to stop smoking. Dave spoke to the issue of information overload in some detail:
"I think sometimes we get bombarded with the health risk information, that sort of thing almost turns you off trying stuff. Sometimes you're better off to give people the bare bones, just the basic information and [tell them] go, go for your life"

Information overload (Phillips-Wren & Adya, 2020) is identified as a decision stressor, a form of stress that can have a negative impact upon decision making. Time pressure, complexity and uncertainty are also decision stressors. The integrative model of stress (Phillips-Wren & Adya, 2020) suggests that individual differences mediate between decision stressors and the experience of stress by moderating psychological perceptions of stress. Stress in turn affects decision quality. At least three of the four decisions stressors are present in this vignette.

An example of an individual difference is also provided by Dave, namely, a means of addressing the issue of information overload, at least from Healthcare Professionals is offered: *"I'd probably take up the Healthcare professional information and put it in the bin".* This approach may also be useful in reducing time pressures (if present), complexity (if the information being disposed of adds to the overall level of information complexity) and may limit uncertainty in the process (Phillips-Wren & Adya, 2020).

Another individual difference, one said to be related to decision satisfaction, is familiarity with the product under consideration. This is an area where there would likely be a large difference between participants who are seasoned vapers who have already stopped smoking using vaping and many smokers who may arrive at a point of considering the use of vaping as a tool to stop smoking. Seasoned vapers are less likely to be overloaded by information that is already familiar to them.

Research indicates that when attempting to learn new information there is a tendency to stop seeking new information in order to try and preserve memory of information that has already been acquired. This strategy is not particularly effective, experiments showed that in fact less details are retained in memory compared to a control group who continued to acquire more information. Nor does it in any way ensure that the information is the most credible information available. What the research does show is that the 'throw it in the bin' approach does not appear to be especially uncommon.

While participants considered the low relative cost of vaping products in other vignettes to be a facilitator of the decision to try vaping to stop smoking, increased cost was not identified as a barrier.

Discussion of Highly Prohibitive Conditions.

Key findings: Both continuing to smoke tobacco and choosing health over legal concerns are possible outcomes when vaping is illegal.

When discussing issues of a legal nature, it may be more helpful to consider where the decision to vape to stop smoking may sit in any given individual's hierarchy of needs rather in the context of criminality or similar constructs. Maslow's Hierarchy of Needs (1943) is a theory of motivation where humans move towards a state of self-actualisation by moving through various levels and types of needs (Figure 14).

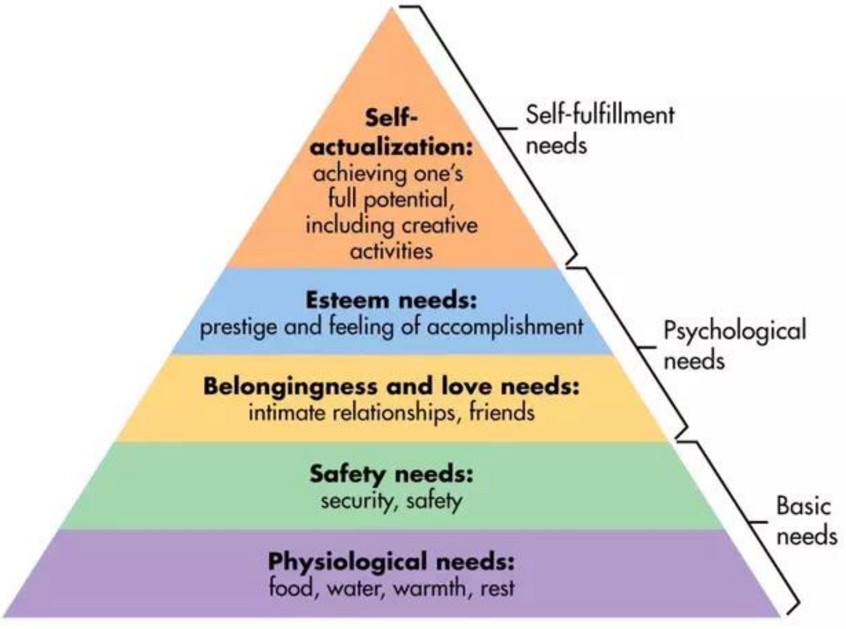


Figure 14. Maslow's Hierarcy of Needs.
Sourced from https://www.simplypsychology.org/maslow.html

The first two levels consist of basic needs with level 1 being primary physiological needs; the need to breath, the need for food, water and clothing and, the need for sleep. Level 2 needs are related to safety and security, the needs relating to; health, employment, property, family and social stability. Arguably, there is a strong element of Western cultural bias in this theory however, this short coming does not negate the issue of potentially having unmet health needs that would require addressing for higher level needs to become relevant. This means that considerations such as the need for respect from others, a level 4 self-esteem need, would not become a driver for behaviour until such time as the unmet health need had been addressed.

Vapers in New Zealand have constructed a lay epidemiology out of their experiences with and observations related to vaping. This epidemiology recognises the health benefits of vaping and success with using vaping as a means of helping people to stop smoking. Thus, the question becomes not whether a person is law-abiding but rather, whether ordinarily law-abiding or not, would a person who smokes break the law in order to promote their own health and wellbeing. That such a question could even need to be asked seems perverse and goes against the very notion of justice but with increasing negativity towards vaping in New Zealand and with vaping being prohibited in many countries including in Australia (Fraser, Glover, & Truman, 2018), the possibility remains that it may become a reality here in New Zealand at some point in the future.

At least some participants thought that the answer to the question of whether a vignette character would still choose to try vaping was “Yes”. The reason or reasons why they thought that the character in the vignette would not try vaping to give up smoking varied from participant to participant.

Compared to participant responses to other vignettes, there was not a as much data to analyse as a result, there was insufficient information that would make it possible to determine whether it was the fact of vaping being illegal that acted as a barrier or some other reason. It is possible that the consequences of illegality such as fines and prosecution were major deterrents, but it is also true that other inconveniences such as access difficulties would prove more problematic.

The issue of lack of congruence may be a factor of relevance for this vignette.

The possibility of issues related to congruence still apply to situations where vaping is prohibited and messaging is primarily negative, especially knowledge congruence if the person who smokes is aware of the health promoting benefits of vaping. Questions arose as to whether government was actually in support of smoking for some reason.

The take home message for some people who smoke may be that of ‘authority’ stated that they should give up smoking while the authority acts in a manner that suggests support for smoking. Uncertainty may leave some people who smoke stuck in a state of inertia.

Policy Conditions

Secondary analysis was focused upon participants’ perspectives of the policy conditions relating to Healthcare Professionals, media reporting, access, cost and legality.

Healthcare Professionals

The Healthcare Professionals condition was used as a representation of ‘authority’. This research found that, in some instances, Healthcare Professionals have been rejected as credible authorities on subjects relating to health. This raises the questions ‘What other health information is dismissed?’ and ‘What is any problems does that give rise to with respect to health?’.

Lack of consistency of messaging between Healthcare Professionals acted as an indirect barrier to trying vaping to stop smoking.

Too much information acted as an indirect barrier while negative information regarding vaping acted as a direct barrier where the Healthcare Professional’s advice was accepted.

A Healthcare Professional who was supportive of vaping was considered more trustworthy because their knowledge was aligned with the best current science on the subject. In at least one case, the participant felt such a Healthcare Professional was worth actively seeking out.

Moderate levels of factual information regarding the benefits of choosing to vape instead of smoking tobacco would likely act as a facilitator of that very behaviour.

Interviews and analysis were conducted prior to any knowledge of Covid-19 , before people were refusing to wear masks , refusing to abide by social distancing and not staying at home. The integrity of public health may become compromised when it appears that ideology and the agendas of people in positions of power are put before science and evidence-based policy. While as a society we may be at ease with losing the 'unclean'; the smokers, the vapers, the marginalised. Some may not lament the loss of those with no power or influence, however this does not mean there is no price to be paid. The advice of Healthcare Professionals being rejected is likely to have far reaching and unintended consequences.

Media

While the segment towards media was generally cynical and dismissive, it was believed that media would still likely act as a barrier to trying vaping to stop smoking in some cases. This was particularly true of 'fake news' and presentation of 'both sides of the vaping debate' without scientific acknowledgement of where the weight of scientific evidence lies for context. Being unable to distinguish between factual information and information that lacked a factual basis was considered problematic.

Knowledge non-congruence and difficulty reconciling information successfully acted as indirect barriers that lead to inertia.

Access

There was something of a 'where there is a will, there is a way' theme to the access conditions. While ready access to a wide variety of products and nicotine strengths was a facilitator, it did not necessarily follow that lack of ready and legal access acted as a barrier.

It is worthwhile noting that the participants of the study had mostly been vaping for a number of years and due to this had experience of vaping at a time when it was thought to be illegal in New Zealand. Vaping hardware and supplies could be imported. Informal networks within New Zealand operated, sharing information and resources (Fraser, Glover, & Truman, 2018).

People who currently smoke have thus far chosen not to access vaping hardware and supplies despite widespread access and therefore may be ambivalent or barriers arising from other conditions may take precedence over access.

Cost

While lower cost was considered a facilitator of the uptake of vaping to stop smoking, higher cost was not necessarily a barrier to uptake. This is consistent with the observation that people continue to smoke tobacco despite price increases (Marsh, et al., 2016).

One area where cost may pose a barrier is where the ‘high cost’ is interpreted that vaping is as bad as, or worse than, smoking tobacco because it is treated by policy makers as such.

Legality

Participants thought it highly likely that the vignette character would continue to smoke. That is to say that they thought that the vignette character would probably obey the law at the cost of their health.

A number of participants felt that the vignette character would risk prosecution and fines in an effort to improve their health by trying vaping to stop smoking. The data did not provide sufficient detail to adequately determine whether legality generally, or the consequences such as fines and possible prosecution, would act as barriers.

Overall, results indicate that a sensible regulatory environment would be well received and have a beneficial effect with respect to encouraging current smokers of tobacco cigarettes to consider switching, or at least attempting to switch to vaping instead.

Restriction of access to try and deter youth from taking up vaping was not contested which raises a question regarding youth who currently smoke, or may take up smoking tobacco cigarettes in the future and our willingness as a society to recognize and respond to their right to be able to access reduced risk products such as vaping products. This is not to suggest that attempting to limit youth uptake should not be a goal but there are subgroups within the youth population that are higher risk of becoming smokers at higher risk of becoming smokers at an early age such as young people with ADHD (Milberger, Biederman, Faraone, Chen, & Jones, 1997). Given the known benefits of nicotine to adults with ADHD in terms of managing problematic symptoms, it may be that some youth intuitively gravitate towards nicotine products for the therapeutic benefit (Gehricke, Whalen, Jamner, Wigal, & Steinhoff, 2006). It is possible that those benefits outweigh the potential risks to those youth if reduced risk products are available and effective.

Direct Barriers, Indirect Barriers and Individual Differences

The model that emerged in terms of an overarching theme is interesting in that is speaks to two types of barriers to decision making that results in behavioural change. Individual differences could influence decision making to an extent that it could alter the outcome.

Direct Barriers

Direct barriers to changing smoking behaviour and moving towards vaping as an alternative are barriers that result in a conscious decision to continue to smoke combustible tobacco and a conscious decision not to attempt to stop smoking through the use of vaping as an alternative behaviour. These could be understood in layman's terms as 'dealbreakers'. These dealbreakers were not uniform across participants. A very clear example of this was the legality, or lack thereof of vaping. While some perceived that vaping being illegal would likely be an absolute barrier to behavioural change, others considered that a smoker may be prepared to attempt to vape regardless.

Thus, individual morality, outlooks and prioritizing determines what constitutes a barrier and what does not.

If policy is going to achieve the goal of supporting people who smoke to switch to reduced risk alternatives, then policy will need to be written in such a way so as to avoid conditions that will act as dealbreakers to the greatest extent possible. This does not mean avoidance of policy altogether. It does mean that careful thought should be given to how levels of need and unmet needs in particular, influence the decision-making process. If someone's unmet needs are in the area of basic human needs, as Maslow's Theory suggests, for just survival such as food, water, shelter and personal effects for example, policy that results in a degree of social exclusion is less likely to act as a direct barrier (policy that constrains ease of physical access on the other hand is more likely to act as a direct barrier) Conversely , someone whose fundamental needs have been secured but have unmet needs in the area of social inclusion is more likely to be deterred by policy that involve social exclusion such as bans on vaping in public spaces. Those who can forfeit a degree of social inclusion, those who have a surplus over and above their need as an individual are less likely to perceive a small measure of social exclusion as a threat and as such, it is unlikely to act as a barrier to behavioural change.

Indirect Barriers.

Indirect barriers are barriers that did not result in a deliberate or conscious choice to continue to smoke combustible tobacco products but nor did they result in deliberate or conscious choice to try vaping as a pathway to becoming smoke free. These barriers can have the same result as direct barriers in that they can still result in continuance of smoking behaviour, however, from a psychological perspective the mechanisms are not the same as those involved with direct barriers. Inertia is defined as “a tendency to do nothing or to remain unchanged” (dictionary.com, 2020) , in this context the term inertia refers to the later – behaviour remaining unchanged and specifically, those who currently smoking tobacco products continuing to do so due to external factors that have the effect of inhibiting the decision to adopt an alternative behaviour to smoking.

A number of factors were identified as potentially leading to inertia: being overwhelmed with information leading to ‘shutdown’, incongruence as a result of conflicting information and, confusion. Confusion can be a result of difficulty with understanding information such as research articles using highly technical language or may result from too much conflicting information that one cannot make sense of without necessarily being overwhelmed by the amount of information available. The information does not necessarily need to be proven ‘fact’ irrespective of source. It can be sufficient to simply sow ‘seeds of doubt’ about the safety, or relative safety or to cast doubt upon the efficacy of vaping as a means of stopping smoking in order to achieve an outcome of inertia. Similarly, it is possible to bombard smokers with too much information or even nonsensical information and deter them from making the decision to attempt to quit smoking using vaping as a quit tool. While outside the scope of this research project, it also stands to reason that such information has the potential to cause the same result of inertia in those who are responsible for the drawing up of and implementation of policy.

Just as incongruence can be an issue of conflict messages from different sources with differing opinions on a topic, it can also arise due to mixed messaging from a single source this means that policy makes themselves may cause inertia, if their stated position on the value of vaping as a smoking cessation and does not align well with their actual policy. When different features of policy appear to be incongruent this may also lead to inertia.

Individual Differences in Decision Making

While differences in the conditions created by policy were seen to be influential factors from participants' perspectives, their individual differences, were also raised by multiple participants. These individual differences were considered important when deciding whether to try vaping as a way to stop smoking. Age was given as an example of an individual difference that may be influential. Age is of particular interest because the health burden of smoking is not shared evenly across age groups. Older people are more likely to be smokers while comparatively few younger people smoke (New Zealand Ministry of Health Manatū Hauora, 2020). If the goal of complex regulations is to deter youth and encourage people who smoke to consider vaping, policy makers may well have missed the mark.

Using the Dual Choice Outcome Model with Individual Differences as Moderators (Figure 14) age would be the moderator between inertia and change, or between continued smoking and vaping.

Limitations

All research has limitations. One of the limitations of this study was that it was difficult to keep up with the vaping related and policy developments in such a dynamic area of public health.

As the research project was a pilot study with a small number of participants, it was anticipated that views would potentially be diverse. Purposive selection of participants was chosen as a part of research design in an effort to represent as many different groups as possible. Results reflect the diversity of participants with only broad agreement on a few factors. When it comes to considering effective policy to maximise the potential of vaping as a smoking cessation advise it would be therefore be prudent for policy makers to consult with vapers both individuals and groups prior to decision making.

It also needs to be considered whether more consultation with smokers themselves would be helpful in order to address their needs and, where applicable, their concerns. With the most vulnerable bearing a disproportionate burden with respect to smoked tobacco products it is likely that their perspectives, their needs and concerns will be equally as diverse and likely not represented by the participants of this study. Even with respect to mental health status for example, it was part of the inclusion criteria that mental health conditions must be well managed within the community.

Another area of limitation was the inexperience of the researcher in conducting research of this nature. More engagement without leading during the interview process may have produced richer data but as a novice researcher, the focus was upon not speaking or gesturing in such a way as to lead the participant. In addition, recording was stopped immediately after the formal interview had concluded. In hindsight, it would have produced richer data to allow recording to continue with the knowledge of the participant. More relaxed discussion of the interview naturally followed the question and answer process. This discussion at times was useful for context and further clarification as well as introducing new ideas. Unfortunately, this could not be used as it was not recorded.

Insider research may be viewed as a strength or a weakness depending upon one’s perspective. There is a very clear bias towards vaping that some may regard as a weakness. This bias may have a ‘socially desired response’ effect upon participants in that they may be more inclined to report more positively due to the researcher being a vaper and advocate for vaping to stop smoking.

Conclusion

This chapter has discussed the results and implications in more depth. Many barriers can be considered the result of non-congruence that can be difficult to successfully resolve. If we want people who smoke to take up vaping as an alternative, we need to be mindful of mixed messages. Policy that makes vaping products difficult to access and policy that pose legal barriers are unhelpful. Negative messaging about vaping is unhelpful and too much information can be overwhelming. Young people were thought to be more likely to persist in the face of difficulty and older people unlikely to bother. Considering that people who smoke are more likely to be older, this is unhelpful. The sample of participants was small, and a larger study may yield more insightful results.

Chapter 6

Policy & Future Research Recommendations and Conclusion

Introduction

This chapter will provide recommendations for policy future research before concluding with a summary of the thesis by chapter.

Policy Recommendations

It is recommended that final policy decisions be delayed allowing for more in depth research to be conducted that is focused upon the ways in which policy is likely to impact the decisions of people who smoke. It is important to ensure that policy does not act as a deterrent to the uptake of vaping by people who smoke. Underlying assumptions about how ordinary citizens will respond to policy needs to be carefully scrutinised. Where policy cannot be delayed, it is recommended that policy makers assess current proposed policy for unnecessary non-congruence and other barriers that deter the uptake of vaping by people who smoke. Barriers should be minimal if the smoke-free 2025 goal is to be achieved.

Further Research Recommendations

Vulnerable groups in society bear a disproportionate burden of smoking related harm. In keeping with the principle of inclusion and social justice the impact upon more marginalised members of society issues relating to policy should be explored with them also.

This research could be repeated with larger sample sizes.

It could be useful to use the same or similar policy themes with focus groups that would likely provide greater insights.

It could be worth considering each policy condition as a focus worthy of study. This would allow for more focus on a narrower topic and greater potential for richer, more meaningful data.

Future study based upon this research should be updated to ensure it is as current as is possible and relevant. For example, inclusion of nicotine salts and flavour restrictions would be pertinent.

Conclusion

The background literature review has provided an overview of tobacco history and global harms. Global strategies to address smoking harm and problems arising as a result of these strategies were examined. Harm reduction as an approach and harm reduction were described. An outline of the evolution of the e-cigarette was provided. Smoking and tobacco control in New Zealand were outlined. Finally, vaping in a New Zealand context was reviewed.

The methodology chapter outlined the procedures and materials required to make it possible to replicate this study. Aims and objectives were reiterated, and research design was justified. Ethics, the trial interview and recruitment process were also described. Details of randomisation and interview process were provided. Analysis was explained by vignette and by policy condition.

This chapter outlined the key results of this study. Policy that was supportive of vaping generally acted as a facilitator while policy that was not supportive of vaping acted as a barrier. Neutral or confusing policy tended to result in inertia. Highly permissive conditions acted as an indirect barrier whereas moderately permissive conditions acted as a facilitator of uptake of vaping. Moderately prohibitive conditions posed something of a barrier and highly prohibitive conditions posed the most barriers to uptake of vaping. Individual differences moderated the decision-making process. Different policy conditions played different roles in the decision-making process.

Chapter five discussed the results and implications in more detail. Many barriers can be considered the result of forms of non-congruence that can be difficult to successfully resolve. If we want people who smoke to take up vaping as an alternative, we need to be mindful of sending mixed messages about vaping. Policy that makes vaping products difficult to access and poses legal quandaries are not helpful. Negative messaging about vaping is unhelpful and too much information can be overwhelming. Young people were thought more likely to persist in the face of difficulty and older people were thought unlikely to bother if rules were complex.

While a small study, the results of this work are meaningful and fill a gap in the body of knowledge available regarding vaping and related policy. The perspectives of vapers are largely missing from research, especially in New Zealand. The insights of participants in this study help us to appreciate the importance of well-considered policy, with regards to vaping to stop smoking.

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Appendix 1 Sample Frame

Characteristics	Participants	1	2	3	4	5	6	7	8	9		Totals
European		x					x	x	x	x		5
Maori		x	x	x	x							4
Other Ethnicity						x	x					2
Male		x			x	x		x	x	x		6
Female			x	x			x					3
18-34 years				x	x				x	x		4
35-50 years			x				x					2
51+ years		x				x		x				3
Urban		x	x	x	x		x	x	x			7
Non-urban						x				x		2
NIPE*									x			
Entry level employment			x			x						
Trade					x			x		x		
Professional		x		x			x					
MH Condition				x		x	x					

* Not in Paid Employment

Appendix 2 Recruitment Notice

Master of Science (Psychology) Thesis Research Project, Massey University

PARTICIPANTS NEEDED FOR STUDENT
RESEARCH IN SWITCHING AND TRANSITIONING FROM TOBACCO CIGARETTES TO VAPING

Have you switched or transitioned from tobacco cigarettes to exclusive vaping?

If so, I am looking for volunteers to take part in a study of factors influencing switching and transitioning from tobacco cigarettes to vaping.

As a participant in this study, you would be asked to: provide general information about yourself and, if selected, during a recorded interview you will be asked for your thoughts on four different scenarios regarding a smoker considering trying vaping as a means of smoking cessation and factors that may influence their being able to do so.

Your participation would involve one session, of approximately 40 to 60 minutes.

In appreciation for your time, I will provide light refreshments.

For more information about this study, or to volunteer for this study, please contact:

Yolande Jeffares (Student)
022 0694186
Email: Chuggs.Jeffares.1@uni.massey.ac.nz

Dr Penelope Truman (Supervisor)
p.truman@massey.ac.nz

04 801 5799 ext 63906

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named in this document are responsible for the ethical conduct of this research. If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact Dr Brian Finch, Director (Research Ethics), email humanethics@massey.ac.nz.

Appendix 3.1 Participant Information Sheet

Making the Switch: Vapers perspectives on the psychological and social factors involved in switching from tobacco smoking to vaping.

Participant Information Sheet

My name is Yolande Jeffares, I am a student at Massey University.] I am conducting a study on aspects of successful transitioning from the smoking of tobacco cigarettes to vaping as part of my Master of Science (Psychology) studies. Information gathered is for the sole purpose of this study and shall not be used for any other purpose.

You are invited to participate in this study.

Why are we doing this study?

Most research on vaping (use of e-cigarettes) is conducted by non-vapers with a nicotine cessation or physiological health focus. The social and psychological factors involved in successful transition have been largely overlooked. These factors may accidentally be impacted by legislation in the future if they are overlooked in research. Examinations of these from a vaper's perspective are even more rare.

Who is being invited to participate?

About 7 vapers (users of vapes) over the age of 16, and who are quite different from each other, and do not smoke will be invited to participate. Involving a mix of men and women, of different ages, ethnicity and life circumstances will give me insight into the range of experiences and opinions that vapers have. You will not be able to participate in this study if:

1. You are under the age of 16
2. You currently smoke tobacco cigarettes as well as vape.

Appendix 3.2 Participant Information Sheet

Do you have to take part in this study?

You are under no obligation to participate in this research, it is completely voluntary. You may withdraw from the study without giving a reason up until the time the interviews have been analysed. If you do wish to withdraw, I ask only that you let me know via phone or via email at the soonest opportunity. You will be asked to fill out and return an informed consent form prior to participation.

What is involved?

The study involves two phases. For phase one the who express an interest in participating will be asked to fill out some basic information such as age, gender, ethnicity, mental health status etc. There are no right or wrong answers. The purpose of this initial phase is to enable me to purposefully select a smaller number of participants with as broad a representation of vapers as is possible.

Based upon that information you may be invited to participate in phase two. This phase involves more in-depth interviews. I will then read a series of scenarios and ask you to comment on ways in which you think those scenarios may help or hinder transition from tobacco smoking to vaping. Again, there are no right or wrong answers, I am interested in your views. It is expected that the interview will take approximately 40 to 60 minutes. Interviews will be audio recorded and then transcribed to ensure accuracy for analysis. A copy of your transcript will be sent to you so that you can review the interview yourself.

Appendix 3.3 Participant Information Sheet

What about privacy?

Your real name and information that personally identifies you shall not be used for any reports that result from this study nor will that information be passed on for use for any other purpose. You may choose to withdraw any information that can be traced back to you prior to completion of analysis. The audio recordings of interviews will be stored for 6 years but no identifying information will be stored with them. Any identifying information essential to the study will be securely stored and deleted as soon as it is no longer necessary. Research results will be publicly available**.**

What are the benefits and risks of the study?

There are no anticipated risks associated with participation in this study. The study could help to improve understanding of vapers and their vaping.

Additional information.

If you have a condition and so require, you are welcome to have a support person with you for the interview. Feel free to ask questions regarding the study if you are unsure of any details as it is important to have a good understanding of what is involved prior to signing the informed consent form.

Appendix 3.4 Participant Information Sheet

Contact persons

If you have any questions about the study please contact the following researcher:

Yolande Jeffares Phone 022 0694186

Or

Dr Penelope Truman (Supervisor)

p.truman@massey.ac.nz

04 801 5799 Ext 63906

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named in this document are responsible for the ethical conduct of this research. If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact Dr Brian Finch, Director (Research Ethics), email humanethics@massey.ac.nz.

Appendix 4

Informed Consent

Successful Switching: Vapers perspectives on psychological and social factors that helped them to switch from tobacco smoking to vaping.

Consent Form

Researcher: Yolande Jeffares, Student of Master of Science (Psychology) School of Health Sciences, Massey University.

- I confirm I have been given, and have understood, an explanation of this research project. I have had an opportunity to ask questions and have them answered.

  Yes/No (please circle)

- I am not aware of any reason I should not participate in this research.

  Yes/No (please circle)

- I understand that participation is voluntary, and I may withdraw myself, or any information traceable to me, without giving a reason at any time up to the end of July 2018.

  Yes/No (please circle)

- I understand and agree to the collection of my general information (for example Age, Gender, Ethnicity)

  Yes/No (please circle)

- I understand that interviews will be recorded as audio files to ensure accuracy. I understand identifying details will be changed or omitted when such audio files are transcribed into texts and I consent to audio recording for this purpose.

  Yes/No (please circle)

☐ I agree to take part in this research.

Signed ____

Name: ____ Date:

(please print clearly)

Researcher Declaration

I have discussed the research purpose and process with the participant named above and have answered any questions the participant has asked regarding the research. I am satisfied the participant understands the study and their rights as a participant and has given informed consent.

Signed ____

Name: ____ Date:

(please print clearly)

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named in this document are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact Dr Brian Finch, Director (Research Ethics), email humanethics@massey.ac.nz.

Appendix 5

Participant Information Sheet

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

School of Health Sciences
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Private Box 756
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Making the Switch: Vapers perspectives on the psychological and social factors involved in switching from tobacco smoking to vaping.

Participant Demographic Sheet

Confidential

Participant ....

Name ....

Age ....

Ethnicity ....

Gender ....

Income level ....

Location ....

Do you have a mental health condition? Yes / No / Prefer not to say

If Yes:

Name of condition: ....

Is this condition stable/manageable? Yes / No.

1

Appendix 6

Introduction Script

Thank you for agreeing to participate. I will read to you a series of scenario's – after each scenario I will ask you a question that I would like you to answer. Don't worry about trying to remember the all the details in each scenario, I will provide you with a card that has the key points, so you can comment on them one at a time. Please be assured there are no right or wrong answers, I am genuinely wanting to hear your views. Once you have answered the question, I will move on to the next one. There are four in total.

Do you have any questions or shall we start?

Appendix 7

Male Vignette Interviewer Card Blue

John.

John is a current smoker who is thinking about vaping instead of smoking.
He looks into it and finds that where he lives:

* Most Healthcare professionals offer support and advice on vaping to clients who smoke.

* In the news, vaping is promoted as a much safer alternative to smoking for those who cannot or do not wish to give up nicotine. Most experts agree.

*Vaping products are sold everywhere tobacco is sold to anyone over the age of 18. Vaping products can also be bought online. E-liquids have a maximum strength of 24mg.

* Vaping products are subject to GST. Because there is no excise tax, vaping is much cheaper than smoking.

QUESTION. In the situation described, how do you think John might think or feel about trying vaping to quit smoking tobacco?

Appendix 8

Male Vignette Interviewer Card Red

Nigel.

Nigel is a current smoker who is thinking about vaping instead of smoking.
He looks into it and finds that where he lives:

* Healthcare professionals have mixed views about vaping. Some are supportive of vaping and others are against it. Many are uncertain about whether they should support vaping or not.

* Vaping often appears in news media and current affairs programmes. Some experts talk about vaping as a serious health risk while others say it can save lives and may even improve people's health if it helps them stop smoking.

* Vaping products are can be bought in many places. They can be bought over the internet or in stores known as vape shops. Some dairies also sell vaping products.

* While normal GST is applied to all vaping products there is no additional tax like there is on tobacco, this means vaping is much cheaper than smoking tobacco.

QUESTION. In the situation described, how do you think Nigel might think or feel about trying vaping to quit smoking tobacco?

Appendix 9

Male Vignette Interviewer Card Yellow

Pete.

Pete is a current smoker who is thinking about vaping instead of smoking.
He looks into it and finds that where he lives:

* Healthcare professionals can offer smokers prescriptions for vaping products if the client asks for one. They also have an information sheet on possible health risks.

* In the media some experts talk about the dangers of vaping related nicotine addiction and serious health risks while others say nicotine is relatively harmless and should be more readily available. There are health warnings on all vaping products.

*For those over 18 with proof of age, devices can be bought legally from two places - pharmacies or licenced Vape Specialty Stores. Every buyer has to be given stop smoking advice. E-liquid flavours, product packaging and vaping hardware that youth like are taken off the market.

* Normal GST is applied to vaping products there is no additional tax like there is on tobacco. Retailer licencing means higher overheads and increased cost of vaping products. It is somewhat cheaper than smoking tobacco.

QUESTION. In the situation described, how do you think Pete might think or feel about trying vaping to quit smoking tobacco?

Appendix 10

Male Vignette Interviewer Card Green

James.

James is a current smoker who is thinking about vaping instead of smoking.

He looks into it and finds that where he lives:

* Healthcare professionals are unable to support vaping

* In the news nicotine is described as a poison by many experts – they claim nicotine is toxic and highly addictive. A few experts say that it is relatively harmless and should be widely available.

*Vaping products containing nicotine cannot be legally sold, bought or possessed – there is a phone line to report the selling or possession of nicotine containing e-cigarettes.

* Because nicotine containing vaping products are banned there is no tax on these products. Fines of up to $9,108 may be imposed upon those caught with nicotine containing vaping products in their possession.

QUESTION. In the situation described, how do you think James might think or feel about trying vaping to quit smoking tobacco?

Appendix 11

Male Interviewee Cue Card Blue

John Interviewee Card

*Most Healthcare professionals supportive

*Media – Vaping is much safer than smoking

*Nicotine containing vaping products (up to 24mg) are readily available.

*GST – no excise tax – much cheaper than smoking.

Appendix 12

Male Interviewee Cue Card Red

Nigel Interviewee Card

*Healthcare professionals, mixed views. Many are unsure

*Media –often opposing views on health risks and health benefits.

*Vaping products readily available online, in vape stores and some dairies.

*GST on vaping products, no excise tax, much cheaper than tobacco

Appendix 13

Male Interviewee Cue Card Yellow

Pete Interviewee Card

*Healthcare professionals, offer prescriptions, health risk information sheets

*Media –sometimes opposing views – nicotine addiction dangers vs nicotine basically harmless. Leaflets on vaping products

*Vaping products only legal from pharmacy or licenced vape stores.

*GST on vaping products, no excise tax additional licencing fees, somewhat cheaper than tobacco

Appendix 14

Male Interviewee Cue Card Green

James Interviewee Card

*Healthcare professionals unable to support vaping

*Media –mostly nicotine is toxic, addictive – a few disagree

*Nicotine containing vaping products are illegal to buy.

*No tax – possible fines of up to $9, 108

Appendix 15

Female Vignette Interviewer Card Blue

Mandy.

Mandy is a current smoker who is thinking about vaping instead of smoking.
She looks into it and finds that where she lives:

* Most Healthcare professionals offer support and advice on vaping to clients who smoke.

* In the news, vaping is promoted as a much safer alternative to smoking for those who cannot or do not wish to give up nicotine. Most experts agree.

*Vaping products are sold everywhere tobacco is sold to anyone over the age of 18. Vaping products can also be bought online. E-liquids have a maximum strength of 24mg.

* Vaping products are subject to GST. Because there is no excise tax, vaping is much cheaper than smoking.

QUESTION. In the situation described, how do you think Mandy might think or feel about trying vaping to quit smoking tobacco?

Appendix 16

Female Vignette Interviewer Card Red

Jenny.

Jenny is a current smoker who is thinking about vaping instead of smoking.
She looks into it and finds that where she lives:

* Healthcare professionals have mixed views about vaping. Some are supportive of vaping and others are against it. Many are uncertain about whether they should support vaping or not.

* Vaping often appears in news media and current affairs programmes. Some experts talk about vaping as a serious health risk while others say it can save lives and may even improve people's health if it helps them stop smoking.

* Vaping products are can be bought in many places. They can be bought over the internet or in stores known as vape shops. Some dairies also sell vaping products.

* While normal GST is applied to all vaping products there is no additional tax like there is on tobacco, this means vaping is much cheaper than smoking tobacco.

QUESTION. In the situation described, how do you think Jenny might think or feel about trying vaping to quit smoking tobacco?

Appendix 17

Female Vignette Interviewer Card Yellow

Paula.

Paula is a current smoker who is thinking about vaping instead of smoking.
She looks into it and finds that where she lives:

* Healthcare professionals can offer smokers prescriptions for vaping products if the client asks for one. They also have an information sheet on possible health risks.

* In the media some experts talk about the dangers of vaping related nicotine addiction and serious health risks while others say nicotine is relatively harmless and should be more readily available. There are health warnings on all vaping products.

*For those over 18 with proof of age, devices can be bought legally from two places - pharmacies or licenced Vape Specialty Stores. Every buyer has to be given stop smoking advice. E-liquid flavours, product packaging and vaping hardware that youth like are taken off the market.

* Normal GST is applied to vaping products there is no additional tax like there is on tobacco. Retailer licencing means higher overheads and increased cost of vaping products. It is somewhat cheaper than smoking tobacco.

QUESTION. In the situation described, how do you think Paula might think or feel about trying vaping to quit smoking tobacco?

Appendix 18

Female Vignette Interviewer Card Green

Ngaire.

Ngaire is a current smoker who is thinking about vaping instead of smoking.

She looks into it and finds that where she lives:

* Healthcare professionals are unable to support vaping

* In the news nicotine is described as a poison by many experts – they claim nicotine is toxic and highly addictive. A few experts say that it is relatively harmless and should be widely available.

*Vaping products containing nicotine cannot be legally sold, bought or possessed – there is a phone line to report the selling or possession of nicotine containing e-cigarettes.

* Because nicotine containing vaping products are banned there is no tax on these products. Fines of up to $9,108 may be imposed upon those caught with nicotine containing vaping products in their possession.

QUESTION. In the situation described, how do you think Ngaire might think or feel about trying vaping to quit smoking tobacco?

Appendix 19

Female Interviewee Cue Card Blue

Mandy Interviewee Card

*Most Healthcare professionals supportive

*Media – Vaping is much safer than smoking

*Nicotine containing vaping products (up to 24mg) are readily available.

*GST – no excise tax – much cheaper than smoking.

Appendix 20

Female Interviewee Cue Card Red

Jenny Interviewee Card

*Healthcare professionals, mixed views. Many are unsure

*Media –often opposing views on health risks and health benefits.

*Vaping products readily available online, in vape stores and some dairies.

*GST on vaping products, no excise tax, much cheaper than tobacco

Appendix 21

Female Interviewee Cue Card Yellow

Paula Interviewee Card

*Healthcare professionals, offer prescriptions, health risk information sheets

*Media –sometimes opposing views – nicotine addiction dangers vs nicotine basically harmless. Leaflets on vaping products

*Vaping products only legal from pharmacy or licenced vape stores.

*GST on vaping products, no excise tax additional licencing fees, somewhat cheaper than tobacco

Appendix 22

Female Interviewee Cue Card Green

Ngaire Interviewee Card

*Healthcare professionals unable to support vaping

*Media –mostly nicotine is toxic, addictive – a few disagree

*Nicotine containing vaping products are illegal to buy.

*No tax – possible fines of up to $9, 108