ISSN: 2994-032X

Research Article

International Journal of Preventive Medicine and Care

Vaping in a Pacific Island Context: Social Networks, Informal Access, Regulatory Visibility, and Adolescent Initiation Among Young Adults in Samoa

Ralphen Viane[1,2*], Mohammad Alamgir[3], Safaatoa Fereti[4,5], Katharina Blattner[6] and Patelisio Naa Patelisio[7]

[1]*Pacific Apex Research Consultancy Apia, New Zealand*

[2]*Le Afio'aga o Aotearoa Auckland New Zealand*

[3]*UNICEF Pacific Nukualofa, New Zealand*

[4]*University of Auckland Auckland New Zealand*

[5]*Ministry of Health, Samoa A Apia, New Zealand*

[6]*University of Otago Dunedin, New Zealand*

[7]*Ministry of Health, Tonga Nukualofa, Tonga*

***Corresponding Author**
Ralphen Viane, Le Afio'aga o Aotearoa Auckland New Zealand.

Submitted: 2026, sept 01 ; **Accepted:** 2026, Sept 29; **Published:** 2026, Nov 06

Citation: Viane, R., Alamgir, M., Fereti, S., Blattner, K., Patelisio, N. P. (2026). Vaping in a Pacific Island Context: Social Networks, Informal Access, Regulatory Visibility, and Adolescent Initiation Among Young Adults in Samoa. *Int J Prev Med Care, 4*(2), 01-08.

Abstract

Background: *Qualitative evidence on adolescent vaping in Pacific Island settings remains limited. This study explored how social networks, informal access, risk perceptions, cessation experiences, and regulatory visibility shaped e-cigarette use among young adults in Samoa who first experimented during adolescence. Methods: A qualitative descriptive study was conducted with 30 current and former e-cigarette users aged ≥18 years who first used e-cigarettes at 12–17 years. Participants were recruited from the National University of Samoa and The University of the South Pacific, Samoa Campus. Semi-structured interviews were transcribed, de-identified, manually coded, and analysed thematically. Results: Participants had a mean age of 21.7 years (SD=2.3), and mean age at initiation was 15.6 years (SD=1.4). Sixteen were current users and 14 were former users. Vaping emerged through an interconnected pathway: social networks enabled exposure, sharing, access, and reinforcement; perceptions of reduced harm, flavours, and repeated visibility normalised experimentation; continued use was sustained by accessibility, peer settings, enjoyment, stress, and habit; and cessation was linked to health concerns, cost, family influence, changing social environments, and personal motivation. Limited awareness of regulation coexisted with informal and digitally mediated access through friends, acquaintances, online sellers, and local delivery.*

Conclusion: *In this tertiary-student sample, adolescent vaping was socially embedded and shaped by overlapping processes of exposure, access, normalisation, continuation or cessation, and regulatory visibility. Youth-focused responses in Samoa should integrate prevention, cessation, surveillance, and tobacco-control implementation, with attention to peer and family networks, informal and digital supply pathways, perceived risk, and clearer regulatory communication.*

Keywords: E-Cigarettes, Vaping, Adolescents, Young Adults, Samoa, Pacific Islands, Social Networks, Informal Access, Tobacco Control, Qualitative Research

Abbreviations

COREQ: Consolidated Criteria for Reporting Qualitative Research
E-cigarette: Electronic cigarette
NHREC: National Health Research Ethics Committee
NUS: National University of Samoa
USP: The University of the South Pacific

1. Introduction

Electronic cigarettes, colloquially referred to as "e-cigarettes," "e-cigs," "vapes," or "vape pens" by companies and consumers, encompass a category of battery-powered devices that operate by heating solutions which generally consist of nicotine, flavourings, as well as other additives, allowing users to inhale vapour into their lungs [1]. Initially promoted as a potentially less harmful alternative to conventional cigarettes and as an aid to smoking cessation, e-cigarette use has increased substantially since their commercial introduction in the early 2000s [2]. Of particular public health concern is their uptake among adolescents and young people who have not previously smoked conventional cigarettes [3,4]. For this study, adolescents are defined as individuals aged 12–17 years. Growing evidence has identified potential health risks associated with e-cigarette use, particularly among adolescents [2,5]. Nicotine exposure during adolescence has been associated with addiction and adverse effects on the developing brain, while e-cigarette aerosols and flavouring constituents have been linked with respiratory inflammation, cellular toxicity, and potential cardiovascular effects [5-9]. E-cigarette use among young people has also been associated with subsequent conventional cigarette smoking, although the extent to which this relationship is causal remains uncertain [10,11].

Beyond potential health effects, adolescent e-cigarette use is influenced by a combination of individual and social factors. International research has identified curiosity, perceptions of reduced harm, flavours, peer and family influences, social acceptance, and exposure to vaping within young people's social environments as important factors shaping experimentation and continued use [5,12]. These findings suggest that adolescent vaping should be understood within the broader social environment rather than solely as an individual behavioural choice.

However, much of the existing evidence originates from countries outside the Pacific, where regulatory, social, cultural, and commercial environments may differ considerably from those in Samoa. Samoa's tobacco control framework was primarily developed in response to conventional tobacco products, with e-cigarettes and emerging vaping products not comprehensively addressed within the existing legislation [13]. This is increasingly relevant as vaping products become more visible and accessible, particularly among younger populations. However, there remains limited local evidence on how young Samoans perceive, access, initiate, continue, or cease using e-cigarettes. Samoa provides a distinctive setting in which to examine vaping because young people's behaviours occur within closely connected family, peer, school, church, and community networks, while consumer products and information also circulate through transnational and digital connections. In such a setting, social networks may do more than shape attitudes: they may also influence exposure to products, access, perceived normality, continued use, and decisions to stop. Examining these processes is important for determining whether internationally established explanations of adolescent vaping operate in the same way within a small Pacific Island context.

Despite increasing international research on adolescent vaping, qualitative evidence from Samoa remains limited. The contribution of this study is therefore not simply to document whether internationally recognised influences such as peers, flavours, and risk perceptions are present in Samoa, but to examine how these influences interact with local social networks, informal access pathways, and young people's experience of the regulatory environment. Retrospective accounts from adults who initiated vaping during adolescence provide an opportunity to examine these interconnected processes over time, including factors that sustained use or contributed to cessation.

Accordingly, this study explored the experiences and perceptions of current and former e-cigarette users attending tertiary institutions in Samoa who first experimented with e-cigarettes during adolescence. Particular attention was given to how social and environmental influences intersected with initiation, access, continued use, cessation, health-risk perceptions, and understanding of e-cigarette regulation. The study aimed to generate locally grounded evidence that can inform culturally and contextually appropriate prevention, cessation, surveillance, and tobacco-control responses in Samoa.

2. Methods

2.1. Study Design and Participants

A qualitative descriptive study using semi-structured, in-depth interviews was conducted with current and former e-cigarette users in Samoa. Reporting was informed by the Consolidated Criteria for Reporting Qualitative Research (COREQ) [14]. Participants were aged ≥18 years and had first experimented with e-cigarettes between 12 and 17 years of age. Eligible participants were students at the National University of Samoa (NUS) or The University of the South Pacific (USP), Samoa Campus, had undertaken their adolescent or secondary-school years in Samoa, and were able to provide informed consent and participate in Samoan or English. Individuals aged <18 years, those who initiated e-cigarette use at ≥18 years, and those who had not resided in Samoa during adolescence were excluded. Participants were recruited using purposive and volunteer sampling, with variation sought across sex, institution, age at initiation, and current or former e-cigarette use [15]. Recruitment information was distributed through approved university channels, allowing eligible individuals to voluntarily express interest. Recruitment continued until sufficient thematic depth was achieved and no substantively new findings were emerging. 30 participants completed the study.

2.2. Research Team and Reflexivity

The research team consists of three researchers with experience in qualitative research and knowledge of the Samoan and broader Pacific context. The interviewer had no prior relationship with the participants, helping to maintain independence during the interview process. The researchers acknowledged that their professional and cultural backgrounds could influence the interview process and interpretation of the data. Reflexivity was considered throughout the study. Researchers kept field notes following interviews and discussed emerging interpretations during the analysis. During coding, the team revisited their assumptions and interpretations to ensure that the findings remained closely grounded in participants' accounts.

3. Data Collection

Data were collected between March and October 2023. Semi-structured interviews were conducted either face to face in a suitable space and Fale Samoa at the NUS or USP Samoa campus or online via Zoom, according to participant preference. Interviews were conducted in Samoan or English and lasted approximately 40 minutes. A semi-structured interview guide explored participants' experiences of e-cigarette initiation and use during adolescence, social and peer influences, perceptions of health risks, continued use and cessation, and understanding of e-cigarette regulation in Samoa. Open-ended questions and follow-up prompts allowed participants to describe their experiences in their own words [16]. With informed consent, interviews were audio-recorded, with field notes taken to capture relevant observations during and immediately after interviews. No repeat interviews were conducted, and transcripts were not returned to participants for checking.

3.1. Data Analysis

Audio recordings were transcribed verbatim, de-identified, and checked for accuracy prior to analysis. Data were analysed using thematic analysis following [17]. Three researchers independently familiarised themselves with the transcripts and undertook coding. Initial codes were compared and organised into broader categories, from which themes and subthemes were developed.

Themes were reviewed against the transcripts and refined through discussion among the research team. Differences in interpretation were discussed and resolved through consensus, with a third researcher consulted where needed. Analysis was iterative and examined both recurring experiences and relationships between themes, including how social exposure, access, risk perceptions, continued use, and cessation interacted across participants' accounts. Manual coding was used to organise and analyse the data.

3.2. Ethical Considerations

Ethical approval was obtained from the National Health Research Ethics Committee (NHREC) in Samoa prior to data collection. The study was conducted in accordance with the ethical principles of the Declaration of Helsinki and NHREC ethical requirements. All participants provided informed consent and were advised that participation was voluntary and that they could decline to answer questions or withdraw without consequence. Pseudonyms were used and identifying information was removed from transcripts and reported findings. Particular attention was given to confidentiality given Samoa's relatively small and interconnected social context.

4. Findings

4.1. Participant Characteristics

A total of 30 participants who had first experimented with e-cigarettes during adolescence participated in the study. The mean age of participants was 21.7 years (SD = 2.3), while the mean age of first e-cigarette use was 15.6 years (SD = 1.4). Sixteen participants (53.3%) identified as current e-cigarette users and 14 (46.7%) as former users. Participants were recruited from NUS and USP, Samoa Campus. Further participant characteristics are presented in Table 1.

Characteristic	n (%) or Mean (SD)
Age, years	21.7 (2.3)
Age at first e-cigarette use, years	15.6 (1.4)
Sex	
Male	19
Female	11
Ethnicity	
Samoan	30
Institution	
NUS	12
USP Samoa Campus	18
E-cigarette use status	
Current user	16 (53.3)
Former user	14 (46.7)

Table 1: Characteristics of Study Participants (N = 30)

The findings are organised as an interconnected behavioural pathway rather than as four discrete influences. Participants' accounts indicated that adolescent vaping began within familiar social environments where exposure, curiosity, and access converged. These early experiences were then shaped by perceptions of relative harm and by the visibility of vaping within peer networks, which together helped make experimentation appear acceptable or low risk. Over time, vaping trajectories diverged: for some participants, social access, enjoyment, stress relief, and habit reinforced continued use; for others, health concerns, cost, family influence, and changing social environments disrupted use. The final theme locates these trajectories within a broader context of informal and digitally mediated supply, where limited regulatory visibility appeared to blur young people's understanding of whether vaping was controlled, permitted, or socially sanctioned.

- **Theme 1: Social Networks as Pathways to Exposure, Experimentation, and Reinforcement**

Social networks formed the starting point of participants' vaping trajectories. They were prominent not only as sources of influence but also as practical pathways through which participants first encountered, accessed, and experimented with e-cigarettes. Friends, classmates, relatives, and social gatherings created opportunities for first use, while sharing devices reduced the need for participants to purchase products themselves. In several accounts, the social availability of vaping appeared to make experimentation easy and routine within friendship groups, indicating that initiation was embedded in everyday social interaction rather than occurring as an isolated individual decision.

"I got the vape from my friend. He said it was from his cousin who came from NZ. I tried it and really liked the flavour … we continued to share the vape around our group."
(Male, 19 years) Curiosity was commonly expressed within this social context, but it was rarely described as a purely individual impulse. Instead, curiosity was activated by repeated exposure to peers vaping, opportunities to share devices, and the sensory appeal of flavours. These conditions lowered the threshold for experimentation because participants did not need to actively seek out products or make an independent purchase. For some participants, continued exposure within the same networks shifted vaping from a one-off experiment to a more regular practice. This pattern shows how the initial social pathway to access could become a reinforcing environment, preparing the ground for vaping to be viewed as familiar, acceptable, and increasingly normal.

"I started by trying it with my two friends, to taste it and see how it feels … it felt good, and I continued from then. It's been five years now since I've been vaping."
(Female, 22 years)

- **Theme 2: Risk Perceptions and the Normalisation of Vaping**

Following initial exposure, participants' accounts showed how perceptions of harm influenced whether experimentation was treated as risky or acceptable. Participants demonstrated varying levels of knowledge about the potential health effects of e-cigarettes. Most recognised that vaping could be harmful, but knowledge of nicotine dependence and respiratory or cardiovascular effects varied. Importantly, uncertainty about specific harms often coexisted with perceptions of vaping as cleaner, easier to use, or less harmful than conventional smoking. These perceptions did not cause vaping on their own, but they helped reduce the perceived seriousness of trying or continuing to use e-cigarettes within social settings where vaping was already visible.

"I came across vaping on the internet, and it said it was an alternative to smoking … I was not aware of any health risks. I thought it was good since it was an alternative to reduce smoking."
(Male, 18 years)

Some participants recalled believing during adolescence that e-cigarettes were less harmful than conventional cigarettes. The absence of cigarette smoke, the presence of flavours, and the perception of vaping as cleaner or technologically different from smoking contributed to these views. Analytically, these perceptions appeared to work by softening the boundary between risk and acceptability: vaping could be recognised as potentially harmful while still being treated as sufficiently different from smoking to justify experimentation. Former users commonly described greater concern about potential health effects when reflecting on their previous vaping experiences. For some, these concerns contributed to their decision to stop. This contrast suggests that perceptions of harm were not fixed; they changed as participants accumulated personal experience, encountered information, or reinterpreted symptoms and risks. Risk perception therefore operated across the vaping trajectory, influencing both the normalisation of experimentation and, later, the possibility of cessation.

"I came across some news from Niue on the internet that someone had died because of vaping. I'm not sure if it's true … I've been vaping for almost three years now, but a smoker for two years. It's not making me reduce smoking but making me want to smoke some more … I also have this dry mouth problem, and I think it's because I vape and smoke at the same time. So I decided to stop, and it's been two months since my last puff."
(Male, 23 years)

- **Theme 3: Social and Personal Conditions Sustaining or Disrupting Use**

The third theme extends the analysis from initiation and normalisation to the conditions that sustained or disrupted vaping over time. Comparison of current and former users suggested that continued vaping and cessation were shaped by changing combinations of social and personal conditions. Current users described peer environments, accessibility, flavours, enjoyment, stress, and established habits as mutually reinforcing influences. Continued interaction with friends who vaped maintained both opportunities to use and the social acceptability of vaping, while stress and habit gave vaping a personal function beyond experimentation.

"It felt good, and I see vaping as the quickest way to get together with some friends at Uni, even though the campus does not allow us to vape in the compound."

(Female, 20 years)
"When I have too many assignments … having a puff or two makes me feel less pressured and a bit relaxed."
(Male, 19 years)

Former users described health concerns, financial cost, family influence, changes in friendship groups, and personal motivation as factors contributing to cessation. These accounts indicated that stopping was often associated with a disruption in the circumstances that had previously sustained vaping rather than with a single decisive event. In this sense, cessation was not simply the opposite of initiation; it involved a reconfiguration of the same social, economic, health-related, and personal conditions that had made vaping possible.

"The cost of the vape varied. I remember buying one from a seller on Facebook Marketplace for 95 tala … the price kept going up, and I can remember the last vape I bought was 120 tala. It was getting expensive, so I decided to stop buying it from online sellers."
(Male, 20 years)

Cessation was therefore generally described as a multi-factor process. Changes in personal priorities, social environments, affordability, and perceptions of harm could combine to weaken the reinforcement of vaping. This contrast between current and former users suggests that social environments can operate in both directions: they may sustain use when vaping remains accessible and socially embedded, but changes in those environments may also create opportunities for cessation. The progression from initiation to cessation was therefore not linear or uniform; rather, participants' vaping trajectories shifted as social, financial, health-related, and personal conditions changed.

- **Theme 4: Informal Access and Limited Regulatory Visibility**

This theme places participants' vaping trajectories within an access environment where informal supply channels and limited regulatory visibility shaped how young people understood the availability, permissibility, and control of e-cigarettes. Participants demonstrated limited and inconsistent knowledge of e-cigarette regulation in Samoa. This limited awareness was notable alongside accounts of products being available through friends, acquaintances, online sellers, and local delivery arrangements. For some participants, the visibility and apparent ease of access to products appeared inconsistent with the idea that vaping was subject to formal controls, contributing to uncertainty about what restrictions applied. In this way, informal access did more than provide products; it also shaped participants' interpretation of whether vaping was socially and legally permissible.

"It felt normal because people were selling it online and having it delivered to town, to a location messaged through by the seller … I was never aware that these products were regulated because they were sold online and locally."
(Female, 21 years)

Some participants reported having little or no knowledge of legislation relating specifically to e-cigarettes. This limited awareness was analytically important because it shaped how participants interpreted the vaping environment. In the absence of clear regulatory messages, the everyday visibility of online sellers, peer distribution, and local delivery could be read as evidence that vaping was tolerated or permitted.

"We see things on the internet that vapes are banned in some overseas countries … I never came across any formal notice about vapes or any law from the Ministry of Health or officials. We thought it was allowed here in Samoa."
(Male, 18 years)

Participants also described accessing vaping products through friends, acquaintances, and other informal channels. These accounts indicated that access during adolescence was not necessarily dependent on direct purchasing from online sellers around Samoa. Instead, digital platforms and interpersonal networks appeared to overlap: online sellers could supply one member of a group, while friends then redistributed, shared, or enabled access for others. This overlap made access socially mediated even when the original transaction occurred online.

"It was very easy for us to order. We just messaged the seller through Instagram or sometimes Facebook Messenger, and we would get it the next day … they delivered it to one of my friends."
(Female, 23 years)

Taken together, the four themes show a connected process in which social networks introduced participants to vaping, risk perceptions helped normalise experimentation, social and personal conditions influenced whether use continued or stopped, and informal access pathways blurred awareness of regulation. The progression across themes suggests that adolescent vaping in this sample was not explained by a single factor such as curiosity, peer pressure, flavour appeal, or availability. Rather, these factors operated sequentially and interactively: social exposure made experimentation possible, perceptions of reduced harm made it more acceptable, repeated access and personal functions made continued use more likely, and weak regulatory visibility reduced the perceived constraints around vaping. This pathway was not uniform for all participants, but it provides an analytical structure for understanding how vaping became possible, meaningful, sustained, or discontinued within this Samoan tertiary-student sample.

5. Discussion

This study examined retrospective accounts of young adults attending tertiary institutions in Samoa who initiated e-cigarette use during adolescence. Its main contribution is to show that adolescent

vaping in this sample was not explained by a single factor such as curiosity, peer influence, flavour appeal, or availability. Instead, participants' accounts described an interconnected process in which social networks created opportunities for exposure and access, perceptions of reduced harm supported normalisation, social and personal conditions influenced continuation or cessation, and informal supply intersected with limited regulatory visibility. This framing highlights how internationally recognised influences operated together within Samoa's social and tobacco-control context.

5.1. Social Networks as Behavioural Infrastructure

International research has consistently identified peer and family influence in adolescent e-cigarette use, and the present findings are consistent with that literature. However, this study adds analytical specificity by showing that social networks were not only sources of influence but also the practical infrastructure through which vaping became available. Participants described receiving or sharing devices through friends and relatives, encountering vaping in social gatherings, and continuing to use in environments where vaping was common. Social influence and access were therefore difficult to separate: the same networks that made vaping visible also made products physically available and reinforced their use.

This distinction is important in Samoa, where adolescent and young adult behaviour occurs within closely connected peer, family, school, church, and community networks, while products and information may also circulate through transnational and digital connections. In a small Pacific Island setting, these overlapping relationships can amplify both exposure and informal access because products, information, and social approval may move quickly through familiar networks. Prevention strategies focused only on correcting individual knowledge may therefore miss the relational pathways through which vaping becomes visible, accessible, and socially meaningful. Responses are likely to be stronger when they engage peer and family networks while also addressing the availability and visibility of vaping products.

5.2. Risk Perceptions, Accessibility, and Normalisation

Normalisation was evident in the way participants interpreted vaping once it was already visible and accessible. Beliefs that vaping was cleaner or less harmful than smoking did not operate alone; they interacted with flavours, ease of use, peer visibility, and the absence of clear immediate consequences. Together, these conditions lowered perceived barriers to experimentation and helped position vaping as an acceptable activity within some friendship groups. This interpretation is consistent with international evidence showing that adolescents may hold comparatively favourable perceptions of e-cigarettes, while extending the analysis by showing how those perceptions interacted with everyday access and social exposure in Samoa.

Health communication should therefore move beyond general statements that vaping is harmful. Clear information about nicotine dependence and potential respiratory and cardiovascular effects remains important, but communication is unlikely to be sufficient if young people continue to encounter vaping as socially routine and easy to access. The findings indicate that prevention messages need to challenge not only inaccurate knowledge but also the social meanings attached to vaping, including the idea that flavoured, smoke-free, or digitally sourced products are necessarily low risk.

5.3. Continuation and Cessation as Dynamic Social Processes

The comparison between current and former users suggests that vaping trajectories were dynamic rather than fixed once experimentation had occurred. Continued use was associated with peer environments, accessibility, enjoyment, flavours, stress, and habit, indicating that vaping could acquire both social and personal functions over time. In contrast, former users described health concerns, financial cost, family influence, changing friendship groups, and personal motivation as factors that disrupted use. These findings suggest that continuation and cessation were shaped by changing combinations of the same conditions that had enabled initiation, rather than by a single cause or turning point.

This has practical implications for cessation. If continued use is sustained by social reinforcement, access, stress relief, and habit, then cessation support should not rely solely on individual motivation. Former users' accounts point to possible intervention points: increasing concern about health effects, reducing affordability and easy access, strengthening family and peer support for stopping, and helping young people manage stress without routine vaping. Culturally relevant cessation support in Samoa could therefore combine peer and family engagement with accessible health information and practical strategies for disrupting habitual use. The findings do not establish the effectiveness of any particular intervention, but they identify locally relevant mechanisms that warrant testing.

5.4. Regulatory Visibility and Informal Supply

Individual and social vaping trajectories were also shaped by the wider access and regulatory environment. A particularly important finding was the coexistence of limited regulatory understanding with informal and digitally mediated access. Participants reported obtaining products through friends, acquaintances, Facebook Marketplace, Instagram, and local delivery arrangements. Some interpreted the visibility and ease of these transactions as indicating that vaping was permitted or largely unrestricted. The analytical issue is therefore not only whether regulatory provisions exist, but whether young people encounter regulation as visible, understandable, and capable of shaping the conditions under which products are accessed. The study cannot determine the adequacy or effectiveness of Samoa's legislation, and participants' perceptions should not be treated as evidence of regulatory compliance, enforcement, or legal availability. However, their accounts identify an implementation question requiring further investigation: whether informal and digital supply pathways reduce the practical visibility of existing tobacco-control measures to young people. Regulatory ambiguity appeared most clearly where social access and digital supply overlapped. Regulatory review, surveillance of emerging supply pathways, and clearer public communication should therefore be considered alongside prevention and cessation

initiatives.

5.5. Public Health Implications

The public health implications are therefore interconnected rather than separate. Prevention should address the social conditions that make vaping visible and accessible; health communication should challenge both misinformation and the social meanings that make vaping appear low risk; cessation support should respond to the social, financial, health-related, and stress-related conditions that influence stopping; and regulatory implementation should account for informal and digitally mediated supply pathways. In Samoa, this suggests the need for coordinated action across health services, tertiary and secondary education settings, families, community institutions, and regulatory agencies.

These implications are specific to the experiences represented in this tertiary-student sample and should not be generalised to all adolescents or young people in Samoa. Nevertheless, the analysis provides a locally grounded basis for broader research involving secondary-school students, non-tertiary young people, rural and remote communities, and different socioeconomic groups. Future studies should examine whether similar patterns of social exposure, normalisation, continuation or cessation, and regulatory ambiguity are evident across other groups, and should also investigate product availability, marketing, importation, digital sales, and enforcement.

5.6. Strengths and Limitations

A major strength of this study was its generation of qualitative evidence from a Pacific Island setting where locally grounded research on vaping remains limited. The inclusion of both current and former users allowed examination not only of initiation but also of conditions associated with persistence and cessation. The qualitative design also enabled analysis of relationships between social influence, access, risk perceptions, and regulatory understanding that may be difficult to capture through prevalence surveys alone.

Several limitations should be considered. First, the purposively selected sample comprised 30 tertiary students from NUS and USP Samoa Campus and was not intended to represent all young people in Samoa. The findings should therefore be interpreted as accounts from this specific group rather than population-level evidence. Second, participants retrospectively reported experiences from adolescence, creating potential recall bias and making it impossible to establish contemporaneous perceptions with certainty. Third, volunteer recruitment may have introduced selection bias, while social desirability may have influenced disclosure in Samoa's small and interconnected social environment.

Finally, recruitment through tertiary institutions may under-represent young people who did not continue into tertiary education, adolescents currently attending secondary school, and young people in different socioeconomic or geographic settings. These limitations constrain transferability but do not negate the value of the accounts for identifying mechanisms and questions for further investigation. Future studies should deliberately recruit a broader cross-section of young people across Samoa and examine how social and supply networks differ by geography, education, and socioeconomic circumstances.

6. Conclusion

This study shows that, among Samoan young adults attending tertiary institutions who initiated vaping during adolescence, e-cigarette use was not simply an individual choice or the result of peer influence alone. Rather, participants' accounts described an interconnected process in which social networks created opportunities for exposure, experimentation, access, and reinforcement; perceptions of reduced harm and the appeal of vaping supported normalisation; and changing personal, social, financial, and health-related conditions shaped whether use continued or stopped.

The study's contribution lies in highlighting how these social and behavioural processes intersected with informal and digitally mediated supply and with limited regulatory visibility in Samoa. These findings suggest that youth-focused responses should be coordinated across prevention, cessation, surveillance, and tobacco-control implementation. In particular, responses should engage peer and family networks, address the social meanings and perceived risks of vaping, support young people who wish to stop, monitor informal and digital access pathways, and communicate regulatory measures more clearly. Because the sample was limited to tertiary students, broader research is needed to determine whether similar patterns are evident among secondary-school students, non-tertiary young people, rural communities, and other groups across Samoa.

Ethics Approval and Consent to Participate

Ethical approval for this study was obtained from the National Health Research Ethics Committee (NHREC), Samoa, prior to commencement of data collection. The study was conducted in accordance with the ethical principles of the Declaration of Helsinki and applicable NHREC ethical requirements. All participants were aged 18 years or older and provided informed consent prior to participation. Participants were informed that participation was voluntary, that they could decline to answer any question, and that they could withdraw from the study without consequence.

Consent for Publication

Participants provided informed consent for their de-identified information and quotations to be used in reporting the findings of the study. No directly identifying participant information is presented in this manuscript.

Availability of Data and Materials

The qualitative data generated and analysed during this study are not publicly available because they contain potentially identifiable contextual information from participants within Samoa's relatively small and interconnected population. De-identified data supporting the findings may be available from the corresponding author (viane.ralphen@gmail.com) on reasonable request, subject to

ethical requirements, participant confidentiality, and approval of any data sharing request where applicable.

Competing Interests

The authors declare that they have no competing interests.

Funding

This research received no external funding.

Authors' Contributions

RV, MA, SF conceptualised the study, contributed to the study design and methodology, coordinated data collection, contributed to data analysis and interpretation, and led the drafting and revision of the manuscript. KB and PP contributed to the critical review and revision of the manuscript. All authors reviewed and approved the final manuscript.

Acknowledgements

The authors gratefully acknowledge the participants who shared their experiences and perspectives as part of this study. The authors also acknowledge the National University of Samoa and The University of the South Pacific, Samoa Campus, for supporting participant recruitment and facilitating the conduct of the research.

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

During the preparation of this manuscript, the authors used Grammarly, an AI-assisted writing tool, to improve grammar, language, and readability. Following the use of this tool, the authors reviewed and edited the manuscript as necessary and take full responsibility for the content of the publication.

Reference

1. Morgan, J., Breitbarth, A. K., & Jones, A. L. (2019). Risk versus regulation: an update on the state of e-cigarette control in Australia. *Internal Medicine Journal, 49*(1), 110-113.
2. Besaratinia, A., & Tommasi, S. (2017). An opportune and unique research to evaluate the public health impact of electronic cigarettes. *Cancer Causes & Control, 28*(10), 1167-1171.
3. Schoenborn, C. A., & Gindi, R. M. (2015). Electronic cigarette use among adults: United States, 2014.
4. Singh, T. (2016). Tobacco use among middle and high school students—United States, 2011–2015. MMWR. *Morbidity and mortality weekly report, 65.*
5. Barrington-Trimis, J. L., Berhane, K., Unger, J. B., Cruz, T. B., Urman, R., Chou, C. P., ... & McConnell, R. (2016). The e-cigarette social environment, e-cigarette use, and susceptibility to cigarette smoking. *Journal of Adolescent Health, 59*(1), 75-80.
6. Barrington-Trimis, J. L., Samet, J. M., & McConnell, R. (2014). Flavorings in electronic cigarettes: an unrecognized respiratory health hazard?. *Jama, 312*(23), 2493-2494.
7. Lerner, C. A., Sundar, I. K., Yao, H., Gerloff, J., Ossip, D. J., McIntosh, S., ... & Rahman, I. (2015). Vapors produced by electronic cigarettes and e-juices with flavorings induce toxicity, oxidative stress, and inflammatory response in lung epithelial cells and in mouse lung. *PloS one, 10*(2), e0116732.
8. Lippi, G., Favaloro, E. J., Meschi, T., Mattiuzzi, C., Borghi, L., & Cervellin, G. (2014, February). E-cigarettes and cardiovascular risk: beyond science and mysticism. In Seminars in thrombosis and hemostasis (Vol. 40, No. 01, pp. 060-065). *Thieme Medical Publishers.*
9. Wills, T. A., Knight, R., Williams, R. J., Pagano, I., & Sargent, J. D. (2015). Risk factors for exclusive e-cigarette use and dual e-cigarette use and tobacco use in adolescents. *Pediatrics, 135*(1), e43-e51.
10. Soneji, S., Barrington-Trimis, J. L., Wills, T. A., Leventhal, A. M., Unger, J. B., Gibson, L. A., ... & Sargent, J. D. (2017). Association between initial use of e-cigarettes and subsequent cigarette smoking among adolescents and young adults: a systematic review and meta-analysis. *JAMA pediatrics, 171*(8), 788-797.
11. Wolfenden, L., Stockings, E., & Yoong, S. L. (2018). Regulating e-cigarettes in Australia: implications for tobacco use by young people. *Medical Journal of Australia, 208*(1).
12. Alexander, J. P., Williams, P., & Lee, Y. O. (2019). Youth who use e-cigarettes regularly: A qualitative study of behavior, attitudes, and familial norms. *Preventive medicine reports, 13,* 93-97.
13. Government of Samoa. (2008). Tobacco Control Act 2008 (No. 26). *Legislative Assembly of Samoa.*
14. Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International journal for quality in health care, 19(*6), 349-357.
15. Liamputtong, P., & Ezzy, D. (1999). Sampling strategies for qualitative health research. In Qualitative research methods: A health focus (pp. 41-49). *Oxford University Press.*
16. Serry, T., & Liamputtong, P. (2013). The in-depth interviewing method in health. In Research methods in health: Foundations for evidence-based practice (pp. 39-53). *Oxford University Press.*
17. Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2019). Thematic analysis. In P. Liamputtong (Ed.), Handbook of research methods in health social sciences (pp. 843-860). *Springer.*
18. Aly, A. S., Mamikutty, R., & Marhazlinda, J. (2022). Association between harmful and addictive perceptions of e-cigarettes and e-cigarette use among adolescents and youth—a systematic review and meta-analysis. *Children, 9*(11), 1678.
19. QSR International. (2012). NVivo qualitative data analysis software (Version 10).
20. Sharma, M. A., McCausland, B. K., & Jancey, P. J. (2021). Adolescents' health perceptions of E-cigarettes: a systematic review. *American Journal of Preventive Medicine, 60*(5), 716-725.

Copyright: *©2026 Ralphen Viane, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.*