Vaping - An inquiry into reducing rates of e-cigarette use in Queensland

Submission No:	2
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Publication:	Making the submission and your name public
Attachments:	
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Dear Health and Environment Committee,

I am writing in response to the inquiry into reducing rates of e-cigarette use in Queensland. I am a current Master of Public Health student at the University of Queensland, and in 2022 as part of my coursework I wrote the below *Letter to the Editor* which outlines the rise of vaping, particularly dual vaping and cigarette use in Australia, and calls for more research in this area. I have also attached a research proposal I developed which would examine this topic if funded. My hope is that the research outlined will add a valuable contribution to Section 1 of the enquiry. Please feel free to get in contact with me if you would like to discuss anything I have outlined.

The rise of vaping in Australia and the emergence of the dual user: more research needed

ANU's[1] 2022 systematic review of the health impacts of electronic cigarettes (vapes) provides a damning insight into an emerging global public health issue, revealing strong evidence of the immediate and long-term negative health consequences of vaping. Academics [2], vape enthusiasts [3] and industry [4] have long advocated for the purported benefits of vapes as a smoking cessation aid, yet studies have revealed that these benefits are at best optimistic [5], and at worst a fallacy [1]. Yet these debates have failed to consider an important emerging phenomena; the vaping never-smokers and the dual vape-cigarette users. Australia has seen a rapid uptake of vaping in young adults, with data from 2019 indicating that the majority of use

is not for the purposes of smoking cessation, and that 53% of users also smoke cigarettes (dual users) [1]. Furthermore, evidence suggests that vaping increases the likelihood of cigarette uptake in young people who have not previously smoked [1].

It has long been established that people who smoke cigarettes experience a host of negative health consequences. Research from the past five years indicates that vaping comes with its own set of short- and long-term health risks[1]. Whilst the outcomes of dual use have not been firmly established, it can be inferred that those using both vapes and cigarettes are likely to experience exacerbated health risks [1]. Thus, young dual users emerge as a growing population in Australia who are vulnerable to negative health outcomes. Understanding the opinions, experiences and evolving practices of nicotine consumption in this population will be critical to developing and implementing future public health interventions [6-9].

To date, no studies have investigated why young Australians become dual vape and cigarette users. However, researchers have attempted to investigate opinions and attitudes towards vaping and smoking in different populations. Rhoades et al.[8]'s 2018 study on the prevalence and patters of dual use in the American Indian population provides an example of a descriptive quantitative approach to exploring this issue. Lucherini et al.[9]'s 2019 study aims to understand similarities and differences in the practices of cigarette smoking and vaping in young adults from disadvantaged areas of Scotland, demonstrating an alternative qualitative approach to exploring this issue. Lucherini et al.[9]'s 2019 study aims to understand similarities and differences in the practices of cigarette smoking and vaping in young adults from disadvantaged areas of Scotland, demonstrating an alternative qualitative approach.

These studies both acknowledge the importance of understanding why people vape and smoke. Rhoades et al.[8]'s's study asked participants to complete a questionnaire with a limited number of options for why dual users vaped, and found the most popular reasons to be to cut down on smoking, because they liked the flavours, and because they could vape in places they weren't able to smoke. Lucherini et al.[9]'s participants shared some of these views, highlighting the opportunities vaping presented to use nicotine in environments where smoking was not permitted or was socially unacceptable, but differed in that they did not discuss vaping as a means to cut down on smoking, a factor which may be partly explained by the demographic differences between the study populations. Vapes were seen as carrying less stigma than cigarettes in Lucherini et al.[9]'s study, and both studies found that participants believed vapes to be less harmful to users and their environments [6]. These findings offer important indications of the considerations people make when choosing to vape, smoke, or both.

Despite the usefulness of these findings to the field, these studies have flaws which limit their contributions. Both studies have issues with sampling. Rhoades et al.[8]'s study uses data from a convenience sample of health clinic attendees, with only 44 dual users identified. As the authors do not describe the demographic data of the participants, one cannot ascertain whether this sample was representative of all attendees of the clinic, let alone generalise this to the Oklahoma American Indian population or American Indian population as a whole. It is therefore not clear if the factors identified as important to dual users are common in dual users more broadly, or how these may change according to factors such as age or income. Lucherini et al.[9] used community networks to gather groups of young adult friends to discuss vaping and smoking. Whilst this sampling method was useful to gain trust and make potentially vulnerable participants feel more comfortable sharing their views, it meant that the sample included young adults who neither smoked nor vaped [9]. These participants expressed negative sentiments

towards vaping and smoking [9], and may have influenced the group dynamic and willingness of dual users to discuss freely their opinions and attitudes.

These studies offer important contributions to the field of dual use research. Despite their methodological flaws, both studies provide ideas and insights on factors which may be important to contemporary vape and cigarette users. Both studies emphasise that the practices of smoking and vaping are not the same, yet they cannot be wholly separated from one another. The reasons for vaping may be related to smoking, for example when viewed as a less harmful alternative, or an option to be used in places where smoking is not permitted, yet vaping also emerges as a practice in its own right, with the interest of different flavours and devices offering opportunities for personal expression and exploration [8,9]. Both studies mention the cost of vaping versus smoking, an important consideration in the context of increasingly expensive cigarettes and decreasingly expensive vapes in Australia. Yet a major limitation of these studies, as with much of the existing research on vaping, is their outdated data. The vaping landscape has transformed rapidly over the past decade, with vapes changing from an expensive niche product, to one which can be found in practically every school and every nightclub [1]. The types of vapes sold in Australia in 2022 differ greatly from those sold even two years ago, with disposable "pen" types now the most popular [1], a model type that did not exist when these studies were published. It is likely that attitudes and use of vapes and cigarettes have evolved alongside the products themselves.

Given the above, it is surprising that more research has not been conducted into young Australian's use of vapes, particularly in the largest and arguably most at-risk subset; the dual users [1]. Prior research has been overly focused on whether or not vapes aid in smoking cessation, largely ignoring the growing young population of vaping never-smokers and dual users. The very notion that people would intentionally continue to use both vapes and cigarettes

goes against the entire premise of vapes as a smoking cessation aid which has been pushed by industry. Yet the data shows that this population very much exists [1]. Dual users potentially face a dual burden of cigarette health consequences and vaping health consequences, coupled with a nicotine addiction which can be satisfied in settings not confined to smoking areas [8,9]. While statistics can demonstrate that this population exists, they cannot explain why. Thus, I pose the research question : “how do dual vape and cigarette users understand the changing landscape of nicotine in Australia?”

References

1. Banks E, Yazidjoglou A, Brown S, Nguyen M, Martin M, Beckwith KD, A, et al. Electronic cigarettes and health outcomes: systematic review of global evidence. Canberra: ACT: Australian National University (ANU); 2022.

2. Mendelsohn C, Hall W, Borland R. Could vaping help lower smoking rates in Australia? Drug and Alcohol Review. 2020;39(4):415-8.

3. McCausland K, Maycock B, Leaver T, Wolf K, Freeman B, Jancey J. E-Cigarette Advocates on Twitter: Content Analysis of Vaping-Related Tweets. JMIR Public Health Surveill. 2020;6(4):e17543.

4. Cano CR, Totten JW, Al-Emran M. The Renormalization of Smoking in America: A Conceptual Model of Vaping Behavior. Journal of Marketing Development and Competitiveness. 2020;14(3):21-35.

5. Chapman S, Daube M. Response to Mendelsohn, Borland and Hall's ‘Could vaping help lower smoking rates in Australia?’. Drug and Alcohol Review. 2020;39(4):419-21.

6. Harrell PT, Brandon TH, England KJ, Barnett TE, Brockenberry LO, Simmons VN, et al. Vaping Expectancies: A Qualitative Study among Young Adult Nonusers, Smokers, Vapers, and Dual Users. Substance Abuse: Research and Treatment.

2019;13:1178221819866210.

7. Britt H, Maynard OM, Bauld L, Brown R, Gray L, Lowthian E, et al. Have e-cigarettes renormalised or displaced youth smoking? Results of a segmented regression analysis of repeated cross sectional survey data in England, Scotland and Wales. Tobacco Control. 2020;29(2):207.

8. Rhoades DA, Comiford AL, Dvorak JD, Ding K, Hopkins M, Spicer P, et al. Vaping patterns, nicotine dependence and reasons for vaping among American Indian dual users of cigarettes and electronic cigarettes. BMC Public Health. 2019;19(1):1211.

9. Lucherini M, Rooke C, Amos A. E-cigarettes, vaping and performativity in the context of tobacco denormalisation. Sociology of Health & Illness. 2018;40(6):1037-52.

Understanding Contemporary Nicotine Usage: The Emergence of the Dual User

Introduction:

The decline of cigarette smoking in Australia, particularly by young people, has been claimed as a great triumph for public health.[1] Smoking rates in Australia have steadily declined, with the proportion of adult daily smokers having halved between 1990 and 2017.[1] Smoking has not only been determined to be unhealthy by medical professionals, but by the general public at large, resulting in a shift towards the denormalisation of smoking in Australian society.[2] The regulatory environment has influenced and reflected this, with ever-increasing taxes on cigarettes, plain packaging laws and strict bans on smoking in many public places.[3]

In recent years, a new form of nicotine consumption has rapidly emerged, threatening the health gains made by reducing smoking rates.[4] Vaping, the practice of inhaling flavoured nicotine vapour through an electronic cigarette (vape), has gone from virtually unheard-of to commonplace over the past decade.[5] Vaping is particularly popular amongst young Australians, with 5.3% of Australians aged 18-24 reporting regular vaping in 2019; a number which is expected to rise.[5] Vapes may also be sold with only flavouring (without nicotine), or contain other substances such as cannabis, but these are less popular and will not be the focus of this study.[4] The Australian government has struggled to find a regulatory balance between encouraging vaping as a smoking cessation aide, and attempting to reduce the widespread uptake of vaping by the non-smoking public, with nicotine vaping now legal only with a prescription as of October 2021.[6] Despite the strict laws, anecdotal reports suggest that nicotine vapes continue to be widely sold at tobacconists, convenience stores and online without prescriptions.[7]

The negative health impacts of smoking have long been established, and smokers have long sought after products to assist them in smoking cessation.[8] Vaping emerged in the public consciousness as a smoking cessation aide; with the practice of inhaling nicotine vapour delivering nicotine to users in a way that was similar to smoking, without the combustion of tobacco and other toxic ingredients used in cigarettes.[9] Vaping was, and still is, marketed as a safer alternative to smoking and a means to wean oneself away from cigarettes without the withdrawal symptoms of ceasing nicotine.[10] Despite the many promises of vaping industry and enthusiasts, research has not shown that vaping is more effective as a smoking cessation aide than other forms of nicotine replacement therapies.[9] In addition, recent research has shown that vaping comes with its own host of negative health consequences, not least of which being an addiction

to nicotine.[4] Many of the long-term health impacts of vaping are not yet known, and it is also unclear how the many different chemicals used to flavour vapes may interact with human biology.[4]

Given this, the rapid rise in vaping in young people who have never smoked is of particular public health concern.[4] Vaping is also associated with an increased uptake of smoking, with dual users facing a dual health burden of the impacts of both smoking and vaping.[4] This creates a health equity issue; young smokers, who already face increased health issues, may have the health gap further widened by the uptake of vaping.[11] The reverse is also true; young people who have never smoked who take up vaping and then smoking face a host of health impacts they may have otherwise avoided.[12] This bi-directional association between vaping and smoking indicates that the relationship between the practices is complex, with vaping and smoking being neither mutually exclusive nor totally dissimilar.[12]

Much of the previous research into vaping and smoking has focused on the effectiveness of vaping as a smoking cessation aide,[9,13,14] which while a worthy pursuit, misses the larger prospect that vaping has emerged as a practice in its own right, with its own social, psychological and health considerations.[10] In addition, vaping itself has evolved rapidly, for example, the vaping 'sub-culture' identified by previous researchers is likely to have diminished with the widespread mainstreaming of the practice.[10,15,16] Researchers have explored the psychological, social and physiological factors which influence people who smoke cigarettes despite the known negative health impacts.[8] Studies which have examined vapers motivations for use found that a desire to quit smoking, liking the flavours of vapes and the ability to vape in places where smoking was not permitted were key factors, but these studies have primarily been undertaken using quantitative surveys, and thus lack a depth of detail and understanding.[13,15] No published research has focused on dual users, despite this group facing arguably the greatest health burden, and little research has been conducted into the relationship between smoking and vaping from a qualitative standpoint.[4]

One study of particular relevance to this topic is Chapman and Freeman's examination of the denormalisation of smoking in Australia.[2] These authors identify the 'spoiled identity of smokers' through a range of negative social connotations, including smokers as dirty, uneducated, undesirable, addicts and litterers, with these notions contributing to the decreased uptake of smoking in Australian society.[11] These connotations are tied inherently to the features of cigarettes, many of which are not shared by vapes. Therefore, the rise of vaping, while not

necessarily leading to the renormalisation of smoking,[17] has arguably led to the renormalisation of nicotine, which may impact the social dynamics of all nicotine use. It is therefore crucial that research explores vaping and smoking from the standpoint that they are different yet interrelated.[12] Considering this prior research, a research gap emerges regarding dual users' motivations for use and the relationship between smoking and vaping.

Aim(s) and objective(s):

This study aims to understand the emergence of dual vape and cigarette use through the perspective of young Australian users. In particular, this study aims to identify the factors that influence dual use, perceptions of nicotine dependence, and how the differences between vaping and smoking are viewed by dual users.

Research Plan:

Research methodology:

This study is grounded in a constructivist epistemology which sees the reality of phenomena as constructed by those who experience it.[18] Dual vaping and cigarette use is an emerging phenomena, and no research has focused on this subset of nicotine users. The aim of this study is not only to describe dual use, but to understand the phenomena from the lived experience of the users. To achieve this, a phenomenological research methodology will be used. Phenomenological methodologies are commonly used by qualitative researchers seeking to study relatively underexplored issues such as dual use, as they allow for the larger meaning or 'essence' behind phenomena to be uncovered.[19] Phenomenology has also been cited as a means to re-examine taken-for-granted experiences to uncover new meanings – a particularly relevant pursuit as smoking moves from common to uncommon, vapes rise in popularity and dual use emerges.[20] This methodology is suited to answering the research question as it enables a rich understanding of dual use to emerge from the perspective of the users.[19]

Sample:

This study will focus on understanding the lived experience of young adult dual users living in Brisbane, Australia. Young Australian adults are defined as those aged 18 to 24, a group which has been selected due to having the highest rate of dual use in Australia – in 2019 18.7% of current smokers in this age group regularly vaped.[21] In addition, young people have been shown to be heavily influenced by current trends and peer attitudes – indicating that targeting public health interventions to curb nicotine usage is viable and important in this group.[22] This study will be focused on young adults in Brisbane to help ensure that the participants have relatively similar

access to vapes and cigarettes. Dual use is defined as at least weekly use of both cigarettes and nicotine-containing vapes, in line with the Australian Institute of Health and Welfare (AIHW) definition of regular tobacco use, used to measure smoking prevalence in Australia.[5]

Study participants will be recruited through social media advertising, targeted towards young adults living in Brisbane. The advertisements will state that researchers are looking for people who both vape and smoke regularly who are willing to discuss their use in a recorded interview. People who click on the advertisement will be sent to a short online form which will collect their demographic, smoking and vaping data and provide them with more information about the study. Once the forms have been submitted, the research team will review the responses and contact people who meet the eligibility criteria to provide more information and arrange the interviews.

Phenomenological research typically involves a small amount of participants engaging in in-depth discussions with researchers.[19] This study will use a purposive sampling technique with a focus on variation - participants should share the common experience of being dual users, but otherwise come from a variety of sociodemographic backgrounds. This provides weight to the representativeness of the themes which emerge from the data.[23] The research team will select a group of respondents to interview from a variety of backgrounds, with additional participants interviewed until the research questions have been addressed through the achievement of data saturation.[24] Participants will be provided additional information in the form of a participant information sheet and will provide written consent before the interviews begin. Participants will receive a $50 gift voucher as an incentive for taking part in the study.

Data collection:

Participants will engage in one-on-one semi-structured interviews with the lead researcher. The semi-structured format will allow for rapport to be developed between the researcher and participants, enable participants to guide the conversation, and for the researcher to adapt questions to suit.[25] One-on-one interviews have been chosen rather than focus groups, as prior research into vaping with young people has shown that respondents can be skewed by the sentiments expressed by other members of focus groups.[15] The interviews will be recorded and transcribed, with the lead researcher taking field notes on body language and expressions as appropriate to further enrich the data.[18]

Interview guide: (sub-points are follow-up questions for clarification)

- Could you please describe to me how a typical week looks for you in terms of smoking and vaping?
    - How often and when do you smoke and vape?
- Could you please explain how you came to be a regular smoker? Vaper?
    - Why did you start vaping when you were already smoking (or vice-versa)?
- What are the benefits of smoking? Vaping?
- Have you experienced any negative consequences of smoking? Vaping?
    - Are you hoping to stop smoking? Vaping?
        - Have you ever considered yourself to be "addicted" to smoking? Vaping?
- How is smoking and vaping similar?
- How is vaping different to smoking?
    - How do these similarities and differences influence your smoking and vaping?

Data analysis:

After each interview is transcribed, inductive analysis will commence, with a focus on identifying the themes which describe and explain the lived experience of dual use. Interviews and analysis will take place alongside one another, such that they can be finalised when the research team agrees that data saturation has been achieved.[26] The key aim of the analysis is to identify themes which are repeated within and across interviews.[18] In line with the phenomenological methodology, the analysis will focus on bringing to light the major tenants towards understanding the phenomena of dual use.[20] To ensure rigor of the analytical process, the research team will first read each transcript in depth, making memos and identifying initial themes, before coming together to discuss the findings and develop more concrete themes.[26] Due to the inductive phenomenological approach, existing theory will not be considered before the analysis of the transcripts, but may be incorporated into the findings if themes which from the data align with it.[18] It is expected that the features of smoking denormalisation identified by Chapman and Freeman[2] will be explored after the initial themes are developed, to identify if any of these factors are considered important by the study participants.

Expected significance & outcomes:

Knowledge impact:

The rapid rise of vaping has changed the landscape of nicotine use in Australia. While some research has investigated vapers attitudes and motivations for use, this research is significant in that it is the first to investigate the relationship between vaping and smoking from the perspective of dual users. This study provides insights into an emerging phenomena of public health concern, as described by a growing group of young Australians facing the dual health consequences of dual use. The findings of this study will contribute to the knowledge and scholarship of contemporary nicotine use in Australia, and may indicate avenues for future sociological, psychological and public health research. For example, future researchers

may seek to investigate whether the themes identified in this study are common amongst dual users in different locations or of different ages, and how health promotion and public health interventions influence these.

Public Health impact:

While the qualitative nature of this study means that the findings cannot be generalised, this study has the potential to identify key factors which influence the uptake and use of vaping and cigarettes in young Australians. These factors could be considered by health promotion practitioners and governments seeking to design public health interventions to educate the public on the health consequences of vaping and assist people in quitting. In particular, these findings will explore whether and how the factors Chapman and Freeman associated with the denormalisation of smoking in Australia are present in the practices of contemporary vaping and smoking.[2] If found to be lacking, this would indicate cause for concern of the renormalisation of nicotine consumption in Australia and predict further future increases in uptake. Identifying and responding to these factors may be critical to preventing the gains from existing campaigns to decrease smoking rates from being lost and preventing a new public health crisis of vaping issues from emerging.

For example, Chapman and Freeman identified the association between cigarettes and environmental damage as a factor which influenced the denormalisation of smoking.[2] High-profile campaigns in the 2000s highlighted the environmental impacts of cigarette butts, causing not only litter, but potentially accidentally lighting bushfires.[2] These campaigns not only had the potential to decrease the amount of cigarette litter, but also influence the public consciousness about the qualities of the practice of smoking.[2] Vaping does not immediately have the same environmental concerns of smoking; vapes can be used many times and are far less likely to cover the streets in litter in the way of cigarette butts. Yet vapes pose their own host of environmental risks; each vape contains plastic, electronic and hazardous chemical waste that cannot currently be recycled; ultimately creating an environmental issue which may be greater than that of cigarettes.[27] If the findings of this study indicate that dual users do not consider vapes to be harmful to the environment, public health campaigns with messaging on the environmental issues of vaping could be developed to not only target the immediate environmental issues, but to assist in changing public opinions on vaping. Health promotion practitioners could consider the themes identified in this study when developing campaigns to ensure that these factors are addressed and messaging is appropriate. Overall, however, the key contribution of this research is the exploration and consideration of an emerging phenomena in Australian society; dual vape and cigarette users.

Ethical Considerations:

Recruitment and consent

Participants for this study will be recruited via social media advertising, and selected to be interviewed

using purposive sampling. Respect for privacy has been identified as an ethical consideration for social media recruitment, with scholars arguing that although a great deal of information is available about people 'publicly' online, they have not necessarily consented to it being used for research purposes.[28] For this study, age and location will be used to target recruitment advertising, but the individual ages and locations, as well as other available personal data, will not be recorded unless individuals complete the screening form, which will include information about the study and a statement that they consent to the data they have provided in the form being collected. Only the demographic data of interviewed participants will be included in the study findings.

Despite their widespread use, purchasing nicotine-containing vapes without a prescription is illegal in Queensland.[29] Therefore, the study participants will potentially fall under the category of *4.6: People who may be involved in illegal activities* in the National Statement on Ethical Conduct in Human Research.[30] The study does not focus on how participants obtain their vapes, but this may come up in conversation during the interviews. Participants will be informed that their data will be de-identified and any quotes used will contain pseudonyms.[31] Consent will be obtained in two stages; initial consent to collect demographic and nicotine use data will be obtained through a form embedded in the screening survey, and written consent will be provided by interviewed participants after being provided an information sheet and being given the opportunity to ask questions by the lead researcher. The $50 gift card incentive will ensure that participants are appropriately renumerated for the time they have given to participate in the research, and is in-line with current practice.

Risk and benefit

As a result of the interview discussions, participants may experience negative emotions through reflecting on their vape and cigarette use.[31] Participants will be assured that they are welcome to not answer any questions, or withdraw their consent at any time during the interview and the recording will be destroyed. Participants will be provided with information on accessing services to assist with quitting nicotine use should they wish to do so.

Data and privacy

The demographic and interview data collected by this study will be de-identified to ensure confidentiality. The interview recordings and transcripts will be stored on a secure university file server which can only be accessed by the research team. Participants will be given pseudonyms which will be used throughout the research project.

References

1. Australian Institute of Health and Welfare. Tobacco smoking. Canberra: AIHW; 2021.
2. Chapman S, Freeman B. Markers of the denormalisation of smoking and the tobacco industry. Tob Control 2008;17(1):25-31.
3. Australian Government: Department of HEalth. Smoking and tobacco laws in Australia. 2022 [cited 2022]. Available from: https://www.health.gov.au/health-topics/smoking-and-tobacco/about-smoking-and-tobacco/smoking-and-tobacco-laws-in-australia
4. Banks E, Yazidjoglou A, Brown S, Nguyen M, Martin M, Beckwith KD, A, et al. Electronic cigarettes and health outcomes: systematic review of global evidence. Canberra: ACT: Australian National University (ANU); 2022.
5. Australian Institute of Health and Welfare. Person - tobacco smoking status, code N. 2022 [2022]. Available from: https://meteor.aihw.gov.au/content/270311
6. Australian Government: Department of Health. About e-cigarettes. 2022 [cited 2022]. Available from: https://www.health.gov.au/health-topics/smoking-and-tobacco/about-smoking-and-tobacco/about-e-cigarettes#:~:text=From%201%20October%202021%2C%20Australians,importing%20these%20products%20from%20overseas.
7. Bali M. Nicotine vapes are about to become illegal without a prescription. But will it stop young people from buying them? Triple J HACK. 2021. Available from: https://www.abc.net.au/triplej/programs/hack/new-vaping-laws-may-create-bigger-black-market/13561210.
8. West R. Tobacco smoking: Health impact, prevalence, correlates and interventions. Psychology & health 2017;32(8):1018-36.
9. Pound CM, Zhang JZ, Kodua AT, Sampson M. Smoking cessation in individuals who use vaping as compared with traditional nicotine replacement therapies: a systematic review and meta-analysis. BMJ Open 2021;11(2):e044222.
10. McCausland K, Jancey J, Leaver T, Wolf K, Freeman B, Maycock B. Motivations for use, identity and the vaper subculture: a qualitative study of the experiences of Western Australian vapers. BMC Public Health 2020;20(1):1552.
11. Chapman S, Daube M. Response to Mendelsohn, Borland and Hall's 'Could vaping help lower smoking rates in Australia?'. Drug and Alcohol Review 2020;39(4):419-21.
12. Aleyan S, Gohari MR, Cole AG, Leatherdale ST. Exploring the Bi-Directional Association between Tobacco and E-Cigarette Use among Youth in Canada. International Journal of Environmental Research and Public Health 2019;16(21).
13. Rhoades DA, Comiford AL, Dvorak JD, Ding K, Hopkins M, Spicer P, et al. Vaping patterns, nicotine dependence and reasons for vaping among American Indian dual users of cigarettes and electronic cigarettes. BMC Public Health 2019;19(1):1211.
14. Mendelsohn C, Hall W, Borland R. Could vaping help lower smoking rates in Australia? Drug and Alcohol Review 2020;39(4):415-8.
15. Lucherini M, Rooke C, Amos A. E-cigarettes, vaping and performativity in the context of tobacco denormalisation. Sociology of Health & Illness 2018;40(6):1037-52.
16. McCausland K, Maycock B, Leaver T, Wolf K, Freeman B, Jancey J. E-Cigarette Advocates on Twitter: Content Analysis of Vaping-Related Tweets. JMIR Public Health Surveill 2020;6(4):e17543.
17. Britt H, Maynard OM, Bauld L, Brown R, Gray L, Lowthian E, et al. Have e-cigarettes renormalised or displaced youth smoking? Results of a segmented regression analysis of repeated cross sectional survey data in England, Scotland and Wales. Tobacco Control 2020;29(2):207.
18. Creswell JW, Poth CN. Qualitative inquiry & research design : choosing among five approaches. Fourth edition. ed. Los Angeles: SAGE; 2018.
19. Neubauer BE, Witkop CT, Varpio L. How phenomenology can help us learn from the experiences of others. Perspectives on medical education 2019;8(2):90-7.

20. Laverty SM. Hermeneutic Phenomenology and Phenomenology: A Comparison of Historical and Methodological Considerations. International Journal of Qualitative Methods 2003;2(3):21-35.
21. Health AIo, Welfare. National Drug Strategy Household Survey 2019. Canberra: AIHW; 2020.
22. Hammond D. Smoking behaviour among young adults: beyond youth prevention. Tobacco Control 2005;14(3):181.
23. Liamputtong P. Qualitative Research Methods. Fifth edition ed. Docklands, VIC: Oxford University Press; 2019.
24. Saunders B, Sim J, Kingstone T, Baker S, Waterfield J, Bartlam B, et al. Saturation in qualitative research: exploring its conceptualization and operationalization. Quality & quantity 2018;52(4):1893-907.
25. Kallio H, Pietilä A-M, Johnson M, Kangasniemi M. Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. Journal of Advanced Nursing 2016;72(12):2954-65.
26. Moser A, Korstjens I. Series: Practical guidance to qualitative research. Part 3: Sampling, data collection and analysis. The European journal of general practice 2018;24(1):9-18.
27. Jérémie Pourchez CMaVF. From smoking to vaping: a new environmental threat? The lancet respiratory medicine 2022.
28. Gelinas L, Pierce R, Winkler S, Cohen IG, Lynch HF, Bierer BE. Using Social Media as a Research Recruitment Tool: Ethical Issues and Recommendations. The American journal of bioethics : AJOB 2017;17(3):3-14.
29. Queensland Government. Electronic cigarettes. 2023 [cited 2023]. Available from: https://www.qld.gov.au/health/staying-healthy/atods/smoking/devices#:~:text=Electronic%20cigarettes%20and%20electronic%20cigarette%20products%20which%20contain%20nicotine%20are,through%20Therapeutic%20Goods%20Administration%20processes.
30. Australian Government. National Statement on Ethical Conduct in Human Research Council NHaMR. Canberra: Universities Australia; (2007) - Updated 2018.
31. Lin L-C. Data Management and Security in Qualitative Research. Dimensions of critical care nursing : DCCN 2009;28:132-7.