Adolescent Vaping: A Concern, A Choice, or Negotiable Harm?

A Dissertation

Presented to

the Faculty of the Doctor of Social Work Program of

Millersville University of Pennsylvania

In Partial Fulfillment of the

Requirements for the Degree of Doctor of Social Work

By Brandy Alicyn Shealer

March 22, 2024

This Dissertation for the Doctoral Social Work Degree by

Brandy Alicyn Shealer

has been approved on behalf of the Graduate School by

Dissertation Committee:

_____

Committee Chair- Dr. Marc Felizzi

_____

Member Committee- Dr. Wanja Ogongi

_____

Member Committee- Dr. Amy Landis

**Signatures on file in the College of Graduate Studies and Adult Learning*

Dedication

To my husband, Tim, thank you for believing in me and giving me the time and space needed to complete this work. It was not always fun, and it was a great excuse to skip housework and other obligations, and you accepted it gracefully.

For my children, Will and Emercyn, it was an honor to begin this work while you both were in school and striving for your own success. I am proud of each of you beyond what you can imagine.

Will, thank you for my amazing borrowed rainbow keyboard, which allowed me to work in the dark, and the key clicks were just so satisfying.

Emercyn, your comments, and encouragement throughout this process were sweet and endearing. Your enthusiasm for my work was an inspiration and kept me going many times. And yes, you can have my desk now.

To my friends, I am sorry for the lack of response to texts, phone calls, and invitations. Thanks for hanging in there. To DC and RB for providing feedback during my disastrous IRB process. Your words of encouragement and written feedback meant a lot.

To my cohort, it was bananas. I am thankful for what each of you has taught me. I started with colleagues and ended with friends that I consider family. I am humbled by you all. Best of luck in everything you do.

Finally, to my past, present, and former students, this is for you. I wish you nothing but health and happiness. You inspire me always.

ACKNOWLEDGMENT

This dissertation would not have been possible without the help and guidance of Cynthia Nugent, for her editing and continued friendship and support. I am sure you learned more about vaping than you ever expected.

I also wish to recognize Adam Bennett as my secondary reviewer for this project who provided valuable feedback and support "from the field" on the complex topic of nicotine addiction. Adam, keep fighting the good fight to protect our youth from the dangers of smoking and vaping. Your work matters.

Finally, I acknowledge my committee for their dedication to my success. Your critical feedback, insights, and support have forever changed me, and I am grateful. Marc, I appreciated your sense of humor through this process and giving me a chance to vent when needed. You were a blessing each and every day.

Abstract

Many studies have documented the rise in youth e-cigarette use and provide data to support why youth use e-cigarettes and the factors that contribute to the behavior (Alexander et al., 2019; Fairman et al., 2021; Johnston et al., 2022; Miech et al., 2022). What is not as well documented is how youth vaping impacts parents and guardians. This study provides information on vaping from the experiences of parents and guardians using a qualitative phenomenological process. This study analyzed participant interviews using the theory of planned behavior and social cognitive theory, and applied those concepts to parent and guardian perceptions and actionable behaviors. A lack of perceived behavioral control by families in managing vaping was noted, as well as shame and helplessness at avoiding e-cigarette exposure across many domains, including the school and community, and highlighting inconsistencies in parenting responses to the behavior. This study concludes with a detailed discussion of identified themes as well as limitations to the study and recommendations for social worker practitioners.

Keywords: vaping, e-cigarette, E.N.D.S (electronic nicotine delivery systems), phenomenology, qualitative research, parental experiences, hermeneutics

Table of Contents

Approval i

Dedication ii

Acknowledgments iii

Abstract iv

List of Tables and Figures x

Chapter 1: Introduction 1

Vaping and the Evolution of E-Cigarettes 2

Prevalence of Vaping 3

Appeal of Vaping and E-Cigarettes 5

- Stealth Vaping 5
- Flavor Vaping 6

Health Risks of Vaping and E-Cigarettes 6

- Nicotine 6
- Physical Health Risks of Vaping 7
- Mental Health Risks of Vaping 8

Academic Related Concerns 8

Theoretical Underpinning of Vaping Behavior 9

Social Cognitive Theory 10

Theory of Planned Behavior 10

Theory of Reason Action/Theory of Planned Behavior 11

- Figure 1 Theory of Planned Behavior 12
- Figure 2 Theory of Planned Behavior Relative to Youth Vaping Experiences 13

Social Learning Theory/Social Cognitive Theory 14

Figure 3 Social Cognitive Theory 15

Relevance to Social Work 17

Problem Statement 18

Chapter 2: Literature Review 20

Databases Used 20

Prevalence of Vaping 20

Current Health Risks 23

Perceptions of Vaping 26

Influences for Youth Vaping 27

Peer Influences 28

Parent/Guardian and Familial Influences 29

Other Influences: Efficacy and Social Media 32

Critical Analysis of Literature Review 33

Implication and Conclusions 34

Proposed Research Objectives and Questions 37

Questions for Qualitative Study 38

Chapter 3: Methodology 39

Research Design 39

Operationalization of Terms and Phenomena 39

Research Study Purpose 39

Rationale for the Study 40

Justification for Selecting Qualitative Method 41

Phenomenological Design 42
Hermeneutic Phenomenology and Reflexivity 43
Trustworthiness in Phenomenological Research 43
Sampling and Rationale 44
Setting 44
Sample 44
Sample Criteria 45
Sample Size 45
Data Collection 45
Table 1 Interview Guide Questions Considerations 46
Ethical Considerations 47
Procedure 47
Data Analysis 48
Figure 4 Hermeneutic Circle 49
Chapter 4: Findings and Presentation of Codes and Themes 52
Data Collection and Demographics 52
Table 2 Demographics for Study Participants 53
Identification of Codes 53
Table 3 Theoretical (A Priori) Codes 54
Table 4 In Vivo Codes 54
Secondary Coder 57
Data Analysis 57
Table 5 Research Questions, Interview Questions, Codes and Themes 57

Research Question 1 (RQ1) 58
RQ1 Themes 61
Research Question 2 (RQ2) 61
RQ2 Themes 66
Research Question 3 (RQ3) 66
RQ3 Themes 70
Research Question 4 (RQ4) 70
RQ4 Themes 72
Research Question 5 (RQ5) 72
RQ5 Themes 73
Peripheral Codes 74
Generational Issues 74
Protective Factors 75
Personal and Behavioral Traits by Youth 75
Chapter 5: Analysis and Synthesis; Conclusion and Recommendations 77
Study Summary 78
Analysis of Themes and Theories 79
Theory of Planned Behavior 79
Behavioral Beliefs 79
Normative Beliefs 82
Control Beliefs 83
Figure 5 Theory of Planned Behavior, Perspectives of Participants 84
Summary of Findings for Theory of Planned Behavior 84

Social Cognitive Theory 86

Personal and Behavioral Factors 86

Environmental Factors 87

Self-Efficacy 89

Summary of Findings for Social Cognitive Theory 89

Figure 6 Social Cognitive Theory on Vaping, Perspectives of Participants 90

Practice Implications and Recommendations 90

Areas of Further Research 92

Study Limitations 93

Conclusion 94

References 96

Appendix A 114

Appendix B 115

Appendix C 116

Appendix D 120

List of Tables and Figures

Figure 1 Theory of Planned Behavior

Figure 2 Theory of Planned Behavior, Youth Vaping Experiences

Figure 3 Social Cognitive Theory

Table 1 Interview Guide Questions

Figure 4 Hermeneutic Circle

Table 2 Demographics for Study Participants

Table 3 Theoretical (A Priori) Codes

Table 4 In Vivo Codes

Table 5 Research Questions, Interview Questions and Themes

Figure 5 Theory of Planned Behavior, Perspectives of Participants

Figure 6 Social Cognitive Theory on Vaping, Perspective of Participants

Chapter 1 Introduction

Health and wellness of youth impact everyone and are a driving force behind many programs, interventions, and treatment models (American Lung Association, 2022). When youth are unwell, they miss critical pieces of their psychosocial development, including consistency in academics, involvement in extracurricular activities, and participation in social interactions. Furthermore, when youth engage in risk-taking behaviors, they may face consequences that are isolating and compromising to their life-long goals and ambitions. Risk-taking behaviors can include texting while driving, binge drinking, unsafe sexual practices, and the use of tobacco products.

The use of tobacco products is a known risk factor and cause of cancer for adults in the United States (U.S. Department of Health and Human Services, 2014). Due to the rise in e-cigarette use by youth, the United States Surgeon General declared youth vaping an epidemic in 2018 (U.S. Department of Health and Human Services, 2018). Current vaping trends and nicotine use by youth put increased pressure on school systems, parents and families, social workers, and other community providers to educate and train on risk and harm reduction (Doherty et al., 2022).

The dramatic rise in the use of nicotine-related products, including electronic nicotine delivery systems (E.N.D.S.) is causing disruptions to education nationwide (Lippert et al., 2019). According to the Center for Disease Control and Prevention's *E-Cigarette, or Vaping, Products Visual Dictionary* (2023, February 26) e-cigarettes can be referred to by any number of names, including e-cigs, vapes, vape pens, dab pens, dab rigs, tanks, mods, pod-mods, and electronic nicotine delivery systems. The act of using e-cigarettes is commonly called "vaping or dabbing."

Vaping and the Evolution of E-Cigarettes

Various iterations of vaping devices were developed as early as the 1930s, but were not sold and marketed until 2003 in China by Hon Lik (Sapru et al., 2020). Lik's patent of the electronic atomization cigarette (2010) provided a tobacco product that contained nicotine but eliminated tar. E-cigarettes entered the United States market in 2007 and gained popularity among both smokers and nonsmokers (Sapru et al., 2020). These devices quickly became popular as alternatives to combustible cigarette smoking for individuals seeking a safer way to utilize nicotine products.

Most e-cigarette products involve the use of a battery-powered heating element that heats nicotine, flavoring, and water in a glycerol-based liquid, allowing the ingredients to become aerosolized and inhaled through the lungs and absorbed into the bloodstream. The remaining aerosol is exhaled, often as a large vapor cloud (Sapru et al., 2020). While not marketed for such purposes, e-cigarettes have become popularized for vaping other substances, some legal and some illegal, such as tetrahydrocannabinol (THC), marijuana, methamphetamine, and fentanyl (Peace, et al., 2019 & Trucco et al., 2021).

The evolution of e-cigarettes and related products started with cigarette look-alikes, which were often disposable and known as the first generation of devices. These items were meant to be used once and could not be filled or recharged. The second generation of vaping devices often included e-cigarettes with prefilled or refillable cartridges. These products could be recharged or refilled and therefore enabled multiple uses. Tanks or refillable mod devices were in the third generation of devices which could be modified, allowing for increased flavor options and other customizations that could allow for larger plumes of vapor and a stronger delivery of nicotine. The fourth generation of vaping devices are considered pod mods, which include a

refillable or prefilled pod or cartridge with a modifiable system. Pod mods also use nicotine salts which cause less irritation to the throat and allow for increased levels of nicotine to be inhaled (United States Department of Health and Human Services, Centers for Disease Control and Prevention, 2023, February 26).

There are several different devices available on the market. The most common vaping devices include product names such as JUUL, Vuse, Puff Bar, and Suorin (Johnston, et al., 2022; United States Department of Health and Human Services, Centers for Disease Control, 2023, February 26). Among current e-cigarette users, 57.2% of high school students and 45.8% of middle school students preferred disposable vaping devices (pod mods) over other available models. Other devices were less common, including pre-filled or refillable devices and tank or mod devices. Approximately 11% of high school students and 23% of middle school students were not aware of what type of device they were using (Cooper et al., 2022). It is noteworthy that products are being released onto the market at such a rapid rate, that by the time of this publication, newer and more popular vaping brands will inevitably be available.

For this study, the umbrella terms *vape* and *e-cigarette* will be all-encompassing to include the various forms of nicotine vaping devices, including disposables, pod devices, tanks, and mod devices, unless otherwise noted. The term *youth* for this study will encompass anyone under the age of 18 years old.

Prevalence of Vaping

There is a concern that e-cigarettes may be exposing youth to tobacco and nicotine who may not have otherwise been exposed (Fadus et al., 2019). Much of the data regarding youth vaping has been derived from national studies on the phenomena, occurring over the past few years. These studies include the Monitoring the Future (MTF) survey as well as the Population

Assessment of Tobacco and Health (PATH) and National Youth Tobacco Survey (NYTS) (Shealer, 2022a). Through the analysis of those surveys, various conclusions and theories have been drawn relative to the prevalence of youth vaping trends and information.

In 2017, the Monitoring the Future survey of youth in the United States began tracking vaping behaviors. In 2020 the vaping of nicotine had become so popular it was the second most utilized substance by youth, with 27% of teens acknowledging the behavior (Johnston, et al., 2022). The populations of youth most at risk for vaping any substance, including nicotine and marijuana, are those who identify as lesbian, gay, bisexual, transgender, and intersex (LGBTQI) (Substance Abuse and Mental Health Services Administration, 2020; Donaldson et al., 2021). Non-Hispanic white youth are also at high risk (Keys et al., 2021).

Youth vaping has become a significant problem over the past eight years, and e-cigarettes have become the most popular tobacco product for youth in the United States since 2014 (Morean et al., 2020; Wang et al., 2018). While tobacco trends for youth in 2021 decreased overall, it is unknown if this was a result of the COVID-19 pandemic or other government interventions (Miech et al., 2022). Current trends indicate that youth vaping rates have remained steady into 2022 (Miech et al., 2023).

According to data compiled by the U.S. Department of Health and Human Services, Centers for Disease Control, over 14% of high school students and over 3% of middle school students report current e-cigarette use (Cooper et al., 2022). According to the Pennsylvania Adolescent Youth Survey (PAYS), which surveys students in grades 6, 8, 10, and 12, youth in York County, Pennsylvania have a 30-day e-cigarette use rate of 11.6% (Pennsylvania Commission on Crime and Delinquency, 2021). This is consistent with national studies which found an approximate use rate of 11.3% (Park-Lee et al., 2022). Research conducted by Boccio

and Jackson (2021) found initiation ages for nicotine vaping can start as young as ten years of age, however, the majority of use began at fourteen years of age or older.

Appeal of Vaping and E-Cigarettes

One primary reason for a surge in youth vaping is provided by the device itself. Most vaping devices are designed to be discreet and easily concealable. Many companies also offer customization of their devices, allowing for decorative skins to cover the device and other personalized options (Peace et al., 2019). The true novelty of e-cigarettes for youth is found often in the design of the products, made to be hidden in plain sight, looking like pens, flash drives, asthma inhalers, car key fobs, candy, to-go coffee mugs, and other common household or school-related products (Berg et al., 2021; Fairman et al., 2021; Ramamurthi et al., 2019). Additional concerns regarding vaping center on the marketing of products and strategies used to conceal use, known as "stealth vaping."

Stealth Vaping

During an internet search for "stealth vaping" between March and June of 2018, over 18,000 videos on the topic were discovered (Ramamurthi et al., 2019). Despite clean air laws and other prohibitions of tobacco use in public spaces, tobacco companies are devising many ways to allow vaping to go undetected. Methods can range from sophisticated filtration systems to eliminate large plumes of vapor, or better concealment of vaping devices in general. These issues continue to provide concerns for schools in managing the epidemic of youth vaping (Dormanesh and Allem, 2021 & Ramamurthi et al., 2019).

Flavor Vaping

Additional marketing and product designs which appeal to youth include the varying flavors and tastes that can be purchased for use. There have been various governmental

regulations imposed to restrict the sale of flavored vaping devices, most notably JUUL, but youth continue to find alternative means of access, or they simply switch brands altogether (Morean et al., 2020). Descriptions from youth themselves have acknowledged that with flavoring, e-cigarettes essentially become a piece of candy (Fairman et al., 2021). Among e-cigarette using youth, 85% use some type of flavor when vaping. The most popular flavors are fruit, candy, mint, and menthol, yet some websites offer customizable flavor options (Cooper et al., 2022; Overbeek et al., 2020).

Health Risks of Vaping and E-Cigarettes

Adolescent vaping presents public health concerns, exacerbated by a lack of long-term research regarding the health impacts of vaping (Boccio & Jackson, 2021). The use of tobacco products has well-documented health risks, and these risks can be compounded by the usage of vaping products by youth who have never used combustible cigarettes. Of particular concern is that some youth begin to vape due to the perception of limited risk to their health (Jackson et al., 2020). This conclusion conflicts with other reports that suggest youth report knowing that e-cigarettes are bad for their health, but engaging in the act regardless of any risk. Given that the average age for e-cigarette use can be as low as 14 years of age (Keenan et al., 2022), education on health concerns is paramount for youth and their parents/guardians.

Nicotine

The contents of e-cigarettes can vary widely, but most often contain nicotine, solvents, and flavoring compounds. Nicotine, despite being used by humans for centuries, is in fact a toxic substance (Overbeek et al., 2020) that has long-lasting impacts on the brain and behavior (Abreu-Villaca et al., 2003; Yuan et al., 2015). Nicotine is also highly addictive and impacts the developing adolescent brain much differently than in adults, as observed through animal studies. Further, even brief periods of nicotine exposure in adolescents can cause brain changes (Abreu-

Villaca et al., 2003; Fadus et al., 2019), which amplifies concern. Fairman et al. (2021), noted that exposure to nicotine is associated with impacting memory and attention.

Physical Health Risks of Vaping

In 2019, the Center for Disease Control and Prevention warned of serious lung injuries from vaping, known as electronic/vaping associated lung injury or EVALI (Center for Disease Control, 2020). It was thought that the use of aerosolized chemicals could lead to advanced lung injury. Likewise, the use of diacetyl, a compound commonly found in food and flavoring, including vaping liquid, was linked to bronchial problems (Overbeek et al., 2020). Other studies highlight youth concerns with regard to vaping, such as difficulty playing sports, chest pain, and cough (Bold, et al., 2022; Davis et al., 2022). An increased risk of cardiovascular problems and pulmonary issues were also linked to vaping, including myocardial infarction and heart disease (Overbeek et al., 2020).

Impaired brain development and the thinning of the brain's cortex have also been noted, as well as decreased neural activity (Alexander, et al., 2019 & Mantey, et al., 2022). Due to a lack of regulation, there are a variety of homemade e-liquids that are distributed via social media and other online communities that contain unknown substances and concentrations of ingredients, which may exacerbate negative physical symptoms for an e-cigarette user (Overbeek et al., 2020).

Mental Health Risks of Vaping

In addition to physical health concerns, youth are turning to vaping to address mental health, which may have direct impacts on long-term mental wellness. Research suggests that combustible tobacco use is related to adverse mental wellness (Patten, 2021), yet research is mixed on how this relates to e-cigarette use. In one study, depression increased vulnerability to

vaping, but was not related to a development of depression (Moustafa, et al., 2021). Exposure to nicotine is associated with impacting memory and attention (Fairman et al., 2021) and the act of vaping as a coping mechanism for mental health does not address underlying problems.

Academic Related Concerns

The 2021 Pennsylvania Adolescent Youth Survey documented statewide that 6.1% of students in grades 6, 8, 10, and 12 were offered illicit drugs at school (Pennsylvania Commission on Crime and Delinquency, 2021). What is not documented is if e-cigarettes were considered to be illicit drugs by students, but according to Pennsylvania state law, the use of tobacco products on school property is prohibited (Pennsylvania General Assembly, Crises and Offenses Act, Title 18 1996/2000). Therefore, students who are found in possession of vaping devices or vaping products face sanctions resulting in either citation or suspension, causing a financial burden to families as well as a loss of educational time for students (Shealer, 2022a). However, some youth report that the consequences of vaping in school are not as severe as other banned or illegal substances, therefore, increasing their appeal (Fairman et al., 2021).

Schools continue to spend time and money combatting vaping through programming, purchasing detective equipment, and use of law enforcement (Shealer, 2022b). Compounding these concerns are the resultant negative impacts from such sanctions, which may impact success for youth, including failure of acceptance into college or a loss of athletic privileges (Fairman et al., 2021).

Theoretical Underpinning of Vaping Behaviors

This study aims to explore the opinions and perspectives of parents/guardians regarding youth nicotine vaping. In particular, to explain vaping as a health behavior, numerous theories have been utilized to elucidate what influences a person to engage in risk-taking health behaviors

(Sutton, 2015). A review of literature relevant to vaping and e-cigarette use in youth and young adults highlights social cognitive theory and theory of planned behavior as frameworks for analyzing and discussing these behaviors (Ajzen, 1991; Bandura, 1998; Berg et al., 2021; Cheney et al., 2018; Donaldson et al., 2021; & Fairman et al., 2021; Simpson et al., 2022). These two theories directly relate to the matter of youth decision-making regarding risk-taking behaviors, in this case, the vaping of tobacco products.

However, since the task of predicting human behavior is difficult (Ajzen, 1991), it is hypothesized that these theories may assist understanding parental viewpoints on vaping, and on their subsequent actions or reactions to any suspected or known youth e-cigarette tobacco use. Other studies have utilized expanded forms of the theory of planned behavior (Case et al., 2015; 2016; Donaldson et al., 2021; Hamilton et al., 2020; Hershberger et al., 2018; Scheinfeld et al., 2019; Simpson et al., 2022; Su et al., 2015; Wang et al., 2022) in order to draw conclusions regarding vaping behaviors, which provided insight into themes relative to perception and attitudes.

An area of focus for this study in particular is the idea of parental behaviors to promote the health of their children. Developmentally, children rely on parents and guardians to provide any number of health-sustaining support, including such things as teaching water safety, healthy eating, and taking children to doctors' appointments (Hamilton et al., 2020). However, it is not clear if the prohibition of vaping is considered by parents to also be an important health behavior that needs to be addressed.

Using the perspectives of social cognitive theory and theory of planned behavior may highlight how a parent/guardian feels about youth vaping and what specifically informs their intentional behaviors regarding e-cigarette use. When viewing parenting and guidance towards

vaping as a response to a health-related behavior, the implications may be far-reaching. Given the understanding that actionable behaviors are complex and often influenced by multiple factors, the evaluation of those elements is an endeavor that will produce information on how not only e-cigarette use is perceived, but what the general responses or intentions are toward the parenting and guiding of those behaviors.

Social Cognitive Theory

Social cognitive theory, as developed by Albert Bandura (1977; 1998), may explain the impact of social influence on vaping behaviors, including initiation of use, sustaining behaviors, as well as barriers and challenges to quitting (Berg et al., 2021). The essential tenets of social cognitive theory explain that learning occurs within a social context, and within that is an interaction between the person and their environment, thus shaping behavior. This may explain why various youth and young adults report feelings of belonging when vaping, as well as establishing a social identity and thus a normalization of the behavior (Cheney et al., 2018; Donaldson et al., 2021; Fairman et al., 2021).

Theory of Planned Behavior

The theory of planned behavior, based on the theory of reasoned action, was intended to assist in predicting behaviors at a specific place and time. Behavioral control, in this case to vape or not vape, relates to several concepts, including attitude, intention, and various norms (Ajzen, 2019). Essentially, the outcome expectancies for youth who vape will include advantages or disadvantages of using, social influence, and barriers or supports regarding the behavior (Simpson et al., 2022).

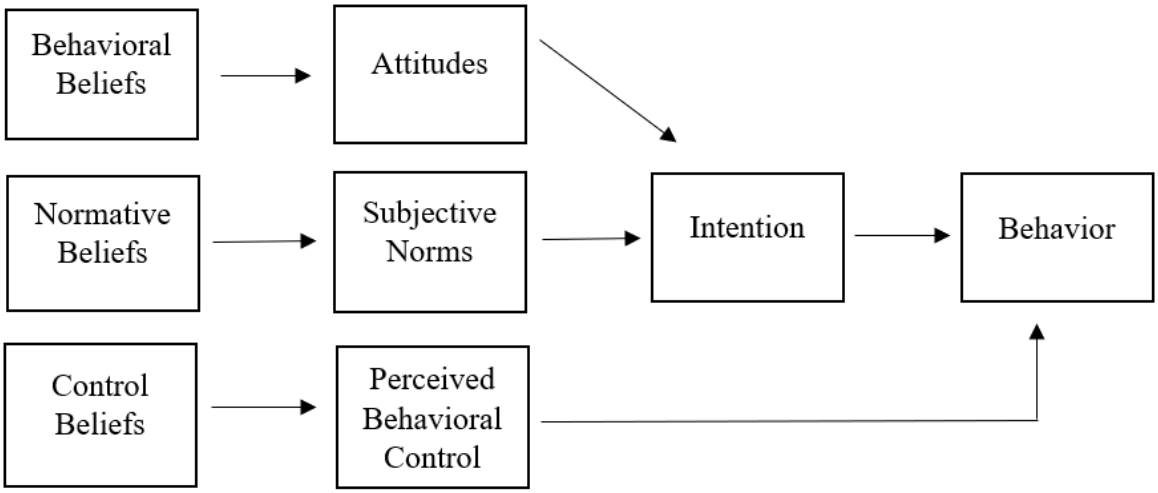
Theory of Reasoned Action/Theory of Planned Behavior

Fishbein and Ajzen (1975) developed the theory of reasoned action, which examined four major variables: attitudes, beliefs, intentions, and behavior. Using this model, they posit that beliefs lead to attitudes, and attitude informs intentions, which drive behavior. More specifically, the theory of reasoned action closely examines behavior relative to attitudes toward behaviors (attitudes) as well as the person's perceptions of social pressures (subjective norms) to perform various actions. The components of this theory assert that behavioral action is directly personal to the individual. Therefore, the assumption is that you are more likely to engage in a behavior that you view positively and that you believe others support you in performing (Ajzen, 1985, 1991).

What the theory of reasoned action did not completely explore is the relevant understanding or consideration to behaviors that may not be fully within one's individual volition or control. Ajzen (1991) expanded the theory of reasoned action to include one further variable, that of perceived behavioral control, thus coining the newer theory of planned behavior (Ajzen, 1991), see Figure 1. Within the theory of planned behavior, in-depth consideration is given to variables that help inform actions that are specific to an individual. Individual differences include our expectations and perceptions, as well as general locus of control, which all impact a person's intention to engage or not engage in a behavior. Further, a person's information, knowledge, and abilities are included within this expanded model. Other personal factors that are considered include willpower, strength of character, and emotions. Also included in this theory are external factors dictating behaviors such time, opportunity, and dependence upon others (Ajzen, 1985, 1991).

Figure 1

Theory of Planned Behavior



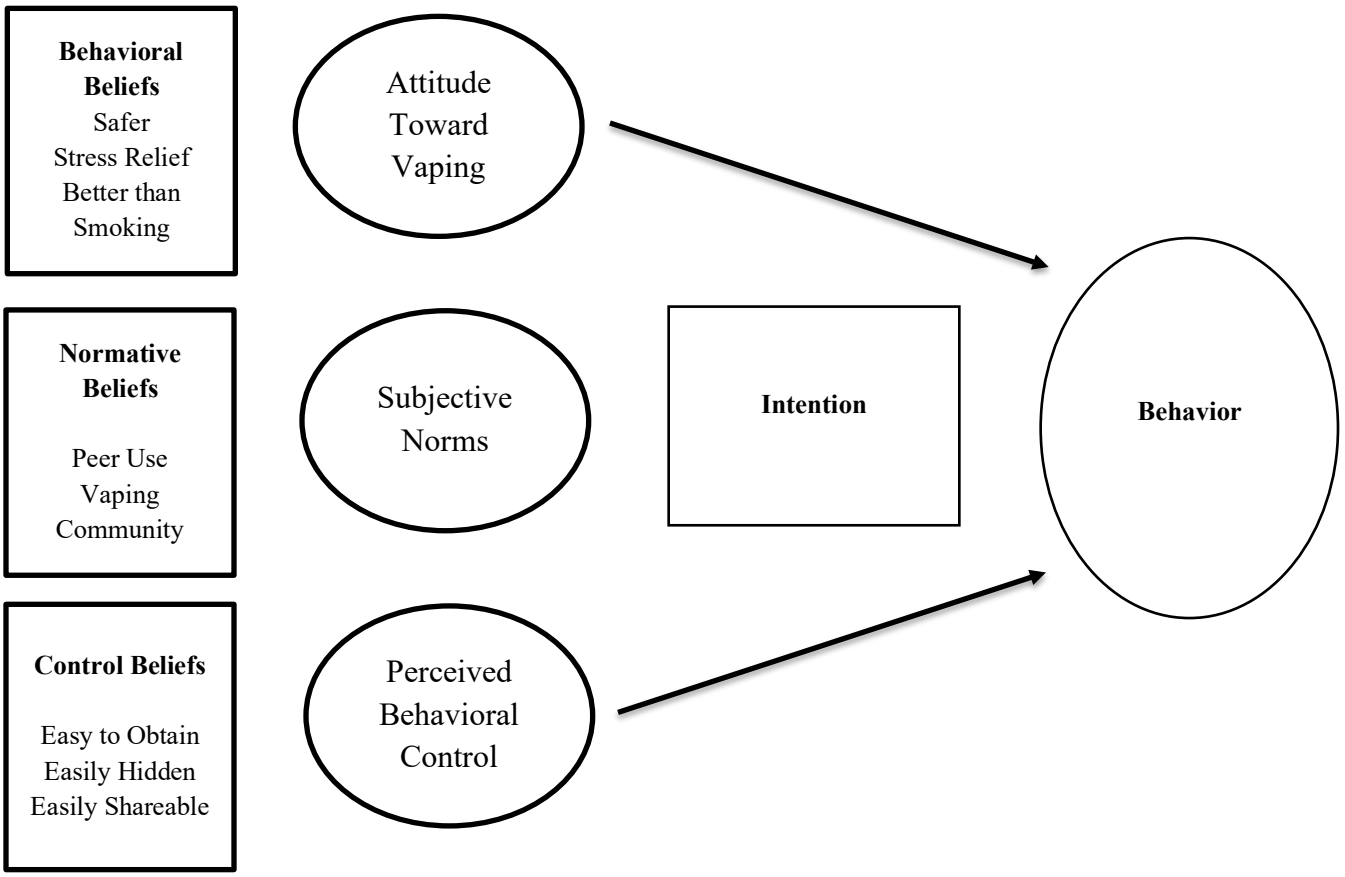
(Ajzen, 1991)

The theory of planned behavior contains the idea of dependence upon others to assist in promoting or deterring health-related behaviors, in this case, youth vaping, which is illustrated in Figure 2. Within that context, a majority of research has supported the importance of families and friends in the provision of vaping-related items, including the vaping devices themselves, as well as general support and encouragement to use (Alexander et al., 2019; Cheney et al., 2018; Donaldson, et al., 2021; Hoffman, 2021; Kim et al., 2023; Kurji et al., 2021). Bailey et al., (2020) found that for parents who vape, their children had higher incidences of use, in addition to a greater perception of safety relative to the product. Conversely, households that provided strict rules for e-cigarette use had youth that associated with subjective norms of disapproval of use by key influences, namely parents (Buu et al., 2022; Choi et al., 2022), indicating parental support may be a protective factor relative to vaping (Kurji et al., 2021). Research by Han et al., (2020) and Aljaberi and Yao (2021) relate the wide availability of purchase points for e-cigarettes to be

a significant factor in encouraging and influencing use as well. This may be related to lax purchasing requirements and availability of products on the internet.

Figure 2

Theory of Planned Behavior Relative to Youth Vaping Experiences



(Adapted from Ajzen, 1991)

While marketing campaigns suggested that vaping was better than combustible cigarette smoking, language regarding the use and benefits of e-cigarettes was questionable. As a result, the popularity of vaping grew, and developed into a culture of perceived safety (Fairchild et al., 2019).

The issue of safety or safe tobacco use cannot be understated as a source of beliefs regarding the issues of youth vaping. Current research indicates that vaping is viewed as not just

safer than combustible cigarette smoking, but as a healthy alternative to it and preferred over smoking for safety reasons (Bailey et al., 2022; Cheney et al., 2018; Donaldson et al., 2021; Jackson et al., 2020; Keane et al., 2017; Kim et al., 2023). In addition, studies also related the vaping of tobacco to stress management, further exacerbating the issue of health and safety of these devices (Fairman et al., 2021; Kim et al., 2023; and Kong et al., 2021).

Relative to normative beliefs, which in turn often drive subjective norms, the vast majority of research provides insight into social cues as the driving force behind the behavior of vaping among youth (Donaldson et al., 2021; Fairman et al., 2021; Helms et al., 2014; Hoffman, 2021; Kong et al., 2021; Rocheleau et al., 2020). However, Aljaberi and Yao (2021) found attitude and perceived behavioral control were the strongest predictors of vaping intention among adults.

While the theory of planned behavior postulates that behaviors and subsequent intentions are factors of attitudes, norms, and perceptions, social cognitive theory examines the learning of behaviors within the context of multiple systems. While there are similarities and overlapping ideas, social cognitive theory guides behaviors using concepts such as social norms, which play a role in outlining behavioral standards (Bandura, 1998).

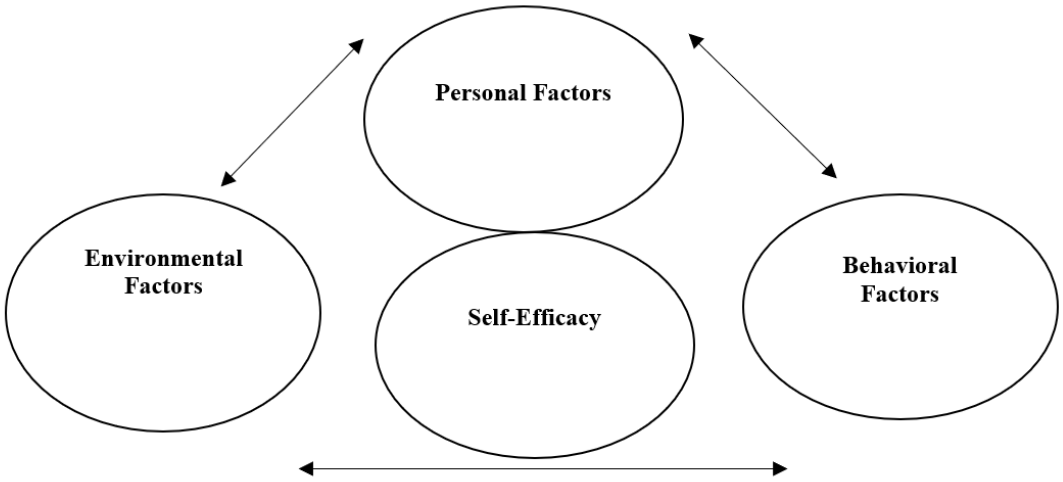
Social Learning Theory/Social Cognitive Theory

Social cognitive theory, originally conceptualized as social learning theory, posits that human behavior and actions are learned from within a complex interplay between person, environment, and behavior (Bandura, 1998), and specific to substance use or vaping, the influences of parents, siblings, and friends, as well as social environments such as schools (Hoffman, 2021; Lippert et al., 2019). Social cognitive theory has merit in explaining the key aspects of social influence on behaviors related to vaping, more specifically the initiation of use,

sustaining of use, and barriers and challenges to quitting (Berg et al., 2021). What is key in social cognitive theory, however, is the concept of self-efficacy and goals, which argues that unless a person believes they can produce an action or an outcome, they have limited reason to act (Bandura, 1998), see Figure 3.

Figure 3

Social Cognitive Theory



Adapted from Bandura (1998)

However, in order to determine efficacy, there are various sources of influence, including factors such as mastery experiences, vicarious experiences, social persuasion, and stress reactions (Bandura, 1998). It is through the process of gaining experiences that a person can begin to make decisions and choices relative to their behavior. Hershberger et al., (2018) noted that individuals with impulsive personality traits and higher levels of conscientiousness may have higher e-cigarette use, thus increasing their risk factors. Those with higher conscientiousness may in fact examine the messaging of e-cigarette advertisements and pay more attention to the positive aspects of the substance. Research also suggests vaping behaviors are a healthy coping mechanism for everyday life struggles, and that vaping is in fact better than other substances (Berg et al., 2021; Fairman et al., 2021; Keane et al., 2017). Consistent with the

modeling component of social cognitive theory, a child's use of vaping products is at a higher rate when they have parents who also use (Bailey et al., 2022; Bandura et al., 1961).

Likewise, non-familial influences and friendships expose youth to a variety of new experiences. It is through those experiences that youth begin to develop an identity, a peer group, and a sense of belonging (Cheney et al., 2018; Donaldson, et al., 2021). What makes this point critical is the idea that a youth's perception, particularly of high-status peers, is often wrong. These youth often believe others are engaging in negative behaviors on a much greater and more frequent scale than in reality. Accordingly, any negative or deviant behavior, such as the use of vaping products, may alter social comparisons, thus leading to potential negative health consequences (Helms, et al., 2014).

Interaction within the school environment also allows for a possible link to youth vaping. School culture, policies, and educational opportunities all influence the likelihood of youth e-cigarette use (Lippert et al., 2019). Similar to physical environmental influences, social media has also been linked to increased support of vaping (Aljaberi et al., 2021; Kim et al., 2023). Choi et al., (2022) note that restrictions on social media may play a significant part in vaping-reduction efforts.

Therefore, it is through the perspectives of social cognitive theory and the theory of planned behavior that a deeper examination of the norms, attitudes, and influence of parents and guardians will be explored. Using concepts from each theory, a qualitative study will allow for a more in-depth and targeted discussion relative to how parents and guardians perceive the act of youth nicotine vaping.

Relevance to Social Work

According to the grand challenges of social work, youth vaping encompasses two main priorities: ensuring healthy development, and advancing long and productive lives (Grand Challenges for Social Work, 2023). The use of tobacco products remains the leading cause of preventable death and disease in the United States (Centers for Disease Control, 2022) and is directly impacting the well-being of youth, particularly marginalized youth. Compounding tobacco use, Davis et al., (2022) and Mantey et al., (2022) found that among students who vape nicotine, approximately 31% go on to vape marijuana/THC within twelve months, exacerbating the problem of addiction.

Similarly, the etiology of vaping is complex and nuanced, as briefly outlined in the various theoretical underpinnings outlined here. The numerous factors which contribute to vaping are intertwined with other developmental and environmental challenges for parents/guardians and caregivers, making the need to address vaping a serious challenge, but one that may get overlooked. Due to the short duration of product availability for e-cigarettes, the long-term consequences of vaping and future health outcomes are not yet known, particularly as they relate to youth. Therefore, determining how to address the epidemic of vaping is not just timely, but possibly lifesaving.

Social workers are critical to addressing youth vaping, as the profession is practicing in so many influential areas that would provide well-intentioned connections for at-risk youth, including schools, hospitals, and child welfare agencies. Additionally, social workers are well suited to assess and document environmental and cultural issues that may impact student use of tobacco products. The National Association of Social Workers (2022) issued information

suggesting that social workers can educate on health risks, as well as provide referrals, information, and strategies to reduce or cut down on tobacco and nicotine usage.

Problem Statement

This study explores youth vaping through the context of parental knowledge and attitudes. The majority of vaping information and knowledge is generated by youth through the utilization of national studies, but much less is known about vaping from the perspective of parents/guardians of youth. Crossland (2019) found that parents are unaware of the increased problem of vaping in schools and some parents believe vaping is a healthier option than traditional cigarettes. Another study reported that parents underestimate their children's tobacco use (King et al., 2020). These factors, when taken into consideration, provide a backdrop for exploration into parental attitudes and knowledge regarding the use of tobacco products, and in this particular case, e-cigarette use.

The objective of this study is to explore parent and guardian experiences regarding youth vaping, and how this may translate into programs, education, or other resources to curtail the epidemic of youth vaping. Research has already documented that efforts are needed to educate and inform families about new and emerging tobacco products and signs of use (King et al., 2020), yet those efforts are meaningless if there is no documented concern by parents for youth tobacco use. Unless a clear understanding of parental and guardian concerns is documented, strategies for a reduction in youth vaping may be minimally effective.

This study will address a gap in the literature for qualitative studies of parents and guardians relative to e-cigarette use and vaping. There are many studies that have examined youth vaping, but information regarding parents is much more limited. Of the reviewed qualitative studies, only 26% involved parents or a combination of youth and parents. To address

this literature gap, parents and guardians of youth of all ages will be interviewed, using a semi-structured format about their experiences with vaping. Recruitment for the study was done using online public Facebook groups, which provided a virtual public space for all community members. The targeted geographic area was South Central Pennsylvania.

Chapter 2: Literature Review

Databases Used

EbscoHost Information Systems, the Millersville University library database, was utilized to study the phenomenon of vaping using the following keywords: vaping, e-cigarettes, parental influence, social cognitive theory, theory of planned behavior, parent-for-child health behaviors, vaping and parenting, E.N.D.S. (electronic nicotine delivery system), parental perceptions, e-cigs, parental attitudes, social influences, and parental knowledge. A further review of Google Scholar using the same search terms was conducted to gather additional literature.

The theoretical articles of interest to this study focused on themes central to both social cognitive theory (Bandura, 1977;1998) and theory of planned behavior (Ajzen, 1985; 1991). Specifically, themes of social and environmental influence, social norms, and behavioral intentions, as well as parental knowledge and perspectives were of importance to understanding the topic of youth vaping and parental responses to the behavior.

Prevalence of Vaping

The vaping of tobacco products containing nicotine has been a source of public concern for many years (Yang, 2023), as electronic cigarettes became the most used tobacco product since 2014 (Morean et al., 2020; U.S. Centers for Disease Control, 2022; Wang et al., 2018) Adolescent vaping poses serious risks (Jones and Salzman, 2020). The health risks are serious enough that in 2018, the United States Surgeon General declared the use of e-cigarettes by youth an epidemic (U.S. Department of Health and Human Services, 2018). It is documented that the use of tobacco causes serious risks and is a cause of preventable disease among the adult population in the United States (U.S. Department of Health and Human Services, 2014). In 2022, about one out of every 30 middle school students and one out of every seven high school

students reported e-cigarette use within the past 30 days (Park-Lee et al., 2022). While vaping products were initially marketed as a smoking cessation aid (Jones and Salzman, 2020), use by youth and young adults, who had previously never smoked combustible cigarettes, raised alarm for health professionals, schools, and parents alike.

The Monitoring the Future National Survey Results on Drug Use 1975-2022, found that while rates of nicotine vaping increased dramatically in 2018 and 2019, rates started to decline in 2020, although those declines were not statistically significant. Further, use rates for all substances declined in 2021, presumably due to the COVID-19 pandemic, but nicotine vaping rebounded in 2022 among students in 10th and 12th grades (Johnston et al., 2022). According to the Population Assessment of Tobacco and Health Study (PATH), in wave 5 of the study, conducted in 2018-2019, 19.8% of the participants 12-17 years of age had at least tried e-cigarettes (U.S. Department of Health and Human Services, 2023). Other studies of youth ages 12-18 acknowledge 27.5% use of e-cigarettes, with an average first use of approximately 14.2 years of age, with almost 11% using within the past 30 days of the study (Keenan et al., 2022). In a review of e-cigarette youth trajectories, Harrell et al., (2021), noted that early adolescence may be a time of particular vulnerability for vaping use and experimentation.

In Pennsylvania, risk behaviors for youth are documented using the Pennsylvania Adolescent Youth Survey (PAYS), given to students in 6th, 8th, 10th and 12th grades on a biennial basis, the last survey year with publishable data taking place in 2021. Results regarding youth vaping from that study concurred with national studies that reported youth vaping decreased. For 6th-grade students in the year 2019, 30-day e-cigarette use was 3.8%, and in 2021, it was 2.8%; 8th grade students displayed similar results decreasing from 12.5% to 9.2%, 10th-grade results dropped from 26.5% to 16.2% and 12th-grade results dropped from 31.1% to 23.7%. Statewide

data confirms a drop from 19% in 2019 to 13% in 2021 (Pennsylvania Commission on Crime and Delinquency, 2021).

The students surveyed for the PAYS study confirmed findings that students generally do not know what substances they are vaping, with 21.3% students acknowledging a lack of awareness (Alexander et al., 2019; Pennsylvania Commission on Crime and Delinquency, 2021). In Pennsylvania, the younger the youth, the greater the lack of knowledge exhibited, with rates of 69.2%, 29.4%, 15.9% and 8.3% for grades 6, 8, 10, and 12 respectively (Pennsylvania Commission on Crime and Delinquency, 2021). Alexander et al., (2019) in a study of youth aged 14-17 noted that youth aged 14-15 often borrow vaping devices, and therefore are not aware of any nicotine or other substances that may be contained within the device. Brown's (2020) study found that youth were not sure of the differences between nicotine and tobacco, or were confused regarding where nicotine comes from, but this varied based upon use by other family members, thus providing an additional base of knowledge (Pepper et al., 2018). Coleman et al. (2016) found that in general, youth e-cigarettes users were unaware of the ingredients they were vaping.

Populations of youth most impacted by the vaping of e-cigarettes, according to the National Youth Tobacco Survey (NYTS) for high school students, are white non-Hispanic youth, who were the largest segment of users at 16.9%, followed by Asian youth (14.6%) and multiracial non-Hispanic youth (14.3%). Females were predominant users as well with 15.4% use, compared to male use at 12.8%. At the middle school level, e-cigarette use was highest for multiracial non-Hispanic youth (6%) followed by Hispanic youth (4.2%) and Black and African American non-Hispanic youth (4.1%). Again at the middle school level, female youth used more often than males at a rate of 4.1% to 2.5% respectively (Park-Lee et al., 2022). The results from the NYTS differ somewhat from results of the PATH study in relation to characteristics of users.

For example, male youth overall had higher ever use of vaping products at 20.1% as compared to 19.5% use for females. On average, non-Hispanic white youth were the highest using group with 23.8% use followed by Hispanic youth at 17.8% (U.S. Department of Health and Human Services, 2023).

Prevalence of use for e-cigarettes was also found among gender identity in research by Felner et al. (2021). In an examination of data collected in the California Healthy Kids Survey, for each race and ethnic category, transgender youth had a significantly higher number of vaping use days than their cisgender counterparts. Felner and Calzo (2023) found that youth living doubled up, in foster care, or in a temporary housing situation had increased risks for vaping, combustible cigarette use, and dual substance use, as compared to youth living with at least one parent, guardian or relative. These results show a direct impact of vaping use behavior upon transient youth, unaccompanied or homeless youth, and youth engaged within the mental health, juvenile justice, or child welfare systems. This suggests the vulnerability of youth who are currently engaged in tobacco use, particularly when other findings relate vaping to mental health conditions and increased risk-taking behaviors (Hershberger et al., 2018; Hoffman, 2021; Moustafa et al., 2021; Pentz et al., 2015; Roterman et al., 2022; & Tobore, 2019).

Current Health Risks

The debate over the safety of vaping devices is often compared to the negative impacts of combustible cigarettes, which raises concerns over when the term “safer” became synonymous with safety (Fairchild et al., 2019). Vaping products are still relatively new to the United States, being introduced as a method to help adults curtail their smoking habits in the mid-2000s. Due in part to the relative infancy of vaping devices, long-term studies regarding health impacts are scarce (Tobore, 2019). Quite often comparisons for risks are based upon long-term studies of

combustible cigarettes and other addictive products (Jones and Salzman, 2020). While there are no long-term studies to examine health risks for adolescents, that does not mean that electronic cigarettes are safe for use. Human studies to date have reported issues such as mouth and throat irritation and worsening of asthma symptoms (Grant, 2020 & Overbeek et al., 2020). In a study of bystander effects, exposure to second-hand vapor was noted to irritate the upper respiratory tract and eyes, as well as elevate heart rate (Visser et al., 2019).

As the average age of first use for vaping is fourteen (Keenan et al., 2022), there is a concern that e-cigarettes are in fact creating a new generation of nicotine addicts (Jones and Salzman, 2022). Nicotine exposure has been known to cause damage to the brain, which is not fully developed until a person's mid-twenties (Sapru et al., 2020; U.S. Department of Health and Human Services, 2016). The American Academy of Pediatrics warned pediatricians and parents alike to the issue of youth vaping, which has been linked to lung injuries and even hospitalizations. The heating of compounds while vaping creates toxic chemicals which are irritants to the lungs (Wilson et al., 2020). These include chemicals such as formaldehyde, acrolein, and other carcinogens (Farber, 2020). Metallic elements can also be released due to the heating elements and coils of the devices themselves, leading users to inhale nickel, chromium, lead, tin, and silver (Farber, 2020).

While parents and guardians have a general understanding that vaping is harmful (Sabbagh et al., 2020), there is still an underestimated risk of use for these substances (Alexander et al., 2019; Brown et al., 2020; & Simpson et al., 2022) due to ongoing perceptions of vaping as healthier than combustible cigarettes and the lack of long-term health studies. Patel et al., (2019) and Keenan et al., (2022), found that parents generally agree that nicotine is addictive and harms the developing brain, but some parents were still not concerned about their child's use. In a

review of literature regarding the concerns over youth vaping, the use of e-cigarettes increases oxidative stress, which has been linked to issues such as cognitive impairment, depression, attention issues, and other problems which could directly impact the quality of life for youth (Sapru et al., 2020 & Tobore, 2019). Youth themselves acknowledge that there may be safety concerns for the vaping of e-cigarettes, but do not intend to stop using until such a time as the negative health effects and subsequent studies are known and published (Alexander et al., 2019).

Research suggests that youth who vape are more likely to have depressive symptoms, and those depressive symptoms were associated with a faster e-cigarette use progression (Moustafa et al., 2021). Further, youth who used any combination of tobacco products were also at increased risk of attempted suicide (Demissie et al., 2017). Youth with poor executive functioning skills (emotional control, working memory, inhibitory control, and planning) also had a strong relationship to youth vaping; the chances of vaping for those youth were five times higher than for youth who do not exhibit poor executive functioning skills (Pentz et al., 2015). Youth with impulsive traits and high levels of conscientiousness may be more susceptible to the messaging around vaping and thus more likely to use e-cigarettes (Hershberger et al., 2018). Similarly, youth with low self-control and high risk-taking behaviors were associated with a higher vaping frequency (Hoffman, 2021). These findings were also noted in another study which indicated that youth who use tobacco products were more likely to engage in physical fights and unsafe driving behaviors such as texting and driving (Demissie et al., 2017).

These physical health and mental health issues are compounded with the fact that dual use of substances, such as nicotine, and most notably marijuana, has been documented in some studies. Demissie et al., (2017) found that youth who demonstrate any method of tobacco use were significantly more likely to engage in drinking alcohol, current marijuana use, and ever use

of other drugs including synthetic marijuana and non-medicinal use of prescription drugs. Another study found that likelihood of cannabis use is twenty times higher for youth who vape than for youth who do not use. For youth who vape nicotine and use combustible cigarettes, the likelihood of going on to smoke cannabis is forty times higher (Keys et al., 2021).

Perceptions of Vaping

The perceptions of vaping are varied, with some research supporting e-cigarettes as a fad, or simply this generation's version of combustible cigarette smoking (Alexander et al., 2109 & Brown et al., 2020). This is compared to the viewpoint of combustible cigarettes as being simply old-fashioned and out of date (Coleman et al., 2016). Keane et al., (2017) noted that vaping meant freedom, happiness, and health for former smokers, while traditional cigarettes were destruction, death, and imprisonment. The vast majority of perceptions surrounding the use of e-cigarettes is that they are a better, safer, and healthier alternative to combustible cigarette smoking (Alexander et al., 2019; Bailey et al., 2019; Brown et al., 2020; Case et al., 2016; Cooper et al., 2016; Donaldson et al., 2021; Jackson et al., 2020; Keane et al., 2017; Patel et al., 2020; Ward et al., 2021). According to the Monitoring the Future study, 12th grade students endorsed lower levels of perceived risk for the vaping of nicotine (44%), as compared to the use of combustible cigarettes (66%) (Miech et al., 2021).

The perceptions regarding vaping vary between users of the products and non-users, as well as based upon age (Cooper et al., 2016 and Patel et al., 2020), and intention of use (Brown et al., 2020; Ward et al., 2021). Younger e-cigarette users reported use as a social activity, whereas older adults utilized e-cigarettes as a cessation tool (Coleman et al., 2016; Cooper et al., 2016). What is clear is that the social norms surrounding vaping and smoking have drastically changed perceptions and social norms regarding tobacco use. Parents of youth in the United

Kingdom perceive combustible cigarette smoking as anti-social and negative, whereas vaping is considered to be social and healthy (Brown et. Al., 2020). Qualitative research on perceptions with traditional college-aged students found that because e-cigarettes do not produce smoke and presumably contain less chemicals, they are considered safer (Case et al., 2016).

The issue of safety and health is relevant for many adults deciding to use e-cigarettes as a smoking cessation tool, thus providing the appearance of improving their overall health (Case et al., 2016; Coleman, 2016; Doherty et al., 2022; Sapru et al., 2020; Ward et al., 2021). In an Australian study of former cigarette smokers, Keane et al. (2016) found that that vaping gave participants freedom and possibilities that were otherwise not achievable using traditional cigarettes, while visiting friends, in restaurants, places of business, and even at work or while exercising. The value of vaping became positive in nature, as compared to combustible cigarettes (Keane et al., 2016). Brown et al., (2020) related vaping to a positive act, as it was done to address addiction to traditional cigarettes.

In a study of United States college students, it was specifically mentioned that young adults found it useful to encourage combustible cigarette smokers to vape instead (Cheney et al., 2018). The reasons for this encouragement include: cost, a pleasant aroma (Doherty et al., 2022), availability and convenience (Han et al., 2020), the consequences of vaping are seen as less severe than other substances (Fairman et al., 2021), the positive image of a new identity as a vaper, and having a sense of belonging in that community (Cheney et al., 2018).

Influences for Youth Vaping

The impact of peers and family members on the initiation of e-cigarette use is well documented in the literature (Alexander et al., 2019; Brown et al., 2020; Case et al., 2016; Cheney et al., 2018; Coleman et al., 2016; Davidson and Al-Hamdani, 2023; Donaldson et al.,

2021; Fairman et al., 2021; Groom et al., 2021; Helms et al., 2014; Hoffman, 2021; Kong et al., 2021; Kurji et al., 2021; Nicolaou et al., 2022; Rocheleau et al., 2020; Roterman et al., 2022; Sapru, et al., 2020; Simpson et al., 2022; Trucco et al., 2021; Ward et al., 2021; Yang et al., 2023; Yang, 2023). According to Trucco et al. (2021), through observing influential figures, attitudes and perceptions are formed which provide cues on whether or not to use substances. Therefore, if valued social influences hold favorable attitudes, it can in fact alter individual perceptions and subsequent behaviors. The various influences for youth on the act of vaping will be discussed in two parts; peer influence and familial influence, as they both contribute to the behavior but in different ways, as suggested by Bandura (1998).

Peer Influences

Adolescence is often fraught with difficult decisions, increased peer influence and interaction, as well as rapid developmental changes (Helms et al., 2014; Tanner et al., 2021). The consequences for youth in determining actions are often more complex, as what may typically not cause social stigma for adults may be more severe and ostracizing for youth (Tanner, et al., 2021). Youth desire to fit in and find agency within their social groups (Fairman et al., 2021) and often develop the norms and attitudes of their peers (Hoffman, 2021; Kong et al., 2021; Nicolaou et al., 2022; Rocheleau et al., 2020; Roterman et al., 2022 and Simpson et al., 2022).

What is also found pertaining to youth influences regarding vaping is the normalization of the act of tobacco use. In this instance, the attitudes surrounding vaping can in fact be developed by peers. Groom et al., (2021) found that in a study of teens ages 13-18, youth consistently reported that friends are the most important factor in the initiation of vaping. In fact, approximately 60% of the youth surveyed in this mixed method study received their first vaping device from a friend. In addition, these same youth reported their first use was with a friend 54%

of the time. This is in line with research that found that youth who have more e-cigarette using friends are more likely to use (Rocheleau et al., 2022 and Roterman et al., 2022; Sapru et al., 2020), use in greater quantities, and perceive use as less harmful (Donaldson et al., 2021).

In research by Fairman et al., (2021) youth in focus groups discussed the use of e-cigarettes as a method to fit in with other peers. Modeling of the behaviors was mentioned by younger peers, as they directly observed older youth engaging in e-cigarette use as a method to cope with teenage stressors. This aligns with other research that suggests social reasons, use by friends, and peer pressure are all related to youth use (Kong et al., 202; Nicolaou et al., 2022; Yang, 2023).

Parent/Guardian and Familial Influences

Of particular interest in this study is the impact of parents, guardians, and other family members on adolescent vaping behaviors. While peers present a significant influence on the use of vaping devices, familial influences have been noted in the literature. Trucco et al., (2021) found that parents play a very significant role in the formation of attitudes and subsequent e-cigarette use behaviors. The role parents/guardians play in the formation of those attitudes varies widely, but one study suggests that the observation of a parent/guardian using e-cigarettes can lead to curiosity, thus asking about the vaping device and its purpose (Brown et al., 2020). Doherty et al., (2022) found that for parents who view vaping positively, this could promote accessibility and experimentation for children.

In research by Ward et al., (2021) a study of adults who were trying to quit smoking through use of e-cigarettes found that the majority of adults did try to restrict vaping around youth. Parents who were recreational e-cigarette users were more relaxed in their use at home, whereas medical users were concerned about subsequent influence on children. More

specifically, medicinal vapers were concerned that their use may spark an interest in an item that they view is for smoking cessation, whereas recreational vapers were proud of their choice to use a more responsible product (Ward et al., 2021).

Regardless of the reason for use, medicinal or recreational, Groom et al. (2021) found that approximately 16% of teens aged 13-18 obtained their first vaping device by a family member, with younger youth even more likely to obtain their devices in this manner than older youth. It was also noted in this study that female youth were significantly more likely to have a family member as their vaping source as opposed to male youth, at 20.9% and 12.3% respectively (Groom et al., 2021). In another study by Alexander et al., (2019) most youth obtain vaping devices from family members.

Research by Bailey et al., (2022) found that in parent use of e-cigarettes and other electronic nicotine devices, there was a higher probability of use by their children. Not only was use higher, but there was a more positive perception of safety for e-cigarettes as well. For youth in Wales, United Kingdom, parental use of vaping devices has an impact on knowledge regarding devices, as well as the perception of vaping as a method to stop combustible cigarette smoking (Brown et al., 2020), which was generally viewed a positive step.

According to Choi et al., (2022) and Szoko et al., (2021) parental awareness of youth whereabouts is a key component to vaping prevention. In a study by Hoffman (2021), the likelihood of vaping was reduced among youth with increased school attachment, school effort, and religious affiliation, as well as among those with more supervision by parents and guardians. These outcomes were also noted in other research, which suggests the odds of vaping decreased as perceptions of parental knowledge of location, peer groups, and activities increased; this also was found to predict a decreased likelihood of nicotine initiation (Mantey et al., 2022). Similarly,

Buu et al., (2022), found an increase in the likelihood of youth developing a negative perspective on vaping, an increase in perception of harm, and overall a lower level of tobacco use among households with strict tobacco rules and expectations, which included not just anti-tobacco use rules, but prohibitions on where and when use can occur. This was noted in research by Wu et al. (2020) as well, with children in households with strict rules regarding tobacco use having between 20%-26% lower likelihood of tobacco initiation, as compared to more permissive households.

In a cross-sectional study of parents of children in Saudi Arabia, researchers found that of the parents studied, 73% had not discussed vaping or e-cigarettes with their youth. Female caregivers who use tobacco were found to be statistically more accepting of their children's use of e-cigarettes than non-tobacco product using parents of any gender. This study also indicated that overall, parents were more likely to accept a male child's use of e-cigarettes than a female child's use (Sabbagh et al., 2020). While this may be due to cultural factors, Simpson et al., (2022) in a study of youth aged 11-16, also found a link between maternal use of tobacco products and offspring use. In this study, 10.2% of children of maternal caregivers were current e-cigarettes users, compared to 3.7% of youth whose maternal caregivers were non-users.

Literature regarding vaping and the use of tobacco also noted that parents are often inaccurate in the knowledge of their child's use. Wu et al., (2020) speculated lower parental knowledge could be due to the various forms of vaping, the changing brands, designs, and lack of smoke. In other studies, it was found that parents were, in fact, aware of their child's use, but only 29% of those parents were concerned about this use (Keenan et al., 2022). Likewise, Patel et al., (2019) also found that while parents in a study of knowledge about vaping products were concerned about adolescent e-cigarette use, only 2 in 5 were concerned with their own child's

use. In a study by Kurji et al. (2021) of parent practices related to e-cigarettes and vaping, some parents felt that use by their child was a personal decision, and discipline or management of the behavior was not needed. This falls in line with the perception by parents and guardians of an underestimated risk potential for adolescents using e-cigarettes (Alexander et al., 2019 and Kurji et al., 2021; Patel et al. 2019), particularly as it compares to use of other substances (Simpson et al., 2022).

Despite the literature documenting that parents and guardians are key influential factors in e-cigarette attitudes and perceptions, parents did not believe they needed to talk to their youth about this phenomenon. In a study by Brown et al. (2020), parents felt that if they did not use e-cigarettes themselves, talking about them or sharing information was unnecessary. Further, these parents felt that messaging from schools was inaccurate, as the majority of information from school personnel was that e-cigarettes are harmful, but this was incongruent with attitudes shared by parents who used e-cigarettes for smoking cessation, which was viewed as healthy behavior (Brown et al., 2020; Coleman et al., 2016; Doherty et al., 2022; & Keane et al., 2017).

Other influences: Efficacy and Social Media

In addition to the influences of peers, family, and friends, outside environmental influences play a role in the encouragement of e-cigarette use. Consistent with social cognitive theory (Bandura, 1998), efficacy for youth is a large factor in initiating and sustaining substance use. In this case, the use of social media has played a part in sharing information relative to vaping, which has introduced positive social norms for vaping related behaviors (Aljaberi et al., 2021; Davidson and Al-Hamdani, 2023; Kim et al., 2023; Yang, 2023). Yang (2023) noted that youth rely heavily on social media to secure information on vaping and e-cigarettes, therefore responsible marketing of products is critical (Rocheleau et al., 2020). On April 12, 2023, a multi-

state settlement against JUUL, a large e-cigarette manufacturer, was finalized, enabling JUUL to be held accountable for its misleading and harmful targeting of youth in advertising (Parents Against Vaping E-cigarettes, personal communication, April 12, 2023).

The availability of e-cigarettes and vaping products remains an important factor for vaping (Aljaberi et al., 2021; Donaldson et al., 2021; Han et al., 2020; Kurji et al., 2021; Sapru et al., 2020). The cost of e-cigarettes is mentioned as a benefit and according to one estimate, it is much more cost effective than traditional smoking, as e-liquid can cost on average $500 per year (Doherty et al., 2022 and Sapru et al., 2020; & Simpson et al., 2022). Likewise, the flavoring of e-cigarettes and the associated lack of smoke and offensive odor, as well as convenience of use, all serve to increase the use of vaping products among users (Case et al., 2016; Coleman et al., 2016; Doherty et al., 2022; Donaldson et al., 2021 & Harrell et al., 2021).

Critical Analysis of Literature Review

The literature review for this study consisted of a total of seventy-two peer-reviewed journal articles related to vaping. Of those articles, it is clear that the majority of research conducted on attitudes, perceptions, and the understanding of vaping as a behavior, is generated from quantitative studies of youth. In total, eleven articles were literature reviews (15%), nineteen articles were qualitative in nature (26%), and forty-two were quantitative (58%). The vast majority of literature consisted of either secondary data analysis of youth from a large national study (14 out of 19) or a state study (5 out of 19).

Relative to the amount and depth of qualitative information generated for scholarly review concerning vaping, a mere 5% of the literature consisted of actual qualitative research with parents, and 21% were a mixed study of parents and children. For comparison, 42.1% of adults were surveyed relative to their perceptions, use, and knowledge of vaping and e-cigarettes.

However, these articles were limited in value, as they did not elucidate information concerning a parent or guardian response to vaping as a behavior concerning their child. This gap may have implications for future prevention efforts relative to vaping as a risk-taking behavior.

The lack of qualitative information from parents and guardians regarding the use of e-cigarettes by their youth, and/or their subsequent responses to questions relative to future or possible behaviors in that regard is slim. It is through the exploration of knowledge, values, attitudes, and perceptions of parents and guardians, that we can tailor intervention or prevention efforts to address the areas of need directly from parents and guardians. In addition, many of the national studies also utilize schools to study students and gather information, which may ignore or limit some marginalized youth from participating in research, specifically homeless youth, or those experiencing disruptions due to foster care or delinquency placements.

Implications and Conclusions

In 2018, the United States Surgeon General (United States Department of Health and Human Services, 2018), declared youth vaping to be an epidemic. Prior to the introduction of e-cigarettes in 2007, the use of tobacco products for youth in the United States had reached all-time lows (Miech et al., 2021). Since then, vaping became a method for youth to use nicotine in ways that were cheaper and easier to conceal from adults (Doherty et al., 2022; Pentz et al., 2015). The duplicitous marketing tactics of companies such as JUUL, and a wide variety of flavors and customizable options increased the appeal of e-cigarettes for youth and never-smokers alike (Berg et al., 2021; Cooper et al., 2022; Fairman et al., 2021; Ramamurthi et al., 2019; Sapru et al., 2020).

While the rates of e-cigarette use continue to remain steady after the COVID-19 global pandemic (Miech et al. 2023), the long-term consequences of vaping remain unknown, and are

compared most often to the effects of combustible cigarette use. These comparisons provide a pathway for nicotine addiction as well as the normalization, and subsequent acceptance, of vaping as a behavior that is healthier and safer (Overbeek et al., 2020). These comparisons, combined with current research, indicate that there remains confusion and a lack of understanding of health risks by youth, adults, and parents alike (Bailey et al., 2022; Brown et al., 2020; Donaldson et al., 2021; Jackson et al., 2020; Keane et al., 2017; Keenan et al., 2022; Kurji et al., 2021; Mayorga et al., 2019; Patel et al., 2019; Patel et al., 2020; Simpson et al., 2022). E-cigarette use and nicotine addiction perceptions by parents were noted as less concerning, as compared to other drugs (Simpson et al., 2022).

Given these areas of ambiguity and the importance of protecting youth from long-term health problems and addiction, the need to educate and support youth in avoiding nicotine vaping is critically important. Subsequent education and training for adults and parents is needed to raise awareness of current health risks and the importance of addiction and normalization patterns. The idea of what is best for adults and former smokers does not equally transfer for youth and their growing bodies and brain development. The identification of targeted methods to determine best practices for combatting the use of vaping products for youth would likely involve all levels of social work practice.

The identification and implementation of research regarding present levels of concern and perceptions by parents and guardians relative to youth nicotine vaping is directly aligned with the core values of service and social justice to the social work profession. Social work is critically important to serve vulnerable populations, as well as challenge injustices, such as misleading and targeted advertising to youth (National Association of Social Workers, 2021). Taking into consideration that youth are subjected to many levels of influence and lack the

cognitive development to identify risk-taking behavior, the provision of support to youth and families about risk and harm reduction may be essential. The importance of enhancing the well-being of youth, and promoting healthy and sustainable lives by providing information on health risks, as well as support for vaping cessation and education, are critical to addressing the problem of substance use and vaping.

Current literature regarding vaping supports the need for efforts on the micro level of social work practice to address individual and family dynamics, due to the influences of perception and modeling on youth, relative to their attitudes and behaviors regarding vaping and e-cigarette use (Bailey et al., 2022; Brown et al., 2020; Buu et al., 2022; Cheney et al., 2018; Choi et al., 2022; Doherty et al., 2022; Donaldson et al., 2021; Fairman et al., 2021; Helms et al., 2014; Hoffman, 2021; Morean et al., 2017; Scheinfeld et al., 2019; Simpson et al., 2022; Trucco et al., 2021; Yang, 2023). Parents and influential adults with favorable perceptions about the use of substances will shape adolescent behaviors (Trucco et al., 2021), therefore, interventions with families are key to addressing the vaping epidemic.

Research on vaping directly implicates the mezzo level of social work practice, as vaping directly impacts schools and vulnerable youth populations, including homeless and unaccompanied youth (Felner and Calzo, 2023; Lippert et al., 2019). In combination, social work practice on the macro level will bolster support for legislation regarding restrictions on the marketing of vaping products to youth, locations of vape shops, and responsible social media advertising (Kim et al., 2023; Sapru et al., 2020).

The primary focus of this research study will be to address the gaps in knowledge about parent and guardian experiences as they pertain to youth nicotine vaping in South Central Pennsylvania. The contributions of this study to the literature will more succinctly address the

sparse qualitative research pertaining to caregivers' experiences of vaping and e-cigarettes by youth. Utilizing the theories of planned behavior and social cognitive theory to support a semi-structured interview questionnaire will elucidate issues raised by parents and guardians that may assist in guiding further intervention efforts on both the micro, macro, and mezzo levels of social work practice.

The resulting knowledge gained though this qualitative study will assist school districts, community leaders, legislators, and other stakeholders in obtaining a more detailed understanding of the issues from a personal level. This study will capture the day-to-day experiences of families dealing with the vaping epidemic, and how it impacts their households. This information may be critical in determining alternative efforts to address vaping on a local or regional level.

Proposed Research Objectives and Questions

This study poses the following research objectives, which include exploring the general knowledge of parents and guardians about youth nicotine vaping, reporting their experiences of parenting regarding nicotine vaping, and learning how parents and guardians determine risk and health-related factors regarding youth nicotine vaping. The identified research questions relate to parenting and the experiences of those in a parental role. These questions relate to the literature, as they attempt to build upon what is already documented, but at the same time, develop a richer and more thorough understanding of the lived experiences of families when faced with the issue of nicotine vaping. In light of the vast influences and factors involving the decisions by youth to vape, understanding the impact of those decisions on the day-to-day lives of parents and guardians provides a new area of literature and knowledge.

Questions for a Qualitative Study

1. What are parent/guardian experiences relative to youth nicotine vaping?
2. What are parent/guardian experiences with the behavior of nicotine vaping in relationship to other behaviors and actions of adolescence?
3. Do parents consider youth nicotine vaping to be a concerning behavior? If so, what factors contribute to that opinion? If not, what factors contribute to that opinion?
4. Where do parents obtain information regarding vaping? What sources of information do they use?
5. How are vaping-related offenses within the school setting experienced or handled at home?

Chapter 3: Methodology

Research Design

As demonstrated in the literature, few studies explore the humanistic experiences of parents and guardians relative to youth nicotine vaping. This study uses a qualitative research approach, specifically phenomenology, to explore parental and guardian knowledge about the use of electronic nicotine delivery systems (ENDS), more commonly known as vapes or vaping devices.

Operationalization of Terms and Phenomena

As described earlier, but shared here for clarity, the umbrella terms *vape* and *e-cigarette* are meant to encompass all various forms of nicotine vaping devices, including disposables, pod devices, tanks, and mod devices, unless otherwise noted. The terms *parent* or *guardian* are defined in this study as any adult over the age of eighteen that resides at least part time with a youth and is responsible for providing rules, structure, and basic needs. *Youth* as defined in this study is any individual under the age of 18.

Research Study Purpose

This study will specifically address the following research objectives: (1) general knowledge of parents and guardians about youth nicotine vaping, (2) parent and guardian experiences of parenting regarding nicotine vaping and (3) how parents and guardians determine risk and health-related factors regarding youth nicotine vaping. To achieve these aims and objectives, the following research questions are identified:

1. What are parent/guardian experiences relative to youth nicotine vaping?
2. What are parent/guardian experiences with the behavior of nicotine vaping in relationship to other behaviors and actions of adolescence?

3. Do parents consider youth nicotine vaping to be a concerning behavior? If so, what factors contribute to that opinion? If not, what factors contribute to that opinion?
4. Where do parents obtain information regarding vaping? What sources of information do they use?
5. How are vaping-related offenses within the school setting experienced or handled at home?

Rationale for the Study

The aerosolization of nicotine by youth, known as vaping, was tracked by the Monitoring the Future study in 2017 (Johnston, et al., 2022). By 2018, vaping was declared an epidemic by the United States Surgeon General, who issued warnings to parents, educators, and health professionals (United States Department of Health and Human Services, 2018). The rapid rise in the use of nicotine vaping products began to show up in national studies, beginning in the year 2020 (Johnston et al., 2022).

Despite warnings by the U.S. Surgeon General, national studies identified the continued use of nicotine by teens, and after a decline during the global COVID-19 pandemic, a documented resurgence in use occurred in 2022 for students in 10th and 12th grades (Johnston et al., 2022). Crossland (2019) found that parents are unaware of the increased problem of vaping in schools, and some parents believe that vaping is a healthier option than traditional cigarettes. The opinion about health and safety regarding vaping remains troublesome, as long-term studies on the impacts of vaping are not known and are often only comparable to other nicotine products, most notably combustible cigarettes (Jones and Salzman, 2020). Research has raised concern that the introduction of nicotine can increase the likelihood of further substance use, mainly marijuana, by approximately 31% (Davis et al., 2022, Mantey et al., 2022).

Given the potential harm of electronic cigarettes and the associated targeted marketing of vaping products toward youth, there are various misconceptions and a false sense of safety about vaping products by the general public (Coleman et al., 2016). A qualitative research study was employed to gain a deeper understanding of parents' and guardians' perspectives for youth nicotine vaping. As a parenting issue, vaping is still relatively new, becoming an area of interest and documentation for national studies in approximately 2017 (Johnston, et al., 2022). The usefulness of qualitative methods allows for an assessment of values and experiences (Langlois, et al., 2018), which is currently lacking in the literature.

In consideration of youth vaping as a social justice issue, wherein youth and other vulnerable populations are targeted (Fallin-Bennett et al., 2019), information that is gathered on this topic can be utilized to provide avenues of education and advocacy. Furthermore, information that is gathered on the day-to-day experiences of parents on this issue may be used to combat vaping misconceptions, provide a network of supportive resources, and identify useful practices for therapeutic interventions and disciplinary actions within the public-school setting. Current practice by schools for youth vaping often involves punitive responses, such as citations and a removal from educational opportunities (Shealer, 2022b). To elucidate more information on this topic will enhance not only current educational initiatives, but provide clarity on how vaping directly impacts families, which may allow for adjustments in school policy.

Justification for Selecting Qualitative Method

Unlike quantitative studies, qualitative research allows for opinion and participant interpretation (Cypress, 2015). Considering that the goal of research is to generate new knowledge and expand understanding, qualitative research is well-suited to address the underlying and often complex aspects to any given phenomena, in particular, issues regarding

health-related behaviors (Rich et al., 1999), such as the vaporization of nicotine. The specific qualitative method to be employed in this study is phenomenology. Overall phenomenology seeks to explore participant experiences and the situations and context of those experiences (Padgett, 2018).

As noted by Peoples (2021), the foundation of phenomenology lies in philosophy, and seeks to understand what it is like to experience a particular phenomenon, in this case parenting relative to youth nicotine vaping. Other qualitative methods fail to glean the information sought for this study, which is to gather information on lived experiences. Empowering parents and guardians to share their stories about how youth vaping impacts them on a person level is critical for working toward solutions that curtail vaping and provide useful understandings of the phenomena.

Phenomenological Design

The decision for a phenomenological design lies within the topic of interest, nicotine youth vaping. Phenomenological questions are raised through the context of lived experiences and events (Van Manen, 2016), providing a time for reflection and interpretation. When determining the specific phenomenological design, this study will utilize Martin Heidegger's hermeneutic framework (Peoples, 2021). The rationale for this framework lies in the researcher's own personal knowledge and understanding of the phenomena of youth nicotine vaping. Hermeneutic phenomenology acknowledges that there are biases, as well as previous knowledge and understanding of the behavior and concept of youth vaping. This framework is in direct opposition to Edmund Hesserl's viewpoint of suspending judgments (Peoples, 2021).

Hermeneutic Phenomenology and Reflexivity

In hermeneutic phenomenology, the discussion of assumptions and biases about a research topic can and should be mentioned. As the researcher in this study, it is relevant to understand and explore my own bias in the current understanding of the phenomena, and the population to be studied, as well as the sample method, data collection, and analysis. I, Brandy A. Shealer, a self-identified Caucasian female, acknowledge that I live and work in the geographical area being sampled in this study. An aspect of my current employment is working directly with youth who have had some type of vaping-related offense, providing both education and counseling. The themes and data collected in this study will directly impact my work and help to shape future educational opportunities and district policy.

Trustworthiness in Phenomenological Research

Critically important in the area of qualitative research is ensuring the collected data is accurate and ethical (Creswell and Poth, 2018). The areas of trustworthiness as reported by Lincoln and Guba (1985) for qualitative research involve credibility, transferability, dependability, and confirmability. Additional criterion for trustworthiness in phenomenological research calls for critical, performative, and collective learning, which aids in ensuring a body of work that is useful for enhancing societal change (Collier-Reed et al., 2009).

As the sole researcher in this dissertation, many of the common methods to ensure accurate data are unrealistic to accomplish (Peoples, 2021), however, to address credibility, participants will be offered the opportunity to review their interview transcripts for accuracy. In addition, a debriefing with a local health educator may improve the trustworthiness of the study. These health educators will optimally come from a local care provider network, and focus their efforts on smoking and vaping cessation and education.

Sampling and Rationale

Setting

The study will take place in South Central Pennsylvania, with a specific focus on York County, Pennsylvania, a county with an estimated population of 461,068 residents (United States Census Bureau, 2022). The sample population for this study will come from parents and guardians of students in York County.

Sample

The sample was selected through the utilization of a flyer (Appendix A) which was advertised on social media, specifically, Facebook. The selected Facebook pages were open to all members of the local community, and offered a wide range of topics, including general community-related issues, special education, and school district news and events. The specific pages included in this study were the Red Lion Community Members page, the Red Lion Community page, Wrightsville Pa Area Rants and Raves page, the Southern York County PA page, the Red Lion Area Special Education Families page, the Commonwealth Charter Academy CCA Parents Discussion page, and the electronic bulletin board for the Red Lion Area School District.

Creswell and Poth (2018) outline a narrow amount of sampling strategies for phenomenological studies and stress that participants must have experience with the phenomena being studied—youth vaping. Due to fitness, criterion sampling was used to determine the final sample size, as a criterion-based sample allows participants to have information which can answer the researcher's questions (Farrugia, 2019, Padgett, 2018, Rubin and Babbbie, 2018). To clarify, all of the participants eligible for the study will represent adult parents or guardians who have experienced the same phenomena of youth nicotine vaping.

Sample Criteria

In order to qualify for the study, the participants must be parents or guardians of youth under the age of 18. These parents were residents of South-Central Pennsylvania as well.

Sample Size

In contrast to quantitative methods, qualitative research can vary greatly in terms of sample sizing, depending on the methods selected, as well as the purpose of the study (Creswell and Poth, 2018, Padgett, 2018, Sandelowski, 1995). In order to generate knowledge on the interpretations and experiences of parents and guardians about youth vaping, a sample size will need to be large enough to gather a rich and detailed understanding. According to Padgett (2018), a typical phenomenological sample size is six to ten participants. However, this can vary greatly, as Creswell and Poth (2018) suggested that a study size of five to twenty-five participants is ideal. Other studies consider factors such as saturation to determine sample size, but this has drawbacks, as researcher bias can limit what is considered new or useful evidence (Mason, 2010). In this study, 12 participants were interviewed that contributed information on the topic of youth nicotine vaping.

Data Collection

Consistent with qualitive research, instrumentation in this study was not required, such as formal scales or questionnaires (Padgett, 2018). However, a semi-structured interview guide was developed for parents and guardians to allow for key questions to be asked, while at the same time allowing some freedom for other relevant pieces of information to be shared (Peoples, 2021). In addition, the use of a semi-structured interview guide provided a uniform structure and overall consistency for participants. The interview questions for this study, as referenced in Appendix B, sought to uncover the essence of the parental experience as it relates to youth

nicotine vaping. The participants in this study were not compensated for their time, nor were they given any other incentives. Table 1 outlines the interview questions and overall rationale for each question.

Table 1
Interview Guide Questions

Topic Area	Purpose of Question	Question/Prompt
Knowledge and interpretations of youth nicotine vaping	To find out what participants know about the topic	Please tell me your perceptions of nicotine vaping? What advertising or other materials have you seen about vaping?
Personal experiences with parenting and nicotine vaping	To gain an understanding of how parents and guardians experience this topic in their role as parents and guardians	What was your first involvement or interaction with vaping or e-cigarettes? Is your child or anyone allowed to vape in your home or with you?
Safety and harm of youth nicotine vaping	To gain an understanding of how parents and guardians determine risk and health-related factors regarding youth nicotine vaping	Is vaping a behavior of concern for you? How does vaping compare to smoking cigarettes?
Nicotine vaping sanctions	To explore the experiences of parents and guardians regarding school discipline and youth nicotine vaping	How do you feel about your school district's response to vaping?

Ethical Considerations

According to Rubin and Babbie (2017), participating in a research project can provide participants with issues or circumstances that may prove to be uncomfortable or out of their normal scope of consideration. As such, participants were provided with lists of local mental health and crisis providers in case of any distress, see Appendix C. Participants were interviewed via Google Meet, and encouraged to arrange a time and location that provided privacy and a level of comfort in which to share their experiences. Interview records were immediately stored on this researcher's private password-protected laptop, and transcription information was stored on the Google Cloud of the researcher, as well as on a flash drive owned by the researcher. As a mandated reported, this researcher explained the role of confidentiality and under what circumstances it could be violated (disclosure of violence, self-harm, suicidality, and other similar concerns).

For this particular study, anonymity of respondents could not be provided due to the nature of the interview process (Rubin and Babbie, 2017). However, if requested, participants were offered the option to request the disabling of the video camera during the interview process. Transcripts and collected data were stored on a password-protected computer on a private account, as well as on a researcher-owned flash drive. Google does not guarantee anonymity within its software programming due to the collection of IP addresses, and will be discussed as part of the consent for research participation (Appendix D).

Procedure

Parents and guardians located in South Central Pennsylvania, with a particular focus on York County, were recruited using social media. Participants were recruited via ads on various Facebook pages, as well as using snowball sampling from other participants. Participants were

asked to respond to the recruitment flyer (Appendix A) by texting or calling the phone number contained on the flyer. Once the participant expressed interest, the consent form was sent to them for review and signature (Appendix D). Once the consent form was signed, an interview was scheduled for a date and time agreeable to all parties, using a unique Google Meet code. Each participant was randomly assigned a Google Meet code that was not accessible to anyone but the researcher and the participant.

The Google Meet interface provided a method of virtual face-to-face interaction for anyone with an internet connection, and was selected for ease of participant use and a straightforward design (Pedroso et al., 2022). Google offers a wide range of extensions that provide additional features and software to enhance the Google platform. The extension, Scribbl, was used to provide a text version of all audio recordings, and ensures "industry standard encryption" to protect data (Scribbl, 2021). Interview transcripts were saved to a secure Google cloud as well as on a flash drive owned by the primary researcher and kept in a locked cabinet.

Data Analysis

For the purpose of this study, the knowledge and information already known about the subject of youth nicotine vaping and parent and guardian experiences were acknowledged. In order to analyze the new information gained from this study, the process of information modification must be recognized (Peoples, 2021). Prior knowledge and frameworks for viewing e-cigarettes and vaping usage were known from personal interactions with youth and families, as well as through the lens of Social Cognitive Theory and Theory of Planned Behavior, as discussed in Chapter 2.

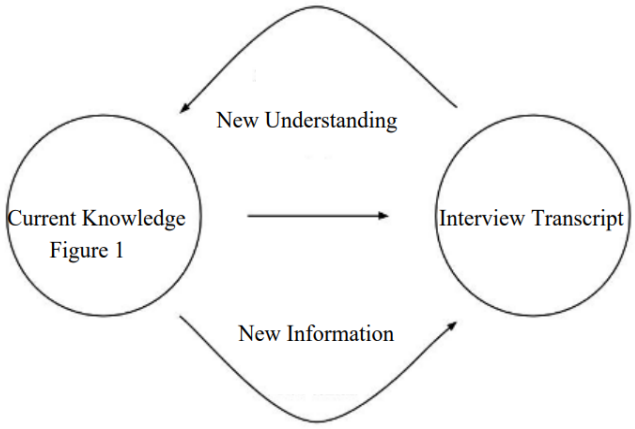
Using Heidegger's viewpoints of hermeneutic phenomenology, there remains an inability to separate yourself from the world, thus we all have preconceived notions and understandings

which is called *fore-sight* (Peoples, 2021). The purpose of the data analysis in this study was to move beyond what is known, and to uncover new meanings from the information presented (Crowther and Thomson, 2020). Hermeneutic phenomenology encourages an interpretive process that moves from aspects of an experience of one individual or participant to a deeper and more complex understanding with each subsequent interview (Dangal, 2020).

Proper analysis of the text using hermeneutic phenomenology included fore-sight, or the already known experiences of nicotine youth vaping, which were provided by an analysis of literature on the topic, included in Chapter 2. Using the lens of theory of planned behavior (Ajzen, 1991), the primary themes relevant for youth vaping include perceptions of overall product safety, perceptions of vaping as healthier than combustible cigarette smoking, and stress relief capabilities. In addition, the ease of use and discreet design of vaping products represented a starting point to analyze the text transcript. Using these general themes, and the process of reading and analyzing the transcripts repeatedly, altered the known and understood information in a process called the hermeneutic circle, see Figure 4.

Figure 4

Hermeneutic Circle



Adapted Heidegger (1926)

The interviews were conducted via Google Meet and transcribed using a Google extension called Scribbl, which provided automatic transcription services, and placed transcripts directly into a Google Doc. The transcribed data was cleaned to removed unnecessary language, including filler words such as “um” and “like.” Data cleaning was also utilized to correct things such as misspellings of words and inaccurate transcribing within the Google Doc, errors such as “bake” instead of “vape.” After transcripts were cleaned, they were uploaded to NVivo 12, a qualitative analysis software program, for coding purposes.

Each interview transcript was read its entirety to gather a preliminary understanding of the meaning contained within the text that would reveal information about the phenomenon of youth nicotine vaping (Peoples, 2021). A second analysis of each interview transcript was completed for additional codes based upon the themes identified in Figure 1, referred to as “theoretical codes” or a priori codes (Padgett, 2018). Next, using an in vivo process, wherein codes emerge directly from participants (Padgett, 2018), the transcripts were read again for coding purposes. This process continued for each interview, and “in vivo codes” were assigned to each interview. Each identified code was assigned a descriptive definition, assigned by the researcher in order to provide clarity and allow for replication.

After assigning both “in vivo” and “theoretical” or a priori codes to each interview transcript, using the memo feature of NVivo 12 Pro, the researcher made notes for each interview that outlined any personal biases of the researcher, and what information in the interview may have altered the previous knowledge of the phenomena. This process was key to analyze new understanding and meaning, which highlighted the essence of the hermeneutic circle (Peoples, 2021) depicted in Figure 4.

Once themes were identified, they were defined and placed into tables which highlighted the content for each question of the interview. After separating each question and subsequent codes for that question into one table, a further journal notation was made which highlighted the researcher's overall understanding of the specific question. Using the codes from each specific question, a thematic analysis was completed to further refine the specific codes into larger themes and subthemes.

Chapter 4: Findings and Presentation of Codes and Themes

This chapter will detail the data analysis and present emerging concepts, codes, subcodes, and themes as identified through the interview process. The process for deriving meaning from the data will also be discussed. The rationale for all codes, sub codes, and themes will be identified to provide transparency. Data were analyzed within the context of answering the identified research questions outlined in previous chapters.

Data Collection and Demographics

Data collection began in December of 2023 and concluded in January of 2024. In total, 20 consent forms were signed by potential participants and 13 interviews were conducted. One participant was interviewed twice, due to an electrical failure, which caused the initial interview transcript to fail. One participant did not attend the scheduled interview and ceased all contact, and the six remaining participants did not schedule any interviews. Of the twenty participants who signed consent forms, 15 were directly approached by the researcher through personal communication, including text messages, emails, or at in-person meetings for participation, while the remaining seven participants were recruited by snowball sampling (1) and online recruiting through social media (4). Demographic information for the final study participants is included for reference in Table 2. The average interview length was 23 minutes.

After the initial round of interviews, four participants were contacted a second time in January of 2024 to obtain additional information specific to the area of research question 4, regarding where parents and guardians obtained their knowledge and information on vaping and e-cigarettes. Participant numbers, 1, 13, 15, and 16 responded to the request for additional information. These participants were chosen for convenience and familiarity with the primary

researcher. Each participant responded to the researcher using text messaging via the phone number listed on the recruitment flyer.

Table 2

Demographics for Study Participants

Participant Number	Gender/ Race	Status	Recruitment Type	Location
1	F/W	Mother and Grandmother	Direct Appeal	York County
2	F/W	Mother	Direct Appeal	York County
4	F/W	Mother and Grandmother	Direct Appeal	York County
5	F/Bi-Racial	Mother	Social Media	York County
7	F/W	Mother	Social Media	York County
9	F/W	Mother	Direct Appeal	York County
11	F/W	Stepmother and Guardian	Snowball	York County
12	F/W	Mother	Direct Appeal	York County
13	F/W	Mother	Direct Appeal	York County
15	M/W	Father	Direct Appeal	York County
16	F/W	Mother	Social Media	Lancaster County
17	F	Mother	Direct Appeal	York County
19	F	Mother	Direct Appeal	York County

Identification of Codes

Data was collected from the semi-structured interview questions to address the primary research questions. Data was prepared for coding after using a Google application extension called Scribbl to transcribe interview responses. Once the data was cleaned for extraneous words, all interview data was uploaded to NVivo 12, a qualitative analysis software program. To determine codes and subcodes, all data were reviewed multiple times to ensure accuracy and meaning. The initial review of the data was based on the a priori codes outlined in the theoretical perspectives of vaping which included safety, peer usage, access, stress relief, vaping

community, and better than smoking. The codes and the definitions for those items as defined by the primary researcher and coder are included in Table 3.

Table 3

Theoretical (A Priori) Codes

Theoretical Theme	Definition
Safety	This code describes the perceptions of safety or lack of safety for nicotine vaping products. This code is based upon literature reviews that made comparisons of safety for vaping when examined with combustible cigarette smoking.
Peer Usage	This code is based upon the literature which suggests that youth are more likely to use or try vaping if they have peers or friends who also use it. This code is based on the literature.
Access	This code is based upon the literature which suggests youth have various means of obtaining vaping devices.
Stress Relief	This code is for information that suggests vaping is a form of stress relief for youth, as reported by parents and guardians. This factor is documented in the literature.
Vaping Community	This code is based upon the literature, which suggests vaping creates a community of vapers, which can make youth feel a sense of belonging. This is as reported by parents and guardians of their youths' use.
Better Than Smoking	These codes correspond to the comments parents and guardians have regarding vaping as a healthier behavior as compared to smoking. This was documented in the literature.

A secondary review of transcripts produced in-vivo coding which highlighted additional information and definitions that are included in Table 4.

Table 4

In Vivo Codes

In Vivo Theme	Definition
Addiction	This code corresponds to parent and guardians mentioning that nicotine vaping can be addictive.
Awareness of Vaping (Generality)	This code corresponds to the parent and guardians' response to how they became aware of vaping as a behavior and as a product.

In Vivo Theme	Definition
Methods of Parental Response to Vaping	This code corresponds to the methods or behaviors that parents and guardians implemented to address, curtail, or control youth nicotine vaping.
Perceptions of Control over Vaping by Parents and Guardians	These items are comments and reactions from parents and guardians on whether they can control their child's behaviors when it comes to vaping.
Shame	This code corresponds to any references of emotional distress or concern from parents and guardians about the topic of youth nicotine vaping, particularly as it relates to control of the behavior and subsequent perceptions by others.
Perceptions of Parenting Related to Vaping	This code corresponds to comments that parents or guardians have made regarding their perceptions of other parents' behaviors and experiences in addressing youth vaping.
Easily Obtainable	This code corresponds to the various ways youth can obtain products.
Generational Issues (General)	This code represents participant viewpoints that referenced age, parenting styles, and upbringing.
Health Issues- Not Addiction Related	This code corresponds to any negative health impacts related to vaping, that are not specific to addiction or safety.
Is Vaping a Concern as a Parent	This code corresponds to the question of whether or not vaping is a concern for parents and guardians.
Marketing of Vaping Products	This code corresponds to what parents have observed or know about the marketing of vaping products.
Parent and Guardian Reason for Child Usage	This code corresponds to the rationales and reasons by parents and guardians about their child's usage.
Protective Factors	These are items mentioned by parents that they believe may assist in avoiding or minimizing youth nicotine vaping.
Religion and Vaping	This code corresponds directly to the idea of vaping and the usage of products conflicting with religious beliefs and traditions.
Risk Factors (Personal)	This code explains any particular traits that parents and guardians mention related to their child that may impact the likelihood of vaping.
Research	This code highlights comments made regarding statistics, research, and studies on vaping.
Smoking Versus Vaping (General)	These are general codes that correspond to responses parents and guardians have regarding their viewpoints on vaping as compared to smoking.

In Vivo Theme	Definition
Thoughts on School Response to Vaping	This code corresponds to participants' responses to school efforts, resources, and prevention regarding vaping.
Flavors	This code is for any mention of the use of flavor vaping.

All transcripts were examined a third time, and all coded data was re-reviewed for accuracy of the definition and subsequent overlap of codes and information. When similar information was found, the primary coder decided to further split codes into more detailed and specific sub-areas which related directly to a main concept. As an example, the code of awareness of vaping received a sub-code of flavors. This directly corresponded to the awareness of vaping and vaping products, but referred to specific aspects of vaping, thus adding more detail and specificity to the code.

A code for perceived control over vaping by parents and guardians was identified in the study, and received the sub-codes of shame and perceptions of parenting related to vaping. These codes all centered on the perceptions of the controllability of vaping behaviors as well as the subsequent perceptions by parents and guardians both as individuals in their roles and their thoughts about other parents and guardians, as shared by participants through the course of the interviews. The code of access had two subcodes, obtainability and shareability of vaping devices, which were all areas specific to youth acquisition. Peer usage had the subcode of a vaping community which further explained a parents' and guardians' understanding of their child's sense of belonging when interacting with their peers. Protective factors were linked to a subcode of religion. Safety was combined with the subcode of research on vaping, the ideas of smoking versus vaping, as well as the code of smoking or vaping in the home.

Secondary Coder

A secondary coder affiliated with a local medical group specializing in tobacco cessation reviewed all codes, definitions, themes, and findings. They agreed with the codes and definitions outlined by the primary researcher and found the corresponding data to match the identified codes and subcodes. A further agreement was found between the primary and secondary coder regarding themes as identified from the participant data. An area of disagreement requiring further clarification occurred on the code of smoking vs. vaping (general). This issue was resolved with an agreed-upon resolution.

Data Analysis

To conceptualize the data from this study, the specific research questions were examined individually and linked to the corresponding interview questions. Each question was then assigned identified codes and subcodes. Corresponding themes based upon the knowledge gained from each question were assigned themes by the primary researcher and coder and are included in Table 5.

Table 5

Research Questions, Interview Questions, Codes, and Themes

Research Question	Interview Question(s)	Identified Code(s)	Identified Theme
RQ1- What are parent/guardian experiences relative to youth nicotine vaping?	When was your first involvement or interaction with vaping or e-cigarettes? What do you remember about that time period? Please tell me your perceptions about youth nicotine vaping.	Awareness of vaping in general; Flavors	Emotional and mental health; Confusion; Social influences, Candy-like flavors
RQ2- What are parents'/guardians' experiences with the behavior of nicotine	How does the behavior of vaping compare to other parenting issues you have for your	Perception of control over vaping; Access; Easily obtainable;	Helplessness; Hopelessness, Frustration; Control; Shame

vaping in relationship to other behaviors and actions of adolescence?	child? For example drinking, poor grades, peer issues?	Shareability of devices	
RQ3- Do parents consider youth nicotine vaping a concerning behavior? If so, what factors contribute to that opinion? If not, what factors contribute to that opinion?	As a parent/guardian is vaping a behavior of concern for you? In your opinion, how does vaping compare to cigarette smoking? Is your child or any adult allowed to vape in your home or with you? Where are they allowed to vape (if permitted)? If your child is allowed to vape with you or in your home, tell me about how you made those decisions. What impacted your choice?	Lack of research; Addiction	Legality; Respect; Safety; Addiction; Controllability
RQ4- Where do parents/guardians obtain information regarding vaping? What sources of information do they use?	What advertising or other materials have you seen about vaping? Where did you see them, and what did they say, or what did you believe was their message?	Marketing of vaping products	Formal and informal information sources; Word of mouth; Marketing
RQ5-How are vaping-related offenses within the school setting experienced or handled at home?	How do you feel about the school district's response to vaping?	Thoughts on school response to vaping	Control; Partnership

Research Question 1 (RQ1)

What are parent/guardian experiences relative to youth nicotine vaping?

The majority of parents in this study (77%) were aware of vaping and e-cigarettes and possessed general knowledge of the products. Despite this awareness, there were differences in the extent of experience and familiarity with these devices. As stated by Participant 13 (P13), "you kind of don't think it's a big problem where you're at until you're put into the position to see it—sometimes you don't see the big picture." Participant 15 (P15) did not recall their first interaction with vaping products, but did recall seeing adults at his place of employment vaping, saying, "I don't really remember when I really heard about them or first came in contact with them. It was probably at work seeing people do it." Similarly, Participant 16 (P16) stated, "I feel you can use it sometimes in places that would not allow smoking." Participant 7 (P7) acknowledged, "I knew that it existed but my first personal experience with it was with my daughter."

Participant 5 (P5) reported, "I think that it is a lot more pervasive than I would have assumed." They further stated they found out many younger youth were vaping, instead of smoking cigarettes. Participant 13 found out about vaping due to volunteering at a local school, "I was in the PTO and at the middle school it became a real problem." Further P13 reported, "it wasn't until that moment in those meetings and then talking with my daughter and her friends that I really realized how big of a problem it was."

One study participant, number 9 (P9) reported her first awareness of vaping was watching television and seeing Hollywood actress Brooke Shields vaping on a late-night talk show. This was very impactful for this participant who acknowledged growing up with Brooke Shields as a household name. She stated, "so it was kind of like, you know, intriguing to me."

Despite a general awareness of vaping, 31% of participants were not always sure of what items their youth were using and the names of those products. As P7 stated, "there are all these

different types of vaping that are out there that students can experiment with." Participant 11 (P11) remarked, "I had found either a Vuse or one of the Puff Bars or something in my daughter's room." Additionally, P9 stated, "I do vape but I don't know what they're [vaping devices] called, I guess disposable, but they look like one piece and they're white. I'm not sure what they're called." Participant 2 (P2) questioned, "what exactly is in it [e-cigarettes], the vape juice or whatever the liquid [is] that they're using."

Parents and guardians in this study did share some explanations or possible reasons for their child's e-cigarette use, with three out of the thirteen participants (23%) giving specific reasons for youth vaping. Participant 7 indicated "I just know that particular year in school was very, very difficult for her [daughter]. I don't know if she was just trying to find her way or exactly what transpired to make that decision." Another parent felt their child was depressed and hopeless (P16), and another reported their child experienced the dissolution of a romantic relationship and wanted to make his negative feelings stop (P4). Participant 9 reflected that perhaps their child was influenced by observation, stating, "I'm not gonna say that it couldn't have come from me at all because he's watched me do it" and, "I'm his mom, so I'm his first influence." Three participants noted stress relief as a specific reason for their youth to use. Participant 4 noted about her son, "he gets antsy, he gets irritated, and when he has nicotine it kind of calms him down." This was also noted by P16 who said their child felt more relaxed and less anxious when using nicotine products. Participant 9 remarked, "every time we catch him with one [e-cigarette], we have to deal with the anger. We have to deal with him going through nicotine withdrawal."

A little over half of the participants (54%) also noted peer influences as a factor in the behavior of vaping for their youth. These peers, while they may not have directly given any e-

cigarettes to other youth, were mentioned as possible sources of influence. According to P17, "all kids do it. That's just how it is." One participant noted their child said to them, "I might hit it once every, you know, once in a while if I'm with my friend," or as P16 said, "they just had friends that would do it." Participant 16 also said that her 8th grade child remarked, "there's already been people doing that [vaping] for years." Another parent, P9 said, "once you get to that Junior High it's you know, you're just kind of throwing your kids to the wolves." In addition, P9 stated, "when he [their son] starts acting out at school, I can sometimes tell that he's hanging out with those kids again, so he seems like he tries to stay away from them sometimes and then he goes back to them. He gets caught [vaping], he gets in trouble, and then he stays away from them for a minute. It's like just a revolving cycle."

RQ1 Themes

Identified themes based upon the review of codes and subcodes presented the ideas of mental health and emotional difficulties by youth, confusion with vaping devices, social influences, and the utilization of candy-like flavors as factors for parents when articulating their experiences with youth nicotine vaping.

Research Question 2 (RQ2)

What are parent/guardian experiences with the behavior of nicotine vaping in relationship to other behaviors and actions of adolescence?

Parents and guardians are somewhat consistent in their belief that managing many behaviors and actions of adolescence is difficult, and vaping is no exception. In this study, 46% of parents and guardians felt they were unable to control their youth when it came to e-cigarette use. Parents and guardians felt a sense of helplessness when it came to managing adolescent behaviors. Participant 16 reported, "we knew it was happening and we felt helpless, like we couldn't stop it unless we locked her in a room." Participant 7 remarked, "once you send them

out the door, sometimes you don't know who they're talking to during the school day or what they're doing." Similarly, P17 stated ",I can't always watch my son or watch his sister or anybody outside of house. I can't stick myself to them 24/7. Sure I know that's where the issues happen." Participant 19 (P19) remarked, "I couldn't do anything about it, all I can do is talk to him about it [vaping] and hope."

Access to e-cigarettes also became a concern for parents and guardians, who had concerns over the availability of e-cigarettes as well as the actual design and implementation of the devices which were often easily obtainable, easier to share with others, and concealable from parents and guardians. Participant 4 stated "it's alarming that they're easily accessible." One parent, P2, found out about her daughter's e-cigarette use when her daughter picked up her purse upside down and an e-cigarette fell out of it. Other participants (P1, P4, P7, P9, P13) shared concerns over how easy it was for children to obtain e-cigarettes, with P7 stating, "we all know that there are people over 18 that will get things for people under 18." Another parent, P4, felt this way about access, "I think it's readily accessible to children more than cigarette smoking was even for us as younger children in the 80s."

Other participants felt they knew where their children were obtaining e-cigarettes, such as P16 who said, "I knew that it was someone at school that was buying it for them," or as P9 said, "the majority of kids are getting it at school from other friends." The child of P17 remarked to her, "you can just get [e-cigarettes] around this vape shop here Mom, and they'll sell it to you." Another participant, P4, also expressed concern over vape shops stating, "there is a smoke shop around the youth center and they are still selling it to 13, 14, and 15-year-old kids."

In addition to access and availability, e-cigarettes designs create concerns for over when and where youth were using them. As Participant 1 (P1) stated, "they [her children] do it in the

house, but they're not supposed to, and they do it at school and between here and school and wherever they can." The reason for use in the home as reported by P1 is the "lack of a cigarette smell." Youth reported to the study participants that students would simply blow e-cigarette vapor into their clothing to avoid detection at school or would hide vaping devices in their clothing and underwear. "They [school officials] don't search us or anything. Even if they searched my bag, I don't keep anything in my bag. I stick it in my bra and like in my underwear or something somewhere where they're [school officials] not gonna search me" (P16). Deception about e-cigarette devices also led to use in the home as P17 reported they would find things in the house, stating, "I have found these things laying around and I didn't know if they were hers [adult daughter's] or if my son was taking it."

A similar theme for parents and guardians was that despite prohibition and other preventative measures, a child's autonomy to make independent choices was critical in e-cigarette use. As participant P7 stated, "it's really hard when it comes to teenagers because on some level if they want to do something they're going to find a way to do it." Participants 11, 13, and 17 also shared that opinion with P11, who stated, "I know kids nowadays if they want to do something they're going to do it," while P13 noted, "at the end of the day, you know, if a kid wants to do it, they're gonna do it." Participant 17 stated, "kids are gonna do what kids do."

A further theme highlighted by this study concerned the various actionable behaviors taken by some parents and guardians in this study. While it was noted that many parents believe their children will engage in vaping regardless of risk or prohibition, there were several consistent parenting behaviors and reactions found by this research. Several participants documented having conversations with their child, noted by P2, P4, P7, P11, P12, P15, P17, with P11 stating, "I have preached till I am blue in the face." Participant 4 shared ,"I explained to my

son, this is what I have done, this is the path that I am going down. You have got to be smarter than me. You have more knowledge. You have more research, you have everything at your fingertips."

Other parents assigned things such as more chores (P11) or took away privileges (P9, P11, P17). Grounding was mentioned as a tool for discipline by both P11 and P16. Some parents made their child throw away their vaping devices (P9, P16). Participant 7 acknowledged, "I might even go as far as to say that I would have to have my child reconsider the friendship [with the vaping child]." Other methods to control vaping were undertaken by P16, who reported deactivating their child's debit card, offering nicotine chewing gum, and substance abuse treatment. Participant 16 also warned family members not to provide cash or gift cards for the holidays due to concerns over the money being spent on e-cigarettes.

The parents and guardians in this study were quick to point out that from their perspective, some parents do not believe vaping is a problem. Participant 15 stated, "I'm sure there are parents that as their kids are older they don't really care as much if their kids are vaping." As P11 stated, "I feel like obviously there are always going to be parents who are going to choose to let their child do that [vape]. It's just not a battle they want to fight, it's not a big battle for them." Participant 2 told her child, "don't do it in front of me. I don't want to see it, have respect for me." She also remarked, "I pick and choose my battles," and, "I can't really say too much like I can try and guide them in the right direction, but I'm a tobacco user myself," and, "I pretty much told them like if you're gonna do it, you're gonna find your way to do it yourself because I'm not gonna support it." Likewise, as P4 believes that if her child knows the risks, then that is enough for her as the parent, stating, "I'm not dumb, I know that he's going to be doing it

when he goes out if he's going to be with his friends. Those are choices that he's gonna make and there are consequences to those."

The parents and guardians in this study reported an awareness of how children's behaviors could be perceived by others, and reflected on their own perceptions of parents and parenting. For example, P4 stated, "I do not think that parents really know their children," and, "a lot of parents do not want to see their children in that [negative] light." Further, P4 said, "if a mom found somebody's vape pen they're gonna want to find who gave it to them because how dare they give something to their child, but their child chose to put it in their mouth and inhale it." Differences in parenting styles were noted by P5, who said, "we have a lot of people our age who just want to be their kid's friend and don't want to have a lot of rules because they felt like their parents just shoved rules down their throats," and, "they want to feel cool with their kids."

The theme of shame was reported by three participants (P4, P15, and P16) over their child's use of vaping products. P16 shared, "you feel like a bad parent, but then we have to remind ourselves this is an epidemic, but at the same time, as a parent you feel like why can't I do more?" In addition, P16 reported concern over sharing information about their child's vaping, because the response to the behavior was not known. "I haven't really talked to other parents because sometimes I'm not sure how they'll react and I don't want them to be like, well my kid can't hang around with your kid then because I'm like, well, they're all doing it [vaping]" (P16). P16 further shared, "I think I just avoid it," and, "I don't really get to talk about it, and I should probably. I keep saying I'm gonna get myself a therapist because I need to unload this crap on people." Perfection was noted by P15 who remarked, "I like to pretend that like any parent that everything is perfect." Participant 4 remarked, "I do not talk to other parents," and, "when it comes to me talking with other parents or the PTA, or I don't fit in that box."

RQ2 Themes

The most notable themes for RQ2 included hopelessness, shame, and stress relief. Parents reported having minimal control over the behavior of vaping and felt as though other systems, such as local schools, were similarly not able to control vaping. In addition, shame became a theme for some parents as they would avoid discussing the topic of vaping or share that their household was dealing with addiction.

Research Question 3 (RQ3)

Do parents consider youth nicotine vaping to be a concerning behavior? If so, what factors contribute to that opinion? If not, what factors contribute to that opinion?

The parents and guardians in this study were consistently concerned about vaping, with 11 out of 13 participants providing affirmative answers to this question, but the severity of their concerns was varied. All participants shared they were troubled by e-cigarette use due in part to at least one or more of several factors including a lack of research, potential for addiction, overall safety of the devices, and the negative health risks.

When analyzing data on vaping as a general parenting concern, P11 remarked vaping is one of their top three concerns as a parent, but grades were their most important concern because they wanted their child to go to college. Another parent, Participant 12 (P12), acknowledged the concern, but not for her own children. She further clarified, “I guess if I had to do a scale [of] one to ten it's probably something I prefer she wouldn't do so it's probably like a seven. But I also don't really feel like I have to worry about it with her.” Another participant, P5, also shared that they did not feel vaping was a concern because her children seemed to be “very anti-vaping” but felt it was concerning enough to at least have a conversation about the issue, remarking, “as a

parent who was a teacher, I know how pervasive it is. So I feel like it should be a concern for anyone who interacts with teenagers." Participant 15 remarked that vaping was very concerning, "to me vaping is way more of a priority than grades because it's a health issue. It's an addiction issue." He went on to state, "vaping would be something I would really want to try to focus on right away." Despite other study participants finding vaping to be an area of concern, participant 13 noted, "I don't rate it very high, maybe a five," but this was due to the participant perceiving a close relationship with their child, which included discussions about vaping and other use of substances.

Parents and guardians had mixed opinions on the research that exists about vaping, with 54% feeling that research does not adequately document the risk of vaping, while others felt we have all the data we need to substantiate concerns about e-cigarette use (23%). Participant 9 stated, "I think there is enough information out there now." Participant 1 said, "I don't understand why they [kids] would even get started [vaping], knowing everything that it can do to you. Kids have every bit of information and they still want to do it and I don't get it."

In contrast, seven study participants (P2, P4, P5, P12, P13, P16, P17), noted there was not enough information on e-cigarettes to generate an opinion of safety. The short duration of availability for e-cigarettes as a product was noted by P17 who said, "it's something that is kind of fairly new, it was kind of just put out," and, "you never know what is inside." Participant 13 expressed concern over what effects vaping will have on youth in the future, or as P4 stated, "these children are going to be the statistics in 20 years." Participant 4 went on to remark, "the ramifications and the medical knowledge and everything is not there but the children are smoking them because they taste good."

Eight study participants (P1, P4, P7, P9, P11, P13, P15, P16), or 62% of the study sample, expressed concerns over e-cigarette use, due in part to concerns strictly over addiction to nicotine. Participant 1 stated, “parents should know that it is an addiction and it can become an addiction even for a kid” while P13 remarked, “once you get addicted to something then it’s a whole new ball game to get unaddicted to it.” Three participants felt addiction was more likely with e-cigarettes, such as P16 who commented, “I feel like it's [vaping] more addicting quicker than smoking cigarettes and it tastes better. It doesn't smell.” P9 expressed frustration over dealing with the aftermath of their child’s use, stating if their son obtains an e-cigarette, “we have to deal with the aftermath for a week or two” referring to the withdrawal from nicotine.

The other ramifications to the addiction concern for parents and guardians centered on how the addiction became a controlling feature of their child’s lives. This was noted in 15% of the participant population. For example, P11 was told by her child, “they'll [vaping-addicted peers] go in the bathroom really quick because you know, they're stressing out about class.” Likewise P16 reported, “vaping was consuming their life. It's like all they thought about. When can I do it next? What class? Where can I hide in the school where I can't get caught, you know?” Further, P16 experienced theft by their child to obtain e-cigarettes remarking, “we feel like there was money missing. ” They also experienced their child struggling to purchase devices, stating, “they'd work and then they’d cash app to whoever they needed to as soon as they got paid and then they'd have no money and they'd be broke and they would be consumed with it when they'd run out and then they'd be angry.”

As a separate issue from addiction, some participants (23%) reported other health-related risks as elevating their concern for vaping and e-cigarette use. Participant 7 succinctly stated, “you're inhaling things that you shouldn't be inhaling.” Other parents and guardians noted

impacts on their children's voice and breathing ability, like P16 who said, "they didn't care and they started to not care about theater and their voice was affected from vaping and their breathing was affected for singing and they didn't want to admit it." Popcorn lung was mentioned by one participant (P4) who felt that the reason people are getting sick is due to vaping being a "wet smoke."

When participants were asked an additional question on their viewpoint of the difference between smoking and vaping, the results were mixed. One participant, P13, seemed to indicate smoking was safer than vaping by stating, "I never have heard of someone smoking cigarettes and ending up in the hospital." One participant (P9) did not see a difference, stating, "I think nicotine vaping is just as bad as smoking a cigarette." Of the study participants, 23% directly stated they believe at least in part, that vaping is the better alternative to combustible cigarette smoking. Participant 15 remarked, "vaping is not healthy, but healthier than smoking." Participant 5 added, "I was under the impression that it didn't have the amount of nicotine and things that cigarettes did and I thought it was somehow healthier." In addition, P9 stated, "I vape personally so I'm not innocent, but I mean it's better to me than smoking cigarettes." She further remarked, "I feel like it's a better alternative, as far smoking real cigarettes because you know, you can take a couple quick puffs off of it and put it away where regular cigarette you're gonna stand there [and] smoke the whole thing."

To understand the viewpoints of participants regarding the use of nicotine products in or near the home, the majority of participants did not allow this behavior at 69%, versus 15% who condoned the behavior. However, of the two participants who allow vaping, it was not in the home directly, but rather on the property of their home. One parent, P2, stated they can vape at home but "not in front of family, like she [her daughter] has to be respectful about it. Nobody

wants to see her doing it." Another participant, P19, said, "they [the individual vaping] go outside or they will literally stand at the back door and vape out the back door, but not in my home, not in the physical house, not in my car." For P4, who knows their child vapes, she remarked, "he is not allowed to smoke in my home or vape in my home just because that is where we live," and, "it's not fair to the people that have not chosen to do that to themselves." Participant 5 took the stance of a legal obligation to stop the behavior indicating, "it's not legal for kids to have them [e-cigarettes], so I don't, I am not a parent who is comfortable with illegal things happening with underage children in my home. So I haven't given permission for any of those kind of activities."

RQ 3 Themes

The themes identified by the analysis of RQ3 presented themes of legal issues, respect for self and others, safety, addiction, and controllability.

Research Question 4 (RQ4)

Where do parents and guardians obtain information regarding vaping? What sources of information do they use?

The participants in this study had several sources of information for vaping. For this study, 30% of participants reported receiving information about vaping on television commercials. Participant 7 recalled, "I've seen it on some commercials, not as much lately, but I have seen commercials." She further recalled seeing the JUUL brand being advertised on television, but nothing recently. Another parent, P15 said, "I remember seeing a lot of JUUL ads and I'm pretty sure I saw those on TV, but the JUUL thing or the other whatever the blue one was, I forget what blue, it kinda sticks out." Participant 1 stated, "the only thing I see is about not doing it," and, "I see ads that tell kids not to do it, that it's not cool." Only participant P11

recalled seeing vaping ads and information on social media, stating, “it's all over social media, whether it's Instagram or Facebook.”

Other participants gained information about vaping from both personal sources, such as friends and family, as well as through their own research. P1, P13, P15, and P16 did research and P16 would send articles to her daughter. She further remarked, “I got resources,” and she also spoke to her daughter’s therapist about vaping. Participant 13 said, “I have read a random article here or there.” Participant 1 obtained information from “the internet and news stories. I searched [for] information to read and show to my son.” As a former teacher, P5 was able to rely on former colleagues and friends to inform her opinions on vaping, stating she was “friends with health teachers.” She also witnessed severe health issues with one of her former students indicating, “one of my former students was hospitalized for, they call it popcorn lung or whatever.”

In 46% of this study sample, a subtheme of vaping awareness was noted which included the vaping of flavors and other novelty aspects of vaping. Participant 11 stated this about e-cigarettes, “back when it all first started coming out it was oh, you know, you can choose your nicotine levels and then it's the flavors.” The vaping of flavoring and its appeal to youth was mentioned several times by participants. The rise in curiosity for vaping was noted by P13, who acknowledged that “fruit flavors” will appeal to an adult, but “appeal to a kid even more.” Participant 15 stated the flavors add a whole different perspective to vaping, and in many cases are just ridiculous. She stated, “you're just straight out pushing [vaping] towards younger people.” This opinion was echoed by Participant 4 (P4) who remarked, “as an older woman, when I want to smoke, I don’t want something sweet. I want the cigarette, the nicotine, and the way it tastes, because that is what I'm craving. The children are using cotton candy and

watermelon, grape, and all of these different things." Vaping to P9 was referred to as "the new candy" and they remarked you can have whatever flavor you want. Participant 17 (P17) discovered their child was vaping due to the "fruity smell" in their home.

RQ4 Themes

The themes identified when examining RQ4 include formal and informal information sources, marketing, and word of mouth.

Research Question 5 (RQ5)

How is the current handling of vaping-related offenses within the school setting experienced at home?

The majority of parents and guardians in this study expressed that local schools were making some efforts to respond to youth vaping on campus. Eight participants gave local school districts some recognition for their response on vaping, but P15 acknowledged "their [schools'] hands are tied a little bit. They're only allowed to do so much." Another parent said they were pleased that the school notified her so quickly about a vaping issue with her child. Participant 7 went on to state, "I think that they take it seriously, you know, I think especially at the high school." Participant 13 said schools are doing the best they can to manage vaping and are being proactive. Two participants, P2 and P17, specifically referenced "zero-tolerance" as being a very good approach for schools. Education on vaping was noted by P9 and P4, where P9 said, "they [schools] tried their best to give the kids' education on it, their punishment when they got caught vaping was they had to have a vaping education class."

For the parents and guardians whose children received consequences by the school for vaping, when asked if they were comfortable with the zero-tolerance policy impacting their household, P2 said, "I am trust me. I paid two fines, she's [her daughter] had fines for it." To further clarify, P2 said, "I can't say I paid the fine, she [her daughter] paid the fine." Another

participant, P11, said a suspension from school is “going to be a vacation for him [her stepson].” As for any further consequences beyond what is assigned by the school, P4 reported she would not add to any punishments, “why are we adding to punishments for the same thing? He [her son] just has to pay the piper. He doesn't have to with me because I've told him not to and I don't say the consequences are you're gonna get in trouble at school, and you're gonna come home and be in trouble, and you're gonna be in trouble and be in trouble, that's not gonna stop behavior.”

Some participants were critical of their school district’s response to vaping, finding it reactionary in nature and having a limited impact. Participants 1 and 11 both remarked, “it [school’s vaping response] doesn’t really do anything.” Participant 19 felt this way about the school’s response to vaping, saying, “I know that they [school administration] come down hard and they cite them [students] and I think that's good because first of all, rules are rules. Second of all, someone's got to tell these kids to stop even if it's just for six hours a day.”

Another parent was critical of the local school’s response to vaping in light of what they considered more pressing issues, such as violence in school. Participant 9 said, “there's a lot of parents that with all the chaos that has been going on at school, the schools more worried about busting kids in the bathroom for vaping than [for] breaking up a fight in the hallway.” They went on to further explain that at the high school, they “just drag the kids to the office and give them detention.” Two participants, P9 and P13, were critical of what they considered to be a lack of vape detectors in school.

RQ5 Themes

Through the analysis of participant responses to RQ5, there was consistency in the theme of controllability in that schools also had difficulty managing youth vaping. There was a sense of a shared perception between parents and the school, where they were both working toward the

goal of having a vape-free environment, but having the same challenges as parents with being limited in their reactions.

Peripheral Codes

While not specific to any particular question, information was shared by study participants that included concepts such as generational issues, protective factors, such as religion, and specific personality traits that were exhibited by their own children, which participants felt could be related to e-cigarette use. While study participants did not directly offer these concepts as reasons for vaping, they may be useful to fully understand the phenomena of vaping.

Generational Issues

Six study participants (46%) felt their upbringing and age may be relevant to the parental response to vaping. Participant 5 believed parents who were children in the 1970s, 1980s, and 1990s were raised with a strict parenting style, which influenced a more relaxed parenting approach. She went on to state, “we were raised in the 70s, 80s, 90s, and the adults in our lives were very ‘this is how it happens because I said so and you're just gonna do what I say.’ I see two different parenting styles that came out of being parented that way.” Further, P5 remarked, “we have a lot of people our age who just want to be their kids’ friend and don't want to have a lot of rules because they felt like their parents just shoved rules down their throats.”

Participant 7 remarked, “it's [nicotine vaping] affecting teenagers of this generation as opposed to previous generations,” clarifying, “it's just one more thing added on to this generation that they have to navigate along with the whole internet and the phone situation. They just have a lot to deal with as teenagers that I never had to deal with and I think it's just tougher in general

for them. I think that's why we're seeing more mental health issues than what we've seen even as short as 10 years ago."

Protective Factors

Four study participants acknowledged various protective factors which they perceived as contributing to a lack of vaping behaviors by their youth. This included, "a network and a community of other parents and other people to help you because sometimes you find things out from another parent" (P7). Participant 12 pointed out she and her family were "vigilant" in making sure their children had other outlets and things to keep busy and occupy their time. These outlets included "sports, and youth groups." Participant 15 also noted religion as a protective factor for vaping, suggesting his prohibition on vaping, "is based on a whole spectrum of my background of religion, of health, and of cleanliness.

Personal and Behavioral Traits by Youth

Participant 7 believes personality is a key factor in vaping decision-making. She remarked, "it [vaping] can be highly personality-dependent and you know, my daughter tends to be a little bit of a follower more than a leader and so it concerns me that she'll get with somebody that she really likes or really wants to impress or really wants to be friends with and they will talk her into it again, so that that is a concern." Participant 16 indicated their child may have an "addictive personality" which may influence their use. As she stated, "it's like all in on everything they do [such as vaping] full force, it's like they can't turn it off." One parent, P11, believed boys were more susceptible to vaping.

As outlined in this chapter, the codes, subcodes, and themes were discovered as part of this research study. While some of the codes were identified previously in the literature as theoretical (a priori) codes, others were identified through interview analysis (in-vivo coding).

Through the use of the hermeneutic circle, the process of new understanding will be discussed in detail in Chapter 5.

Chapter 5 Analysis and Synthesis; Conclusions and Recommendations

The use of nicotine vaping products by youth remains an issue of concern (Yang, 2023). While tobacco products have been utilized for centuries in North America as a method of commerce and social custom, the novelty of e-cigarettes contributed to the increase in youth addiction and use (Centers for Disease Control and Prevention, 2022). The rates of tobacco use by youth declined until the introduction of vaping products to the global market (Johnson et al., 2022; Sapru et al., 2020). While e-cigarettes were advertised as a safer and thus healthier method of nicotine consumption, the overall consensus is that safer does not mean safe when it comes to using e-cigarettes, particularly by children and non-combustible cigarette users (Fairchild et al., 2019). As the epidemic of youth vaping continues to impact families, schools, and communities, there is an overwhelming sense of urgency to find effective solutions to address this issue (U.S. Department of Health and Human Services, 2018).

The current literature available on the topic of nicotine vaping explores the phenomena primarily from the perspectives of adults and youth. Still, a specific focus on the impacts of vaping by youth on parents and guardians is not as well documented. For this reason, this phenomenological research study was conducted to address the literature gap and provide insights into this emerging parenting issue. Through the analysis of the current findings, social workers will further their understanding of the impacts of e-cigarette use on families, as well as appropriately advocate for policies that minimize harm reduction and provide prevention and education as supported by the National Association of Social Workers (National Association of Social Workers, 2022).

Study Summary

This hermeneutic phenomenological study provided an opportunity to closely examine the behavior of youth nicotine vaping, as parents and guardians experience it. This study was comprised of 13 in-depth interviews with parents and guardians in South Central Pennsylvania about the topic of youth nicotine vaping. Using a semi-structured interview guide, the researcher spent an average of 23 minutes per participant obtaining information on their personal experiences with vaping. These interviews addressed a gap in the current literature which often explored the viewpoints of adults, but not necessarily parents and guardians regarding vaping.

Consistent with hermeneutic phenomenological research, this study aimed to generate new knowledge and examine lived experiences (Van Manen, 2016). Much preconceived information and assumptions were made by the primary researcher before the start of the research study. These *fore-sights* include the understanding of two particular theories and how they pertain to e-cigarette use, notably social cognitive theory and the theory of planned behavior. Those theories provided a foundation to analyze the phenomena of youth vaping, while personal experience provided assumptions of parent and guardian behavior based on clinical work in the field. These general assumptions most notably included the belief that parents and guardians minimized the behavior of nicotine vaping and determined it was not a serious behavior of concern, thus parents and guardians did not feel it was a health behavior that required addressing.

As the study progressed, new and updated information regarding youth nicotine vaping began to emerge, allowing for new interpretations and knowledge as demonstrated in Figure 5, the hermeneutic circle. This newly acquired information will be explored in greater detail in this

chapter, outlining how the study information supported and refuted current literature, and how the theories applied to this phenomenon were altered.

Analysis of Themes and Theories

Theory of Planned Behavior

The theory of planned behavior as understood through literature reviews outlines many factors in determining youth e-cigarette use, which broadly include behavioral, normative, and control beliefs that determine outcomes and ultimately behavior. For this study, the behaviors of parents and guardians were examined using the same theories, which provided an additional understanding of the rationale and responses of parents and guardians regarding attitudes, subjective norms, and perceived behavioral control and how this impacted actionable behavior. The beliefs that the literature outlined to be important in the behavior of vaping, as examined through the lens of the theory of planned behavior for youth, are outlined in Figure 2.

Taking into consideration the knowledge obtained from this study and its applicability to the theory of planned behavior, an altered behavioral pattern emerged. Using information generated only by parents and guardians, the newly formed awareness of vaping and its impact on families was created. This new figure identified the components that led to behavioral outcomes for parents and guardians in response to e-cigarette use by youth. A review of how this theory has changed based on the findings of this research project is included in Figure 5 and discussed in detail in the following pages.

Behavioral Beliefs

The behavioral beliefs identified in the literature did not coincide completely with study participants when it came to e-cigarettes being perceived as safer and better than smoking. While some parents did endorse these ideas, those participants were the exception. Despite the findings

of Patel et al., (2020), which found that people over the age of 18 have increased perception of safety for e-cigarettes, this did not transfer to the parents and guardians. In this study, 84% of participants endorsed concern over the safety of e-cigarettes, but the severity of concern was not consistent. While some parents identified health and addiction as factors in their rating, other parents were more concerned with things such as grades and future academic endeavors and rated them higher than e-cigarette use.

In addition, while the majority of the parents and guardians did express safety concerns, three out of the thirteen participants indicated they did not have to worry about e-cigarette use with their children, with participants indicating things such as their youth having a negative image of vaping or simply believing it was not a behavior their youth would engage in. This was also found in a study by Patel et al., (2019), where only 2 in 5 parents were concerned about their own child's usage.

While parents and guardians were aware of the safety and risk associated with tobacco usage in general, there was disagreement on whether or not there was enough information to make a case to substantiate concerns about vaping at this point, with just over half of the participants (54%) expressing that there was not enough information on vaping. In comparison, another 23% felt the amount of research was sufficient to generate opinions on safety. These differing opinions may be a direct result of what each parent or guardian considered to be the most critical evidence to substantiate concern. In this particular study, 62% of participants were concerned about addiction risk, and this was the rationale for their attitudes and subsequent behavior.

Exacerbating concern is that there may be an unwillingness to recognize usage in the participant's children. In research by Patel et al., (2020) parents tended to underestimate risky

behaviors by youth, and given the nature of e-cigarette design and the ability to be used discreetly, a lack of acknowledgment by parents to even consider that their child may be susceptible to vaping is concerning. This was documented in the current study where some parents were caught unaware of their child's e-cigarette use and others recognized the concern but did not feel it was necessary to engage in conversations about usage. Brown et al. (2020) found these same responses when parents felt if they did not use e-cigarettes, talking about the issues was not necessary.

Despite the acknowledgment of use or suspicion of use, not all participants were consistent in their methods to address these issues. While some parents tried punitive measures such as taking away privileges or the assignment of chores, the majority of participants (53%) discussed e-cigarette use with their children. This finding was in opposition to the study by Sabbagh, et al. (2020), where over 73% of parents declined to discuss e-cigarette use with their children. Despite conversations, participants were also quick to point out that these discussions may not be useful, considering 46% of the study participants felt they were unable to control e-cigarette use regardless of their input or efforts to address the behavior of vaping.

For this study, the attitudes shaped by the behavioral beliefs of the parents and guardians were driven by several different factors, including research on e-cigarette use, candy-like flavors, lack of control over youth behavior, and addiction. Those main themes seemed to drive the attitudes of study participants leading them to a negative view of youth nicotine vaping. Participants in general for this study had primarily negative views on e-cigarette use due to a lack of control over the influences of media, advertisements, and other individuals who were conduits for youth usage. These negative viewpoints led to strong opinions and attitudes about vaping with various participants feeling as if they were helpless in the cycle of youth nicotine usage.

Normative Beliefs

The parents and guardians in this study did endorse some of the normative beliefs identified in the literature when it came to youth nicotine vaping, such as vaping becoming a social custom that seemed to start at the junior high and senior high levels of school. The participants also acknowledged peers and other adults as sources of influence in the purchasing and acquisition of e-cigarettes. However, the subjective norms for the participants in this study differed from the subjective norms identified for youth, as noted in the previously reviewed studies. A discovered feeling of shame and secrecy on behalf of the participants was found in this study, which was not captured in other research studies on this phenomenon.

The parents and guardians in this study did not find that factors influencing their youth's usage of e-cigarettes provided any desire for them as parents to foster those relationships. While it was thought that perhaps parents and guardians would be pleased their child had a group of friends and social connections, the opposite reaction was observed for at least some of the participants. One parent specifically felt the presence of an e-cigarette-using peer would create a situation of contemplation over the continuation of that relationship, while others felt they were helpless in controlling the influences of those e-cigarette-using youth. Those feelings of helplessness also led to shame for some participants.

Participants, in response to those acknowledged feelings of shame and a desire to have their child's use hidden, or at the very least not acted upon in front of the participants or other family members. It was made clear, at least as reported in the study, that vaping in front of the parents and guardians was not tolerated. For youth, e-cigarette use was normalized through social custom; for parents and guardians, youth use was not normalized and was meant to be hidden and not talked about, if it was recognized and acknowledged at all. Parents and guardians

expressed some concern that their child's use may prohibit other relationships or lead to a negative perception of the participant or their parenting if youth e-cigarette use was discussed openly.

Control Beliefs

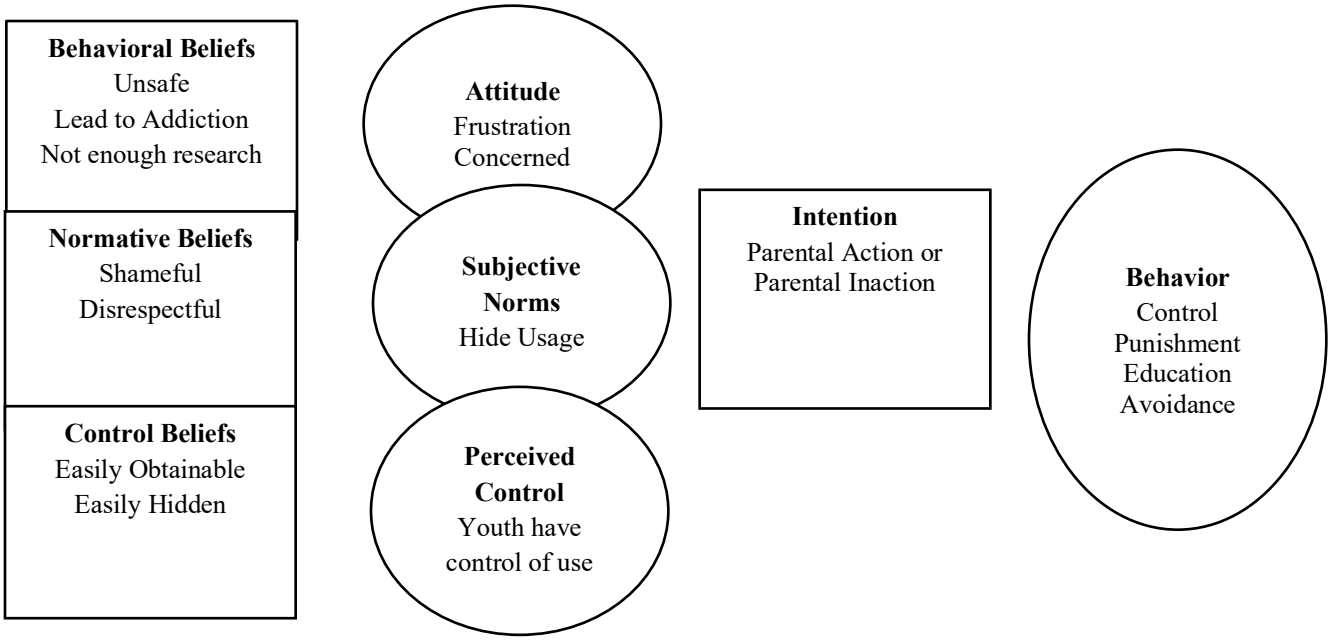
When looking at vaping from the lens of parents and guardians, utilizing the information obtained from this study, approximately half (46%) of parents and guardians felt the control beliefs were the critical piece to youth vaping. These results were similar to a study conducted by Kurji et al., (2021) where parents felt their children were responsible for their own behaviors. Participants felt the main issue with youth use centered on the idea of autonomy and youth engaging in behaviors regardless of parental influence or input. This stemmed largely from the discussion of the multiprong systems of marketing to youth, ease of access, and ability to use in a more secretive manner. Parents and guardians recognized things such as where youth are obtaining e-cigarettes and determined that both friends and other adults are complicit in providing access. Similarly, due to a lack of smoke and the compact design of the vaping devices, youth were able to use them in areas that would not necessarily generate adult intervention, such as in their bedrooms, while walking to school, and in areas of limited supervision in the school environment, which including bathrooms.

Therefore, the perceived behavioral control by parents and guardians regarding the act of vaping was mostly non-existent. The overwhelming access to vaping products was the reason for many participants to feel helpless. Some participants felt the act of simply attending school was enough to allow their child to have access to e-cigarettes. Others reported that youth were able to find ways to purchase products using cash apps and selling personal items for less than their

value. As such one participant realized, despite their efforts, the continual stress of addressing e-cigarette use became disruptive to the household and caused issues within her marriage.

Figure 5

Theory of Planned Behavior, Perspectives of Participants



(Adapted from Ajzen, 1991)

Summary of Findings for Theory of Planned Behavior

The usefulness of the theory of planned behavior remains relevant as a lens to examine parent and guardian experiences as they pertain to e-cigarette use for youth, and to understand the rationale for subsequent response and reaction. In an analysis of previously known study findings, the behavioral beliefs in this study of only parents and guardians were different. The behavioral beliefs about e-cigarette use were not positive and did not produce a favorable attitude toward the behavior. This was demonstrated by a lack of consistency in opinions on research and the safety of vaping products, as well as concerns relative to nicotine addiction.

When analyzing the difference in the literature regarding normative beliefs and those of the study participant, there were notable changes. In other studies (Cheney et al., 2018; Groom et

al., 2021; Nicolaou et al., 2022; Rocheleau et al., 2020; Trucco et al., 2021), vaping by peers and a community of other users supported the behavior and influenced it positively, but for the parents and guardians in this study, the use of vaping products had the opposite impact. The concern of friendship loss for their children and a negative family perception by others if vaping was discussed remained an issue of concern in this study. Additionally, some parents felt the use of e-cigarettes was disrespectful and made prohibitions on where youth could use and in front of which individuals. These findings were not documented in the literature and are considered important findings for this study.

The control beliefs recognized by parents and guardians were more in line with those documented in other studies, but the perceived behavioral control was different. Parents and guardians did not they feel had any control over the behavior of youth nicotine vaping, which had differing intentional actions associated with that perspective. From this study, parents and guardians had mixed approaches when attempting to minimize vaping by youth or to stop the behavior entirely. The most common method of addressing vaping in this study was through conversation and discussion, which was mentioned by over half of the participants. Other responses included punitive measures which included loss of privileges and freedoms, as well as extra chores.

Despite the efforts of study participants to curtail or stop youth vaping, the overall perspective of parents and guardians remained that youth were ultimately able to make their own choices. This was in opposition to a study by Buu et al. (2022) who found that when parents and guardians have a negative viewpoint on vaping and more strict rules on usage, youth were less likely to use. The parents and guardians in this study who had strong negative opinions on vaping still had youth who at least tried e-cigarettes.

Social Cognitive Theory

In this phenomenological research study, social cognitive theory was also associated with youth e-cigarette use in the literature reviews as a method to explain the behavior. Consistent with the hermeneutic circle of the acquisition of new knowledge based on the current participant interviews, a new understanding of vaping was formed using social cognitive theory. Figure 3 displays the tenets of social cognitive theory, which broadly examines the interplay between personal, environmental, and behavioral factors to determine behavior. The idea of self-efficacy was key in this study to explain how participants dealt with youth e-cigarette use and will be discussed in greater detail. An altered understanding of youth vaping from a participant perspective is included in Figure 6.

Personal and Behavioral Factors

The behavioral and personal factors for youth identified in the literature were also found in this study. One participant noted their child was highly motivated by social relationships and was a follower, which may contribute to e-cigarette use, which corresponded to the results found in research by Helms et al., (2014), which indicated that youth may misperceive the actions of high-status youth. Similarly, youth with low social competence were at a greater risk of vaping, and this was noted in the current study, as Participant 2 reported her non-vaping child has a small circle of friends, is not heavily influenced by others, and has a strong sense of self. These factors are in opposition to the risk of e-cigarette use.

Another participant felt their child had an “addictive personality” that influenced their use, which was found by Hoffman (2021) who discovered youth with low self-esteem and high risk-taking behaviors were more likely to vape. Participant 16 specifically felt their child had a desire to experience life to the fullest and therefore was unable to resist or turn down

experiences. This same participant also noted their child was involved in many after-school activities including music and theatre, which was in opposition to other research which found this was a protective factor for vaping (Mantey et al., 2022).

Additionally, one participant (P11) felt males were more susceptible to vaping because they needed to fit in with their friends by engaging in similar activities, and Davidson et al., (2023) found males reported more pressure to vape than females. This was not documented or recognized by other parents or guardians in this study.

A few parents also reported mental health and stress relief were factors in the usage of vaping products. Stress relief was a common reason for youth e-cigarette use in the literature, although, of the 13 participants in this study, it was only mentioned by three participants as a factor in their child's usage. Mental health issues such as depression and hopelessness were referenced in this study, but only by 23% of the study population. Research on vaping has produced a link between depression, suicide, and other emotional difficulties, so it is not clear if all of the children of the study participants had mental health and stress before vaping, or as a result of, or exacerbated by e-cigarettes (Tobore, 2019).

One study participant referenced religion as a factor in their opinions and beliefs regarding nicotine use. The values of cleanliness, health, and life itself as gifts from a God were noted by P15, and while it is not known if those factors are influences for their child, religion may be an unexplored area that can influence the use of e-cigarettes and other substances.

Environmental Factors

Consistent with the known research, there is a link between environmental factors and youth vaping. In particular, participants in this study mentioned an increase in vaping and e-cigarette use, or an increased awareness of the problem of e-cigarettes when their youth entered

junior high and middle school, typically around 12-14 years of age, coinciding with the vulnerability of adolescence (Harrell et al., 2021). The school environment in general was mentioned by study participants as a factor of influence for e-cigarette use, which was noted in research by Lippert et al., (2022) who found that school culture may play a role in vaping. When examining the data from study participants, eight participants referenced schools having some measure of response to counteract vaping, but those responses were not particularly effective or had limited reach.

While mentioned as a source of influence in the current literature on vaping, social media was not recognized by study participants as a method of information for their youth. While youth may rely heavily on social media to obtain social norms (Aljaberi et al., 2021), parents and guardians in this study did not rely on those sources of information, nor did they share that their youth utilized social media to obtain information. The use of social media was only mentioned by one participant as a source of acquisition of e-cigarettes by their youth, but not as a method to learn about new trends or brands.

The most significant environmental influence noted by the participants of this study was the availability of e-cigarettes. This availability centered on both where youth could obtain e-cigarettes and from whom they could purchase them. The availability of e-cigarettes by youth through stores, despite being illegal, was mentioned by three participants who alleged that many vape shops would sell to underage youth. Four participants noted that youth obtain their e-cigarettes from friends or other adults. One participant said they are aware that children simply steal from e-cigarette-using parents.

Self-Efficacy

Study participants did not believe they had much ability to consistently and effectively produce desired outcomes when it came to stopping or decreasing their child's use of e-cigarettes. In this study, 46% of the participants did not feel they were able to manage or control their children's vaping. This perceived lack of control is mostly centered on the idea that as youth age, they are not as willing to listen to directives, and they believe they can make their own independent decisions. There was a theme of the "kids are going to do what they want" mentality that many participants did not seem able to overcome. These results were found in a study by Kurji et al., (2021) who had participants report the belief that vaping was the responsibly of the child.

Summary of Findings for Social Cognitive Theory

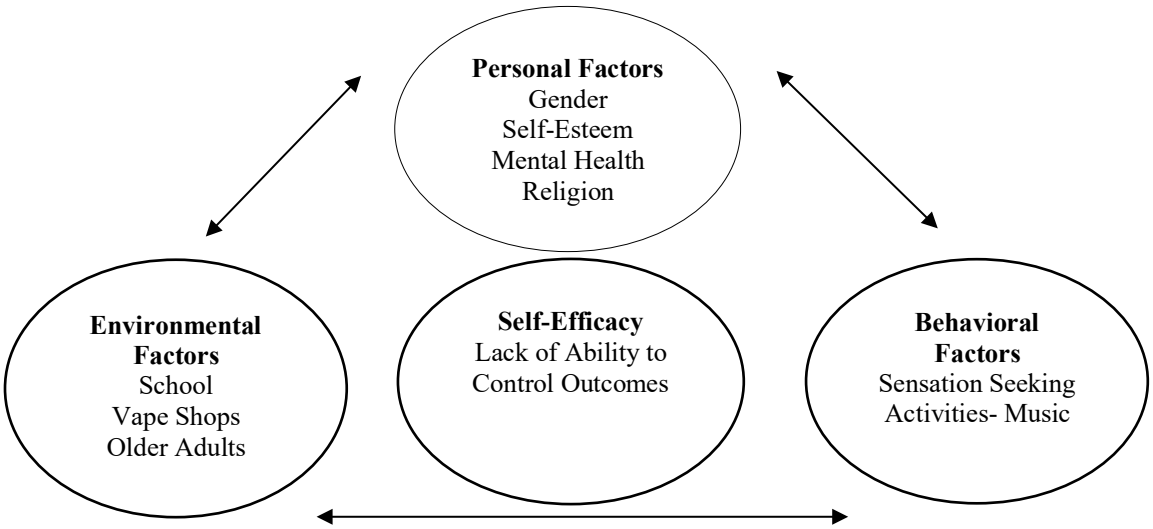
To generate new knowledge using the lens of social cognitive theory and the findings of this study, a new appreciation for parents and guardians relative to their experiences with vaping is reflected in Figure 6. In general, the same factors that were identified in the literature were supported by this study. The vast amount of environmental opportunities to not just purchase e-cigarettes, but to use them, is an area that study participants found quite distressing. The fact that sending a child to school makes them vulnerable to usage was referenced by several participants.

Parents and guardians were able to identify specific issues that pertained to their family situation that provided either support or opposition to e-cigarette use for their youth. The most significant finding in this study, as already noted in the review of theory of planned behavior is the perceived lack of self-efficacy to change the outcome of youth vaping behavior. This belief is combined with the perception that children will engage in behaviors regardless of adult input and the ease with which youth can obtain e-cigarettes.

It appears that the amount of access youth have makes vaping quite challenging to manage for schools and parents. What was surprising is that the study participants felt the school systems shared the same concerns as families when it came to managing vaping. It was not expected that study participants would find any sympathy or connection to the schools when attempting to address this issue.

Figure 6

Social Cognitive Theory on Vaping, Perspectives of Participants



Adapted from Bandura (1998)

Practice Implications and Recommendations

Vaping is a quality-of-life issue that should be of importance to the profession of social work. The National Association of Social Workers has historically supported efforts to minimize the impacts of nicotine use on youth and this should continue (National Association of Social Workers, 2020). The results of this study provide key points for professionals working with youth and families to take more proactive strategies when it comes to youth nicotine vaping. These points include addressing the issue at a legislative level, allowing for more education and

support for families, as well as increased education on social and emotional issues that literature has suggested made an impact on the behavior of vaping.

While there are programs designed to work with youth on vaping, such as a program called CATCH My Breath, which meets Pennsylvania state health education standards (Shealer, 2022a), parents and guardians may need training and education on the rapidly changing e-cigarette trends as well as methods to discourage use. An alliance between schools and families impacted by vaping may be another strategy to combat e-cigarette use and implement sanctions that do not involve a citation or loss of academic time. Programming specific to the community and the local school districts and parents may prove useful in addressing how vaping impacts both the home and school communities. Intervention research for targeted programming that works within the schools for youth and families may prove beneficial to address the concerns that were raised regarding the environmental conditions of schools in their ability to address youth nicotine vaping.

The social norms of secrecy for families in discussing youth e-cigarette use need to change. A support group for families dealing with vaping may be useful to provide an environment for families to talk about their experiences. As one participant noted, nicotine addiction can be very isolating for parents and guardians who feel their youth or families may be ostracized as a result of the behavior. Allowing parents and guardians to speak freely about their concerns and share emotional reactions may be cathartic and empowering. The sharing of resources and support on this issue may allow other families to feel they are not alone in the epidemic of youth vaping.

Considering e-cigarettes may have been targeted at youth and non-combustible cigarette users, social workers should take a more proactive stance in advocating for legislation and

policies that pertain to the marketing and access to e-cigarettes by youth. A continued effort to reduce the availability and access of flavored vaping devices is also necessary to limit the appeal of e-cigarettes (Rocheleau et al., 2020). While the focus of social work intervention for current users is to minimize harm, more work may be needed to address the social factors that impact the decision to vape in the first place (National Association of Social Workers, 2020).

As noted in the literature and this study, the mental health of youth may be a factor in the use of nicotine products, including e-cigarettes. An increased effort to address youth mental health may be one way to minimize youth vaping. Improved coping skills for youth and a focus on social and emotional learning in schools may provide the necessary skills to reduce peer influence and improve problem-solving. Similarly, parents and guardians may benefit from assistance in targeted parenting skills to address issues of substance use, including nicotine. These efforts can address the topics outlined in the research as protective factors against vaping.

Areas of Further Research

Areas to consider for future research opportunities based on this current study include exploring religion and its impact on the use of e-cigarettes. While religion and religious views were only mentioned by one parent, there may be an unrecognized subgroup of families that have more strict norms and rules about the use of any substance, including nicotine, which may play a role as a protective factor for vaping. It is not documented in the literature if there is a direct relationship between the use of nicotine and stated religious beliefs.

As documented in the findings of this study, some participants felt there may be a connection between childhood upbringing and subsequent parental response to the act of youth vaping. Research in this area may provide additional insight into the rationale for actionable

behaviors by parents. Consistent with various parenting styles, it may be useful to explore if there is a relationship between parenting styles and subsequent youth vaping behaviors.

Another key piece of information that could be explored further is how parents and guardians may actually rate vaping on a Likert scale, when it is compared to other parenting concerns and social issues. In this study, there were inconsistences in how participants rated their concern for e-cigarette use, and exploring this area in more detail may provide additional insight on the topic from the lens of parents and guardians.

Further, the relationship between shame and youth e-cigarette use could be studied in more depth. Information generated on the use of e-cigarettes by youth and its perception by other neighbors, families, and community members may serve to either support the results of this study or provide some measure of relief for parents and guardians to share their experiences. Similarly, it was not clear through this research if youth e-cigarette use was looked at as shameful by other parents, and if so, was it as shameful as the use of other substances, and if so, what are the ramifications?

Study Limitations

This study has numerous limitations, which may impact the generalizability of the results. Most notably the method of participant recruitment did not yield the expected results. The primary researcher hypothesized that parents and guardians would be willing to discuss nicotine vaping and its impact on their lives, but that was not found in this study. There were very few participants who wanted to discuss this topic, presumably due to concerns over intrusion into their privacy, or due to a perceived stigma, which was identified through the study. Of the participants who responded to the study after seeing the online recruitment flyer, these participants were all known to the researcher, and in total, all but two of the interview

participants were known to the researcher. This familiarity may have led to response bias, but the results were supported by the secondary coder. In addition, the study was not very diverse, having only one male participant, and a predominantly Caucasian study sample.

Similarly, the use of technology may have played a role in this study. Participants may not have been as open or candid with their responses, despite being encouraged to have a secure area available for the interview. It is not known if in-person interviews would have yielded a larger and more diverse study population. Additionally, the use of social media to recruit participants did not provide equal access to potential participants who may not have social media accounts, or limited access to the internet.

Other limitations of this study included the targeted study area, which was a small geographic location, consisting of only two counties in South Central Pennsylvania. While there are thirty-three combined school districts between the two counties represented in this study, only four were represented in the study population (Pennsylvania Department of Revenue, 2024).

Conclusion

The title of this dissertation raises the question of whether adolescent vaping is a behavior of concern, a choice, or a negotiable harm. This study informs the reader that youth nicotine vaping is all of those things. Before starting this research, it was assumed that youth e-cigarette use was an issue that was not taken seriously by parents and guardians. It was also assumed that vaping was a behavior that was generally accepted because it was advertised as safe. The perception was that parents and guardians had more important or pressing issues to address than to worry about behavior that was considered healthy and safe by some individuals (Alexander et al., 2019; Bailey et al., 2019; Brown et al., 2020; Case et al., 2016; Cooper et al., 2016; Donaldson et al., 2021; Jackson et al., 2020; Keane et al., 2017; Patel et al., 2020; Ward et al.,

2021). However, for the parents and guardians in this study, they did not share those viewpoints; vaping is a concern.

The vaping of nicotine products was recognized by parents and guardians as a behavior that could lead to addiction, long-term health risks, and perceived stigmas. However, the parents and guardians in this study also expressed the belief that they did not have control over youth vaping, feeling as if it was beyond the scope of their supervision, considering e-cigarettes were readily available in the community, through friends, and even at school, which essentially made vaping a choice. Given the study participants' lack of perceived control over e-cigarette use, vaping also became a negotiable harm. For some parents, the act of vaping by their youth became a behavior that was known about but recommended for use in private or outside of the family home and property.

As e-cigarette use by youth continues to impact all levels of social work practice, it becomes critical for social workers to understand the complex nature in which the behavior exists. Through informing the reader of the various perspectives to view this phenomena, in this case the perspective of parents and guardians, it should become evident that vaping is a systems issue. The use of e-cigarettes by youth impacts families, schools, and communities, and while the long-term health risks to vaping are not known, engaging in harm reduction for those currently using is warranted. As the epidemic of vaping continues, a clearer understanding of the phenomena and its impact upon families is key to begin targeting educational efforts and supportive resources to address the issue.

References

Abreu-Villaca, Y., Seidler, F., Qiao, D., Tate, C., Cousins, M., Thillai, I., & Slotkin, T. (2003). Short-term adolescent nicotine exposure has immediate and persistent effects on cholinergic systems: Critical periods, patterns of exposure, dose thresholds. *Neuropsychopharmacology,* 28, 1935-1949. https://doi.org/10.1038/sj.npp.1300221

Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technology*, 2(4), 314-324. https://doi.org/10.1002/hbe2.195

Alexander, P., Williams, P, & Lee, Y. (2019). Youth who use e-cigarettes regularly: A qualitative study of behavior, attitudes, and familial norms. *Preventive Medicine Reports,*13 93–97. https://doi.org/10.1016/j.pmedr.2018.11.011

Aljaberi, F., and Yao, J. (2021). Predicting electronic cigarette use among adults in the Philippines. *Asia-Pacific Journal of Health Management,* 16(3), 243-248. https://doi.org/10.24083/apjhm.v16i3.847

American Lung Association (2022). INDEPTH: An alternative to suspension or citation. Retrieved March 7, 2023 from https://www.lung.org/quit-smoking/helping-teens-quit/indepth

Bandura, A. (1977). Bandura, A. Social learning theory. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1998). Health promotion from the perspective of social cognitive theory. *Psychology and Health,* 13(4). 623-649. https://doi.org/10.1080/08870449808407422

Berg, C., Krishnan, N., Graham, A., Abroms, L. (2021). A synthesis of the literature to inform vaping cessation interventions for young adults. *Addictive Behaviors,* 119, 1-5. https://doi.org/10.1016/j.addbeh.2021.106898

Boccio, C. & Jackson, D. (2021). Examining potential risk factors for early age of nicotine vaping initiation in a sample of Florida youth. *Addictive Behaviors,* 120, 1-7. https://doi.org/10.1016/j.addbeh.2021.106962

Bold, K., Kong, G., Cavallo, D., Davis, D., Jackson, A., & Krishnan-Sarin, S. (2022). School-based E-cigarette cessation programs: What do youth want? *Addictive Behaviors,* 125, 1-7. https://doi.org/10.1016/j.addbeh.2021.107167

Brown, R., Van Godwin, J., Copeland, L., Hallingberg, B., Angel, L., MacDonald, S., Segrott, J., & Moore, G. (2020). Ecological exploration of knowledge and attitudes towards tobacco and e-cigarettes among primary school children, teachers, and parents in Wales: A qualitative study. *Tobacco Use Insights,* (13), 1-12. DOI: 10.1177/1179173X20938770

Buu, A., Nam, J., Yang, M., Shu, W., & Lin, H. (2022). Home e-cigarette rules and youth's vulnerability to initiate and sustain e-cigarette use. *Preventative Medicine*, 164, 1-7. https://doi.org/10.1016/j.ypmed.2022.107334

Campus, B., Fafard, P., St. Pierre, J., & Hoffman, S. (2021). Comparing the regulation and incentivization of e-cigarettes across 97 countries. *Social Science and Medicine,* 291, 1-9. https://doi.org/10.1016/j.socscimed.2021.114187

Case, K., Crook, B., Lazard, A., & Mackert, M. (2016). Formative research to identify perceptions of e-cigarettes in college students: Implications for future health communication campaigns. *Journal of American College Health*, 64(5), 380-389. https://doi.org/10.1080/07448481.2016.1158180

Centers for Disease Control (2022). Fast facts and fact sheets, smoking and cigarettes. Retrieved March 4, 2023, from https://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/index.htm

Centers for Disease Control (2020). Outbreak of lung injury associated with the use of e-cigarette or vaping products. Retrieved March 4, 2023 from https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html#cdc-recommends

Centers for Disease Control and Prevention (2022, June 27). Health disparities related to commercial tobacco and advancing health equity. U.S. Department of Health and Human Services. https://www.cdc.gov/tobacco/health-equity/index.htm

Cheney, M., Gowin, M., & Clawson, A. (2018). Using the ecological model to understand influences on college student vaping. *Journal of American College Health*, 66(7), 597-607. https://doi.org/10.1080/07448481.2018.1440578

Choi, H., Miller-Day, M., Hecht, M., Glenn, S., Lyons, R., & Greene, K. (2022). A snapshot of parenting practices useful for preventing adolescent vaping. *Addictive Behavior Reports*, 15, 1-6. https://doi.org/10.1016/j.abrep.2022.100418

Coleman, B., Johnson, S., Tessman, G., Tworek, C., Alexander, J., Dickinson, D., Rath, J., & Green, K. (2016). "It's not smoke. It's not tar. It's not 4,000 chemicals. Case closed." Exploring attitudes, beliefs, and perceived social norms of e-cigarette use among adult users. *Drug and Alcohol Dependence*, 159, 80-85. doi: 10.1016/j.drugalcdep.2015.11.028

Collier-Reed, B., Ingerman, A., & Berglund, A. (2009). Reflections on trustworthiness in phenomenological research: Recognizing purpose, context and change in the process of research. *Education as Change,* 13(2), 339-355. https://doi.org/10.1080/16823200903234901

Cooper, M., Harrell, M., & Perry, C. (2016). Comparing young adults to older adults in e-cigarette perceptions and motivations for use: Implications for health communication. *Health and Education Research*, 31(4), 429-438. https://doi.org/10.1093%2Fher%2Fcyw030

Cooper, M., Park-Lee, E., Ren, C., Cornelius, M., Jamal, A., & Cullen, K. (2022) Notes from the field*:* E-cigarette use among middle and high school students — United States, 2022. *Morbidity and Mortality Weekly Report,* (71) 1283–1285. DOI: http://dx.doi.org/10.15585/mmwr.mm7140a3

Creswell, J. & Poth, C. (2018). *Qualitative inquiry and research design*. (4th ed.). Sage Publications, Inc.

Crossland, J. (2019). Parental perceptions of e-cigarette and vaping usage among single-sex, school-going adolescents in Toronto, Canada. *The Young Researcher*, 3 (1), 23-32. http://www.theyoungresearcher.com/papers/crossland.pdf

Crowther, S. and Thomson, G. (2020). From description to interpretive leap: Using philosophical notions to unpack and surface meaning in hermeneutic phenomenology research. *International Journal of Qualitative Methods*, 19, 1-11. DOI: 10.1177/1609406920969264

Cypress, B. (2015). Qualitative research: The "what", "why", "who", and "how"! *Dimensions of Critical Care Nursing*, 34(6), 356-361. https://doi.org/10.1097/dcc.0000000000000150

Dangal, M. (202). Hermeneutic phenomenology: Essence in educational research. *Open Journal for Studies in Philosophy,* 4(1), 25-42. https://doi.org/10.32591/coas.ojsp.0401.03025d

Davidson, M., and Al-Hamdani, M. (2023). An examination of the social perceptions and vaping preferences of young electronic nicotine delivery system users. *Frontiers in Public Health,* 11(1150368), 1-7. https://doi.org/10.3389/fpubh.2023.1150368

Davis, D., Bold, K., Kong, G., Cavaloo, D., Jackson, A., & Krishnan-Sarin, S. (2022). Cannabis use among youth who vape nicotine E-cigarettes: A qualitative analysis. *Drug and Alcohol Dependence,* 234, 1-5. https://doi.org/10.1016/j.drugalcdep.2022.109413

Demissie, Z., Jones, S., Clayton, H., & King, B. (2017). Adolescent risk behaviors and use of electronic vapor products and cigarettes. Pediatrics, 139(2), 1-10. https://doi.org/10.1542/peds.2016-2921

Doherty, J., Davison, J., McLaughlin, M., Giles, M., Dunwoody, L., McDowell, C., Butter, S., Wilmont, E., & Simpson, E. (2022). Prevalence, knowledge and factors associated with e-cigarette use among parents of secondary school children. *Public Health in Practice,* 4, 1-6. https://doi.org/10.1016/j.puhip.2022.100334

Donaldson, C., Fecho, C., Ta, T., Vuong, T., Zhang, X., Williams, R., & Roeseler, A., & Zhu, S. (2021). Vaping identity in adolescent e-cigarette users: A comparison of norms, attitudes, and behaviors. *Drug and Alcohol Dependence,* 223, 1-7. https://doi.org/10.1016/j.drugalcdep.2021.108712

Dormanesh, A., and Allem, J. (2021). New products that facilitate stealth vaping: The case of SLEAV. Tobacco Control, 31 (5), 685-686. http://dx.doi.org/10.1136/tobaccocontrol-2020-056408

Fadus, M., Smith, T., & Squeglia, M. (2019). The rise of e-cigarettes, pod mod devices, and JUUL among youth: Factors influencing use, health implications, and downstream effects. *Drug and Alcohol Dependence,* 201, 85-93. https://doi.org/10.1016/j.drugalcdep.2019.04.011

Fairchild, A., Healton, C., Curran, J., Abrams, D., & Bayer, R. (2019). Evidence, alarm, and the debate over e-cigarettes. Science, 366(6471), 1318-1320. https://doi.org/10.1126/science.aba0032

Fairman, R., Weaver, S., Akani, B., Dixon, K., & Popova, L. (2021). "You have to vape to make it through": E-cigarette outcome expectancies among youth and parents. *American Journal of Health Behavior*, 45(5), 933-946. DOI: doi.org/10.5993/AJHB.45.5.13

Fallin-Bennett, A., Aleshire, A., Scott, T., & Lee, Y (2019). Marketing of e-cigarettes to vulnerable populations: An emerging social justice issue. *Perspectives in Psychiatric Care,* 55(4), 584-591. https://doi.org/10.1111/ppc.12366

Farber, H. (2020). *Pediatric collections: Vaping: Effects and solutions. New understanding of the health hazards of electronic cigarettes and vaping.* American Academy of Pediatrics. https://search.ebscohost.com/login.aspx?direct=true&db=e000xna&AN=2579836&site=eds-live&scope=site&authtype=shib&custid=s3915890&ebv=EB&ppid=pp_C1

Farrugia, B. (2019). WASP (Write a Scientific Paper): Sampling in qualitative research. *Early Human Development*, 133, 69-71. https://doi.org/10.1016/j.earlhumdev.2019.03.016

Felner, J., Andrzejweski, J., & Strong, D. (2021). Vaping disparities at the intersection of gender identity and race/ethnicity in a population-based sample of adolescents. *Nicotine and Tobacco Research: Official Journal of the Society for Research on Nicotine and Tobacco*, 24(3), 349-357. http://dx.doi.org/10.1093/ntr/ntab152 Retrieved from https://escholarship.org/uc/item/75x5127g

Felner, J. and Calzo, J. (2023). Housing status as a social determinant of disparities in adolescent smoking, vaping, and dual use of cigarettes and e-cigarettes. *Addictive Behaviors* 141, 1-5. https://doi.org/10.1016/j.addbeh.2023.107631

Grand Challenges for Social Work (2023). The challenges. Retrieved March 4, 2021 from https://grandchallengesforsocialwork.org/#the-challenges

Grant, L. (2020). *Pediatric collections: Vaping: Effects and solutions. Effects.* American Academy of Pediatrics. https://search.ebscohost.com/login.aspx?direct=true&db=e000xna&AN=2579836&site=eds-live&scope=site&authtype=shib&custid=s3915890&ebv=EB&ppid=pp_C1

Groom, A., Vu, T., Landry, R., Kesh, A., Hart, J., Walker, K., Wood, L., Robertson, R., & Payne, T. (2021). The influence of friends on teen vaping: A mixed methods approach. *International Journal of Environmental Research and Public Health*, 18(6784), 1-13. https://doi.org/10.3390%2Fijerph18136784

Han, G. and Son, H. (2020). What influences adolescents to continuously use e-cigarettes? *Public Health Nursing,* 37, 504-509. DOI: 10.1111/phn.12735

Harrell, M., Chen, B, Clendennen, S., Sumbe, A., Case, K., Wilkinson, A., Loukas, A., & Perry, C. (2021). Longitudinal trajectories of e-cigarette use among adolescents: A 5-year multiple cohort study of vaping with and without marijuana. *Preventative Medicine,* 150, 1-9. https://doi.org/10.1016/j.ypmed.2021.106670

Heidegger, M. (1962). Being and time. (Macquarrie, J., & Robinson, E., Trans.). Blackwell Publishing. (Original work published 1926).

Hon, L. (2010). *Electronic atomization cigarette* (U.S. Patent No 7,832,410 B2). U.S. Patent and Trademark Office. https://patentimages.storage.googleapis.com/2c/2d/23/13d262cf86fcb2/US7832410.pdf

Hershberger, A., Connors, M., Um, M., & Cyders, M. (2018). The theory of planned behavior and e-cig use: Impulsive personality, e-cig attitudes, and e-cig use. *International Journal of Mental Health and Addiction*, 16(2), 366-376 https://doi.org/10.1007/s11469-017-9783-6

Hoffman, J. (2021). Social learning, social bonds, self-control and adolescent nicotine vaping. *Substance Use and Misuse*, 56(6), 819-830. https://doi.org/10.1080/10826084.2021.1899226

Jackson, D., Boccio, C., & Leal, W. (2020). Do youth who vape exhibit risky health lifestyles? Monitoring the future, 2017. *Preventive Medicine,* 136, 1-6. https://doi.org/10.1016/j.drugalcdep.2021.108712

Johnston, L., Miech, R., O'Malley, P., Bachman, J., Schulenberg, J., & Patrick, M. (2022). Monitoring the Future: National Results on Adolescent Drug Use: Overview of Key Findings 2021. Ann Arbor: Institute for Social Research, University of Michigan. http://www.monitoringthefuture.org//pubs/monographs/mtf-overview2021.pdf

Jones, K. and Salzman, G. (2020). The vaping epidemic in adolescents. *Science of Medicine*, 117(1), 56-58. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7023954/

Keane, H., Weier, M., Fraser, D., & Gartner, C. (2017). 'Anytime, anywhere': Vaping as social practice. *Critical Public Health*, 27(4), 465-476. https://psycnet.apa.org/doi/10.1080/09581596.2016.1250867

Keenan, M., Keenan, K., Wrotniak, B., Qiao, H., & Emborsky, M. (2022). Do your kids vape? Investigating parent knowledge of adolescent e-cigarette use. *Pediatric Emergency Care*, 38(6), 1309- 1313. DOI: 10.1097/PEC.0000000000002565

Keys, K., Kreski, N., Ankrum, H., Cerdá, M., Chen, Q., Hasin, D., Martins, S., Olfson, M., & Miech, R. (2021). Frequency of adolescent cannabis smoking and vaping in the United States: Trends, disparities and concurrent substance use, 2017-2019. (2022). *Addiction*, 117(8), 2316-2324. https://doi.org/10.1111/add.15912

King, J., Merten, J., & Nicksic, N. (2020). Parents are unaware of their youths' tobacco use: Results from the population assessment of tobacco and health study. *Journal of School Health,* 90(7), 564-571. https://doi.org/10.1111%2Fjosh.12906

Kong, G., Bold, K., Cavallo, D., Davis, D., Jackson, A., & Kishnan-Saran, S. (2021). Informing the development of adolescent e-cigarette cessation interventions: A qualitative study. *Addictive Behaviors*, 114, 1-7. https://doi.org/10.1016/j.addbeh.2020.106720

Kurji, N., Koza, T., Sharp, A., & Moore, K. (2021). Exploring stakeholder and parent perspectives of a county response to adolescent vaping and e-cigarette use. Journal of Drug Issues, 51(3), 420-441. https://doi.org/10.1177/0022042621993495

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Sage Publications, Inc.

Langlois, E., Tuncalp, O., Norris, S., Askew, I., & Ghaffar, A. (2018). Qualitative evidence to improve guidelines and health decision-making. *Bulletin of the World Health Organization,* 92(2), 79-79A. http://dx.doi.org/10.2471/BLT.17.206540

Mason, M. (2010). Sample size and saturation in PhD studies using qualitative interviews. *Forum Qualitative Social Research,* 11(3), 1248-1268. https://doi.org/10.17169/fqs-11.3.1428

Mantey, D., Clendennen, S., Spring, A., & Harrell, M. (2022). Perceived parental knowledge reduces risk for initiation of nicotine and cannabis vaping: A longitudinal study of adolescents. *American Journal of Health Promotion,* 36(4), 623-632. DOI: 10.1177/08901171211061941

Mayorga, N., Garey, L., & Zvolensky, M. (2019). Differences in perceptions of e-cigarettes across daily and non-daily users. Addictive Behaviors, 90, 415-420. https://doi.org/10.1016/j.addbeh.2018.12.004

Miech, R. A., Johnston, L. D., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2022). Monitoring the future national survey results on drug use, 1975–2021: Volume I, Secondary school students. Ann Arbor: Institute for Social Research, The University of Michigan. Available at https://monitoringthefuture.org/wp-content/uploads/2022/08/mtf-vol1_2021.pdf

Miech, R. A., Johnston, L. D., Patrick, M. E., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2023). Monitoring the Future National Survey Results on Drug Use, 1975–2022: Secondary School Students. Ann Arbor: Institute for Social Research, The University of Michigan. Available at http://monitoringthefuture.org/results/publications/ monographs/

Morean, M., Bold, K., Kong, G., Camenga, D., Jackson, A., Simon, P., Davis, D., & Krishnan-Sarin, S. (2020). High school students' use of JUUL pod flavors before and after JUUL implemented voluntary sales restrictions on certain flavors in 2018. *PLoS ONE,* 15(12), 1-9. https://doi.org/10.1371/journal.pone.0243368

Moustafa, A., Testa, S., Rodriguez, D., Pianin, S., & Audrain-McGovern, J. (2021). Adolescent depression symptoms and e-cigarette progression. *Drug and Alcohol Dependence,* 228, 1-7. https://doi.org/10.1016/j.drugalcdep.2021.109072

Moustakas, C. E. (1994). *Phenomenological research methods.* Sage Publications, Inc.

National Association of Social Workers. (2021). Code of ethics. Retrieved April, 28, 2023 from https://www.socialworkers.org/About/Ethics/Code-of-Ethics/Code-of-Ethics-English

National Association of Social Workers (2022). Practice perspectives. Tobacco use starts early: Let's talk about it. (Fall, 2022). https://www.socialworkers.org/LinkClick.aspx?fileticket=jnTyfp2QO-s%3D&portalid=0

Nowell, L., Norris, J., White, D., & Moules, N. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. International Journal of Qualitative Methods, 16(1), 1-13. https://doi.org/10.1177/1609406917733847

O'Connell, M., and Kephart, L. (2022). Local and state policy action taken in the United States to address the emergence of e-cigarettes and vaping: A scoping review of literature. *Health Promotion Practice,* 23(1), 51-63. https://doi.org/10.1177/1524839920963691

Overbeek, D., Kass, A., Chiel, L., Boyer, E., & Casey, A. (2020). A review of toxic effects of electronic cigarettes/vaping in adolescents and young adults. *Critical Reviews in Toxicology,* 50(6), 531-538. https://doi.org/10.1080/10408444.2020.1794443

Padgett, D. (2018). *Qualitative methods in social work research*. (3rd ed.) Sage Publications, Inc.

Park-Lee, E., Ren, C., Cooper, M., Cornelius, M., Jamal, A., & Cullen, K. (2022). *Tobacco product use among middle and high school students-United States, 2022.* (MMWR Morbidity and Mortality, November 11, 2022*)* Centers for Disease Control and Prevention. https://www.cdc.gov/mmwr/volumes/71/wr/mm7145a1.htm?s_cid=mm7145a1_w

Patel, M., Czaplicki, L., Perks, S. N., Cuccia, A. F., Liu, M., Hair, E. C., Schillo, B. A., & Vallone, D. M. (2019). Parents' Awareness and Perceptions of JUUL and Other E-Cigarettes. *American Journal of Preventive Medicine*, 57(5), 695–699. https://doi.org/10.1016/j.amepre.2019.06.012

Patel, T., Karle, E., Gubeladze, T., Pentecost, G., & Kravac, A. (2020). Patient perception of vaping in the midst of the electronic cigarette and vaping product associated lung injury (EVALI) epidemic. Missouri Medicine, 177(3), 265-270. https://pubmed.ncbi.nlm.nih.gov/32636561/

Patten, S. (2021). Vaping and mental health. *Journal of the Canadian Academy of Child and Adolescent Psychiatry,* 30(1), 3-5. PMID: 33552167; PMCID: PMC7837520

Peace, M., Poklis, J., & Turner, J. (2019). Chasing the electronic cigarette dragon: Characterizing the evolution and impact of design and content (Office of Justice Programs' National Criminal Justice Reference Service Document No. 252921). U.S. Department of Justice. https://www.ojp.gov/pdffiles1/nij/grants/252921.pdf

Pedroso, J., Tubola, L., Mamon, E., & Sencida, M. (2022). Google Meet: An online platform for class discussion. *International Journal of Research Publication and Reviews,* 3(6), 3984-3994. https://www.researchgate.net/publication/361586691_Google_Meet_An_Online_Platform_for_Class_Discussion

Pennsylvania Commission on Crime and Delinquency (2021). 2021 Pennsylvania Youth Survey, State of Pennsylvania. https://www.pccd.pa.gov/Juvenile-Justice/Documents/2021%20PAYS/County%20Reports%202021%20PAYS/State%20Reports_State%20of%20Pennsylvania%20Profile%20Report.pdf

Pennsylvania Commission on Crime and Delinquency (2021). 2021 Pennsylvania Youth Survey, York County. https://www.pccd.pa.gov/Juvenile-Justice/Documents/2021%20PAYS/County%20Reports%202021%20PAYS/County%20Reports_York%20County%20Profile%20Report.pdf

Pennsylvania Department of Revenue (2024). School district codes. Retrieved February 11, 2024, from https://www.revenue.pa.gov/TaxTypes/PIT/SchoolDistrict/Pages/School%20District%20Codes.aspx

Pennsylvania General Assembly, Crimes and Offenses Act § 6306.1. (1996 & rev. 2020). https://www.legis.state.pa.us/cfdocs/legis/LI/consCheck.cfm?txtType=HTM&ttl=18&div=0&chpt=63&sctn=6&subsctn=1

Pentz, M., Shin, H., Riggs, N., Unger, J., Collison, K., & Chou, C. (2015). Parent, peer, and executive function relationships to early adolescent e-cigarette use: A substance use pathway*? Addictive Behaviors*, 42, 73-78. https://doi.org/10.1016%2Fj.addbeh.2014.10.040

Peoples, K. (2021). How to write a phenomenological dissertation. A step by step guide. Sage Publications, Inc.

Pepper, J., Farrelly, M. & Watson, K. (2018). Adolescents' understanding and use of nicotine in e-cigarettes. Addictive Behaviors, 82, 109-113. https://doi.org/10.1016/j.addbeh.2018.02.015

Ramamurthi, D., Chau, C., & Jackler, R. (2019). JUUL and other stealth vaporizers: Hiding the habit from parents and teachers. *Tobacco Control,* 28, 610-616. https://doi.org/10.1136/tobaccocontrol-2018-054455

Rich, M., & Ginsburg, K. (1999). The reason and rhyme of qualitative research: Why, when, and how to use qualitative methods in the study of adolescent health. *Journal of Adolescent Health,* 25(6), 371-378. https://doi.org/10.1016/s1054-139x(99)00068-3

Roterman, M. and Gilmour, H. (2022). Correlates of vaping among adolescents in Canada, 33(7), 24-35 https://doi.org/10.25318/82-003-x202200700003-eng

Sabbagh, H., Khogeer, L., Hassan, M., & Allaf, H. (2020). Parental knowledge and attitude regarding e-cigarette use in Saudi Arabia and the effect of parental smoking: A cross-sectional study. *Risk Management and Healthcare Policy*, 13, 1195-1205. doi: 10.2147/RMHP.S253749

Sandelowksi, M. (1995). Focus on qualitative methods- Sample size in qualitive research. *Research in Nursing and Health,* 18(2), 179-183. https://onlinelibrary.wiley.com/doi/10.1002/nur.4770180211

Sapru, S., Vardhan, M., Li, Q., Guo, Y, Li, X., & Saxena, D. E-cigarettes use in the United States: Reasons for use, perceptions, and effects on health. *BMC Public Health,* 20(1518), 1-10. https://doi.org/10.1186/s12889-020-09572-x

Scribbl (2021, June 25). Privacy. https://www.scribbl.co/pages/privacy-policy

Shealer, B. (2022a). Environmental scan. [Unpublished manuscript]. Social Work Department, Millersville University.

Shealer, B. (2022b). Parental attitudes on vaping: Exploring attitudes, perceptions, and beliefs. [Unpublished manuscript]. Social Work Department, Millersville University.

Shealer, B. (2022c). Nature and scope of the problem. [Unpublished manuscript]. Social Work Department, Millersville University.

Simpson, E., Doherty, J., Dunwoody, L., McDowell, C., McLaughlin, M., Butter, S., & Giles, M. Employing the theory of planned behavior to design an e-cigarette education resource for use in secondary schools. *BMC Public Health,* 22(276), 1-22. https://doi.org/10.1186/s12889-022-12674-3

Su, X., Li, L., Griffiths, S., Gao, Y., Lau, J., & Mo, P. (2015). Smoking behaviors and intentions among adolescents in rural China: The application of the theory of planned behavior and the role of social influence. Addictive Behaviors, 48, 444-51. https://doi.org/10.1016/j.addbeh.2015.04.005

Szoko, N., Ragavan, M., Khetarpal, S., Chu, K., Culyba, A. (2021). Protective factors against vaping and other tobacco use. *Pediatrics* 148(2), 1-9. https://doi.org/10.1016/j.addbeh.2015.04.005

Thomas, D. (2006). A general inductive approach for analyzing qualitive evaluation data. *American Journal of Evaluation*, 27(2), 237-246. DOI: 10.1177/1098214005283748

Tobore, T. (2019). On the potential harmful effects of e-cigarettes (EC) on the developing brain: The relationship between vaping-induced oxidative stress and adolescent/young adults social maladjustment. *Journal of Adolescents,* 76, 202-209. https://doi.org/10.1016/j.adolescence.2019.09.004

Trucco, E. & Hartmann, S. (2021). Understanding the etiology of adolescent substance use through developmental perspectives. *Child Developmental Perspectives*, 15(4), 257-264. https://doi.org/10.1111/cdep.12426

Trucco, E., Cristello, J., & Sutherland, M. (2021). Do parents still matter? The impact of parents and peers on adolescent electronic cigarette use. *Journal of Adolescent Health,* 68, 780-786. https://doi.org/10.1016/j.jadohealth.2020.12.002

United States Census Bureau (2022). QuickFacts, York County, Pennsylvania; Pennsylvania. https://www.census.gov/quickfacts/fact/table/yorkcountypennsylvania,PA/PST045222

U.S. Department of Health and Human Services. E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016. Retrieved April 9, 2023 from https://www.cdc.gov/tobacco/data_statistics/sgr/e-cigarettes/pdfs/2016_sgr_entire_report_508.pdf

United States Department of Health and Human Services, Centers for Disease Control and Prevention. (nd). *E-cigarette, or vaping, products visual dictionary.* Retrieved February 26, 2023, from https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm

U.S. Department of Health and Human Services (2014). The health consequences of smoking: 50 years of progress; a report of the Surgeon General. Atlanta, GA: US Department of Health and Human Services. Retrieved April 8, 2023, from https://www.ncbi.nlm.nih.gov/books/NBK179276/pdf/Bookshelf_NBK179276.pdf

U.S. Department of Health and Human Services. (2018). Surgeon general releases advisory on e-cigarette epidemic among youth. Retrieved April 9, 2023 from https://www.cdc.gov/tobacco/basic_information/e-cigarettes/surgeon-general-advisory/pdfs/surgeon-generals-advisory-on-e-cigarette-use-among-youth-2018-h.pdf

United States Department of Health and Human Services, National Institutes of Health, National Institute on Drug Abuse, and United States Department of Health and Human Services, Food and Drug Administration, Center for Tobacco Products (2023). *Population Assessment of Tobacco and Health (PATH) Study*. Retrieved April 8, 2023, from https://doi.org/10.3886/ICPSR36231.v33

Van Manen, M. (2016). *Phenomenology of practice: Meaning-giving methods in phenomenological research and writing*. Routledge.

Visser, W., Klerx, W., Cremers, H., Ramlal, R., Schwillens, P., & Talhout, R. (2019). The health risks of electronic cigarette use to bystanders. *International Journal of Environmental Research and Public Health,* 16(9), 1-14. https://doi.org/10.3390/ijerph16091525

Wilson, K., Black, D., & Black, L. (2020). *Pediatric collections: Vaping: Effects and solutions. Not just "harmless water vapor."* American Academy of Pediatrics. https://search.ebscohost.com/login.aspx?direct=true&db=e000xna&AN=2579836&site=eds-live&scope=site&authtype=shib&custid=s3915890&ebv=EB&ppid=pp_C1

Wu, T., and Chaffee, B. (2020). Parental awareness of youth tobacco use and the role of household tobacco rules in use prevention. *Pediatrics*, 146(5), 1-8. https://doi.org/10.1542/peds.2019-4034

Yuan, M., Cross, S., Loughlin, S., & Leslie, F. (2015). Nicotine and the adolescent brain. *The Journal of Physiology,* 593(16), 3397-3412. https://doi.org/10.1113/JP270492

Appendix A

Study Recruitment Flyer

Your Opinions Matter

I am a doctoral student at Millersville University doing research on youth vaping. I want to speak with parents and guardians in our community about this issue. If interested please contact me at the number below.

Interviews Wanted

IF YOU WISH TO PARTICIPATE IN AN INTERVIEW ABOUT YOUTH VAPING CALL OR TEXT "I'M INTERESTED" TO BRANDY SHEALER AT THE NUMBER BELOW

717 449 0177

Appendix B

Semi-Structured Interview Guide

This interview is about the topic of nicotine vaping. The following terms used in this interview may include vape, e-cigarette, or electronic nicotine delivery system (E.N.D.S.) These terms are meant to include the use of any type of electronic cigarette or product to include things such as disposable vapes (ELF Bar, Puff bar, Esco Bar, etc.), refillable vapes (Aspire Flexus Q, Vsavi Pro 3, etc.), and modifiable vapes (Geekvape Legend 2, JAC Vapour S22, VOOOPOO DRAG 3, etc.).

1. Please tell me your perceptions about youth nicotine vaping?

2. When was your first involvement or interaction with vaping or e-cigarettes? What do you remember about that time period?

3. What advertising or other materials have you seen about vaping? Where did you see them, and what did they say, or what did you believe was their message?

4. As a parent, is vaping a behavior of concern for you?

5. How does the behavior of vaping compare to other parenting issues you have for your student? For example drinking, poor grades, peer issues?

6. In your opinion, how does vaping compare to cigarette smoking.

6. Is your child or any adult allowed to vape in your home or with you? Where are they allowed to vape (if they permit it)? If your student is allowed to vape with you or in your home, tell me about how you made those decisions. What impacted your choice?

8. How do you feel about the school district's response to vaping?

Appendix C

Mental Health and Crisis Resources

Crisis Services- WellSpan Behavioral Health offers 24-hour crisis counseling that individuals may access either through a toll-free telephone number or face-to-face interview. Crisis walk-in services are also available at 1101 S. Edgar St., Suite C, York, Pa. The hours of operation at this location are Monday to Thursday 8 a.m. to 8 p.m. and Friday 8 a.m. to 6 p.m. No appointments are necessary.

To contact crisis intervention, please call (800) 673-2496 or (717) 851-5320.

Crisis Text Line 741-741

Crisis Call Line Dial 988

WellSpan Behavioral Health 1101 Edgar St., York (717) 851-1500

WellSpan Behavioral Health 1600 S. George St., York (717) 812-4200

WellSpan Behavioral Health 3550 Concord Rd., York (717) 851-6340

WellSpan Behavioral Health 781 Far Hills Dr., New Freedom (717) 812-2560

Individual therapy, family and group counseling, and medication management by a psychiatrist

WellSpan START (Specialized Treatment and Recovery Team)

605 S. George St., Loretta Claiborne Building, York, PA 17401 (717) 356-5060

Primary health care screenings, mental health and substance disorder screenings, mental health assessments and diagnoses

Arrow Counseling Services 1427 East Market St York (717) 755-0011

Emotional regulation skills group, individual, family

Behavioral Healthcare Consultants 2550 Kingston Road York (717) 755-5736

Psychotherapy and counseling, psychological and neuropsychological assessments, neuropsychological rehabilitation, business and place of worship consultations, career counseling and vocational assessments

Cognitive Health Solutions, LLC 100 West Eisenhower Drive, Suite A Hanover (717) 632-8400

Cognitive Health Solutions, LLC 1030 Plymouth Road, Suite A York, PA (717) 747-3659

Psychological evaluations and testing, psychotherapy, behavioral health and wellness, consultations, mindfulness-based stress reduction

Yorlan Psychological Associates 3601 Concord Road York (717) 885-0503

Outpatient therapy, testing and evaluations, dialectical behavioral therapy, spinal cord stimulator evaluations, concussion management, medication and yoga, mindfulness, behavioral medicine

Pressley Ridge 141 East Market Street York (800) 723-7005

Outpatient counseling

Psychological Associates of PA 2647 Carnegie Road York (717) 755-0921

Cognitive behavioral therapy, EAP, psychological testing

Rost and Associates 807 South George St York (717) 843-6561

Individual psychotherapy, eating disorders, couples' therapy, neuropsychological testing for dementia and post-head injury, stress-related medical disorders, relaxation training, group therapy

Laurel Life 2020 South Queen Street York, PA 17403 (717) 845-7652

IBHS, ABA services, brief treatment, family-based, JUMP program, outpatient counseling, parent-child interaction therapy

The Center for the Creative Arts and Play Therapy 2001 E. Market Street York (717) 741-0000

Expressive therapies for children, teenagers, adults, and families (music, art, dance, play, sand, etc.)

TrueNorth Wellness Services 625 W. Elm Avenue, Hanover (717) 632-4900

TrueNorth Wellness Services 1195 Roosevelt Avenue York (717) 843-0800

TrueNorth Wellness Services 73 E. Forrest Avenue Suite 340, Box 12, Shrewsbury (717) 235-0199

TrueNorth Wellness Services 33 Frederick Street, Hanover (717) 632-4900

Autism services, counseling, community support, emergency crisis support

Ponessa Behavioral Health 2845 Eastern Blvd York (717) 840-6444

Drug and alcohol outpatient, psychiatric medical services, BHRS, mental health outpatient services

PA Counseling Services 26 Mt. Zion Road York (717) 840-0984

Individual and group therapy, marriage and family therapy, medication management, psychiatric evaluations, drug and alcohol treatment, specialized counseling for eating disorders, sexual addiction, and others

Susquehanna Valley Community Health Services 1 East Market Street Suite 401 York (717) 739-6576

Outpatient mental health, trauma, and substance abuse treatment, group therapy, dialectical behavior therapy, psychological, psychiatric, psychoeducational, and forensic evaluations

Merakey 651 Albright Ave, York, PA 17404 (717) 846-4490

IBHS services, outpatient counseling, parent-child interaction therapy, family-based counseling

Pennsylvania Comprehensive Behavioral Health 2555 Cape Horn Road Red Lion

(717) 600-0900

IBHS, outpatient counseling, psychiatric evaluations, medication management

Youth Advocate 907 Roosevelt Avenue York, PA Suite 1 (717) 843-9555

IBHS

TeamCare Behavioral Health 1808 Colonial Village Lane Lancaster, PA (717) 391-0172

Individual counseling, medication management, psychiatric evaluations, school-based counseling

Catholic Charities 253 East Market Street York, PA 17403 (717) 845-2696

Psychiatric evaluation, medication management, family-based mental health services

Commonwealth Clinical Group (CCG) 1 East Market Street Suite 402 York, Pa 17401

(717) 747-3158

Medication management, sexualized trauma therapy

Providence Behavioral Health 600 H Eden Road Lancaster, PA 17601 (717) 397-1400

Neuropsychological evaluations, forensic evaluations

Susquehanna Valley Community Mental Health Services 546 Broadway Hanover, PA

(717) 739-6596

Individual therapy, group therapy, EMDR

The Well- Red Lion Psychology 30 East Broadway, Red Lion, PA 17356 (717)244-1082

Individual counseling, couples counseling

Turning Point 15 Wyntre Brooke Drive, York, PA 17403 (717) 755-TURN (8876)

Sexual abuse counseling and advocacy

YWCA York's Victim Assistance Center (VAC) (717) 854-3131

Victim's services, including counseling and advocacy

GSC Counseling Associates 2559 South Queen Street 2nd Floor Olde Tollgate Village York, PA

Individual counseling (717) 417-8464

Keystone Therapy & Services, LLC 1224 S. Queen Street Suite 206 & 207 York, PA (717) 276-0684

Diagnostic evaluations, individual therapy, trauma therapy

Crossroads of York 883 Clare Lane York, PA 1-800-805-6989

Substance use disorders, medication-assisted treatment

Community Services Group 200 W Market Street, York, PA 1-877-907-7970

MH and IDD services

Soul Meets Body Treatment Center, LLC 11 Carlisle Street, Suite 304, Hanover, PA

(717) 819-9818

Individual therapy

National Suicide Prevention Hotline 1-800-273-8255

PA Child Center for Healing and Wellness

paccenterofhealingandwellness@gmail.com or call (717) 850-3662

Hinoki Counseling and Wellness LLC 55 Clover Hill Rd. Dallastown, PA 17313

717-347-5266

hinokicounseling@gmail.com

Mindful Changes Counseling 294 Pleasant Acres Road York, PA 17402 (717) 945-6073

Do not take medical assistance plans

Or try bettehelp.com https://www.betterhelp.com/

Billed weekly $60.00-$90.00 a week, billed four weeks at a time

Psychological Services of York (717) 894-0523

Updated on 7/2023

Appendix D

Consent Form for Participants

Consent Form for Participants

You are invited to participate in a research study being conducted through Millersville University.

Title of Research Study: Adolescent Vaping: A Concern, A Choice, or Negotiable Harm?

Researcher: Brandy A. Shealer, MSW, LCSW, Doctoral Candidate, Millersville University

Purpose of the Study:

The purpose of this study is to explore the experiences of individuals parenting youth who use nicotine vape products. In particular, this phenomenological research aims to understand how individuals experience the phenomena of adolescent and youth nicotine vaping. This information will be used to gain a perspective on how vaping impacts families and their communities.

In addition, the information gathered from this study may support and enhance the current educational initiatives that are offered within the community. These initiatives can include, but are not limited to, school district resources and community health programs. The overall information gained from this study will add valuable information to the literature regarding the day-to-day perceptions and concerns by parents and guardians relative to youth nicotine vaping. The general goal is to then enhance preventative measures and programs aimed at curtailing the epidemic of vaping and to meet the day-to-day needs of families relative to this issue.

What will happen if you take part in this study?

Procedures:

If you wish to participate in the study, you will be asked to contact the primary researcher through a text or phone call to establish your interest. Once interest is established, a consent for participation form must be on file and signed by each study participant. Once the consent for participation is signed, an interview will be scheduled at a date and time convenient to the participant and the primary researcher.

Using Google Meet, an online meeting platform, participants will be asked a series of questions about the topic of youth vaping. The interview is expected to last less than one hour. The information collected from the study will include a transcript of the interview, only. No audio or video will be recorded. Participants may ask for their transcript to review for accuracy.

Risks and Benefits of Participating in the Study:

A risk of feeling uncomfortable discussing substance use could occur by participating in this study. You have the right to stop at any time within the interview if you should wish not to continue. The researcher has prepared local mental health supports within the community if you should request them.

The researcher, who is a mandated reporter, may learn information about your household and parenting choices as part of this interview. This information will not be shared, unless it meets the criteria for suspected child abuse and neglect, as defined by the Child Protective Services Law.

Although you will not directly benefit from being in this study, others might benefit because increased knowledge about vaping and its impact upon the family may help improve educational programming within the community. In addition, the benefits to participation in the study include the opportunity to share your thoughts and experiences about youth nicotine vaping. Through the use of this information, it is expected that a more comprehensive understanding of the issue will be gleaned, which can assist in the development of improved community educational opportunities.

Confidentiality:

This study will be published but all data will be de-identified to protect your identity. All information will be handled in a confidential manner and personal information will be stored on a password protected computer. However, it is possible that University representatives may become aware of your participation in this study and may inspect and copy records pertaining to this research.

To help protect your confidentiality:

- No interviews will be recorded. The only data collected will be a transcript of the interview.
- Any identifiable information, including names, will be removed.
- Participants may opt to have their camera off during the interview to protect their identity.

- Final results from this study could be presented through future peer-reviewed publications and conference presentations. Since only anecdotal information and aliases will be referenced, not individual outcomes or names, minimal risk of a confidentiality breach upon dissemination should occur.

Data Storage:

The information obtained from the informed consent will be kept on a password-protected computer and only transcribed interviews will be saved. There will be no recorded audio or video interviews. The transcribed interviews will be uploaded to NVivo and kept on a password-protected computer. The transcribed documents will be saved on a flash drive and any handwritten notes or documentation provided will be secured in a locked filing cabinet in the primary researcher's office. At the conclusion of the study, all transcribed audio and/or video recordings, written notes, and interview transcriptions will be destroyed after three years, in accordance with Institutional Review Board (IRB) regulations.

Voluntary Participation:

Your participation in this study is completely voluntary. There is no penalty for not participating, or if you decide to participate in this study and later change your mind, you may discontinue your participation and withdraw from the study at any time without penalty.

Contacts and Questions:

We encourage you to ask questions. If you have any questions about the research study itself, please contact: Brandy A. Shealer (principal researcher), Doctoral Candidate, Millersville University at basheale@millersville.edu or Dr. Marc Felizzi (supervising faculty) at Millersville University at 717-871-7161 or marc.felizzi@millersville.edu.

This study has been reviewed and approved by the Millersville University of Pennsylvania Institutional Review Board. If you have questions or would like to speak with someone other than the research team, contact Mr. Jeffry Porter, Associate Vice President for the Office of Grants, Sponsored Programs, and Research at either (717) 871-4829 or at jeffry.porter@millersville.edu.

Statement of Consent:

By continuing with this interview, I am indicating that:

- I have read and understand the information described above and have received an electronic copy of this information.

- I had the opportunity to ask any questions I have regarding the research study and have received answers to my satisfaction.
- I agree to an audio and/or video interview by the researcher.
- I am 18 years of age or older and voluntarily consent to participate in this study.

Participant's Signature and Date:

Researcher's Signature and Date: