

A SEQUENTIAL EXPLORATORY EXAMINATION OF SUCCESSFUL SMOKING
CESSATION AMONG LGBTQ INDIVIDUALS

by

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(Under the Direction of Jessica Muilenburg)

ABSTRACT

Given the rate of smoking in the Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) population is two times higher than in the general population, smoking cessation has become a major public health issue. The purpose of this study is to explore smoking cessation among LGBTQ individuals, including their smoking history, factors contributing to smoking uptake, methods used during quit attempts, and how the most successful quitters, called Confident Maintainers, manage to stay quit.

While the individual, social, and environmental risk factors for smoking in LGBTQ individuals are well documented and existing research supports the notion that LGBTQ identity is a risk factor for adopting smoking, there is a lack of information about how LGBTQ identity and social context are involved in quitting smoking. Data from LGBTQ participants in Phase 1 and Phase 2 of the current study confirms LGBTQ-specific risk factors for smoking uptake. Surprisingly, findings also indicate LGBTQ identity is not heavily tied to quitting, nor does it seem to influence the quitting process. In the end, the challenges present when quitting smoking seem

to be unique to quitting smoking — not to LGBTQ identity. This finding, along with important results about successful quitting methods, has major implications for further research and practice that are discussed herein.

INDEX WORDS: Smoking cessation; LGBTQ; Lesbian, Gay, Bisexual, Transgender, Queer; Sequential exploratory design; Mixed methods; Qualitative methods; Grounded theory; Descriptive analysis; Social ecological model; Transtheoretical model; Social cognitive theory; Self-efficacy; Confident maintenance

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DEDICATION

To my family

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Unending thanks to my participants, family, friends, teachers, and supporters. Thanks to my participants for their lives and willingness to share them – without them, this new information would not exist. Thanks to my family for their love, confidence, jokes, Santa kitty, letters, and chocolate cake. Thanks to my friends for their always dinners and never hand puppets, thanks to my training partners for our extreme adventures, and thanks to Merits love – all of you contributed to this work coming to life. Thanks to my colleagues for their support, brilliant ideas, and humor through the journey. Thanks to my teachers for their faith in me, celebration of me, and tough love. Thanks to my workplaces for friendship and coffee. And thanks to Sir Isaac Newton for the true phrase, “If I have seen further it is by standing on the shoulder of giants.”

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CHAPTER 1

INTRODUCTION

BACKGROUND

The rate of smoking in the Lesbian, Gay, Bisexual, and Transgender, (LGBT) population is two times higher than in the general population (American Lung Association, 2009). Nearly twenty percent of adults in the United States are current smokers (CDC, 2009). The American Cancer Society conservatively estimates that 30,000 LGB individuals die yearly due to a multitude of diseases caused by tobacco use (American Cancer Society, 2003). The individual, social, and environmental risk factors for smoking in LGBTQ individuals are well documented (American Lung Association, 2009; Matthews, Hotton, DuBois, Fingerhut, & Kuhns, 2011; Ryan, Wortley, Easton, Pederson, & Greenwood, 2001). Research supports the notion that LGBTQ identity is a risk factor for adopting smoking, but there is a lack of information about how LGBTQ identity and social context are involved in quitting smoking.

Harmful Effects of Cigarette Smoking

Tobacco use is the cause of one in ten deaths among adults worldwide, killing more people every year than the combined deaths from motor vehicle injuries, suicides, murders, illegal drug use, and human immunodeficiency virus (HIV) globally (CDC, 2008; Mokdad, Marks, Stroup, & Gerberding, 2004). Tobacco “kills more than 5 million people per year...(and) it is the single most preventable cause of

death” (WHO, 2011). Men who smoke increase their risk of lung cancer by 23 times, and women by 13 times (USDHHS, 2004). Along with lung cancer, smoking causes cancer of the bladder, stomach, oral cavity, pharynx, larynx, esophagus, kidney, lung, pancreas, and cervix, and causes acute myeloid leukemia (USDHHS, 2004). In fact, 90% of lung cancer in men and 80% in women are caused by cigarette smoking (USDHHS, 2004).

Smoking is a direct cause of the leading cause of death in the US, coronary heart disease, with smokers being two to four times more likely to develop coronary heart disease than non-smokers (USDHHS, 1989, 2004). Those who smoke are also at least two times more likely to have a stroke and have a tenfold increase risk of dying from chronic obstructive lung disease (Ockene & Miller, 1997). Women who smoke are at increased risk for infertility, delivering preterm or low birth weight babies, stillbirth, and sudden infant death syndrome (USDHHS, 2001, 2004). Also according to the WHO, of the one billion smokers in the world, more than half will die early from diseases related to tobacco (2011). In the United States, cigarette smoking contributes to one in five deaths yearly, which is a total of 443,000 deaths (CDC, 2008, 2010). Nearly twenty percent of adults in the United States are current smokers (CDC, 2009).

Medical Benefits of Quitting Smoking and Maintaining Quit Status

According to a medical review by the American Cancer Society, the immediate and long-term benefits to quitting smoking are immense. Just 20 minutes after quitting smoking, blood pressure and heart rate decline and 12 hours after quitting carbon monoxide in the bloodstream decreases to a normal level.

Functioning of the lungs and circulatory system improves just two weeks to three months post-quit. At one to six months post-quit, the respiratory system improves as cilia, the protein-based hair-like structures that work to move mucus out of the lungs, regain normal functioning. Risk of infection declines as the body is able to clean out the lungs normally. At one year of maintained quit status, the extra risk of coronary heart disease from smoking is half that of someone who continues to smoke. Five years post-quit shows risk of bladder, mouth, esophagus, and throat cancers are halved, risk of stroke and cervical cancer declines to risk seen by non-smokers. At ten years of successful maintained quit status, the risk of lung cancer death is half the risk faced by a continuing smoker. The risk for voice-box and pancreatic cancer decreases. The risk of coronary heart disease decreases to a non-smoker's risk at 15 years post-quit (2012c).

Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) Population in the United States

The acronym "LGBTQ" stands for Lesbian, Gay, Bisexual, Transgender, and Queer. Lesbian, Gay, and Bisexual are terms that individuals may choose to use when self-identifying their sexual orientation. Sexual orientation refers to a person's "erotic, romantic, and affectional" (Greenberg, Bruess, & Conklin, 2010) attraction to another person. Early reports by the Kinsey Institute suggested that approximately 10% of males and 6% of females in the US identified as gay or lesbian, respectively. Other estimates from the Healthy People 2010 LGBT Companion Document suggest the total percentage of LGBT of the nation's citizens could be closer to ten percent (GLMA, 2001). However, conservative estimates suggest that closer to three percent of the nation's citizens identify as lesbian, gay, bisexual, or transgender (LGBT), and

this number represents citizens in every state and every racial, ethnic, religious, age, and socioeconomic group (American Lung Association, 2009). The LGBTQ population is likely underestimated. The problem with estimates is the lack of valid research focusing on the size of this population, the fear of disclosing sexual orientation by national survey respondents, and the fact that many standard surveys do not ask about the sexual orientation, sexual behaviors, and gender identities of participants (GLMA, 2001).

LGBT Health Disparities

The US Department of Health and Human Service's publication, "Healthy People 2010" designates sexual orientation as one of six categories in which health disparities exist (GLMA, 2001). "Healthy People 2020" highlights decreasing tobacco use in the LGBT population as a health priority, and the Fenway Institute recognizes this as an important health area (The Fenway Institute, 2008; U.S. Department of Health and Human Services, 2012).

"History shows that when marginalized groups are oppressed and do not have equal opportunities and equal rights, they suffer."

-Dr. Michael P. Marshal
Addiction Press Release
(Marshal, 2008)

The health disparities associated with LGBT status include but are not limited to: discrimination by health care providers and therefore limited access to appropriate health care, inequitable insurance coverage, societal discounting of domestic violence issues within the LGBT community, lack of LGBT-specific mental health care, substance abuse treatment programs, and smoking cessation services

(The Fenway Institute, 2008). The rate of smoking in the LGBT population is two times higher than in the general population (American Lung Association, 2009) and 19.8% of adults in the United States are current smokers (CDC, 2009). The American Cancer Society conservatively estimates that 30,000 LGB individuals die yearly due to a multitude of diseases caused by tobacco use (American Cancer Society, 2003).

Risk Factors for LGBTQ Smoking

The gay and lesbian population may experience addiction and substance use in ways that are unique to sexual orientation (Cheng, 2003). LGBT individuals who encounter ostracism and homophobia are likely to experience internalized homophobia, negative self-concept, loneliness, and “depression...and shame” (Yarhouse & Tan, 2005). These experiences may prompt LGBT individuals to seek acceptance, social relationships, and coping experiences in ways that incorporate the use of substances like nicotine (Ryan, et al., 2001). LGBT youth who seek social acceptance may adopt smoking as a way to fit into a LGBT peer group that already has a very high smoking rate (Ryan, et al., 2001). Conversely, LGBT youth in an environment supportive of their identities smoke less than youth who perceive their environment to be unsupportive (Hatzenbuehler, Wieringa, & Keyes, 2011).

Ryan et al., posit that LGBT individuals have historically been limited to socializing at clubs and bars, places where smoking is extremely prevalent. When the primary social outlet for LGBT camaraderie is also a primary location for smoking, it only makes sense for smoking rates to be disproportionately high (2001). Additionally, tobacco companies began plans to aggressively corner the gay market in the early 1990s. In one example of many, The Altria Group, formerly

known as Phillip Morris, placed ads into print media that would reach gay customers, to capitalize on the deep-seated alienation and social isolation felt by many LGBTQ individuals. The ads championed freedom to marry, freedom to choose cigarettes, and showed LGBT-friendly tobacco models at a time when the LGBT community faced much discrimination (The Fenway Institute, 2008).

Summary of Methods and Aids for Quitting Smoking

Many methods for quitting smoking exist: Nicotine Replacement Therapies (NRT), prescription drugs, behavioral methods, holistic methods, and a variety of other methods that individuals use whether or not they are supported by research (American Cancer Society, 2012b). Nicotine Replacement Therapies (NRT) are products that introduce nicotine to the body in ways other than cigarette smoking. This way, smokers can combat the negative feelings of nicotine withdrawal while they are not smoking cigarettes. According to the American Cancer Society, there are currently five NRT approved by the Food and Drug Administration in the United States: Patch, gum, lozenge, nasal spray, and inhaler. All of these NRT carry the risk of addiction and usage guidelines include maximum usage limitations. Currently there is no evidence of one NRT's superiority over another, but certain NRT may fit into a person's lifestyle or behavioral needs better than others. For example, the inhaler mimics the act of smoking most closely and some find that helpful (2012b).

The American Cancer Society (ACS) lists two prescription drugs that are approved by the FDA for smoking cessation: Bupropion, also known by the trade names Zyban ® and Wellbutrin ®, and Varenicline, known widely as Chantix ® (American Cancer Society, 2012a). These drugs can double the chances of quitting

smoking. Rare but serious side effects have been reported. Two other drugs are often used to aid in smoking cessation, Nortriptyline and Clonidine, but neither are approved by the FDA for smoking cessation. Both are shown to increase chances for smoking cessation (American Cancer Society, 2012a).

Other methods of quitting include hypnosis, acupuncture, low-level laser therapy, smoking deterrents, herbs and supplements, atropine and scopolamine therapy, tobacco lozenges and pouches, filters, nicotine lollipops, wafers, lip balms, and electronic cigarettes (American Cancer Society, 2012a). The American Cancer Society reports there is extremely little and most often no scientific evidence showing any of these methods help people quit smoking and some may be hazardous to health (2012a).

The American Cancer Society also indicates that smoking cessation groups have very low quit rates and long term successful maintenance of quitting rates (2012a). People who use NRT or medicines and behavioral/psychosocial tactics together have a much higher success rate for quitting than people who use only one main method of quitting (The National Tobacco Cessation Collaborative, 2011). Several studies show that quitting “cold turkey”, or suddenly with a complete withdrawal from nicotine, is a very common way to quit smoking with over 75 percent of long-term successful quitters in the studies indicating cold turkey as their method (Doran, Valenti, Robinson, Britt, & Mattick, 2006; Fiore et al., 1990; C. Lee & Kahende, 2007).

PURPOSE OF THE STUDY

SPECIFIC AIMS: PHASE 1

Aim 1: Learn about participants' history of smoking.

1.1 Assess individual and social influences on smoking uptake

1.2 Determine smoking habits (frequency, amount, location, etc)

Aim 2: Examine how LGBTQ identity is involved in successful smoking cessation and maintenance of quit status.

2.1 Determine how LGBTQ identity is related to quitting smoking

2.2 Determine how LGBTQ identity is related to maintaining quit status

Aim 3: Explore quitting smoking and maintaining quit status in the context of the LGBTQ social environment.

3.1 Describe the LGBTQ social environment

3.2 Describe the social environment in the context of smoking behavior

3.3 Understand the LGBTQ social environment as both a place of challenge and support when of quitting smoking

Aim 4: Identify methods and processes used by LGBTQ individuals who successfully quit smoking.

4.1 Determine what factors contribute to successful quitting and maintenance of quit status in LGBTQ individuals

4.2 Identify smoking cessation aids and tools used by the LGBTQ population

SPECIFIC AIMS: PHASE 2

Aim 1: Use results from qualitative study to develop a survey for assessing smoking cessation findings.

Aim 2: Disseminate the survey electronically to a sample of the LGBTQ community in the United States to assess smoking and quitting behaviors on a larger scale.

PUBLIC HEALTH IMPLICATIONS

The long-term objective of this research is to improve scientific knowledge about how LGBTQ smokers successfully quit smoking and maintain quit status.

Extensive research and literature exists about the prevalence of smoking in the LGBTQ population and how LGBTQ identity is a risk factor for smoking adoption,

but researchers have not yet investigated methods used and factors surrounding successful quitting and maintenance of quit status. It is vital to determine through this study how successful LGBTQ smokers accomplish quitting. Information from this study is widely applicable in the underdeveloped, yet crucial field of LGBTQ smoking cessation.

Not only will this research answer the question of what methods and processes LGBTQ individuals use to quit, it will offer a vital look at ways people successfully navigate a pro-smoking social context. Conclusions will highlight health promotion avenues for a population that desperately needs more options and assistance with smoking cessation. The improved understanding of successful smoking cessation in LGBTQ smokers can inform interventions aimed at LGBTQ smokers facing geographic, stigmatic, financial, motivational, and other barriers to smoking cessation.

Innovations

The uniqueness of this study lies in its focus on successful quitters as well as its inquiry into the involvement of LGBTQ identity and social context in quitting.

This study is innovative because:

1) Little is known about what methods and processes LGBTQ smokers use to successfully quit smoking and the role LGBTQ identity plays in successful quitting.

The researcher inquires into the “how” of successful quitters.

2) Knowledge about quitting processes and context gained from successful quitters holds particular value because their processes *worked*.

- 3) The study's Phase 1 qualitative design allows for flexible, in-depth inquiry. Phase 2 offers a larger-scale assessment of Phase 1 findings.
- 4) Extensive research exists about how LGBTQ identity contributes to increased risk for smoking, but this study is innovative in that it aims to fill the knowledge gap about LGBTQ identity and cessation of smoking.
- 5) Phase 2 will be an assessment of actual LGBTQ smoking cessation methods in the United States.

CHAPTER 2

LITERATURE REVIEW

SEXUAL ORIENTATION, GENDER IDENTITY, AND “LGBTQ” DEFINITIONS

The acronym “LGBTQ” stands for Lesbian, Gay, Bisexual, Transgender, and Queer. For the purposes of this dissertation, the acronyms and labels used by each author will be used when referring to that author’s work. For example, if an author’s sample consists of LGB individuals, any discussion of that work will also use the acronym “LGB”. It is also important to acknowledge that sexual orientation and sexual behavior are distinct entities with overlapping qualities. This dissertation involves research with individuals who self-identify as LGBTQ. While many public health researchers use the terms men who have sex with men or “MSM,” women who have sex with women or “WSW,” men who have sex with men and women or “MSM/W,” and women who have sex with women and men or “WW/M,” this current dissertation study focuses on self-identified LGBTQ individuals, not MSM/W, WSW/M, WSW, or MSM who do not self-identify as LGBTQ.

The MSM and WSW labels originated from epidemiological research tracking HIV around the year 1990. Critics of these behaviorally-based labels assert that the terms now “obscure social dimensions of sexuality” (Young & Meyer, 2005, p. 1144). This obstruction is problematic as researchers contend that sexual behavior and identity are influenced by social construction (Young & Meyer, 2005). Young & Meyer recommend that professionals in the public health field take care to include

“culturally relevant language” (Young & Meyer, 2005, p. 1144) and investigate the social contexts of same-gender pairings.

The decision to focus on LGBTQ identity and not just behavior was based on this study’s research questions, the goal of understanding how LGBTQ identity influences smoking cessation, and literature supporting the notion that sexual behavior itself is still part of a social process (Young & Meyer, 2005). Most studies cited in this literature review involve LGBTQ-identified individuals whenever possible. However, a few studies of MSM are included because the author included gay men within the MSM group. MSM and gay-identified men are distinct entities within most public health literature, but some authors assess only the sexual behavior and not sexual orientation identity. To maintain continuity and applicability with this dissertation’s research questions, most articles cited in this literature review are about populations that self-identify as LGBTQ.

Understanding identity, particularly the difference between sexual identity and sexual behavior, is a prerequisite to discussing gay and lesbian identity development (Levy, 2009). Historically, the definition of a homosexual has been behaviorally based. If someone “engages in sexual acts with another of his or her sex” (Altman, 1971, p. 21), that person is, by antiquated definition, a homosexual. This definition neglects the fundamental distinction between behavior and identity. Sexual behavior does not inherently constitute a person’s sexual identity. Self-identification is a necessary component of sexual identity. For example, the number of people self-identifying as gay, lesbian, or bisexual is much smaller than the number of people engaging in sexual behaviors with someone of their own sex

(Hassan, 2006; McNair, 2005). Furthermore, an individual may identify as LGB without having experienced sexual behaviors with another person.

Contemporary scholars usually distinguish between sexual behavior and sexual identity. Sexual behavior and sexual identity, along with attraction, make up three dimensions of sexual orientation (Laumann, Gagnon, Michael, & Michaels, 1997). The biological component of attraction is termed “sexual desire” (Nussbaum, 1999). Sexual desire is the innate drive a person has to be attracted to a certain other person. Sexual desire has two components – sexual attraction, which is the desire for sexual connection, and romantic attraction, which is the desire for a lasting relationship.

Many terms exist to describe and categorize individuals who are sexually attracted to and/or engage in sexual behaviors with a person of their own sex. Individuals who self-identify as having a non-heterosexual identity often choose to “situate themselves within known sexual categories” (Levy, 2009, p. 984).

Personal sexual identity may fall within a known “reference group” (Moran, 2010, p. 233), such as lesbian, gay, bisexual, or queer. The term “lesbian” describes a woman who identifies being sexually attracted to other women (Greenberg, et al., 2010). A woman who engages in sexual activity with other women may not necessarily self-identify using the term “lesbian,” but others may place her in the lesbian referent group (Parker, 2007). The term “gay” describes someone who identifies as being sexually attracted to other men (Greenberg, et al., 2010). A man who engages in sexual behavior with other men may not self-identify using the term “gay,” but others may place him in the gay referent group (Parker, 2007). The term

“bisexual” is used to describe someone who identifies as being sexually attracted to people of both sexes (Greenberg, et al., 2010). The same self-identifying and other-identifying issues apply for bisexuals as for gay and lesbian individuals.

Sexual orientation and gender identity development must also be acknowledged in individuals identifying as transgender. Gender identity and sexual orientation are distinct. Gender identity is a person’s awareness and acceptance of their own gender (Greenberg, et al., 2010) and gender expression is how a person chooses to demonstrate that gender based on traditional gender roles (Shi & Stevens, 2005). A person who is transgender identifies as belonging to a gender category (woman, man, both, neither, genderqueer) that is different from their biological sex. More research with transgender individuals is necessary, but Bilodeau (2005) found that transgender participants depicted their gender identity development paths and stages similarly to how LGB individuals described their sexual orientation development.

The term “queer” is often used to describe any sexuality that is not “normal” or heterosexual according to the majority’s social standards (Cass, 1979). “Queer” inherently resists definition (Jagose, 1996) because it represents the idea of rejecting society’s labels and oppressive binary definitions of sexual orientation and gender identity. It has become known not just as a political stance, but as an umbrella term for non-normative identities like lesbian, gay, bisexual, transgender, genderqueer, and “pansexual”, which is a term signifying the belief that “a person can develop physical attraction, love, and sexual desire for people regardless of their gender identity or biological sex” (Rice, 2010). “Queer” as an identity category

embraces fluidity of identity (Levy & Johnson, 2011). Researcher's attempts to generalize identity development are often challenged from a queer standpoint, because generalization involves categorization that in itself can be contradictory (D'Augelli & Patterson, 1995).

Diversity in sexual orientation and gender identity is often challenged by the general beliefs and attitudes in society. Heterosexism is "an ideology that sanctifies nongay norms and devalues gay experiences as inferior or insignificant" (Bauer & Jairam, 2008) and contributes to a "heteronormative" environment. A heteronormative environment is heterosexually-dominated and expects traditional binary sexual orientations. One LGBTQ individual depicted her experience within heteronormative society by saying, "How did I get this idea that it isn't okay to be who I am? I look at my culture, I look at my parents, and I'm like, okay, I get it, you don't give me a space to see that it was possible" (Ross, Dobinson, & Eady, 2010).

Compulsory heterosexuality, the broad assumption that people are biologically predisposed to be heterosexual (Rich, 1980), creates little room for non-heterosexual identities to be affirmed and celebrated. When heterosexuality is portrayed as the only normal option, variant sexualities are automatically deemed deviant (Anderson, 2007). This belief contributes to a dominant, heteronormative culture in which non-heterosexual individuals are marginalized, discriminated against, and their needs are overlooked.

The term MSM (men who have sex with men) stemmed from HIV research. It was acknowledged that sexual behavior, not gay identity, determines risk for HIV. Not long after the term MSM was coined, the term WSW (women who have sex with

women) showed up in the literature (Davis et al., 2011; Marrazzo, Koutsky, Kiviat, & Kuypers, 2001).

GAY & LESBIAN IDENTITY DEVELOPMENT MODELS

Attaining and accepting a gay or lesbian identity, disclosing that identity to others, and navigating life with the identity are typically acknowledged to be long and difficult processes (Wolburg, 2009). Acquisition of a lesbian or gay identity may vary depending upon a multitude of factors like age, gender, geographic location, class, ideological background, religion, race, and ethnicity. The experiences surrounding the possibility of being gay or lesbian, coming out to oneself, and coming out to other audiences are significant (D'Augelli & Patterson, 1995).

Researchers have posited several models for gay and lesbian identity development. According to Bilodeau & Renn (2005), the models fall into two primary categories: Stage models (linear) and life span, or non-linear, models. Stage models are characterized by a linear progression from unawareness of lesbian or gay identity to acceptance of identity, while life span and non-linear models “focus on specific processes of identity development within the sociocultural and lifespan context” (Schafer, 1976).

Stage Models

Literature about stage models reveals various steps and stages in “recognizing, accepting, and ultimately affirming one’s gay sexual orientation” (Wolburg, 2009, p. 167). Schaefer (1976) developed a model with three phases, and other models contain more details and steps. The Cass (2008) model is most widely known, and Cass herself stated that examining other stage models “reveals striking

similarity” (p. 145) between the models’ tenants of growth and change, both paramount to identity development. Most of these models do not technically use the concept of “process,” but they do reflect step-by-step occurrences and chronological stages (Botvin, Baker, Goldberg, Dusenbury, & Botvin, 1992; Nichter, Nichter, Vickovic, Quintero, & Ritenbaugh, 1997).

Cass (1979) model’s six stages:

1. *Identity Confusion*, characterized by feelings of turmoil, in which one questions previously held assumptions about one’s sexual orientation.
2. *Identity Comparison*, categorized by feelings of alienation, in which one accepts the possibility of being gay and becomes isolated from nongay others.
3. *Identity Tolerance*, characterized by feelings of ambivalence, in which one seeks out other gays, but maintains separate public and private images.
4. *Identity Acceptance*, a stage highlighted by as selective disclosure, in which one begins the legitimization (publicly as well as privately) of one’s sexual orientation.
5. *Identity Pride*, characterized by anger, pride, and activism, in which one becomes immersed in the gay subculture and rejects nongay people, institutions, and values.
6. *Identity Synthesis*, characterized by clarity and acceptance, in which one moves beyond a dichotomized worldview to an incorporation of one’s sexual orientation as one aspect of a more integrated identity.

Summarized by Fassinger (2009)

Stage models can be very useful to health professionals because they describe a central process that is common to many gay and lesbian individuals. The models help participants, clients, and professionals in “understanding, predicting, and normalizing experiences” (Fassinger, 1991, p. 168). People facing difficulties and challenges with their identity can find comfort in the fact that gay and lesbian identity development is complex and others experience similar patterns. The model

also helps professionals identify when someone's challenges are atypically demanding and should be addressed with special concern (Fassinger, 1991).

Although proponents of the Cass model say it approaches identity formation with sophistication, affirmation, and as a comprehensive standard model (Chassin, Presson, Rose, & Sherman, 1996; Chassin, Presson, & Sherman, 1984; Engels & Knibbe, 1999), more recent research highlights its limitations and the limitations of stage models in general (Migneault, Adams, & Read, 2005). Criticisms of these models center around their linearity. Progressing through the steps in order results in achievement of a stable, successful gay identity. Movement to previous steps in the model is seen as regression (Bricker et al., 2003). McCarn & Fassinger (1996) also note that the models do not account for diversity, namely of age, location, race, and flexibility of sexual orientation.

Stage models also tend to confound two gay identity development processes, "a self-identification process regarding sexual orientation and a group-membership identification process involving the awareness of oppression" (Wolburg, 2009). Even though these processes do overlap at times, they are not the same. Stage models, the Cass model's first stage in particular, place large emphases on political activism as a marker for gay self-identity development. Individuals who do not become politically active are assumed to have stopped developing, which is not necessarily true. The models also place little emphasis on intimacy between same-sex attracted partners, which is in fact significant.

Differences between men and women are also largely ignored in stage models. For example, the Cass (1979) model indicates it applies to women and men,

but it was developed mostly using the experiences of gay men. When tested by Cass in 1984, the model was found to hold for men and women but Cass stated the sample size was too small to draw conclusions. On the contrary, findings from an identity formation study with lesbian women by Degges-White, Rice, & Meyers (2000) do not support the Cass model (2005). Intimacy, development, and relationship patterns are different between men and women (Wolburg, 2009), and these models do not account for the differences.

Stage models are not enough to capture the identity processes of individuals who are bisexual or transgender (National Institutes of Health, 2006). The binary definitions of gender and sexuality that stage models operate under tend to exclude other non-heterosexual identities.

Life Span & Non-Linear Models

Like stage theories, these models have limitations. They were developed using small sample sizes and are based on little empirical data (Schafer, 1976). D'Augelli (1995), Fox (2006), Klein (2013), and Rhoads (2002) offer life span and non-linear models of sexual orientation identity development (Schafer, 1976). These models place more focus on developmental paths and contexts and less on the idea of successful identity formation occurring only at the end of a set of stages. D'Augelli (1995) asserts that gay, lesbian, and bisexual identity development models can evolve. D'Augelli based a life span model for LGB identity development on a metatheory of human development to break the oppressive framework of the earlier models.

Sexual orientation development, according to the life span model, is influenced by biological and social factors and may be “fluid at certain times in the life span and more fixed at others” (Schafer, 1976, p. 28). The life span model accounts for social factors and contexts that the stage models neglect to involve and can denote a wider set of diverse experiences. D’Augelli’s model allows for human development to occur in “concurring and multiple paths” (1995) that include identity development, peer relationship development, family relationship development, and community connection development. This life span model is six “identity processes,” but unlike the Cass model’s six stages, the identity processes do not belong in any set order.

D’Augelli’s (1995) six identity processes:

- *Exiting heterosexuality*, characterized by recognizing feelings of non-heterosexual attraction and disclosing them to others.
- *Developing a personal LGB identity*, meaning challenging the myths of what being gay, lesbian, or bisexual means, and being in a relationship of some kind that confirms notions about what it is to be non-heterosexual.
- *Developing an LGB social identity*, involving the creation of a supportive social group that is aware of a person’s non-heterosexual orientation, understanding it takes lengths of time for others to understand sexuality, and realizing that reactions to LGB identity may depend on timing and context.
- *Becoming an LGB offspring*, characterized by disclosure of identity to parents and navigating the parent-offspring relationship post-disclosure.
- *Developing an LGB intimacy status*, characterized by involvement in an intimate non-heterosexual relationship.
- *Entering an LGB community*, involving some degree of political and social effort. This process may not be experienced by everyone because it is risky.

Someone may not experience all the processes, or may experience certain processes more than others. These processes also account for some paradoxes of LGB identity expression (D'Augelli & Patterson, 1995) by allowing an individual to express certain processes in certain situations and not in others. For example, developing a personal and social LGB identity, but getting a new job and choosing not to express that identity in a new workplace (Schafer, 1976). A stage model would view this choice as a regression of identity, but life span models place the choice into a social context that offers justification.

RISK FACTORS FOR SMOKING

Individual Risk Factors for Smoking

Individual risk factors for smoking in LGBTQ individuals include loneliness, depression, stress, lack of support, maladaptive coping skills, other substance use, and the desire for social acceptance (Matthews, et al., 2011; Ryan, et al., 2001). The gay and lesbian population may experience addiction and substance use in ways that are unique to sexual orientation (Cheng, 2003). LGBT individuals who encounter ostracism and homophobia are likely to experience internalized homophobia, negative self-concept, loneliness, and “depression...and shame” (Yarhouse & Tan, 2005). These experiences may prompt LGBT individuals to seek acceptance, social relationships, and coping experiences in ways that incorporate the use of substances like nicotine (Ryan, et al., 2001).

Social and Environmental Risk Factors for Smoking

High rates of tobacco use in the LGBTQ community are related to several ecological factors including high levels of discrimination, frequent patronage of bars and clubs, lack of access to treatments, acceptance of tobacco by LGBT community leaders, and direct targeting of LGBT consumers by the tobacco industry (American Lung Association, 2009; Ryan, et al., 2001).

Overarching social risk factors include ideological factors such as religion, conservatism, and heteronormativity. Substance use, including nicotine, facilitates the creation and maintenance of social relationships and is a method of escapism (Jerome, Halikitis, & Siconolfi, 2009). LGBTQ individuals may use escapism to manage stress, to “cope with the stigma associated with sexual identity...or symptoms arising from external factors like the direct or indirect experience of violence or stigmatization” (Jerome, et al., 2009) resulting from homophobia. “Using escapism as a coping strategy is a learned behavior” (Jerome et al., 2009) and thus illustrates how socialization pathways are social risk factors that are directly influenced by the environmental risk factor of a non-accepting cultural environment. It is important to note that the coping strategy of socialization involving substance use does not actually address the environmental risk factors that cause the need to cope.

LGBT youth in an unsupportive environment may adopt smoking as a way to fit into a LGBT peer group that already has a very high smoking rate (Ryan et al., 2001). Conversely, LGBT youth in an environment supportive of their identities smoke less than youth who perceive their environment to be unsupportive.

Hatzenbuehler et al., surveyed nearly 30,000 11th graders in Oregon, and the researchers also sought out information about the social environment for LGB youth and created an index for their findings. This is one of the few studies in which researchers independently verified components contributing to a supportive social environment, such as a gay-straight alliance, instead of relying solely on students' perceptions of the social environment. Results show that more LGB youth smoked in the past 30 days than heterosexual youth, but the supportiveness of youth's social environments was linked to tobacco use. A more supportive environment decreased tobacco use even after researchers controlled for other community level and sociodemographic variables. Researchers noted that these results indicate interventions on a structural level, like school-based interventions, will help reduce the disparities in LGB smoking (2011).

Ryan et al., posit that LGBT individuals have historically been limited to socializing at clubs and bars, places where smoking is extremely prevalent. When the primary social outlet for LGBT camaraderie is also a primary location for smoking, it only makes sense for smoking rates to be disproportionately high (2001).

Tobacco companies began plans to aggressively corner the gay market in the early 1990s. One tobacco industry document depicted a marketing strategy called "Project SCUM", which sought to elevate tobacco product sales to the gay and homeless in San Francisco (American Legacy Foundation, 2008). The Altria Group, formerly known as Phillip Morris, placed ads into print media that would reach gay customers and capitalize on the deep-seated alienation and social isolation felt by

many LGBTQ individuals. The ads championed freedom to marry, freedom to choose cigarettes, and showed LGBT-friendly tobacco models at a time when the LGBT community faced much discrimination (The Fenway Institute, 2008). When news media brashly “exposed” the campaign as targeting the gay community, Phillip Morris denied the accusations. The gay community’s reactions to the targeting were mixed, with magazines taking a “beggars can’t be choosers for advertising” stance in terms of ad revenue, while the majority of the community perceiving the targeting negatively. In response to the backlash, Phillip Morris followed three techniques for controlling the situation- denying it, attacking the opposing entities, and co-opting with the gay community. In fact, some HIV organizations that aid LGBT individuals still accept money from tobacco companies (Smith & Malone, 2003).

SMOKING IN SUBGROUPS OF THE LGBTQ POPULATION

Ryan, Wortley, Easton, Penderson, & Greenwood (2001) conducted a literature review of 14 LGBTQ smoking papers and compared the results of these studies to national survey data on smoking in the general US population. The comparison shows that, despite a large range in smoking prevalence reports from LGBTQ studies (e.g. 11% to 50% prevalence rate among LGBTQ adults) the rates were generally significantly higher than in the general population. It is important to note that specific subgroups of the LGBTQ population smoke at different rates.

According to the American Lung Association, gay men have between 1.1 and 2.4 times the odds of smoking as compared to straight men (2010). It can be difficult to determine smoking rates amongst gay men because many studies use men who have sex with men as their participant pool, instead of specifically surveying self-

identified gay men. That being said, men who have sex with men not only have higher tobacco usage rates than non-MSM, but a study of 1780 MSM living in four large US cities showed that urban location is an indicator for cigarette smoking among MSM. More urban MSM (31.4%) were current smokers than general population MSM (24.7%), but the majority of MSM had used some form of tobacco in their lifetime (Greenwood et al., 2005). Reports about smoking amongst self-identified gay men, not just MSM, support the trend that gay men smoke more than straight men (American Lung Association, 2010).

A report in the American Journal of Preventive Medicine indicated that lesbians are more likely to be heavy smokers than heterosexual women (Ryan, et al., 2001). A study examining women's smoking rates at Women's Health Initiative found that smoking prevalence was higher among lesbians (10% to 14.4%) than among heterosexual women (7.2%) (Ryan, et al., 2001). The American Lung Association reports that lesbians were 1.2 to 2.0 times more likely to smoke compared to heterosexual women (American Lung Association, 2010). Two groups of researchers found smoking to be associated with age in the lesbian population, but in opposite ways. The earlier study indicates the rate of smoking among lesbians increases with age, while rates of smoking among women in the general population decline with age (Bradford, Ryan, & Rothblum, 1994). Findings from the more recent study indicate older lesbian women smoke less than younger lesbian women, and researchers speculated that the younger women were more likely to socialize in bars, which might explain the difference (American Lung Association, 2010).

Research about the prevalence of cigarette smoking by individuals identifying as bisexual is inconclusive, but bisexual men and women have higher smoking rates for any subgroup on which data is readily available (American Lung Association, 2010; Ryan, et al., 2001; Stall et al., 2001). The Healthy People 2020 Bisexual Health Fact Sheet indicates that up to 39.1-percent of men and women identifying as bisexual smoke cigarettes, while other researchers found bisexual men smoked at basically the same rates as general population men (Gruskin, Greenwood, Matevia, Pollack, & Bye, 2007). Most studies report that bisexual-identified people smoke at the same rates or higher rates than gay and lesbian-identified people (Conron, Mimiaga, & Landers, 2010; Dobinson, 2010). According to the Behavior Risk Factor Surveillance System among women in the state of Washington, bisexuals were found to be 2.2 times more likely to smoke than straight women, and 1.2 times, or 20%, more likely to smoke than lesbians (2003-2006). Gruskin et al. collected data from nearly 2000 participants also found that more lesbian and bisexual women had tried smoking and smoked on more days than general population women. Lesbians, bisexual women, and WSW still smoked more when results were stratified by age, and LGB non-Hispanic White women had higher rates of smoking than the general population. Results were also broken down by SES and education levels, but in general the results support findings from previous studies that indicate rates of smoking prevalence for the LGB population are higher than the general population (2007).

While there is no nationwide data about smoking prevalence among individuals identifying as transgender, the 2004 California Tobacco Use Survey

estimates that 30.7-percent of transgender individuals smoke (American Lung Association, 2009). Rates of cigarette smoking in LGBT youth are higher than in heterosexual youth (Hatzenbuehler, et al., 2011; Ryan, et al., 2001).

Measurement Issues

Lesbian and gay identities pose unique challenges to measurement in many public health studies. Bauer and Jairam (2008) discuss the issues arising from using various measures and identifiers in women's health research and how results are extremely difficult to compare between studies. The complexity of gay and lesbian identity development makes it difficult to assess, and incorrect information resulting from inadequate measures has negative implications for public health.

Bauer and Jairam's (2008) review of 201 papers found sexual orientation was measured in 100 different ways. Authors assert that two concerns arise when measures of sexual orientation are substituted indiscriminately: "(1) that if not comparable, the results obtained using one classification scheme may be errantly applied to another, resulting in inefficiency or mis-targeting of health resources toward those with low need or away from those with high need; and (2) that assumptions of interchangeability will obscure etiologic clues as to the behavior- or identity/community-based contributions to promotion or prevention of health-related conditions or behaviors" (Davis, et al., 2011, p. 384). For example, misidentification of identity and behavior may result in incorrect estimates of prevalence data. Gay and lesbian identity development is difficult to capture with many measures in use today. For example, a woman who has sex with women (WSW) but does not, yet or ever, self-identify as a lesbian, may answer "no" to an

item written with the word “lesbian” as an identifier. Her sexual behaviors would not be captured. Although she engages in sex with women, she does not identify as a lesbian. The opposite situation is also common. If an instrument asks about sexual behaviors only, a woman who identifies as a lesbian but has not has sexual encounters with another woman would also be missed. Additionally, it is very difficult to assess sexual identity development that is fluid (Shiffman, Ferguson, Rohay, & Gitchell, 2008).

Public health professionals must take extra care to utilize measures of sexual identity that assess behavior and identity independently, and account for flexibility of identity over time and situation. Health research is at the mercy of measurement. Public health programs and interventions created to benefit populations must be based on correct assessments. It is imperative for public health professionals to be familiar with both stage models and life span models of gay and lesbian identity development. Analyzing the differences *within* sexual identity development can make important differences clearer and interventions more effective (Numer, 2008)

METHODS FOR QUITTING SMOKING

Many methods for quitting smoking exist: Nicotine Replacement Therapies (NRT), prescription drugs, behavioral methods, holistic methods, and other methods that certain individuals use whether they are supported by research or not (American Cancer Society, 2012b). Some of the most common methods of quitting and aids to quitting are described here.

The American Cancer Society describes Nicotine Replacement Therapy (NRT) as products that introduce nicotine to the body in ways other than cigarette

smoking (2012b). This way, smokers can combat the negative feelings of nicotine withdrawal when they try to quit smoking. According to the American Cancer Society, there are currently five NRT approved by the Food and Drug Administration in the United States: Patch, gum, lozenge, nasal spray, and inhaler (2012b). The patch, available with or without a prescription, delivers nicotine through the skin in 2mg or 4mg doses. Higher dose patches are typically worn for four weeks and then lower dose patches are worn for four more weeks with a max usage of five months. Nicotine gum is also available with or without a prescription and comes in 2mg or 4mg doses. A maximum of 24 pieces may be chewed per day and usage should be tapered slowly for 6-12 weeks. Gum should not be used for more than 6 months. Lozenges are available without a prescription as well, come in 2mg and 4mg doses, and are typically used in a 12-week program with gradual weaning (American Cancer Society, 2012b).

The American Cancer Society notes that nicotine nasal spray and inhalers are NRT available through prescription only. The nasal spray is absorbed through the nose and is typically prescribed in a three-month supply but should not be used for more than six months. Inhalers have a rubber dispenser and replaceable nicotine cartridges. The nicotine vapor is absorbed through the mouth, not the lungs, and users dispense 4-20 cartridges per day for a maximum of six months. All of these NRT carry the risk of addiction, hence the maximum use recommendations. Currently there is no evidence of one NRT's superiority over another, but certain NRT may fit into a person's lifestyle or behavioral needs better than others. For

example, the inhaler mimics the act of smoking most closely and some find that helpful (2012b).

The American Cancer Society lists two prescription drugs that are approved by the FDA for smoking cessation: Bupropion, also known by the trade names Zyban ® and Wellbutrin ®, and Varenicline, known widely as Chantix ® (2012a).

Bupropion is an anti-depressant that works on chemicals in the brain to reduce nicotine cravings. It is in pill form, usually 150mg. Bupropion is started one to two weeks pre-quit and people who have quit 7-12 weeks later are often instructed to continue taking it to help maintain quit-status. Studies show that using NRT with Bupropion helps people quit. Varenicline also works in the brain, but it primarily blocks nicotine receptors. This decreases the pleasurable sensation of nicotine intake and decreases nicotine withdrawal symptoms. Varenicline is started seven days pre-quit, used for 12 weeks, and often 12 additional weeks to help maintain successful quit status. Studies show it can double chances of quitting and may work better than Bupropion in the short term. Rare but serious side effects have been reported. There is very little research on supplementing Varenicline with NRT (American Cancer Society, 2012a). Two other drugs are often used to aid in smoking cessation, Nortriptyline and Clonidine, but neither are approved by the FDA for smoking cessation. Both are shown to increase chances for smoking cessation (American Cancer Society, 2012a)

Other methods of quitting include hypnosis, acupuncture, low-level laser therapy, smoking deterrents, herbs and supplements, and atropine and scopolamine therapy (American Cancer Society, 2012a). The American Cancer Society reports

there is extremely little and most often no scientific evidence showing any of these methods help people quit smoking. Filters also do not work and studies even show that people using filters actually smoke more. Tobacco lozenges and pouches, which contain actual tobacco and not just nicotine, are marked by the FDA as too close to snuff or chew and are not smoking cessation tools. Nicotine lollipops, wafers, and lip balms are also not approved by the FDA as smoking cessation aids. Electronic cigarettes, known as e-cigarettes, have a chip inside to regulate their inhalable vapor production. Nicotine and flavoring cartridges are inserted. No clinical trials exist to support e-cigarettes as quit aids, they are not FDA approved as quit aids, and there are major doubts about their safety (2012a).

Only “4 to 7% of people are able to quit smoking on a given attempt without medicines or other help” (American Cancer Society, 2012a). ACS also indicates that smoking cessation groups have very low quit rates and long term successful maintenance of quitting rates. People who use NRT or medicines and behavioral/psychosocial tactics together have a much higher success rate for quitting than people who use only one main method of quitting (The National Tobacco Cessation Collaborative, 2011). Several studies show that quitting “cold turkey”, or suddenly with a complete withdrawal from nicotine, is a very common way to quit smoking with over 75% of long-term successful quitters in the studies indicating cold turkey as their method (Doran, et al., 2006; Fiore, et al., 1990; C. Lee & Kahende, 2007).

BARRIERS TO SMOKING CESSATION IN THE LGBTQ POPULATION

Unique factors contributing to the LGBTQ individuals' adoption of smoking practices have been well documented, but the same cannot be said for factors contributing to smoking cessation attempts, successful smoking cessation, and barriers to attempts and successful cessation. The gay and lesbian population experiences addiction and substance use in ways that are unique to sexual orientation (Cheng, 2003). Current research on smoking in the LGBTQ population is predominately epidemiological and focuses on the prevalence of smoking in the LGBT population. Existing behavioral and psychosocial studies focus on risk factors and attitudes toward smoking and tobacco use (CDC, 2009; Gruskin, et al., 2007; Keck, Burch, Hutson, Vela, & Lombardi, 2002; McKirnan, Tolou-Shams, Turner, Dyslin, & Hope, 2006), and authors of existing studies often indicate their findings "underscore the need to target tobacco control efforts for MSM" (Greenwood, et al., 2005).

The Mautner Project (2005) found the following:

"A lack of education about smoking-related health risks does not seem to explain the disparity in smoking rates. Of all participants in the May 2001 Harris Interactive/Witeck-Combs Communications survey, LGBT survey participants were the most aware of the health risks of smoking yet had the highest rates of tobacco use" (p. 1).

This information indicates that lack of knowledge about the harmful effects of smoking may not be a barrier to smoking cessation among LGBT individuals. Several studies discussed here show that barriers to quitting include: gay men perceiving the use of smoking cessation aids as "weak," gay social environments and

meeting locations being conducive to smoking, and the fact that intent to quit in LGBTQ individuals may be linked with very specific characteristics, such as positive HIV status and older age.

The constructs of motivation or intent to quit are relevant for participation in smoking cessation programs as well as achieving successful smoking cessation (Armitage & Arden, 2008; Ruge et al., 2008; Scott, 1993; Smit, Fidler, & West, 2011). As usual, there are few studies that specifically examined intent to quit among LGBTQ smokers, but the two that do have extremely interesting findings. Burkhalter, Warren, Shuk, Primavera, & Ostroff found that no sociodemographic or LGBT-specific variables were related to participants' intention to quit smoking (2009). A behavioral belief (underlying the Theory of Planned behavior) of wanting to feel like one's "ideal self" was found to most strongly enhance intention to quit. While Burkhalter et al.'s study found that the number of quit attempts in the past year was associated with intention to quit, Schwappach (2009) calculated that 45% of the survey respondents tried to quit an average of 1.9 times in the last year but did not link that finding with current intent to quit. This study found that "positive HIV serostatus...and higher age...were the strongest predictors for intending to quit within the next 6 months" and only the construct of attitude was significantly related to intention to quit (Schwappach, 2009).

In terms of perceptions of LGBTQ-specific smoking cessation groups, Schwappach's mixed-methods study indicates that gay men may have a higher likelihood of using smoking cessation programs that are specifically designed for gay men over a program designed for the general population (2009). Interestingly,

qualitative results from Schwappach's study reveal details about group-based services that were not seen in the survey results. This study indicates a major barrier to gay men seeking help to quit smoking — participants were very unsure about using group-based services for fear of appearing weak and losing their reputation. Researchers recommend taking great care in communicating about smoking cessation groups and involving respected gay men as group advisors (Schwappach, 2009). It is important to note that despite these studies indicating participants' interest in LGBTQ-specific smoking cessation groups, the efficacy and effectiveness of those groups is not definitively proven at this time.

Following their systematic review of tobacco use among sexual minorities in the USA, J. G. L. Lee, Griffin, & Melvin (2009) suggest approaches to reduce disparities in vulnerable populations. These suggestions include increasing community recognition of tobacco as problematic, cessation services targeted to the LGBTQ population, and addressing social environments that are conducive to smoking (2009).

Specialized support and resources are especially important in the area of cigarette smoking. Literature that addresses the needs and experiences of LGBT individuals in substance abuse programs indicates that specialized treatment programs for gay and bisexual men produce better results (Senreich., 2010). According to a report on smoking cessation groups issued by The Fenway Institute, the nation's leading health center for LGBTQ individuals, "Most participants in the LGBT Incubation Project highly valued being in an LGBT-focused treatment group. Many of them said they would not have joined a traditional cessation group at a

non-LGBT agency” (Scout, Bradford, & Perry, 2006). However, the studies of LGBTQ smoking cessation programs tend to be methodologically weak. Very little research exists on successful LGBTQ quitters. Increased knowledge about the barriers LGBTQ smokers face when trying to quit will aid in the development of effective smoking cessation aids for this population.

LGBT Smoking Cessation Programs

Three LGBT-specific smoking cessation programs with curriculum are currently operational (Makadon, Mayer, Potter, & Goldhammer, 2008). There is a difference between programs that target LGBT smokers and programs that actually offer LGBT-specific content as part of their curriculum. From the information available about these programs, The Last Drag (The National Tobacco Cessation Collaborative, 2011) and QueerTIP (Greenwood & Hunt, 2002) incorporate LGBT-specific content into the curriculum. These three programs are actual programs with curriculums, unlike organizations like the Gay American Smoke Out that simply offer quit tips and a goal quit day (Fiore, et al., 1990). Occasionally a non-LGBT agency will partner with an LGBT smoking cessation expert to add LGBT-specific smoking cessation components to existing programs. For example, Blue Cross Blue Shield of Minnesota partnered with the National LGBT Tobacco Control Network to increase the LGBT cultural component of BCBS Minnesota’s Stop-Smoking Program. The LGBT Tobacco Control Network provided “cultural competency training for the program’s tobacco cessation coaches” (C. Lee & Kahende, 2007) but there is no indication of LGBT-specific curriculum added to the Stop-Smoking Program.

The QueerTIP program appears to be the gold standard for LGBT-specific smoking cessation programs. Not only does it require session facilitators to be trained in smoking cessation by the ALA or the ACS, it requires them to be trained in LGBT content by a LGBT organization. The curriculum itself is steeped in LGBT content, even going as far as relating the Stages of Change for smoking to the stages in the coming out process to increase self-efficacy for quitting.

A review of available information and literature about the three LGBTQ smoking cessation programs reveals issues with low recruitment, high attrition, inconsistent measurement within programs, inconsistent measurement between programs, and for all programs other than QueerTIP, a total lack of follow-up after the final class. The fidelity of the program implementation itself appears to be superb, with sessions being held when scheduled and facilitators following curriculum.

The shortcomings with participant retention and assessments directly influence the outcome measures. When sample sizes are very small and pre- and post-tests are given inconsistently, there is little data collected from which to even evaluate initial, intermediate, and long-term outcomes.

BRIEF CRITIQUE OF LGBT SMOKING CESSATION PROGRAM LITERATURE

Few peer-reviewed studies are available on LGBTQ-specific smoking cessation programs, but unpublished literature is helpful in understanding program implementation and selected results. The six studies and reports critiqued here are hampered by small sample sizes, weak study designs, and poor follow up but still

offer valuable lessons learned and provide a basis for further research. Additionally, smoking cessation program implementation groups sometimes wrote program summary reports, case study reports, or implementation manuals with embedded pilot studies.

Methodological Issues

Nearly all of the studies and reports for LGBT smoking cessation programs contain small sample sizes, convenience sampling, pre-post design, inadequate follow-up on quit status, and lack control or comparison groups. For example, the QueerTIPs manual was developed during a pilot study with a relatively small number of people, no long-term follow-up, and no comparison group. Despite the reported 40-percent quit rate at the last program day, it is not known whether this tailored approach improves quit rates, program utilization and satisfaction among LGBT smokers compared to standard cessation methods (Greenwood & Hunt, 2002).

Instrumentation

Most studies included psychosocial measures, sexual identity and behavior questions, and standard measures for smoking behaviors, such as the Fagerstrom Test for Nicotine Dependence. Pilot study researchers developed their own survey measures for program satisfaction, which leaves room for questioning the validity of those measures. One study in particular inconsistently administered assessment tools across five smoking cessation groups, resulting in very few post-program

surveys conducted. Only 20 matching sets of pre-post surveys were available which is less than half of the participants (GentiumConsulting, 2005).

Analysis and Results

Study authors often made statements about the success of their participants' quit rates by comparing them to national data or quit outcomes from large-scale programs like those run by the American Lung Association. The studies that made this type of comparison had no control group, and it is questionable to compare the outcome of a study with a small number of participants to national data. For example, one study of gay men in a seven-week program said that n=44 (76-percent) were confirmed to have quit by week seven. These results were favorably compared to the UK's national monitoring data which "reports an average of 53% success" (Harding, Bensley, & Corrigan, 2004). The QueerTIP program reported that 40-percent of participants had quit by the last class, which was similar to standard quit rates seen by the American Cancer Society and the American Lung Association (Greenwood & Hunt, 2002). It is understandable that authors would compare their quit rates to such different sources of quit rates seeing as there is literally no other group to compare to, but this speaks to the fact that direct comparison groups are needed to make more appropriate judgments about a program's success.

Feedback from participants about the smoking cessation groups was enlightening. According to a report on smoking cessation groups issued by The Fenway Institute, the nation's leading health center for LGBTQ individuals, "Most

participants in the LGBT Incubation Project highly valued being in an LGBT-focused treatment group. Many of them said they would not have joined a traditional cessation group at a non-LGBT agency” (Scout, et al., 2006) and another study found that “most wanted LGBT-specific services” (Greenwood et al., 2001). Other programs also reported very high program satisfaction, and in one case there was a significant shift in opinion (to very important) that smoking cessation classes be held in gay-friendly space (Greenwood, et al., 2001; Walls & Wisneski, 2011).

LGBTQ-specific smoking cessation programs reported high success rates ranging from 40 to 88.9-percent quitting by the last day of class (Walls & Wisneski, 2011). Despite promising quit-rates such as those reported above, most of the studies did not follow-up on quit status past the last day of the program (GentiumConsulting, 2005; Harding, et al., 2004). Walls et al. (2011) maintained follow-up until six months post-program at which time quit rates had decreased. Ideally, self-report of cessation verified by CO test should be obtained at one, three, six, and nine months post-program. Studies that only measure quit rates on the final day of the program miss out on valuable relapse data that could reveal more about the long-term success or relapse of a program’s participants.

THEORETICAL FRAMEWORK

The researcher used the Transtheoretical Model’s stages of change for smoking cessation to recruit participants in the maintenance stage of quitting smoking for the qualitative portion of this study. The Social Ecological Model (SEM) guides the researcher’s exploration of successful quitting by LGBTQ individuals, and

behavioral constructs (self-efficacy) and personal/cognitive constructs (outcome expectations) from Social Cognitive Theory inform the SEM.

Transtheoretical Model

The Transtheoretical Model describes an individual's motivation and readiness to change a behavior, and actually evolved from studies about smoking cessation (Prochaska, Diclemente, & Norcross, 1992). A person moves through stages when attempting to change a behavior: Precontemplation, contemplation, preparation, action, maintenance, and termination. Someone in the precontemplation stage does not intend to act toward behavior change and may not view their behavior as problematic, while someone in the contemplation stage recognizes their behavior is problematic and starts to consider changing the behavior. An individual in the preparation stage intends to change behavior soon and may start making small advances toward changing the behavior. The action stage is when a person has made real, noticeable changes in their behavior, and when the person has kept up the behavior change for a specific time period (like not smoking for six months) they enter the maintenance stage. Finally, individuals enter the termination stage when they are positive they have no desire to return to the behavior and it is not even a consideration in their life. This stage is usually not used in addiction treatment. These stages are usually linear but can also be described as circular, with a person cycling from action to maintenance and then relapsing back to action. The researcher is using the Transtheoretical Model to help identify where a participant is in the quitting process. Participants in Phase 1 are in the

maintenance stage of the Transtheoretical Model, meaning they had successfully quit smoking for more than six months at the time of the interview.

Social Ecological Model

The Social-Ecological Model allows for situation of risk factors within different levels of an individual's context, and the model acknowledges that risk factors from several areas influence a behavior. No single risk factor explains a health behavior or outcome (Behavior Risk Factor Surveillance System, 2003-2006). The Centers for Disease Control and Prevention adapts the SEM for a host of different health behaviors (American Lung Association, 2010). The model includes individual, relationship, community, and societal factors and represents their related influences upon health.

The individual level includes factors like biology and personal history that influence the likelihood of smoking. These factors can include education, income, age, and LGBTQ identity. Prevention and treatment strategies at the Individual level promote beliefs, attitudes, and behaviors to help prevent and decrease tobacco use (American Lung Association, 2010).



The second level of the SEM, the relationship level, investigates the close relationships that contribute to the health behavior. Family, friends, peer groups, and partners have great influence on an individual's behavior. This is particularly true with peer influence surrounding smoking and tobacco use (Baillie, Lovato,

Johnson, & Kalaw, 2005). Since more LGBTQ individuals smoke, the likelihood of an LGBTQ individual's friends and peers smoking is higher, and more peer influence is present toward smoking. A LGBTQ individual's family relationship may also contribute to smoking behaviors. If tension exists between an LGBTQ individual and the family due to LGBTQ identity, that individual may feel the need to belong to a similar peer group. Prevention efforts for LGBTQ at this level include mentoring programs, involvement in PFLAG (Parents and Friends of Lesbians and Gays), and other programs that encourage acceptance and healthy relationships.

The community level, the third level, examines the "settings" where second level relationships take place. These settings include places of education, workplaces, neighborhoods and living situations, religious culture, and socialization locations like bars (American Lung Association, 2010; Wilcox, 2003). Investigation at the community level seeks out qualities of the settings that are linked with an individual's smoking behaviors. For example, since bars have historically been safe and heavily utilized settings for LGBTQ peer socialization, and bars typically encourage smoking, the bar setting is linked with an individual's smoking behaviors. Prevention efforts target the policies and climate of a system. A prevention effort in the bar example would be to have a "smoke free night" at LGBTQ bars, with the goal of the campaign being a change in the community climate toward health.

The fourth level, the societal level, identifies the broadest factors in society that facilitate and maintain a climate that supports or discourages smoking. Societal factors include broad cultural norms, social norms, "economic, educational, and social policies" (American Lung Association, 2010) that sustain health inequalities

between the LGBTQ population and the general population. Factors on the fourth level can be addressed with policy changes like marriage equality. Policy changes, like marriage equality, can influence Community, relationship, and individual factors and positively impact smoking behaviors.

Social Ecological Framework and LGBTQ Smoking

The ecological framework can be used to analyze the interrelationships among the risk factors within and between each level that influence smoking in the LGBTQ population. A multi-level, integrated model of factors contributing to smoking in the LGBTQ population offers insight into the true complexity of the behavior. An example of the interrelationships between SEM levels could be as follows: Heteronormativity is a viewpoint holding that heterosexuality is the only normal and acceptable orientation. A heteronormative stance usually asserts that sexual orientation, biology, gender roles, and gender identity should align (Creswell, Plano Clark, Gutmann, & Hanson, 2003). Heteronormativity is a broad cultural norm (Societal Level) that limits equal rights for LGBTQ individuals and makes discrimination against LGBTQ people more “acceptable.” The idea that LGBTQ identity is not natural is also manifested within certain religious ideologies present within other levels of the SEM. These ideologies create friction between those holding the religious beliefs and LGBTQ individuals, who are viewed as deviating from “acceptable” religious standards. Researchers studying the influence of family and friends reactions to LGBTQ identity (Relationship Level), which are often based on religious ideologies, found that LGBT youth who reported higher levels of rejection and hostility were significantly more likely to engage in tobacco use

(American Lung Association, 2009). This is just one example of how the SEM allows us to identify and explain how interrelated ecological forces may impact smoking “above and beyond individual-level main effects” (Wilcox, 2003).

Since all the factors are related, investigation at each level is essential for understanding how successful smoking cessation occurs. Interventions may have a longer-lasting, more significant effect if they focus on more than just individual determinants of health (Shi & Stevens, 2005).

Social Cognitive Theory

Social Cognitive Theory (SCT) maintains that the core set of determinants for health behaviors include, “knowledge of health risks and benefits of different health practices, perceived self-efficacy that one can exercise control over one’s health habits, outcome expectations about the expected costs and benefits for different health habits, the health goals people set for themselves and the concrete plans and strategies for realizing them, and the perceived facilitators and social and structural impediments to the changes they seek” (Bandura, 2004). Two constructs of the Social Cognitive Theory were used to understand behavioral and personal/cognitive factors involved in LGBT smoking cessation. The behavioral construct used was Self-Efficacy, and the personal/cognitive construct used was Outcome Expectations.

Self-Efficacy: Self-efficacy is a person’s confidence in their ability to change a behavior, such as smoking habits (Bandura, 2004). According to Bandura, a person’s perceived self-efficacy for a behavior influences actualization of that behavior. Four sources comprise self-efficacy for successfully accomplishing tasks such as quitting smoking and maintaining quit status. These sources are Performance

Accomplishments, Vicarious Experience, Social Persuasion, and Physiological and Emotional States (Bandura, 1995, 1997, 2004).

- Performance Accomplishments, also called “mastery experiences”, carry the most weight when it comes to self-efficacy development. A mastery experience takes place when a person successfully does a task, such as refraining from smoking a cigarette for a desired period of time.
- Vicarious Experience, also known as “social modeling” or “modeling”, involve seeing someone similar to oneself successfully accomplish a task. This increases self-efficacy for a person’s ability to accomplish similar tasks. For example, witnessing a friend or peer group member quit smoking would be a modeling experience (Bandura, 1995, 1997, 2004).
- Social Persuasion, also called “verbal persuasion”, involves encouragement from others that convinces a person they possess the skills and abilities to successfully accomplish a task. Familial or peer support and verbal encouragement for quitting smoking and maintaining quit status are examples of social persuasion.
- Physical and Emotional States, also referred to as “psychological responses”, include responses like anxiety, stress, nervousness, sweating, and other states that can influence a person’s perception of their self-efficacy. It is important to note that the presence of the responses is not as important as a person’s reaction to the responses (Bandura, 1995, 1997, 2004). For example, a person who acknowledges and learns to manage their anxiety about

quitting smoking can prevent it from having a negative effect on their self-efficacy for quitting.

Outcome Expectations: Outcome expectations, a personal/cognitive factor for behavior change, are what a person expects to happen as a result of a behavior (Bandura, 2004). The outcome can be either positive or negative, and the anticipated outcome has bearing on whether or not the person will undertake the behavior. If a behavior such as quitting smoking is expected to produce a negative outcome, like weight gain, a person may refrain from making a quit attempt. However, the positive outcome expectations of saving money and improving breathing capacity may outweigh the negative outcome expectation of weight gain, and the person may continue on with their quit attempt. According to Bandura, self-efficacy and outcome expectations are related in the sense that a person who has high self-efficacy for a task tends to expect positive outcomes as a result of completing the task, and vice versa (1997).

CHAPTER SUMMARY

Gay and lesbian identity is cited as a risk factor for an incredible array of physical and mental health problems including obesity, mental health, substance use, sexual and reproductive health (Bauer & Jairam, 2008). LGBT identity is also a risk factor for smoking and tobacco use. Smoking causes cancer of the bladder, stomach, oral cavity, pharynx, larynx, esophagus, kidney, lung, pancreas, and cervix, and causes acute myeloid leukemia (USDHHS, 2004). Sexual identity is influenced by a multitude of oppressive social structures. Many non-heterosexual individuals seek acceptance with peers who exhibit unhealthy behaviors, and individuals often

cope using unhealthy substances. It is important that public health professionals acknowledge non-heterosexual identity and social context as risk factors and incorporate them into research and intervention efforts.

CHAPTER 3

METHODOLOGY

Procedures for Phase 1 and Phase 2 of this study were approved by the Institutional Review Board at the University of Georgia.

APPROACH

The problem determines what qualitative method should be used (Trow, 1957) and smoking in the LGBTQ population is a complex problem. Smoking cessation in the LGBTQ population is also a complex phenomenon to understand, and the field is in need of more understanding. Trow says that different methods are not superior to one another, but one method is often of more use in a certain context (1957). A study of LGBTQ smoking cessation benefits greatly from the method of grounded theory. Grounded theory allows for more exploration of the social context's influence on a phenomenon than phenomenological methods allow.

The core goal of grounded theory is to create theory based on participants' meaning making about their lives. A study to explore how social experiences, LGBTQ identity, and the environment affect participants' cigarette smoking behaviors would benefit from theory creation because the field is underdeveloped. Glaser and Strauss' focus on the researcher discovering concepts and hypotheses from the participants' data through comparative analysis is appropriate for a study on smoking cessation. This straightforward approach allows for critical thinking and

lends itself to use in public health interventions in the future. Smoking cessation behaviors are often part of an extraordinarily complex process and grounded theory is a perfect methodology for in-depth study.

The research will continue into the quantitative phase and the researcher will use findings from the qualitative portion to develop and disseminate a survey to LGBTQ individuals. The survey will assess findings from the qualitative portion on a much larger scale in the United States.

SEQUENTIAL EXPLORATORY DESIGN

A mixed methods research design is one that involves data collection and analysis using quantitative and qualitative methods within one study (Creswell, 2005). Approximately 40 mixed methods research designs exist in publications (Tashakkori & Teddlie, 2003), including the sequential exploratory design used in this study (Creswell, et al., 2003). A sequential exploratory design “is characterized by an initial phase of qualitative data collection and analysis, followed by a phase of quantitative data collection and analysis” (Tashakkori & Teddlie, 2003, p. 227). As with other mixed methods designs, a connecting stage occurs when results from the qualitative phase are used to inform the quantitative phase (Hanson, Creswell, Plano, Clark, Petska, & Creswell, 2005). The qualitative phase is seen as primary in this design, although the researcher does incorporate findings from both phases together into the interpretation (Creswell, et al., 2003). The “findings from one method are elaborated, illustrated, or clarified by the findings of the other method” (Mehl, 2000).

Qualitative research is particularly helpful for “research topics that are at the exploration stage” (Mathie & Carmozzi, 2005). Other researchers have successfully used both qualitative and quantitative methods in studies to explore the different contexts of tobacco use in a variety of settings (Mehl, 2000). Joining quantitative and qualitative research in tobacco control can maximize the strengths of both processes (Mehl, 2000). Starting with qualitative inquiry, a characteristic of the sequential exploratory design, is useful for developing instruments and exploring topics (Creswell, et al., 2003). The qualitative phase is vital in finding variables to investigate with quantitative methods when the variables are not currently known, to see how generalizable the qualitative results may be (Morse, 1991), and to “explore a phenomenon in depth and then measure its prevalence” (Creswell & Plano Clark, 2007, p. 75)

A sequential exploratory approach is fitting for this study’s aims, particularly because the relationship between successful quitting processes and LGBTQ identity has yet to be explored. Qualitative inquiry has been used to determine answers to “why” and “how” questions, such as “why people smoke” (Mathie & Carmozzi, 2005). The qualitative results of this study will not only be important stand-alone data of LGBTQ smoking and self-quitting behaviors, they will inform the quantitative portion of the study which serves to elaborate upon them.

RESEARCHER SUBJECTIVITIES

Qualitative researchers should bracket themselves to prevent their experiences from influencing the participants’ interview responses or the data analysis (deMarrais, 2004). Dr. Corey Johnson, a committee member of mine,

conducted my bracketing interview. He recommended we call it a “positionality” interview because “bracketing” is more of a phenomenologist’s term and I am using grounded theory methodology. Dr. Johnson conducted my pre-study positionality interview on October 10th at 2:30 in the afternoon. It was a Wednesday. My interview lasted almost 90 minutes but felt like 20. Perhaps it is because everyone’s favorite topic is themselves, but more likely the time flew by because Dr. Johnson is an extremely skilled interviewer and a very comfortable presence. Needless to say, I was finally able to articulate and analyze the multitude of reasons why I do what I do.

First, it is important to know where I stand in the big picture of reality and knowledge. Epistemology deals with the nature of knowledge, as in how knowledge is created and acquired. Ontology has to do with the nature of reality and how it exists (Lapan, Quartaroli, & Riemer, 2012). As a researcher situated in the constructivist epistemology, I believe that “realities are social constructions of the mind” (Guba & Lincoln, 1989, p. 43), and therefore a researcher seeking to understand a participant’s reality is actually accessing socially constructed knowledge. As a research paradigm, constructivism rejects the idea of a positive reality and instead says that each individual’s view of reality is influenced by their past and social context. Constructivism actually highlights the subjective nature of the researcher/participant relationship (Hayes & Oppenheim, 1997; Pidgeon & K, 1997). The very nature of interaction between the researcher and participant, from a constructivist epistemology, leads to a co-creation of knowledge. While the researcher-participant interaction works to co-create knowledge, I still wanted to

have a very clear sense of my beliefs on my topics of LGBTQ identity, social context, and smoking. I want to make sure I put enough boundaries between myself and my participants so as to let their voices truly speak out.

The lesbian, gay, bisexual, transgender, and queer population is one that has the odds stacked against it in terms of health. Many of the risk factors for mental and physical health issues stem from social pressures and discrimination against the LGBTQ population. I want to see how some LGBTQ individuals are able to quit smoking when so many others in the population continue to smoke.

My experiences with the LGBTQ community, with my family and friends, and with smoking have guided my situation within the constructivist epistemology and my methodological choice for the bulk of my dissertation. In a world where each individual's reality is constructed according to their own context, and that context is often shared by others, I along with many researchers believe grounded theory is an appropriate research technique given the constructivist epistemology (Charmaz, 1994, 1995; Norton, 1999). Grounded theory originally stemmed from symbolic interactionism, a component of sociology. Symbolic interactionism holds that meaning is conveyed and interpreted through social interactions with people (Blumer, 1986). I have never been able to completely separate myself from what I do. I appreciate that I can study things that are vital to my existence using methodology that makes sense to me.

QUALITATIVE INQUIRY: GROUNDED THEORY AS METHOD

The purpose of grounded theory as a method is to create models of behavior that are grounded in participant data (Glaser & Strauss, 1967). Grounded theory's

evolution may stem from the idea that “each research project is different, and that each person using methodology...infuses the method with some aspect of the self and of the project and in doing so changes that methodology somewhat to make it more relevant” (Corbin, 2009). The main goal of grounded theory is to generate themes from data that somehow explain aspects of the social world, and the constant comparative analytic approach is the core method for grounded theorization (Glaser & Strauss, 1967; Strauss & Corbin, 1990). Hancock (1998, 2002) asserts that grounded theory is different from phenomenology because grounded theory surpasses phenomenology because rounded theory produces new explanations that researchers employ to create new theories about the phenomenon under study, instead of just having a greater understanding of the phenomenon. Hancock also notes that Strauss and Corbin developed grounded theory while studying healthcare, and it is still exceedingly applicable to healthcare settings. The theories grounded in data can help healthcare professionals tackle current health promotion problems in innovative ways.

Two major purposes of qualitative research are to understand and recognize processes and to explain and depict phenomena that are not clearly understood (Marshall & Rossman, 1995). Grounded theory offers researchers the ability to develop and verify substantive theory (Mirriam, 2002). Starks and Trinidad note that grounded theory stems from sociology (2007). In reference to LGBTQ smoking, a grounded theory research question might read, “How does the basic process of quitting smoking happen in the context of the LGBTQ social environment?”

Data collection can occur in the form of participant observation and interviewing for both methods (Starks & Trinidad, 2007). Both methods require the researcher to “bracket” his or her experiences and put all judgments aside when interacting with participants. Grounded theory has been used in health and healthcare research. The theories generated by grounded theory are most often for a researcher and practitioner audience that uses them to design interventions (Starks & Trinidad, 2007).

Data Analysis

Qualitative data, often from transcripts made from audio recorded interviews and focus groups, is most commonly analyzed inductively. Inductive analysis means constructing meaning from participant descriptions of their experiences (Lapan, et al., 2012). Phenomenology and grounded theory have slightly different methods of analysis, although both analyze content by revisiting the data continuously, categorizing it, and taking care to represent findings in a way that remains truthful to the original data (Lapan, et al., 2012). Content analysis using grounded theory as a method involves actively building theory during the analysis process and building upon that theory in subsequent data collection. Researchers often choose to code and categorize data from interview transcripts, and eventually condense the data into several themes based on similar content (Lapan, et al., 2012).

The grounded theory method of analysis involves open coding, when every passage is read and labeled with a code (Boeije, 2002), axial coding, when codes from different interviews with similar content are compared and analyzed to further contextualize the subject (Boeije, 2002, p. 397- 398), and usually selective coding,

when the researcher picks a core category and then validates and relates it to other categories (Strauss & Corbin, 1990) . The initial codes are usually inductive, while the axial coding process is more abductive so the researcher can move back and forth between the data while conceptualizing interpretations of the data (Charmaz, 2009). The researcher examines “concepts across their properties and dimensions” (Starks & Trinidad, 2007, p. 1373) and cultivates frameworks that assimilate concepts into larger categories.

Trustworthiness in Qualitative Inquiry

Trustworthiness in qualitative inquiry is evaluated according to four criteria proposed by Lincoln and Guba (1985): credibility, transferability, dependability, and confirmability. Credibility means correctly representing what the researcher says he or she is representing. Credibility can be ensured by having enough participants to get an accurate understanding of the social world the researcher claims to understand, by triangulating and using multiple methods to understand a phenomenon, by performing member checks with participants to see if the researcher’s interpretation of data is accurate, etc (Zhang & Wildemuth, 2009).

Zhang & Wildemuth continue describing the components of trustworthiness.

Transferability refers to how much a constructed hypothesis can transfer to another setting, dependability is how the internal processes of the study hold together and how the researcher documents the phenomena as it may change, and confirmability refers to how the data is represented by the researcher and if that representation can be successfully acknowledged by others. Dependability and confirmability are

assessed by auditing the research trail, and researchers should keep detailed, accurate records of their process (2009).

Finally, Janesick (2000) warns researchers to avoid falling prey to “methodolatry,” or clinging to a certain method without critically reflecting on its application to a certain study. Researchers can alienate their participants by using a method that is inappropriate, or in essence, finding more value in the method itself than what the participants have to offer.

PHASE 1: QUALITATIVE METHODOLOGY

The qualitative research design consists of nine face-to-face interviews that lasted approximately one to one-and-a-half hours each. The interviews were semi-structured and audio recorded. Half of the audio-recordings were transcribed by the researcher and half by a professional transcription service. The researcher continued interviewing and concurrently analyzing transcripts until theme saturation occurred. Interview topics included personal LGBTQ identity development, LGBTQ social experiences, smoking adoption, smoking cessation, and managing LGBTQ identity within the LGBTQ social environment.

Recruitment

Participants were recruited using newspaper ads in local papers and queer-focused publications, postings to online message boards, advertising at queer events like pride festivals, word of mouth, and snowball sampling. Snowball sampling is often used in exploratory research, and “during the course of one interview, the researcher asks for names of others who could supply relevant information. The

selection of cases is therefore not systematic but rather evolves as the research proceeds” (Mathie & Carmozzi, 2005). Participants had to identify as lesbian, gay, bisexual, transgender, or queer, be at least 18 years of age, live in the Northeast Georgia or Metro Atlanta area, and be in the maintenance stage of the Transtheoretical Model’s Stages of Change for smoking cessation. For the purposes of this study, the Maintenance stage is defined as having successfully quit smoking cigarettes for more than six months without being treated at the time of the study.

Grounded theory studies that rely on theoretical sampling may continue recruiting participants until the researcher achieves theoretical saturation (Starks & Trinidad, 2007). It is vital to choose a sample of participants “from which the most can be learned” (Mirriam, 2002). Selective sampling, sometimes called purposive sampling, when participants are selected prior to data collection, was used in this research (Draucker, Martsolf, Ross, & Rusk, 2007). Based on findings from the first five interviews, the researcher employed “theoretical sampling” to seek out participants with specific experiences shown to be important through grounded theory analysis of transcripts. The fact that grounded theory involves theory development concurrently with data collection and analysis allows for theoretical sampling. Theoretical sampling is the process of collecting data as a theory evolves instead of collecting data based on a predetermined sample (Strauss, 1987). Qualitative researchers often use theoretical sampling to further investigate a topic that arises during the data collection process.

Data Collection

The qualitative research data collection process consisted of ten face-to-face interviews that lasted approximately one to one-and-a-half hours each, but one was not used because the participant revealed he was still smoking after the interview ended. The interviews were semi-structured and audio recorded. Half of the audio-recordings were transcribed by the researcher and half by a professional transcription service. The researcher interviewed and concurrently analyzed transcripts until reaching theoretical saturation (Starks & Trinidad, 2007). Theoretical saturation is the point at which the researcher has worked with enough participants and gathered enough data that new participants' voices do not add new information to the current themes (Fontanella et al., 2011). The researcher let the participants drive the setting of the interviews. If the participant was comfortable interviewing in a quiet, public area and the environment was conducive to a face-to-face interview on this topic, the interview took place at that area. Examples include a room at the public library, private section of a local coffee shop, or a conference room. Participants received one \$25 gift card as a token of appreciation for their time.

Interviews were used instead of focus groups for several reasons. First, the nature of the topic is often seen as very sensitive and participants may feel more comfortable in a one-on-one setting. Second, while data collection through focus groups has the added benefit of group members building upon one another's insights, the researcher chose the in-depth interview as the primary method of data collection. Focus groups can be challenging to moderate and, "Due to the nature of

the exercise, data from the focus group meeting may be 'lost' to the interviewer. While he or she may, accurately or otherwise, obtain an overall sense of the group response, the individual responses of participants may be lost" (Goodwin & Happell, 2009, p. 64). The researcher's intention is to create a shared portrait of smoking cessation from multiple individual interviews and concurrently interview participants and develop theory. The focus group method is not as well suited for grounded theory methodology in this study.

Data Management

The researcher wrote a brief abstracts for each participant to summarize the experience interviewing each participant and the interview itself. The researcher transcribed half of the interviews and used a professional transcription service to transcribe half of the interviews. All transcripts were kept under lock and key, electronic copies were password protected, and electronic audio-files were password protected.

Data Analysis

Interviews were audio recorded and transcribed using ExpressScribe transcription software and a professional transcription service. Interview transcripts were analyzed using open coding, when every passage is read and labeled with a code (Boeije, 2002), axial coding, when codes from different interviews with similar content are compared and analyzed to further contextualize the subject (Glaser & Strauss, 1967), and selective coding, when the researcher picks a core category and then validates and relates it to other categories (Strauss & Corbin, 1990). The researcher analyzed interview content using the constant

comparative method with preliminary open coding followed by axial coding of categories and themes for each transcript (Glaser & Strauss, 1967; Strauss & Corbin, 1990), and then the researcher compared axial codes between transcripts. The researcher used HyperRESEARCH, an organizational data analysis software program, to aid in theme identification for the grounded theory approach.

Trustworthiness

Credibility was established during Phase 1 in several ways. First, by conducting interview until theoretical saturation was reached, meaning no new themes or ideas were generated by interviewing more participants. Second, after each interview, the researcher took a few minutes to review from memory the main points the participant covered in the interview. Due to confidentiality measures and IRB guidelines, the participants were not contacted individually after data analysis to check their participation in the study. However, participants were given the researcher's information and were encouraged to contact the researcher to review their data and how the researcher analyzed it. This voluntary form of member-checking resulted in two participants reviewing their interview information in the data analysis for researcher accuracy and truthfulness in the researcher's interpretation of their intended meaning (Zhang & Wildemuth, 2009). The theories developed in Phase 1 were tested in a larger scale in Phase 2 for the sake of assessing their transferability to another setting.

The researcher's peers reviewed the data for the sake of assessing its conformability as represented by the researcher. The committee confirms that the data was represented successfully. Additionally, the researcher kept a very detailed

research trail that included purposive smoking records, interview notes, interview guide evolution, and reasoning for changes made during the Phase 1 qualitative study (See Appendix A for Interview Guides).

Phase 1 Timeline



PHASE 2: QUANTITATIVE METHODOLOGY

The quantitative approach was a cross-sectional assessment of LGBTQ smoking cessation in the United States. The quantitative Phase 2 survey development was based on findings from the qualitative phase and assessed smoking cessation methods, LGBTQ identity, and LGBTQ social context in reference to successful smoking cessation. This survey was disseminated electronically (See Appendix B for Survey Instrument).

Sampling

Participants identified as lesbian, gay, bisexual, transgender, or queer. Participants were 18 years of age or older and lived in the United States. Phase 2 participants had to be either current smokers or have ever smoked. Participants were recruited in a wide variety of ways, with the goal of electronically disseminating the survey to as many U.S. LGBTQ smokers and successful quitters as

possible. Phase 1 participants were asked to recruit their LGBTQ friends and acquaintances if they felt comfortable doing so. The researcher also used online recruiting in the form of announcements in LGBTQ forums, news sites, discussion boards, and online newspapers. The researcher received help in recruiting participants through LGBTQ outreach and activist organizations across the country. The researcher initially contacted 120 LGBTQ community centers across the country in January, 2013. Of the 120 contacted, an unknown number disseminated the survey link to their community members in May through July 2013. These organizations announced the survey via their online mailing lists and provided a link to the survey to potential participants. All participants were encouraged to send the survey link to others.

Data Collection

The anonymous survey was disseminated online May - July 2013. Qualtrics is the electronic platform that hosted the survey. The survey assessed participants' smoking status and behaviors, nicotine dependence, quitting behaviors, and LGBTQ identity, along with demographic information. Established scales for smoking and tobacco are the CDC's Question Inventory on Tobacco (CDC, 2007), The Fagerstrom Test for Nicotine Dependence (Heatherton, Kozlowski, Frecker, & Fagerstrom, 2001 & Fagerstrom, 2001), and Smoking Stages of Change Short Form (DiClemente et al., 1991). Participants' perceived importance of their LGBTQ identity was measured with an adapted LGBT Identity Salience scale (Callero, Howard, & Piliavin, 1987). Questions created from Phase 1 findings were also included after pilot testing. These questions were about smoking adoption and consolidation ages, acquiring

cigarettes, risk awareness from smoking, perception of self as a smoker, progression of smoking, smoking as a means of coping and social facilitation, self-efficacy for quitting and maintaining quit status, social support for quitting and staying quit, quit attempts and methods, and positive and negative outcome expectations (See Appendix B).

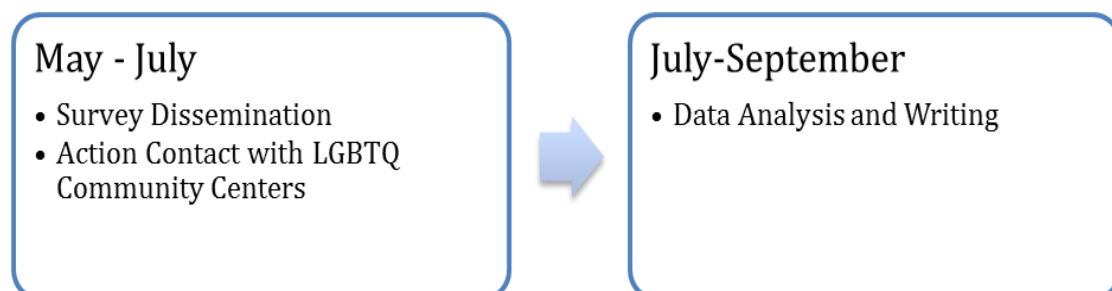
Data Management

The survey was anonymous and hosted by a password-protected online server, Qualtrics. The data was not labeled with any individually-identifiable information (e.g., name, social security number, address, telephone number, or email address). Nobody was able to individually identify respondents. The only labeling mechanism was an automatic numbering system chronologically numbering surveys taken in Qualtrics. The software storing the data was only available to the researcher with express login privileges. The survey had a “no index” meta tag that prevented search engines from indexing the survey.

Data Analysis

Data were analyzed using SPSS 17.0. The researcher used descriptive statistics and item means to explore factors associated with successful smoking cessation.

Phase 2 Timeline



CHAPTER 4

FINDINGS AND RESULTS

PHASE 1 QUALITATIVE FINDINGS

Meet the Participants

Brandon

Brandon, with his gauge earrings, dark hair styled long in the front and short on the sides, and dark eyes, met me at a café in Decatur, Georgia in January of 2013. Brandon identified as a queer man. He started smoking in 8th grade because his best friend smoked, and then he continued smoking in high school because the alternative kids, or “alternakids” smoked. After smoking through college and several years after, quitting smoking was not easy for him. He quit for short periods of time using the patch and gum but did not stay quit. He feared losing his friend group and social time when quitting. Brandon looked online for e-cigarettes but stumbled upon a book called “The Easy Way to Quit” and bought that instead. He read the book several times over a three-year period while still smoking.

Brandon quit for good because he “finally felt ready” and felt confident enough to socialize with his friends who smoked without smoking. Friends offered him cigarettes for a few months until they realized he was true non-smoker, and always apologized for offering him cigs when he reminded them he wasn’t smoking. Brandon noted that being ready to quit helped him quit and stay quit for good. He

said that being able to think about cigarettes in a different way helps him stay quit: “What is this going to add to me right now? Nothing.” He did not lose any sense of his identity because he made a point to be around the same friends and do the same things he used to do, just not smoke. Brandon had been quit for six years at the time of the interview.

Danielle

Danielle had a very expressive face and met my eyes steadily as we talked at a coffee shop in Watkinsville, Georgia. She identified as a MTF transperson and noted she was early in her transition process. Danielle started smoking in high school when she identified as a boy. Her high school peer group was mostly “hetero guys.” She smoked because they did and she wanted to fit in. Danielle had never seen herself as a smoker and had never planned to start smoking. She also consistently smoked American Spirits because they had “natural” nicotine levels.

Danielle continued smoking, mostly alone and at night with the exception of some social smoking. She started to transition from male to female in graduate school and decided to stop smoking for a variety of reasons, including making her hormone regimen safer, changing her voice, and becoming her “true self.” The memory of the moment she knew she could change her smoking behavior is vivid in Danielle’s mind. She went to a bar for a planned meeting with a friend because she was going to come out as trans to him. He was smoking and Danielle knew he would offer her one, but she also knew that she wanted to decline the cigarette. She did decline it and has not smoked since. She maintains quit status by being aware of

what she wants for herself and reminding herself that smoking is not part of it. Danielle had been quit six months at the time of the interview.

Crystal

Crystal approached the restaurant table for our interview in Athens, Georgia wearing stylish clothes, heavy eye make-up, and several pieces of silver jewelry. She moved to the Athens area from Clayton, Georgia about two and a half years ago. Crystal identified as a lesbian, noting that she knew she was “this way” but nobody in her small rural community was gay, so she had no points of reference or gay friends growing up. Her friends were her friends simply because they all lived in the same rural community. Her father smoked and Crystal grew up lighting his cigarettes for him. Crystal started smoking socially with her friends in Clayton because it was expected of her, and she wanted to fit in with them.

When she was 16, Crystal dropped out of high school, moved away from her parents’ house, lived in a shelter until she was kicked out for fighting, and spent time in jail. When Crystal left home and her life “got real hard” at the shelter and in jail, she increased her smoking. Smoking was a coping mechanism for the rough time, dealing with her lesbian identity, and self-managing her attention deficit disorder. Crystal found a job in fast food in Athens but aspires to be an actress. Crystal lives with her girlfriend of two years. Crystal has been quit eight months and attributes her quitting, and staying quit, to being sick of her breath stinking, cigarettes getting too expensive, and wanting to further her future acting career. She quit her final time, after several unsuccessful attempts, by weaning and telling her smoking friends to refuse her requests to bum cigarettes when they were socializing.

John

John had white hair and a white beard that accompanied his warm, friendly demeanor. John identified as a gay man and was nearing his 60th birthday. John's father smoked, and despite his father's telling John not to smoke, John tried his first cigarette at eight years old but did not like it. John started smoking regularly with college friends. John suspected his college friends were gay, but noted the extremely conservative nature of the South forty years ago and said that people did not talk about sexual orientation. He also said that he has not been able to find many of his college friends and worries they may have passed away from AIDS.

John smoked to socialize and alone because he became addicted and used smoking as stress relief. Quit attempts were frequent for John. He tried to wean off cigarettes unsuccessfully several times, even sustaining 18 months smoke-free. John hated smelling like smoke, spending so much money on cigarettes, and the stigma associated with smoking. John quit for good on Dec. 31, 1987. He and a fellow teacher, who John suspected as being a lesbian, made a bet not to smoke. They got other friends involved as social support, and John has been quit ever since. He said it was very hard at first to deal with not smoking. He would ask himself when he wanted a cigarette if it was worth \$100, and each time decided it was not. He had a great social support from his friends and teaching in a newly-designated smoke-free school. When John smells smoke in the air, he does miss it, but does not worry about returning to smoking.

Dave

Dave worked pouring concrete for driveways and wiped the cement dust from his hands on his jeans before shaking my hand at our interview. He grew up in the Miami area and moved to Athens about five years ago at age 34. Dave identified as bisexual and is currently single. Dave's entire family smoked when he was growing up in Miami. His father quit when Dave was in the 7th grade. Dave described his father as a "very tough guy" several times and told of his father's cold-turkey quit with reverence. Dave started smoking "later in life" when he was in his mid-20s. He noted that he smoked lights because they weren't "Cowboy Killers." Dave also started sleeping with men in his mid-20s. His smoking was heavily influenced by his nightlife jobs, partying lifestyle, and friend group. Dave also said that nearly all of his male partners have been smokers.

Dave quit smoking cold turkey. He mentioned his ability to cold-turkey quit other negative health behaviors during the interview. He had no prior quit attempts with cigarettes, but noted that moving to Athens immediately after he quit was extremely helpful. He said his old crowd of friends "ran pretty hard," and he needed to separate himself from their behaviors that included heavy smoking. He moved for work and also to start a new, different life without such heavy partying. Dave misses his Miami friends because of their diversity, but said that if he went back there to them he would definitely start smoking again because he wouldn't be able to resist. Dave tended to be "quiet" about his bisexuality in Athens and does not specifically seek out other friends who are LGBTQ. In fact, Dave described his small friend group as "homophobes" who, for some reason, don't mind him being bisexual.

Jamie

Jamie, a very charismatic college student, met for the interview at one of his favorite coffee shop study spots in Gainesville, Georgia. Jamie primarily had relationships with men. He moved a lot as a child and mentioned that his father came out as gay and his parents split up when he was in middle school. Jamie started smoking because he worked at a fast-food restaurant in college and only the smokers got breaks. He continued smoking even after he transferred out of his small, religious college for a larger school. He smoked with friends, when drinking and partying, and depended heavily on smoking for stress relief. Jamie quit by weaning down and finally quitting altogether. He wanted to quit because he is an ambassador for his school and his image reflects up on the school. He struggles with quitting daily, and said the most difficult thing about staying quit is maintaining friendships with people who still smoke. Jamie is intensely worried he will start smoking if he spends too much time with the friends he misses so much. He is worried about maintaining quit status despite having not smoked for nearly seven months.

Simon

I had the pleasure of meeting Simon and his partner at their home in Rockmart, Georgia. Simon was nearly 60 years old and grew up in a small Southern town. He started smoking during his teens to be like his father, "the man." Simon knew he was "different" at age six. His mother instructed him to deliver a welcome pie to the new neighbors but not to stay long, because they were gay. She explained to Simon what "gay" meant, and Simon knew he was the same way. Simon

stayed in the closet through college, until things came to a crux and he broke off his engagement to his fiancé. Simon smoked to manage his stress.

Simon's mother and father took his coming out hard. His mother eventually came to terms with it, but Simon thought his father might have hated him for being gay. After his father died, Simon's mother told Simon that his father never said anything negative about him. Simon's father even placed boxes and furniture in a spare bedroom when Simon and his partner came to visit, to give them an excuse to stay together. Simon looks back on that non-verbal gesture with heavy emotion.

Simon had several quit attempts and ranged from a few days to one year of quitting. After years of smoking about half a pack per day, with relapses and increased smoking being triggered by stress, relationship breakups, and moves, Simon quit for good. He was not planning to quit for good at the time, but he did want to eventually quit. He was prescribed Wellbutrin ® for depression and a side-effect was that smoking made him nauseated. He has not smoked in nine years. He does miss the habit of smoking sometimes, but appreciates the health benefits especially because he is HIV+.

Marcus

Marcus, Simon's partner, also met with me at their home in Rockmart, Georgia. Marcus grew up in a religious family and attended one year of Christian college. He dated women in college to "do the right thing" but he knew he was gay. The first time Marcus went to a gay bar, a two-hour drive from his college, he arrived too early and nobody was there. He left thinking "maybe there is really nobody like me in the world." Several weeks later, Marcus tried again and met

people at the bar. He picked up smoking to have “something to do” while nervous at the bars, and because he found he didn’t drink as much when he had smoking to absorb his nervous energy.

Marcus continued smoking socially after he dropped out of college. He moved to a city with a gay-friendly church, where he realized he could be gay and a Christian. Marcus eventually went back to school for his nursing degree and smoked all the while. His partner at the time smoked very heavily and Marcus transitioned into smoking at home. Most of the churchgoers also smoked, and they had smoke breaks during the service. Eventually the pastor and her wife quit smoking, and many of the congregation also quit. Years later, Marcus decided to quit because smoking negatively impacted his health as an HIV+ person, he was tired of the nicotine staining his house and possessions, and cigarettes were too expensive on his fixed income. Marcus quit for good after several attempts by weaning down and quitting cold turkey. He has been quit for 12 years.

Liza

Liza, a lesbian-identified woman in her mid 30’s, lives with her partner and young son in downtown Atlanta. Liza started smoking in middle school with a friend and continued smoking through high school, Christian college, and afterward. Liza struggled with reconciling her lesbian identity with her religion and family. She smoked to deal with stress and anxiety. Liza referred to herself as a chain smoker and used smoking to socialize.

Quitting smoking was not on Liza’s radar until she saw her young son mimic her smoking motion with sticks while playing. Her son also suffered from numerous

illnesses due to secondhand smoke. Liza tried to quit with Chantix ® but it made her sleep walk. After several failed quit attempts, she weaned down and quit cold turkey. Liza misses smoking intensely, has gained weight from eating pretzels as a distraction, and cannot rid herself of nicotine cravings despite being quit for two years. Liza avoids her still-smoking friends because she would “definitely smoke” if offered a cigarette. Her partner does not smoke and is very encouraging of Liza, but Liza struggles to stay quit every day.

Table 1: Summary of Participant Characteristics

Participant	Current Age	Age Started Smoking	Age Quit for Good	Years Been Quit	Sexual Orientation & Gender Identity
Brandon	36	14	30	6	Queer, Male
Danielle	24	16	23	0.75	*MTF Transgender
Crystal	19	14	18	1	Lesbian, Female
John	59	18	33	26	Gay, Male
Dave	39	25	35	5	Bisexual, Male
Jamie	22	18	21	0.5	Gay, Male
Simon	61	15	52	9	Gay, Male
Marcus	58	18	45	12	Gay, Male
Liza	33	14	31	2	Lesbian, Female
<i>Averages:</i>	<i>39</i>	<i>16.89</i>	<i>31.89</i>	<i>6.8</i>	-

* Danielle was in the process of exploring her sexual orientation.

The qualitative findings section begins with a brief summary of the theories and frameworks used in the study. The theories and frameworks are also re-defined more specifically when appropriate during the section. Following the theories is a description of how interview findings confirm existing literature about LGBTQ smoking using the Social Ecological Model. A table and explication of actual quitting methods and tools sets the stage for findings about the social context of smoking, quitting, and maintaining quit status. The Social Cognitive Theory constructs of outcome expectations and self-efficacy for quitting guide findings about the social context of quitting. Then, a new stage term called “Confident Maintenance” is introduced to help distinguish between nicotine-addicted participants who were confident in their ability to stay quit for the long-term and those who were not. Finally, the section concludes with participants’ own suggestions to other LGBTQ people who want to quit smoking cigarettes.

IMPORTANCE OF THEORY IN FINDINGS REPORT

The Transtheoretical Model’s stages of change for smoking cessation were used to recruit participants in the maintenance stage of quitting smoking for the Phase 1 qualitative portion of this study. The stages of change, precontemplation, contemplation, preparation, action, and maintenance, remained relevant during interview transcript analysis and are used to describe findings in this chapter. The maintenance stage was naturally the most relevant in this work, because participants had all been quit more than six months, and importance nuances within the maintenance stage are discussed. The Social Ecological Model (SEM), which describes smoking on the individual, relationship, community, and societal levels,

guided exploration of LGBTQ individuals' smoking and quitting. Findings about constructs from Social Cognitive Theory, self-efficacy, and outcome expectations, are particularly important in successful smoking cessation amongst LGBTQ individuals.

PHASE 1 FINDINGS SUPPORT LGBTQ RISK FACTOR LITERATURE

Interview findings confirm the existing literature about risk factors for smoking adoption and continuation amongst LGBTQ individuals. The risk factors are complex and situated within all levels of the Social Ecological Model (SEM). All nine expressed experiencing risk factors on the societal, community, relationship, and individual levels that contributed to their adoption of cigarette smoking as LGBTQ individuals.

The SEM is used to analyze the interrelationships among the risk factors within and between each level that influence smoking in the LGBTQ population. This multi-level, integrated model of risk factors contributing to smoking in the LGBTQ population offers insight into the true complexity of the behavior. These risk factors for smoking adoption naturally link to reasons LGBTQ individuals *continue* to smoke, and the “continue to smoke” reasons are tightly tethered to ability to quit smoking and maintain quit status. Brief descriptions and examples about smoking adoption and continuation from participant interview data are provided below.

SOCIAL ECOLOGICAL MODEL FINDINGS

Individual Risk Factors

The Individual level includes factors like biology and personal history that influence the likelihood of smoking. Individual risk factors that participants noted include depression and anxiety about their LGBTQ identity, stress from anti-LGBTQ religious beliefs, feelings of isolation or loneliness in their LGBTQ identity, and stress from concealing it. For example, Crystal started smoking to cope with isolation and to fit in with peers saying, "I didn't know nobody like me." She continued to use cigarettes as a coping mechanism during hard times. "...I thought cigarettes were helping. They helped me back then with all that, and getting through." Liza experienced stress from her identity as a lesbian and managing that against her conservative religious beliefs, and found smoking to be a stress-reduction tactic when she was "upset or sad or stressed." The theme of cigarettes as a "crutch," as Jamie described them, for dealing with stress, anxiety, and loneliness permeates the participants' data.

Relationship Level Risk Factors

The second level of the SEM, the Relationship level, investigates the close relationships that contribute to the health behavior. Family, friends, peer groups, and partners have great influence on an individual's behavior. This is particularly true with peer influence surrounding smoking and tobacco use (Baillie, et al., 2005). Participants' relationship risk factors were extremely significant. Family Factors include the family's smoking habits and real or anticipated familial disapproval of LGBTQ identity. Peer Factors include the desire to belong with smoking peers, social

facilitation through smoking, and the eventual progression to maintaining social relationships with mostly smokers, as well as smoking for relief from romantic relationships.

Family Factor: Family Smoking Habits

Relationship factors emerged as incredibly strong components in smoking adoption and continued smoking. Six of the nine participants grew up with at least one parent smoking, and only Brandon and Liza had no immediate family members who smoked. The family-participant smoking relationships cannot be ignored. Despite most smoking parents advising participants not to smoke and reacting negatively to the participants' smoking, participants started smoking anyway. John summed up this relationship dynamic by saying, "Well Daddy always said never smoke, you don't want to do this. Of course, you know, actions speak louder than words."

Family Factor: Familial Disapproval of LGBTQ Identity

The majority of participants experienced real tension from their families about being LGBTQ, and all participants expressed anxiety over anticipated negative reactions from family and loved ones. Liza told her parents she was a lesbian and received a "very negative response." Many participants, like Danielle, said that familial relationships have since improved, but initially the stress was large. Every participant used smoking as stress relief. Familial stress made up a significant proportion of the stress participants felt and cigarettes were, according to Danielle, "always there."

Peer Factor: Desire to Belong with Smoking Peers -> Smoking to Socialize ->

Peer Group of Mostly Smokers

Participants primarily adopted smoking as a way to facilitate a new relationship with a desired peer group. Often, participants would try their first cigarette with one close friend and then use this new “skill” to move into a peer group later on. Every interview participant described using smoking to meet other people more easily. Marcus smoked to meet people in the gay bar, Liza smoked to meet new friends at college, and Danielle was even able to approach a new potential romantic partner because Danielle saw the love interest smoking and knew she had an “in.” Eventually, most participants maintained relationships with friend groups that consisted of other smokers. Marcus was deeply involved with his LGBTQ-friendly church and, “almost everybody at church smoked.” Dave said, “All my friends smoked and we were always hanging out in bars.” John was a grade school teacher and bonded most closely with the teachers at his school who smoked. He smoked as soon as “the bell rang.” The fact that participants had a significant number of friends who smoked enabled participants to smoke with less guilt. They felt enabled in their smoking and not, as Jamie put it, “judged.”

Peer Factor: Smoking as Relationship Stress Relief

Tension and turmoil related to LGBTQ identity within romantic relationships and the stress of romantic relationships themselves were cited as a risk factors for smoking. Most participants turned to smoking when facing difficulty in relationships. Marcus and Simon were actually engaged to be married to women when they were young, and endured immense stress from breaking off those

engagements. Simon remembered, “After me and Betty broke up, I started smoking and that’s where I went to a regular smoker.” Simon attributes the stress of breaking his engagement to a woman with his transition from a social smoker to a consistent smoker. Danielle was dating a woman before Danielle came out as a MTF transperson and experienced similar stress. Still identifying as a man, Danielle would sit and smoke “alone at night” while reflecting upon her gender identity and relationship with her then-girlfriend.

Community Level Risk Factors

The Community level, the third level, examines the “settings” where second level relationships take place. These settings include places of education, workplaces, neighborhoods and living situations, religious culture, and socialization locations like bars (American Lung Association, 2010; Wilcox, 2003). Community risk factors cited by participants include: Settings that promoted smoking and settings that allowed LGBTQ individuals to be treated negatively or ignored. Participants experienced environments where LGBTQ people were actively mistreated, completely ignored, or nonexistent. For example growing up, Simon “...had a lot of friends that were abused and you know, just bullied in high school about being gay.” John’s college environment had a few gay people, but all were closeted and it was never discussed. Crystal grew up in a community where there was zero awareness of what gay even meant. Each of these environments create stress for participants.

Participants also occupied social environments that promoted smoking, like bars, clubs, and even the school environment in decades past. Marcus managed not

to smoke until he reached college age, but succumbed to smoking his very first cigarette in a gay bar because everyone else there smoked, it gave him something to do other than drink, and he was very nervous as a new gay bar patron. Several participants, like Dave, Brandon, and Jamie, worked in bars or fast food establishments where “everyone smoked.” Jamie felt like he had to smoke just to get the work breaks that his smoking co-workers were allowed. He has vivid memories of “going out by the dumpster to smoke a Camel Crush with Hank.” Dave worked the club scene and remembers being in a smoky haze most of the time. The club patrons and staff all smoked, and the environment was extremely conducive to Dave’s own smoking habit.

Societal Risk Factors

The fourth level, the Societal level, identifies the broadest factors in society that facilitate and maintain a climate that supports or discourages smoking. Societal risk factors are so broad that they tend to permeate the other three levels of risk factors, and it is easy to see how all the levels are related. For example, societal risk factors like heteronormativity, the belief that heterosexuality is the only permissible sexual orientation, trickle down into Community settings. Simon vividly recalled the relentless bullying of gay students at his school in the 1960’s. Simon feared deviating from the heterosexual norm in high school and becoming a victim of anti-gay bullying himself. He stayed in the closet in his high school setting and said he “never looked gay.” Simon’s description of anti-LGBTQ bullying exemplifies how the societal norm of heteronormativity contributes to Community level risk factors for smoking. It is easy to see the stress anti-gay bullying has on both students being

bullied and closeted LGBTQ students who witness the bullying. As displayed in the other levels of the SEM, stress and the desire to fit in with a peer group are both risk factors for smoking. The SEM allows us to identify and explain how interrelated ecological forces may impact smoking “above and beyond individual-level main effects” (Wilcox, 2003).

Participants’ societal risk factors centered around broad heteronormative religious and cultural norms about being LGBTQ. Overarching religious pressure was a very salient issue to several participants. Liza said, “I’d go back and forth, ‘We’re gonna burn in hell! We’ve gotta stop this! Oh wait, it’s good!’ so it was definitely not flat road...” Meanwhile Crystal simply refused to attend church with her unsupportive family members. John struggled not only with the specific idea of being gay as an “abomination,” but with the conservative Southern culture in which he was brought up. It was a cultural norm that sexuality, particularly LGBTQ identity, was not discussed. Simon elaborated about his upbringing in a small South Carolina town, saying, “People don’t understand homosexuality, they think it’s all about sex.” John, Simon, Marcus, Liza, Jamie, Danielle, Brandon, and Crystal all noted conservative Southern culture as a challenge. Dave was the only participant who experienced a diverse upbringing, saying, “I’m just so open minded. I grew up like that... There’s a large gay and lesbian population in Miami.” However, Dave did not hesitate to comment on the conservative culture of the Deep South where he now resides:

Dave: My friends here, these guys are all like total homophobes. But they, they’re cool with me, you know? It’s like this big joke.

Interviewer: Are you the first [bisexual] person that they know?

Dave: No, but I like to watch football, I'm like, I'm tough.

Dave accredited his friends' tolerance of his bisexuality to the fact that he is a "tough guy," and he simply does not discuss his identity very much. His friends in the Athens, Georgia area are very different than his friend group in Miami. Although he lives a healthier life in Athens and does not smoke like he did with his heavy-smoking, heavy-partying diverse friend group in Miami, he is aware of the pressures of being a LGBTQ-identified person in a conservative area.

QUITTING METHODS, AIDS, AND TOOLS

There are a number of tools and tactics for quitting smoking, and this group of participants as a whole employed most of them at some point during their aggregated quit attempt process. Participants used a "trial and error" method during quit attempts. They learned what worked and what did not work during failed quit attempts and then employed that knowledge during subsequent attempts. For example, Liza tried Chantix ® as a quit aid during two attempts. While it helped her stop smoking, the side effects were so severe she discontinued use after finding herself behind the wheel of her car with no idea how she got there. Liza finally quit for good after knee surgery limited her ability to go out and smoke. She used nicotine patches to quit for good, and was surprised because she "didn't want to try the patch because I'd heard it makes your heart race and all kinds of stuff...but in the end that's what worked." Simon tried the nicotine patch during attempts but felt nauseated. He finally quit for good after being prescribed Wellbutrin ®.

Liza and Simon were the only two participants to use prescription medication as a quit aid. The other participants quit without prescription medication. Three participants, Brandon, Simon, and Liza looked into the e-cigarette as a quit tool but none actually used it. No participants used tobacco pouches, nicotine inhalers or nasal spray, hypnosis, saw a counselor, or attended a smoking cessation group.

Table 2: Methods used during failed and successful maintained quit attempts
A = Used during failed attempt
☺ = Used during successful maintained quit attempt

Methods Used	Daniel le	Crysta l	Jami e	Simo n	Marcu s	Liza	John	Dav e	Brando n	# of Participants Used Method in Successful Quit Attempt ☺
Quitting self-help book									☺A	1
Visited quitting website									A	0
Positive self-talk	☺	☺A			☺A		☺		☺	5
Changed thoughts about cigarettes	☺	☺			☺				☺	4
Quit buddy							☺A			1
Increased physical activity		☺A	A						A	1
Oral substitutes		A			☺	☺A	☺A			3
Got rid of cigarettes		☺		A	☺A	☺A	☺A	☺	☺A	6
Chose quit date in advance						A	☺A			1
Weaned down	☺A	☺A	☺A	☺A	A	A	A		A	4
Nicotine lollipop						A				0
Made friends with ex-smokers/non-smokers							☺		A	1
Limited the time of day smoked	☺A									1
Cold turkey quit (after weaning)	☺A	☺A	☺A	A☺	A					4
Cold turkey quit (no weaning)	A				☺	☺A	☺A	☺	☺A	5
Nicotine patch				A		☺A				1
Nicotine gum		A			A	A			A	0
Nicotine lozenge									A	0

Wellbutrin ®				☺						1
Chantix ®						A				0
Avoided still-smoking friends			☺A		A	☺		☺	A	3
Avoided bars/clubs			☺A		A	☺		☺	A	3
Relocated from still-smoking friends						A		☺		1
Involved friends in quit process	☺	☺			☺	☺A	☺A		☺	6
Waited until “truly ready”	☺	☺			☺				☺	4

Most other participants used multiple non-nicotine replacement techniques during quit attempts, like oral substitutes for cigarettes, progressively weaning down smoking habits, and using encouraging positive self-talk. John’s quit process illustrates the variety of methods and tools employed by participants. John found a quit buddy when he wanted to quit. His buddy was a fellow teacher he suspected was a lesbian, and they made a bet to see who could stay quit longest. They chose a quit date and quit smoking together. John incorporated multiple quit tactics like planning a quit date, quitting with a friend, and replacing the behavioral component of cigarette smoking with something benign. “...She and I made a pact that we were going to quit together. We planned it out. We bought the celery to eat, cinnamon sticks are wonderful...you can play with it, you can tap it, you can even put it in your mouth.”

John’s preparation and action stages of quitting led to him quitting for 1.5 years but relapsing at a party, and then returning to smoking a pack a day. After his relapse, his friends reminded him “if you can quit for a year and a half, you can quit.” John then repeated all those tactics for his next and final quit attempt. John remembers, “It was New Year’s Eve. December 31st of 1987 when I had my last

cigarette.” Although John admits to still liking the smell of cigarettes, he would “never seriously entertain” starting smoking again. He is a confident quitter in the maintenance stage. When he does get a pleasant whiff of cigarette smoke from a passerby, he asks himself if a cigarette is worth betraying himself as a successful quitter: “The answer is always ‘no.’” John’s confidence in his ability to never smoke again makes him a Confident Maintainer.

CONFIDENT MAINTAINERS: THE MOST SUCCESSFUL QUITTERS

The term “Confident Maintainer” was created for this study to describe quitters confident in their ability to stay quit for the long-term. John, Brandon, Marcus, Crystal, Danielle, and Simon are Confident Maintainers. In contrast, Dave, Liza, and Jamie worry intensely about their ability to stay quit. There are several characteristics that Confident Maintainers, or “CMs,” have that the worried quitters do not possess. CMs’ actual thoughts about cigarettes were different, they were able to articulate their readiness to quit smoking, and their ability to manage themselves as non-smokers within a still-smoking social context was well developed.

Confident Maintainers spoke at length about how their thoughts about smoking changed. They deeply analyzed what smoking meant to them. These participants’ cognitive processes resemble self-taught Cognitive Behavioral Therapy techniques, but the only participant who was aware of using CBT was Brandon. He read a book about quitting smoking called “The Easy Way to Quit” for three years before he was “ready” to quit. He said, “Because basically what it is like, from my understanding, it’s kind of like cognitive psychology techniques, teaching you different ways to think about what smoking does for you.” Brandon was the only

participant to label the self-taught cognitive techniques he used, but other participants also employed similar cognitive processing of smoking. Crystal asked herself questions about smoking and its repercussions when she was quitting: "I sit there and just think of like if I smoke a cigarette, what's it going to do to me?" Marcus and Simon, two participants living on fixed incomes, even incorporated the financial implications into their thoughts about staying quit. They both knew exactly how much money they had and exactly what kind of damage buying cigarettes would do to their financial wellbeing.

Being "ready" to quit was a very important notion amongst these successful quitters. The majority of CMs talked about the importance of quitting when they themselves felt ready. Crystal summed up this feeling by saying, "You should just do whatever you want to do, and quit whenever you want to quit, in your own mind." They felt more attached to their outcome expectations, motivators, and status as a quit person when the choice was theirs.

Now that we know some methods and tools that participants used to quit, it is time to learn more about the social context of quitting. The social context of quitting was the most significant factor surrounding participants' ability to quit and stay quit. As it turns out, the methods and tools used to quit smoking tie into participants' progression of smoking habits and how they navigate their social worlds.

SOCIAL COMPONENTS OF SMOKING ADOPTION

The social components of smoking adoption and continuing to smoke cannot be understated. One of the most important findings from this interview study is

socially centered: Successfully quitting smoking and staying quit are highly dependent on the ability to navigate still-smoking social relationships while not smoking. On a basic level, everyone just wants to belong. Worry about not belonging is upsetting. Participants who were able to find a way to still belong to their social groups as a non-smoker were confident in their ability to stay quit. Smoking adoption was also centered around the need to belong to a group. Here, the social component of smoking adoption and continued smoking is revealed through participants' experiences.

During their in-depth interviews, most participants expressed feelings of wanting to belong to a peer group based on LGBTQ identity. Smoking was a key to solidifying the sense of belonging with a desired peer group, as many of the peer group members smoked. Two major motivations for initial peer group selection exist in interview findings. First, some participants like Brandon, Marcus, Liza and Dave, wanted to fit in with an "alternative" crowd that accepted diversity and LGBTQ identities. In contrast, John, Crystal, Danielle, and Simon started smoking to fit in with peers and present an image that was decidedly not LGBTQ. Being members of these non-LGBTQ peer groups allowed for concealment their own LGBTQ identities until they were ready to disclose them later. It is important to note that participants who started smoking to conceal their LGBTQ identities tended to eventually smoke with other LGBTQ people later in life when they felt able to share their identities, and their desired peer affiliation changed.

Take a deeper look at participant experiences around smoking adoption and LGBTQ identity management. Brandon and Danielle illustrate the two different ways

smoking was used to manage identity. Brandon is a queer-identified man who has had relationships primarily with men for many years. Danielle is a male-to-female transperson who started her transition to female within the past year. Brandon and Danielle each started smoking in high school as a way to fit in to a peer group that would either allow them to express or conceal their LGBTQ identity. Brandon's group was the "alternakids" and Danielle's group was the "hetero guys." Brandon felt comfortable because the alternakids were like him, rebellious, different, and accepting. Brandon describes his experience as, "I was developing an identity as an outsider as opposed to the mainstream" and he wanted to be "aligned" with other alternative kids. Danielle wanted to identify with the high school "hetero guys" because although she had thoughts of being a girl at the time, she decided to ignore them and remain "Derrick." Blending into their group identity allowed Danielle to conceal her thoughts about actually being a girl until she was ready to transition from male to female.

John and Crystal's experiences support the theory that smoking uptake is related to the desire to fit in with a group, and participants' data indicates that group is often dictated by LGBTQ status. John's social smoking facilitated his belonging to a peer group that contained several friends John suspected to be gay, despite the fact that it was too risky to discuss sexual orientation "in the South over forty years ago." Crystal started smoking to fit in with a peer group and conceal her lesbian identity as a protective measure. She grew up in a small town nestled in the Appalachian foothills of North Georgia. Her peer group was extremely limited because there were simply no other options for friends. Crystal started smoking at

14 because all of her peers did and she felt the need to blend in with the entirely heterosexual group. Crystal knew she was a lesbian at the time, but had no other gay friends or peer group options to join in her small community.

These groups seem to be related to the participants' LGBTQ identity stage during that time in their lives. The people in the groups presented a certain identity to assume, whether it is the LGBTQ identity the participants maintain today or the non-LGBTQ identity they felt they were supposed to assume at the time but no longer maintain today.

Nearly all participants saw smoking behavior modeled by an aspirational person, like a peer, friend, or respected family member. John remembers watching his male teacher, on whom he had a crush, smoke in class. Danielle's brother smoked and was "very influential" in her pathway toward trying cigarettes. Simon knew at a very young age he was gay. He took great care to present a masculine image to conceal his gay identity, and saw his father as the epitome of masculinity. Simon saw smoking as a way to model his masculine father because his "dad was the man."

One participant, Jamie started smoking simply to get smoke breaks during his long-hours job. Jamie then used smoking as a stress coping strategy saying, "It was when you like get super stressed out you know, like 'oh my gosh I want a cigarette right now, that would make everything so much better'." Smoking also became a primary activity for Jamie when he socialized with friends. His smoking "snowballed," and he now struggles to stay quit because his best friends still smoke and he feels the need to avoid them for the sake of maintaining his quit status.

Table 3: Smoking Uptake, Quitting, and Confident Maintainer Status

Participant	Current Age	Age Started Smoking	Age Quit for Good	Years Been Quit	Sexual Orientation & Gender Identity	Confident in Maintaining Quit Status?
Brandon	36	14	30	6	Queer, Male	Yes
Danielle	24	16	23	0.75	*MTF Transgender	Yes
Crystal	19	14	18	1	Lesbian, Female	Yes
John	59	18	33	26	Gay, Male	Yes
Dave	39	25	35	5	Bisexual, Male	No
Jamie	22	18	21	0.5	Gay, Male	No
Simon	61	15	52	9	Gay, Male	Yes
Marcus	58	18	45	12	Gay, Male	Yes
Liza	33	14	31	2	Lesbian, Female	No
Averages:	39	16.89	31.89	6.8	-	-

* Danielle was in the process of exploring her sexual orientation.

Progression of Smoking Habits: From “Social” to “I Need One”

One of the most crucial themes that emerged from participant interview data was the progression of smoking habits from infrequent or social to, as Jamie described it, “a full blown addiction.” The general consensus was that smoking started out irregularly, usually socially, and participants suddenly realized they were addicted. McLeod, White, Mullins, Davey, Wakefield, & Hill coined the first part of this process “experimentation” and the eventual habitual smoking “consolidation” (2008). When participants in the experimental stage became addicted, they moved to consolidation stage and started smoking alone and more regularly, in addition to socially.

Danielle started smoking, “just socially, just around other people and just at night” but it “went on where I was smoking every night.” Crystal described her progression like this: “Yeah it was the kind of thing where I thought it was cool, my friends up there were cool, and then it got to where it was like ‘I need one.’” Brandon was an inconsistent social smoker until he injured his knee and lost his ability to play Ultimate Frisbee with his non-smoking friends. He started smoking heavily with his other friends, and eventually realized, “It was just such a habit. Like it was too hard not to smoke.” Participants like Marcus and Dave, who began smoking only at the bar, also progressed to smoking alone. According to Marcus, he “started feeling not just the a desire but a need for it.” Smoking became a consistent habit while driving, after eating, to wake up, during breaks, and after meals for most participants. This group of participants followed the path of experimental smoking to regular consolidated smoking.

“Regular Smoker” Social Context and Quitting

How does the social context of being a “regular smoker” influence quitting? Since participants progressed to smoking regularly, they created and maintained friend groups comprised heavily of other smokers. The fact that most of their friends were smokers created a huge problem when quitting smoking. Participants had few non-smoking friends with whom to socialize, and experienced extreme anxiety about losing their close friends, social time, and just plain “missing out” as a result of quitting smoking. Not only did participants have to battle their personal addiction to nicotine when quitting, they had to confront becoming a non-smoker within pro-smoking relationships and communities. According to participant data,

self-efficacy for successfully navigating the pro-smoking context as a non-smoker is the most important indicator of successfully quitting and maintaining quit status. For example, Liza, who is not confident about maintaining her quit status, described her low self-efficacy for staying quit.

I'm still saying that I want a cigarette. I really haven't found whatever it is, whether it's a mental thing I tell myself or a physical something I use, I haven't found it yet.... Since I've stopped smoking I haven't really gone out too much. I know I'll be around it [smoking] and I'll want one. ...I don't want to go out and have some drinks, and then see someone at the end of the bar and ask if I can bum one.

Liza's discussion of her worry about maintaining quit status is easy to compare to Brandon's description of his confidence in staying quit.

Before, when I broke or any of the other times when I had broken [and smoked again], it was because I felt like I was getting something back that I had to give up. The social bonds that happen, you know... I remember, the first night I got back from a horrible trip with my parents, I went out to the bar with friends. You know, every time I thought about a cigarette, I thought, "What is this gonna do in the moment for me? It's not gonna make my life any better. There's no reason to have a cigarette." You don't have to give up anything. Even though I don't smoke it doesn't mean I can't be with my friends.

Brandon placed himself in situations to test his ability to stay quit and he emerged successful, which only increased his self-efficacy for socializing with still smoking friends while staying quit. He has internalized the idea that he can remain social without smoking so he does not feel like he is missing out. Brandon feels a sense of social fulfillment that Liza lacks by staying home.

All of the participants had been quit for six months to 25+ years. However, as illustrated by Liza and Brandon, there are fascinating differences between participants who were confident in their ability to maintain quit status for the long term (Confident Maintainers) and those who are not.

WHAT MAKES A QUITTER CONFIDENT ABOUT MAINTAINING QUIT STATUS?

Individuals enter the “maintenance” stage of smoking cessation technically at six months post-quit, but there is more to maintenance than meets the eye. With behaviors other than quitting addictive substances, the termination stage is achieved after successfully progressing through the maintenance stage. Termination means returning to a behavior not even a consideration to the individual. Due to the nature of substance addiction the “termination” phase of the Transtheoretical Model is usually not used. For this reason, it is important to dissect nuances of the maintenance stage when looking at addiction. Participants in this study highlight two different ways of being in the maintenance stage of smoking cessation. All participants had been quit for at least six months, met the technical definition of “successful quitters” in maintenance, but two different types of successful quitters emerged: Those confident about maintaining long-term quit status, classified here as “Confident Maintainers,” and those who were not.

The two main differences between participants who were not confident in their ability to maintain long-term quit status (Liza, Jamie, Dave) and the Confident Maintainers (Brandon, Simon, Marcus, John, Danielle, Crystal) are compelling. The differences are based on 1) outcome expectations and motivations surrounding quitting and 2) self-efficacy to navigate smoking social situations as a non-smoker.

Outcome Expectations & Motivations

Participants’ positive outcome expectations from quitting tended to connect with their motivations for quitting. Outcome expectations, a personal/cognitive factor for behavior change in Social Cognitive Theory, are what a person expects to

happen as a result of a behavior (Bandura, 2004). The outcome can be either positive or negative, and the anticipated outcome has bearing on whether or not the person will undertake the behavior. For example, two of Marcus' motivations to quit were to get rid of nicotine stains in his home and prevent smoking complications with his HIV status because he was "prone to possibly getting pneumonia." When he finally quit, he decided to scrub his house to get rid of the nicotine stains: "I thought my computer was beige when it was actually white! I had to scrub and scrub and scrub and this brown water poured off of it while I'm scrubbing, and I'm like 'oh my god that's what was in my lungs!'" He anticipated positive outcomes of a nicotine-stain-free home and a healthier life free of cigarette/HIV complications.

The positive outcome expectations and motivators for quitting smoking that participants cited were various. The most heavily mentioned motivations to quit were smelling better and becoming one's ideal self through improving specific health issues and physical fitness. Other motivations and positive outcome expectations included not having to go outside and smoke in cold weather, one's work environment becoming a smoke-free zone and wanting to manage it, protecting loved ones from secondhand smoke, avoiding stigma and "horrible guilt" associated with smoking, and saving money on "tremendously expensive" cigarettes.

Participants referenced stories about friends and loved ones with negative health outcomes that resulted from smoking. These anecdotal stories often led into participants' expression of worries about their own futures as former smokers, negative effects they hoped to avoid by quitting, and worry about experiencing common side effects from quitting like weight gain. Danielle wanted to quit smoking

to decrease her own risk of cancer, and voiced this after describing how a grandmother with “emphysema, COPD, and lung cancer. She had a lot going on because she smoked so much.”

Dave was the only participant to deny experiencing any negative outcome expectations from quitting, even when asked directly. Dave went into detail about his grandmother who “when she was about 70 she was a heavy smoker, couple packs a day, she got emphysema.” Dave focused on her weight gain from eating butterscotch candy to quit smoking, and Dave also described the “awful mood” of people he knew who quit. However, when asked directly if he had any positive or negative expectations from quitting himself, he said he had none. When asked specifically about weight gain, Dave again said he was not concerned with it himself.

The negative outcome expectations were not as varied as positive outcome expectancies. All participants except Danielle mentioned the negative outcome expectation of losing social time with still-smoking friends, and two participants worried about weight gain. Five participants cited the loss of a stress coping tool as a negative outcome expectation from smoking, including Simon. Simon became aware of his negative outcome from smoking, extreme moodiness, during a failed quit attempt. He remembered how his staff at McDonalds confronted him when he was trying to quit smoking.

Well one night, I’m sitting in the office doing paperwork and my crew comes in and hands me a carton of cigarettes, and I said, “What are you guys doing? You know I quit smoking – I cannot take these.” [They said] “You have to because you are driving us insane – your whole temperament has changed.” And I’m like well I’m not gonna start smoking, but I took them away. [On the way home] I was walking through the park and I thought, “Oh god I just can’t stand it” so I took a cigarette and about 15 minutes after I smoked that cigarette.

From this point on, Simon worried about how to cope with stress when he could not smoke. He had the negative outcome expectation of becoming intolerably moody if he quit smoking. This was something he had to deal with when he finally quit for good.

Motivations to quit and positive outcome expectations were very intertwined, and together they polarized as heavily self-centered or not.

Participants whose desire to quit was self-centered, for example they wanted to achieve their ideal self, were able to successfully fall back on those desires when they were tempted to smoke. Quitters with self-centered motivations and positive outcome expectations surrounding quitting tended to have detailed explanations for their many motivations to quit, like Brandon's desire to decrease frustration from hiding his smoking:

I worked with kids, I was a teacher. So I would wear a certain coat in the morning and smoke on the way to school, then I would take off that coat and put on a new coat that I didn't smoke in and then wash my hands when I get there. It was just like, stressssful. I was a smoker and ashamed of it.

Brandon recalled his motivations and positive outcome expectations in vivid detail.

Other participants mirror this detail. Simon also had many self-centered motivators to quit smoking, one of which was the "smoker's cough" and speaks not only to health as a motivator but to the degree of addiction he faced: "The smoker's cough you know- wake up in the morning and hack your lungs out. And while you're hacking your lungs out, you're lighting a cigarette."

Quitters without self-centered positive outcome expectations and motivations struggled with staying quit. For example, Liza had no reasons for

quitting other than to improve her toddler son's health and make him stop mimicking her cigarette smoking motions. Liza said, "...it wasn't really something I wanted to do myself. I mean, if it were just me myself right now I'd be a smoker still." While her love for her son is great, Liza struggles daily to maintain her quit status because the outcomes are not for *her*. Dave quit suddenly just to see if he could win a personal battle of willpower. Other than a vague inclination to improve his health, he has few motivators to stay quit and no specific health outcomes by which to value his quitting. His outcome expectancies contain little detail.

Jamie mirrors Dave and Liza's struggle to stay quit. He quit so that his image would reflect better upon the school he represents as a tour guide and to vaguely improve his health. "I'm an orientation leader on campus, like I'm gonna look like straight up trouble because I've got a lot of tattoos and if I'm smoking, I don't think that's gonna go over well." Jamie's outcome expectancies and motivations are barely strong enough to keep him from smoking, especially in the presence of smoking friends. Jamie avoids his smoking friends to protect himself from the temptation to smoke. Avoiding smoking friends is a dangerous tactic for staying quit, and is the second difference between participants who are confident they can stay quit and those who are not.

Self-Efficacy: Navigating Smoking Social Situations as a Non-Smoker

The second difference between participants confident and not confident in their ability to maintain quit status is the ability to navigate smoking situations as a non-smoker. This ability depends on self-efficacy for quitting and self-efficacy for maintaining quit status. Self-efficacy is a person's confidence in their ability to

change a behavior, such as smoking habits (Bandura, 2004). Self-efficacy for quitting and staying quit is a construct of the Social Cognitive Theory. According to Bandura, a person's perceived self-efficacy for a behavior influences actualization of that behavior. Four sources comprise self-efficacy: Performance Accomplishments, Vicarious Experience, Social Persuasion, and Physiological and Emotional States (Bandura, 1995, 1997, 2004).

Participants in this study provided important insight into experiences that either increased or decreased their self-efficacy for quitting and maintaining quit status. Since self-efficacy for quitting and staying quit was such an important finding from participants' interview data, it is important to explain how participant data applies to its sources. Participants described sources of self-efficacy, and it is easy to see how the belief in their ability to maintain quit status depended on these sources.

Performance Accomplishments

Performance Accomplishments, also called "mastery experiences," carry the most weight when it comes to self-efficacy development. A mastery experience takes place when a person successfully does a task, such as refraining from smoking a cigarette for a desired period of time. For example, quit participants who went to socialize with still smoking friends accomplished the task of not smoking with smoking friends.

Often, participants recalled these "mastery experiences" in vivid detail. Danielle was meeting a friend at a bar, "and he was smoking. So that's when I realized I was really going to quit. Yeah. I knew I was gonna get offered to smoke a cigarette and I just decided I was not going to do it, I just talked myself down."

Crystal also has vivid memories of actively refusing cigarette offers and realizing she had the ability to do so. Brandon successfully mastered socializing with smoking friends as a nonsmoker through a series of performance accomplishments. He describes his realization process like this:

You feel like “Oh, I can’t go out to the bars, I shouldn’t go out drinking. I have to give these things up to be a non-smoker.” ...You know it does have a social purpose and I decided not to give that up. Like at a party with three or four of my good friends, when they go out to have a cigarette, I go out to just hang out with them. Cause like I want to be with them. Even though I don’t smoke, it doesn’t mean I can’t go out and just be with them.

Participants who put themselves in the smoking context and had mastery experiences of not smoking increased their self-efficacy for maintaining quit status. They did not have to “miss out” on friend time in order to stay quit.

Participants who avoided their still-smoking friends and regular social situations when trying to quit denied themselves opportunities for mastery experiences. Dave relocated in an effort to maintain his healthier lifestyle, but when asked if he could socialize with his former friend group he said, “I’d probably just start smoking again in all honesty. Those were like, my best friends, and I just had to leave. I don’t run with the same circle anymore.” Liza mirrors Dave’s sentiments. Although she did not relocate, she actively avoids her smoking friends. “I would always have my friends who would go with me, they’d be smokers too, but since I’ve stopped smoking I haven’t really gone out too much because I know I’ll be around it and I’ll want one.” By avoiding chances to prove to themselves they can still see their friends and not smoke, Dave and Liza have decreased their self-efficacy to stay quit. They both are unsure of how long they can maintain their quit status.

Failing at a performance accomplishment was one of only two things participants mentioned that decreased self-efficacy. Even though all of these participants were in the maintenance stage of quitting, they remembered past failures that made quitting difficult. Brandon struggled with trying to quit again after, “just having failed so many times in the past. The repeated failures, you know?” Brandon finally quit for good after he had, “...kind of like given up. Well you know I guess I’m always gonna be a smoker” by taking three years to change his thoughts about smoking, read and re-read a self-help quitting book, and learn to exist with smoking friends as a nonsmoker. Another participant, John, had an 18-month quit attempt before his final 20-year maintained quit. John said the fact that, “I knew I could quit for a year and a half” helped him realize he could stay quit for good. Things like failed past quit attempts were discouraging, but participants also noted that being able to stay quit for any period of time had a little ring of inspiration.

Vicarious Experience

Vicarious Experience, also known as “social modeling” or “modeling,” involve seeing someone similar to oneself successfully accomplish a task. This increases self-efficacy for a person’s ability to accomplish similar tasks. For example, witnessing a friend or peer group member quit smoking would be a modeling experience (Bandura, 1995, 1997, 2004).

Surprisingly, only three participants knew any LGBTQ friends who had successfully quit smoking. Having no model who had quit smoking was the second component cited by participants that decreased self-efficacy. Crystal’s family

smokes, her hometown friends smoke, her LGBTQ peer group and co-workers smoke, and when asked about friends who quit she said, "I don't know nobody." Liza only knows one "serious smoker like I was" who has quit, other than "friends who played around with smoking in college and don't smoke now." Marcus said members of his LGBTQ-friendly church began quitting when the pastor and her partner quit, John's quit buddy who he later found out was LGBTQ quit, and Brandon's bisexual best friend quit before he did "and it was kind of like man, if she can quit, then I can definitely quit." Participants did indicate that they felt they could quit because a person similar to them quit. One participant, Dave, indicated that his father quit smoking and it was encouraging to Dave. In total, four of the nine participants had a model similar to themselves to look up to when quitting. The other five participants quit without quitting role models.

Social Persuasion

Social Persuasion, also called "verbal persuasion," involves encouragement from others that convinces a person they possess the skills and abilities to successfully accomplish a task. Familial or peer support and verbal encouragement for quitting smoking and maintaining quit status are examples of social persuasion.

Participants who involved their friends and peers in the quit process said the encouragement was extremely helpful. Brandon remembers his friends offering him cigarettes when they forgot he was quitting, and when he reminded them they were exceedingly apologetic. "They were like oh that's right! I'm so sorry!" Crystal's coworkers and manager checked up on her quit status, and her friends even say they wish they could quit smoking. Crystal asked her friends to deny her bum

attempts when she was trying to quit, and they followed her request and simultaneously encouraged her to stay quit. Participants with partners, like Liza, Simon, Marcus, and Crystal, all noted their current partners are pleased with their quit status and encourage them to stay quit. Liza said, “My girlfriend, she’ll buy me presents, she’ll tell me that I’m doing a good job.” Partners added a component of accountability and social support to the maintenance process. An encouraging partner is very helpful, and according to Simon, a discouraging partner is detrimental. One of Simon’s former partners “never encouraged me or anything. He was an ass.” In contrast, the support Simon receives from his current partner, Marcus, is very helpful to him.

Emotional and Physical States

Emotional and Physical States, also referred to as “psychological responses,” include responses like anxiety, stress, nervousness, sweating, and other states that can influence a person’s perception of their self-efficacy. It is important to note that the presence of the responses is not as important as a person’s *reaction* to the responses (Bandura, 1995, 1997, 2004). For example, a person who acknowledges and learns to manage their anxiety about quitting smoking can prevent it from having a negative effect on their self-efficacy for quitting. Participant data shows that participants experienced anxiety, stress, and nervousness about quitting smoking. They described ways they reacted to those feelings in order to decrease them.

Several participants used their self-selection of a “less addicting” cigarette brand as a way of decreasing anxiety about quitting. Danielle “only smoked

American Spirits, because they didn't have anything added to them, added nicotine, they had all natural levels of nicotine." In addition to smoking "lights" or "silvers," participants often tried to manage their anxiety and stress about quitting by weaning off cigarettes or smoking only during certain times per day. They said this made them feel more in control.

The social aspect of quitting comes back into play with this particular physical and emotional state component of self-efficacy. Participants' who experienced extreme stress and anxiety over "missing out" on social time with smoking friends had many failed quit attempts. They would succeed in staying quit until their anxiety about missing out overrode their desire to stay quit. They met up with smoking friends because they could not cope with missing out on social time. Eventually when they succeeded in performance accomplishments to not smoke, their anxiety about "missing out" as a nonsmoker decreased and their self-efficacy for maintaining quit status increased. Danielle's experience meeting a friend at a bar and "realizing I didn't have to smoke" and then refusing a cigarette offer cemented her confidence. Brandon describes anxiety about missing out on social time with still-smoking friends as "one of the traps that keeps people smoking."

SOCIAL SUPPORT: "CONFIDENT MAINTAINERS" KEY TO SUCCESS

Participants who involved their still-smoking friends in their own quitting found it extremely helpful in both the action stage of quitting and in being confident about long-term maintenance. Engaging still-smoking friends involved telling the friends about plans to quit, asking still-smoking friends not to give cigarettes when

asked, etc. The reactions of still-smoking friends to participants' disclosure about quitting was overwhelmingly positive. The still-smoking friends did not offer cigarettes, declined to provide cigarettes during bumming attempts, and the participants who engaged still-smoking friends in quitting/maintenance were able to continue socializing with these friends.

Quit participants who socialized at bars/parties with still-smoking friends often walked outside with the friends while the friends smoked and did not smoke. These participants were able to engage in the smaller, more intimate "smoke break" conversations and environment without smoking. This is significant because participants mentioned the fear of "missing out" on social experiences with friends as a major barrier to quitting smoking. However, Dave, for example, did not disclose his quitting to his still-smoking friends. He received no support from them in quitting or staying quit, and Dave in general refrained from expressing any need for support or any fears about quitting, choosing instead to tell anecdotal stories about negative quit experiences of friends and family. Dave relocated away from his still-smoking friends to help aid in his quitting, choosing to leave his "best friends" in favor of a healthier lifestyle:

I don't run with the same circle anymore. I'm living here now...
[If I saw them] I'd probably just start smoking again in all honesty.
...Those were like, my best friends, and I just had to leave. That's
what it was.

Dave admitted that if he saw his old still-smoking friends again, he would probably not be able to refrain from smoking with them.

Confident Maintainers: Social Support Vital to the Most Successful Quitters

Termination, the “holy grail” stage of the Transtheoretical Model, is when a person is positive they will not return to a behavior. This stage of the Transtheoretical Model is under debate in addiction treatment due to the inherent nature of substance addiction. Substance addiction is commonly viewed as chronic (McLellan, 2002). A chronic view means repeated cycling through the stages and eventual stagnation in the “maintenance” stage with termination deemed impossible.

The idea that most people with substance addiction remain vulnerable to a relapse for their entire lives is pervasive, but not every addict exhibits a chronic condition that lasts a lifetime (McLellan, 2002). With the chronic/not chronic addiction debate still underway, the termination Phase is usually not used in the field of addiction studies because it leaves no room for a chronic condition. For this reason, it is important to dissect nuances of the maintenance stage when looking at addiction. Participants in this study highlight two different ways of being in the maintenance stage of smoking cessation. Many participants had been quit for at least six months, and met the technical definition of “successful quitters” in maintenance, but two different types of successful quitters emerged: Those confident about maintaining long-term quit status, classified here as “Confident Maintainers,” and those who were not and remained in the maintenance stage.

Phase 1 participants who were in the Confident Maintenance stage were able to interact with their peers in social situations where smoking was present. These participants were confident in their ability not to smoke in the smoking

environment and with smoking peers. In contrast, participants who purposely avoided socializing with their friends either by doing different activities or relocating were not confident in their ability to stay quit for the long term, despite the fact that these participants were technically in the “maintenance” stage of quitting. These technical maintenance participants did not have the self-efficacy to socialize with still-smoking peers and remain smoke-free.

Participants in this technical form of maintenance spoke of missing their friends greatly, a general feeling of isolation, the desire to smoke, and very low self-efficacy to remain quit and refuse cigarettes in a smoking environment despite having maintained quit status for time periods ranging from six months to more than five years. They also indicated that staying quit was a huge challenge for them, while participants who found ways to stay socially engaged with still-smoking peers saw staying quit as much less of a challenge and as indefinitely sustainable. For example, Dave purposely moved away from his old friends and if he saw them again he would, “...probably just start smoking again in all honesty,” while Brandon can be with his still-smoking friends: “It [smoking] does serve a social purpose and I learned and decided not to give that up.” He can socialize with his friends even though he does not smoke anymore.

Confident Maintenance participants who were able to socialize with still-smoking peers expressed happiness to be with their peers, no sense of “missing out” on social time (a significant negative outcome expectation), pride in their ability to stay quit, general support from still-smoking peers, and pride in being a role model for others. These participants also sought support from still-smoking peers during

the action and early maintenance phases of quitting. For example, Crystal informed her coworkers and friends she was trying to quit, and asked them to refuse her attempts to bum cigarettes.

Interviewer: They would tell you no?

Crystal: Yep. And my friend Dan, I was like, Dan, please! And he was getting ready to give me one, and he was like wait a minute, no. And I was like no! I was just kidding! But he was like no.

Not only did Crystal's friends cater to her support requests, they also noticed her abstinence from cigarettes and verbally encouraged her. Crystal's still smoking friends "mostly say they wish they could quit." Other participants who are still able to socialize with smoking friends also informed the friends of their quitting.

Brandon said that his friends were supportive of his quitting, and when one accidentally offered him a cigarette out of habit Brandon said, 'No', then they were like 'Oh, that's right! I'm so sorry!' I was like, 'No it's fine, you're fine.'" His friend's profuse apology for the mistake meant a lot to Brandon.

Several participants described unsuccessful quit attempts in which they used still-smoking peer avoidance as a quit tactic. Participants instead elected to refrain from meeting up with friends and engaging in normal social time instead to avoid smoking environments. Jamie remembers telling his best friend, "Hey Amy, I'm trying to quit so we can't hang out all the time, at least not the next couple of weeks.' It was just really difficult. Sucks." They did not feel equipped to navigate social situations with still-smoking peers. These participants were able to stay quit until they could not stand being away from their friends, at which time they went out to the bar or restaurant with friends and immediately smoked. When these

participants quit their final time, they acknowledged the importance of their social time. They used various cognitive tactics such as positive self-talk, weighing the value of a cigarette against the positive outcomes from not smoking, and actively involved still-smoking friends in their quit process. Methods like those led to some participants' being able to socialize and not smoke, and therefore maintain their quit status often into the termination phase.

These participants have distinct memories of "the time" they first socialized with still-smoking peers without smoking. Danielle's first experience refusing a cigarette from her friend at the bar, Brandon's first social experience with smoking friends when he was able to not smoke, and Crystal's eventual refusal of a cigarette offer are examples of significant self-efficacy milestones. The single experience of refraining from smoking drastically increased their performance accomplishment self-efficacy for staying quit in a smoking environment, and they were able to repeat the non-smoking in a smoking environment indefinitely.

Participants in the Confident Maintenance stage who continued to socialize with smoking friends described several helpful tactics for navigating a still-smoking social environment as a non-smoker. Brandon said the realization that he could still partake in the "small, intimate conversations out on the back porch" with a group of smokers was monumental for him. He worried about missing out on the intimate times with pockets of smoking friends when they excused themselves from the larger social scene to smoke, and he said he would just go with them and not smoke. He brought his drink and fit in just like before he quit smoking. Other participants who were successful in quitting but worried about losing "smoke breaks" at work

actually went out for a smoke break but did not smoke. Marcus “went out the little gazebo at work where everybody smoked and just didn’t smoke.” They said they would miss the social time and the break time more than the actual smoking. Smoking was simply a facilitator for the break.

PARTICIPANTS’ RECOMMENDATIONS

When asked if they had suggestions for other LGBTQ individuals trying to quit smoking, the most common suggestion was to wait until truly ready to quit. Brandon said, “Read the book and then when you are ready, quit.” He highly recommended the book he used to quit, called “The Easy Way to Quit” by Alan Carr. No other participants read self-help quitting books, but they did advocate for making sure quitters are ready to quit.

Social support was also a key suggestion. Liza explicitly stated that she did not have enough social support and encouraged other quitters to bulk up their support systems. Crystal explained in detail how she involved her friends and co-workers in her quit process. She offered the following advice to people who want to quit:

Crystal: And your smoker friends, like say ‘if I ask you for a cigarette, tell me no, just please tell me no because it’s not going to help me if you just give them to me.’

Interviewer: They would tell you no?

Crystal: Yep. And my friend Dan, I was like, Dan, please! And he was getting ready to give me one, and he was like wait a minute, no. And I was like no! I was just kidding! But he was like no.

The final suggestion from participants was to find methods that work for different people. Just because one method worked for someone does not mean it works for everyone. Liza explicitly stated, “Cold turkey doesn’t work.” Quitting cold turkey, even with weaning toward a cold turkey quit, were impossible for her. She had to use the nicotine patch as a quit aid. This group of participants tailored their quit methods to their particular needs.

PHASE 2 QUANTITATIVE RESULTS

Eighty-eight people responded to at least one online survey question. However, 21 cases were removed from the data set. Of those 21 cases, three answered the preliminary screening questions only and did not continue on to the true survey. The other 18 cases were removed because the participants did not pass the screening questions: Ten had not smoked more than 100 cigarettes in their lifetimes, one did not agree to participate in the survey, one was not eighteen years old, and six did not live, work or “play” in the United States. The results section is based on the 67 remaining survey participants’ responses. The 67 remaining participants all responded “Yes” to the screening questions, meaning they agreed to take the survey, were 18 years of age or older, self-identified LGBTQ, live, work, or “play” in the United States, and had smoked more than 100 cigarettes in their lifetimes. The results presented are based on these 67 participants.

DEMOGRAPHICS

Gender Identity

Of the 67 participants who passed the screening questions and continued with the survey, 50.7 percent identified as “Male,” 41.8 percent as “Female,” 7.5 percent as “Other,” and no one identified as “Intersex.” Nine participants (13.4%) responded “Yes” to identifying under the transgender umbrella. Four of those nine further identified as “Genderqueer or Gender Non-Conforming,” one identified as “Male to Female/Transwoman,” three as “Female to Male/Transman,” and one as “Other” which ze described as “FtM, trans* and bigendered” in an open response field.

Sexual Orientation

Participants identified as Gay (46.3%, n=31), Lesbian (28.4%, n=19), Bisexual (14.9%, n=10), Unsure or Questioning (1.5%, n=1), and Other (9.0%, n=6). Participants who selected “Other” had the opportunity to describe their sexual orientation in a display logic question. Of the six respondents who chose to further identify, two listed Pansexual and four listed Queer as their sexual orientations.

Age

The average age of survey takers was 34.8 years. Participants ranged from 18 to 68 years of age.

Race & Ethnicity

The majority of the survey participants identified as White/Caucasian (71.6%, n = 48), 4.5 percent as Black/African American (n=3), 6.0 percent as American Indian or Alaska Native (n=4), 3.0 percent as Multi-racial (n=2), and 1.5

percent as Other (n=1). The participant who chose the “Other” response entered “Hispanic” as a free-response descriptor. Two participants (3.0%) answered “Yes” to a separate item asking “Are you Hispanic or Latino/a?” while fifty-four answered “No” (80.6%), and eleven did not respond to the item (16.4%).

Location

Respondents lived in twenty-three of the 56 states and U.S. Territories. Georgia (n=18), Missouri (n=14), and Florida (n=5) had the highest numbers of survey respondents.

Employment Status

When asked about current employment status, most respondents were employed for wages (53.7%, n=36). Some were students (14.9%, n=10), self-employed (8.9%, n=6), out of work more than one year (7.5%, n=5), out of work less than one year (2.9%, n=2), retired (5.9%, n=4), and/or unable to work (5.9%, n=4). Zero respondents selected “homemaker” to define their employment status. Respondents could select more than one option as they saw fit.

Education

Several respondents had a high school diploma or GED as their highest completed level of education (11.9%, n=8), and others had completed some college (14.9%, n=10), had an Associates degree (9.0%, n=6), a Bachelor’s degree (34.3%, n=23), a Master’s degree (11.9%, n=8), or a PhD/DSW or other non-medical doctorate degree (3.0%, n=2). Ten survey participants (14.9%) did not answer this question.

Income

The majority of participants (55.2%) had an annual income of \$35,000 or less. Income distribution details are: Less than \$10,000 (17.9%, n=12), \$10,001-15,000 (11.9%, n=8), \$15,001-20,000 (6.0%, n=4), \$20,001-25,000 (9.0%, n=6), \$25,001-35,000 (10.4%, n=7), \$35,001-50,000 (9.0%, n=6), \$50,001-75,000 (11.9%, n=8), \$75,000-100,000 (4.5%, n=3), \$100,001 or more (3.0%, n=2). Eleven participants (16.4%) did not choose a response to this question.

Partnerships/Relationships

Nearly 90 percent of respondents (n=60) answered the question, "Do you currently have a partner or significant other?" Of those respondents, 55.0 percent had a partner or significant other while 45.0 percent did not. When asked to define their relationship status further, 31.3 percent (n=21) were "Single, not dating," 1.5 percent (n=1) were "Divorced, not partnered," 1.5 percent (n=1) were "Widowed, not partnered," and 4.5 percent (n=3) were "Other." Another 31.3 percent (n=21) were "Partnered to/dating exclusively someone of the same sex," 4.5 percent (n=3) were "Partnered to/dating exclusively someone of the opposite sex," 4.5 percent (n=3) were "Single, dating more than one person," and 7.5 percent (n=5) were "Legally married to same sex partner." Nine survey participants (13.4%) did not respond to the "What is your relationship status?" question.

Alcohol Consumption

Most survey participants, when asked, "During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?" responded with one day (52.2%, n=35). Other responses include: Zero

days, (1.5%, n=1), two days (10.4%, n=7), 3-5 days (9.0%, n=6), 6-9 days (9.0%, n=6), 10-19 days (6.0%, n=4), 20 or more days (7.5%, n=5). Three survey participants (4.5%) did not answer this question.

Additionally, three percent (n=2) of participants drink alcohol zero nights per week, 31.3 percent (n=21) of participants drink alcohol one night per week, 17.9 percent (n=12) two nights per week, 9.4 percent (n=13) three nights, 14.9 percent (n=10) four nights, 7.5 percent (n=5) five nights, and 1.5 percent (n=1) six nights. Three survey participants (4.5%) did not answer this question.

SMOKING HABITS

Having smoked more than 100 cigarettes during the lifetime was a mandatory screening question, and as a result, all 67 participants who passed the screening questions have smoked at least 100 cigarettes. At the time of the survey, 35.8 percent of respondents saw themselves as an “Ex-smoker,” 14.9 percent as a “Once in a while smoker,” and 44.8 percent as a “Regular smoker.” Three participants (4.5%) did not respond to the smoking self-description question.

More than one third of respondents (34.3%) smoked all 30 days during the past month. Nearly one third of respondents (32.8%) smoked zero days during the past month. The remainder of respondents smoked 1-9 days (11.9%), 10-19 days (4.5 percent), and 20-29 days (11.9%). Three survey participants did not respond to the question.

The vast majority had ever smoked cigarettes daily, meaning at least one cigarette every day for 30 days. Of the 62 participants who answered the daily smoking question, 90.3% percent had ever smoked cigarettes daily.

Smoking Habits by Sexual Orientation Group

Thirty respondents who had smoked in the past 30 days identified as Gay. Of those who identified as Gay, 40.0 percent (n=12) had smoked all 30 out of the past 30 days. Ten percent (n=3) smoked 20-29 days, 3.3 percent (n=1) smoked 10-19 days, 6.7 percent (n=2) smoked 1-9 days, and 40.0 percent (n=12) smoked 0 days.

Eighteen respondents who had smoked in the past 30 days identified as Lesbian. Of those who identified as Lesbian, 27.9 percent (n=5) had smoked all 30 out of the past 30 days. One person smoked 20-29 days, zero smoked 10-19 days, 27.8 percent (n=5) smoked 1-9 days, and 38.9 percent (n=7) smoked 0 days.

Thirty respondents who had smoked in the past 30 days identified as Bisexual. Of those who identified as Bisexual, 55.6 percent (n=15) had smoked all 30 out of the past 30 days. One third (n=3) smoked 20-29 days, and 11.1 percent (n=1) smoked zero days.

One respondent who had smoked in the past 30 days was Unsure or Questioning about sexual orientation. This participant smoked 10-19 days of the past 30. Of the six respondents who selected "Other" for sexual orientation, two smoked zero days, one smoked 1-9, one smoked 10-19, one smoked 20-29, and one smoked all 30 days.

Smoking Habits by Gender Identity Group

Thirty-three respondents who had smoked in the past 30 days identified as Male. Of those who identified as Male, 39.4 percent (n=13) had smoked all 30 out of the past 30 days. Twelve percent (n=4) smoked 20-29 days, 3.0 percent (n=1)

smoked 10-19 days, 3.0 percent (n=1) smoked 1-9 days, and 42.4 percent (n=14) smoked 0 days.

Twenty-six respondents who had smoked in the past 30 days identified as Female. Of those who identified as Female, 34.6 percent (n=9) had smoked all 30 out of the past 30 days. Several, 11.5 percent (n=3) smoked 20-29 days, 3.8 percent (n=1) smoked 10-19 days, 23.1 percent (n=6) smoked 1-9 days, and 26.9 percent (n=7) smoked 0 days.

Five respondents who had smoked in the past 30 days identified as Other. Of those five who identified as Other, one (20.0%) fell into each of the given response options.

Participants identifying as Male tended to smoke more cigarettes per day on days they did smoke than participants identifying as Female or Other. Nearly 40 percent of males smoke 10 or less cigarettes per day, while 72.2 percent of females and 100 percent of the Other group smoke 10 or less per day.

Family Smoking

More than half (53.7%) had parents or primary caregivers who smoke or smoked cigarettes, and more than three-quarters (79.1%) had other family members who smoke or smoked. When asked if a friend or family member has become ill from a smoking-related illness, 56.7 percent responded with “Yes.”

Smoking Uptake

When asked to provide their age at which they first tried smoking, nearly half of the 63 participants who responded indicated they were 14 years old or younger at first smoke (47.6%). Another large group tried smoking between ages 15 and 18

(41.3%), while just 7.9 percent were ages 19-21, 1.6 percent ages 22-25, and 1.6 percent age 26 or older their first time trying smoking cigarettes. Over 80 percent of respondents indicated they were aware of the health risks when they started smoking.

Participants were also asked to provide their age at which they started smoking *regularly*. Of those who provided their regular smoking age, 17.9 percent were smoking regularly at age 14 or younger, 41.1 percent between ages 15 and 18, 33.9 percent at 19-21, and 7.1 percent at ages 22-25.

Smoking Uptake by Sexual Orientation Group

Nearly half of each sexual orientation identifier group first tried smoking at age 14 or younger: Gay (43.3%), Lesbian (47.1%), and Bisexual (44.4%). Nearly all the rest of these groups tried smoking at ages 15-18: Gay (40.0%), Lesbian (52.9%), and Bisexual (44.4%). The one participant who was Unsure or Questioning about sexual orientation first tried smoking at age 26+, and nearly all respondents identifying as “Other” tried smoking at age 14 or younger (83.3%).

Smoking Uptake by Gender Identity Group

Nearly half of Males and Females first tried smoking at age 14 or younger: Male (45.5%), Female (44.0%). Nearly all the rest of these groups tried smoking at ages 15-18: Male (42.4%), Female (44.0%). The majority of respondents identifying as “Other” tried smoking at age 14 or younger (80.0%), and only one tried it between ages 15 and 18.

Context and Progression of Smoking Uptake

“Ever smoker” participants, meaning they had smoked at least 100 cigarettes in their lifetimes, were also asked about the social context and progression of their smoking uptake. Participants could respond to the following questions using a 5-point Likert scale: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree.

- *I started out smoking mostly with friends.* The majority of respondents Strongly Agreed (35.5%, n=22) or Agreed (37.1%, n=23) with this statement. Several chose to Neither Agree nor Disagree (11.3%, n=7), and the rest either Disagreed (9.7%, n=6) or Strongly Disagreed (6.5%, n=4).
- *I started out smoking mostly alone.* The majority of respondents Strongly Disagreed (30.6%, n=19) or Disagreed (33.9%, n=21) with this statement. Several chose to Neither Agree nor Disagree (14.5%, n=9), and the rest either Agreed (12.9%, n=8) or Strongly Agreed (8.1%, n=5).
- *I started out smoking with friends, but then I became addicted myself.* The majority of respondents Strongly Agreed (27.4%, n=17) or Agreed (38.7%, n=24) with this statement. Several chose to Neither Agree nor Disagree (17.7%, n=11), and the rest either Disagreed (12.9%, n=8) or Strongly Disagreed (3.2%, n=2).
- *I started out smoking mostly alone and then began smoking with other people.* The majority of respondents Strongly Disagreed (27.4%, n=17) or Disagreed (33.9%, n=21) with this statement. Several chose to Neither Agree nor Disagree (8.1%, n=5), and nearly one-fourth Agreed (24.2%, n=15). The rest Strongly Agreed (6.5%, n=4).
- *I started smoking to get a smoke break at work.* The majority of respondents Strongly Disagreed (43.5%, n=27) or Disagreed (33.9%, n=21) with this statement. Several chose to Neither Agree nor Disagree (9.7%, n=6), Agree (24.2%, n=15) or Strongly Agreed (6.5%, n=4).

Smoking uptake and progression tended to occur in the two steps described by McLeod and colleagues, experimentation and consolidation (2008). Participants

started experimenting with smoking socially with friends (72.5%) and then became addicted themselves (66.1%), consolidating their smoking into a regular habit.

Peer Smoking Prevalence and LGBTQ Identity: Smoking Uptake and Currently

Survey participants were asked questions about their peers' smoking habits around the time of their own smoking uptake and currently at the time of the survey. Participants were also asked about their peers' LGBTQ identities around the time of their own smoking uptake and in the present day. Sixty two participants responded to this set of questions.

When participants first started smoking, 6.5 percent said none of their friends smoked, 43.5 percent said that some of their friends smoked, 22.6 percent said half smoked, 21.0 percent said most smoked, and 6.5 percent said all smoked. At the time of the survey, 8.1 percent said none of their friends smoked, 64.5 percent said that some of their friends smoked, 12.9 percent said half smoked, 12.9 percent said most smoked, and 1.6 percent said all smoked.

When participants first started smoking, 50.0 percent said none of their friends were LGBTQ, 40.3 percent said that some of their friends were LGBTQ, 1.6 percent said half, and 8.1 percent said most. At the time of the survey, 3.2 percent said none of their friends were LGBTQ, 29.0 percent said that some of their friends were LGBTQ, 29.0 percent said half, 24.2 percent said most, and 14.5 percent said almost all.

Cigarette Smoking, Peer Influence, & Identity

The use of cigarette smoking to adopt peer characteristics and create identity was assessed using a Likert-type scale, as follows: 1 = Strongly Disagree, 2 =

Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, and 5 = Strongly Agree. The numbers assigned to the Likert-type items represent a “greater than” relationship between responses. The means for each item are listed below in order from greatest, meaning the respondent group tended to agree most with the statement, to smallest, meaning the group tended to agree least with the statement.

Table 4: Cigarette Smoking, Peer Influence, & Identity

I started smoking...	Mean	Std. Deviation
To fit in with an alternative crowd	3.05	1.23
To feel rebellious	2.97	1.13
Because someone I looked up to smoked	2.77	1.19
To help conceal my LGBTQ identity (for example, the straight group smoked and you wanted to fit in with them.)	1.89	1.03

Participants agreed most with starting smoking to fit in with an alternative crowd, followed by starting smoking to feel rebellious or because an aspirational person smoked. Participants tended to disagree that they started smoking to help conceal their LGBTQ identity.

Perception of Self as a Smoker

Perception of self as a smoker was also assessed using a Likert-type scale, as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, and 5 = Strongly Agree. The numbers assigned to the Likert-type items represent a “greater than” relationship. The means for each item are listed below in order from greatest, meaning the respondent group tended to agree most with the statement, to smallest, meaning the group tended to agree least with the statement.

Table 5: Perception of Self as a Smoker

Item	Mean	SD
I do not want to be a smoker	4.19	0.96
I never planned to be someone who smokes	4.02	1.11
I enjoy smoking	3.68	1.20
Smoking is part of who I am	2.57	1.20

I associate smoking with my identity as an LGBTQ person	1.82	0.98
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The participant group generally agreed with the statement “I do not want to be a smoker,” and participants also agreed they never planned to be someone who smoked. Participants tended to enjoy smoking, but did not strongly indicate that smoking “is a part of who I am.” Participants tended to disagree with the notion of associating smoking with their LGBTQ identities.

CURRENT SMOKERS

Of the 42 participants who smoked during the past 30 days, 41 answered questions on nicotine dependence and current smoking habits. On the days current smokers smoked, 58.5 percent smoked 10 or fewer cigarettes, 26.8 percent smoked 11-20 cigarettes, 9.8 percent smoked 21-30, and 4.9 percent smoked 31 or more.

When asked how long participants waited before smoking their first cigarette of the day, 17.1 percent (n=7) smoked within five minutes of awakening, 26.8 percent (n=11) within 6-30 minutes, 9.8 percent (n=4) between 31-60 minutes, and nearly half of the current smokers, 46.3 percent, waited at least 60 minutes to smoke their first cigarette.

About one third of current smokers, (36.6%) would hate to give up their first cigarette in the morning the most. Most current smokers, 63.4 percent, would hate to give up any other cigarette during the day. Only 24.4 percent of current smokers smoke more frequently during the first hours after awakening than during the rest of the day. Most current smokers (70.7%) do not find it difficult to refrain from smoking in places where it is forbidden, but a large percentage (41.5%) smoke even if they are so ill they are in bed most of the day.

Survey participants had acquired cigarettes in a variety of ways over the course of their smoking history. The most popular ways include buying at a store (91.0%), bumming from a friend (86.6%), bumming from a stranger (68.7%), and from a vending machine (68.7%).

Table 6: Have you ever gotten cigarettes from?

Bought at store	Bum from friend	Bum from stranger	Vending machine	Bar or club	Siblings	Stole from parent or caregiver	Parent or caregiver gave	Stole from store	Other
91.0%	86.6%	68.7%	68.7%	64.2%	32.8%	26.9%	23.9%	11.9%	14.9%

Every survey participant (n=67) answered the questions about types of cigarettes smoked. The most popular include Filtered (73.1%) and Menthols (40.3%).

Table 7: What kinds of cigarettes do you usually smoke?

Filtered	Menthols	Lights	100's, 120's	Ultra Lights	Unfiltered	Wides	Slims	Other*
73.1%	40.3%	34.3%	25.4%	14.9%	6.0%	6.0%	1.5%	4.5%

*One participant listed "Cloves."

Smoking as Coping

Survey participants relied on smoking as a coping tool for a variety of stressors. Interestingly, more respondents used smoking to cope with non-LGBTQ related stressors than with LGBTQ-related stressors. Smoking was used to cope with daily life stress (98.4%, n=61), feeling sad or upset (96.8%, n=60), stress with romantic relationships (77.4%, n=48), and to self-medicate mental health issues like depression, ADD, bi-polar (64.5%, n=40) more so than to cope with stress from being LGBTQ (51.6%, n=32), family reactions to LGBTQ identity (41.0%, n=25), and religion conflicting with your LGBTQ identity (27.4%, n=17).

Cigarette Smoking for Social Facilitation

The use of cigarette smoking for social facilitation was assessed using a Likert-type scale, as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, and 5 = Strongly Agree. The numbers assigned to the Likert-type items represent a “greater than” relationship. The means for each item are listed below in order from greatest, meaning the respondent group tended to agree most with the statement, to smallest, meaning the group tended to agree least with the statement.

Table 8: Cigarette Smoking for Social Facilitation

I have smoked...	Mean	SD
When drinking alcohol	4.66	0.75
To socialize at bars or clubs	4.02	0.97
To socialize at parties	3.95	0.99
To hang out with my friends	3.55	1.13
To break away from the group and be in a more intimate setting with other smokers	3.47	1.28
To meet romantic partners	2.68	1.20

The group most strongly agreed to having smoked with drinking alcohol, followed by smoking to facilitate socialization at bars, parties, with friends, and to create a more intimate setting with other smokers away from a larger gathering. The respondent group tended to agree least with having smoked to meet romantic partners.

Repercussions from Smoking

The majority of respondents, 80.6 percent, indicated ever experiencing negative health symptoms from smoking. Smoking also took an emotional toll, with 83.6% having ever felt guilty for smoking and 61.3 percent having felt stress from hiding smoking from friends, coworkers, or family.

QUITTING

Planning to Quit

Of the 42 respondents who smoked in the past 30 days, the vast majority (71.4%, n=30) want to quit smoking for good. Of the respondents who want to quit for good, 89.3 percent (n=25) are thinking about quitting in the next 6 months and 68.0 percent are even thinking about quitting in the next 30 days.

Positive and Negative Outcome Expectations: Participants were asked to select positive and negative outcomes they expected from quitting. When thinking about quitting, participants were most worried about: Losing a coping tool for stress (70.1%), failing at another quit attempt (58.2%), losing an enjoyable thing (55.2%), and weight gain (49.3%). Participants least worried about: Substituting another bad habit (40.3%), losing social bonds associated with smoking (32.8%), and loss of part of their LGBTQ identity (7.5%).

Positive outcomes participant looked forward to most when thinking about quitting include: Saving money from cigarettes (79.1%), improved health (77.6%), better smelling clothes and breath (77.6%) feeling better about self (65.7%), and improving at exercise or sports (61.2%). Participants least looked forward to: No more stigma or shame from smoking (52.2%), presenting a better image to others (47.8%), a cleaner house/fewer nicotine stains (28.4%), protecting others from secondhand smoke (26.9%), saving money on health insurance (16.4%), and increased ease in altering voice during gender transition (6.0%).

Quit Attempts

When asked, “Have you ever tried to quit smoking?” most respondents (80.6%) had tried, several (10.4%) had not, and a few (9.0%) did not respond to the question. When stratified by sexual orientation, 92.9 percent of respondents identifying as gay had ever tried to quit, while 88.2 percent of lesbian-identified respondents had ever tried, 100 percent of respondents identifying as “Other” had ever tried, and the only respondent who was unsure/questioning had ever tried to quit. Respondents identifying as bisexual had the lowest prevalence of ever trying to quit, at 66.7%. When broken down by gender identity, 93.5 percent of respondents identifying as male had ever tried to quit, while 80.0 percent of female-identified respondents and 100 percent of participants identifying as Other had ever tried to quit.

Of the respondents who had ever tried to quit, 40.3 percent had tried to quit in the past 12 months. Of those who had tried to quit in the past 12 months, 44.4 percent tried one time, 25.9 percent twice, 14.8 percent three times, 7.4 percent four times, 3.7 percent six times, and 3.7 percent more than eight times.

Gender Identity

Of those respondents identifying as Male, 93.5 percent had ever tried to quit, while 80.0 percent of Females and 100 percent of participants identifying as Other had ever tried to quit.

Support for Quitting

The majority of respondents, 69.7 percent, answered “yes” when asked if their partner or significant other encourages them to quit or stay quit.

Most respondents (88.1%) indicated the statement, “I try to quit/stay quit for myself” applies more to them than the statement “I try to quit/stay quit for someone else (partner, child, family, etc.)”

Quit Methods

More than half of survey participants (56.7%, n=38) had ever tried to quit smoking but been unsuccessful, meaning they stayed quit for less than six months. Of those who had ever unsuccessfully quit, the most used methods include getting rid of cigarettes (76.3%), cold turkey quit with no weaning (65.8%), and using oral substitutes (63.1%).

More than half of survey respondents (52.2%, n=35) had ever successfully quit smoking for more than six months. One person’s most successful quit period was more than 21 years, another’s was 16-20 years, three people quit for 11-15 years, three quit for 6-10 years, 11 (16.4%) quit for 3-5 years, ten (14.9%) for 1-2 years, and six (9.0%) for 6-11 months. Of those who had ever successfully quit, the most used methods include cold turkey quit with no weaning (51.4%), getting rid of cigarettes (42.9%), and positive self-talk (37.1%).

Table 9: Methods Used for Unsuccessful and Successful Quit Attempts

Methods Used	Unsuccessful Attempts (<6 months stayed quit)	Successful Attempt (6+ months stayed quit)
Quitting self-help book	15.8%	14.3%
Visited quitting website	28.9%	5.7%
Positive self-talk	60.5%	37.1%
Changed thoughts about cigarettes	36.8%	34.3%
Quit buddy	18.4%	5.7%
Increased physical activity	39.5%	17.1%
Oral substitutes	63.1%	20.0%
Got rid of cigarettes	76.3%	42.9%
Chose quit date in advance	47.4%	25.7%
Weaned down	52.6%	8.6%
Nicotine lollipop	0.0%	2.9%

Made friends with ex-smokers/non-smokers	0.0%	5.7%
Limited the time of day smoked	28.9%	8.6%
Cold turkey quit (after weaning)	52.6%	11.4%
Cold turkey quit (no weaning)	65.8%	51.4%
Nicotine patch	31.6%	11.4%
Nicotine gum	28.9%	11.4%
Nicotine lozenge	10.5%	2.9%
Wellbutrin ® or Zyban ®	21.1%	0.0%
Chantix ®	10.5%	5.7%
Avoided still-smoking friends	21.1%	20.0%
Avoided bars/clubs	28.9%	20.0%
Relocated from still-smoking friends	7.9%	0.0%
Involved friends in quit process	39.5%	20.0%
E-cigarette	39.5%	8.6%
Tobacco pouch	5.3%	0.0%
Smokeless tobacco	15.8%	2.9%
Nicotine inhaler or nasal spray	7.9%	0.0%
Saw a counselor	5.3%	2.9%
Hypnosis	10.5%	2.9%
Attended smoking cessation program for free	7.9%	5.7%
Attended smoking cessation program for a fee	5.3%	2.9%
Waited until “truly ready”	31.6%	34.3%

The extremely low usage of nicotine replacement therapies, prescription medication for quitting, and counseling or smoking cessation programming is of note. It is widely believed that a combination of NRT or medication as well as counseling is the most effective quit tactic. People who use NRT or medicines and behavioral/psychosocial tactics together have a much higher success rate for quitting than people who use only one main method of quitting, and the table below shows that very few Phase 2 participants employed these methods.

Table 10: Average Usage of NRT, Pharmacological Aids, and Counseling**Methods**

	Unsuccessful Attempts (<6 months stayed quit)	Successful Attempt (6+ months stayed quit)
Nicotine patch	31.6%	11.4%
Nicotine gum	28.9%	11.4%
Nicotine lozenge	10.5%	2.9%
Nicotine inhaler/nasal spray	7.9%	0.0%
Average	19.7%	6.4%
Pharmacological Aids		
Wellbutrin ® or Zyban ®	21.1%	0.0%
Chantix ®	10.5%	5.7%
Average	15.8%	2.9%
Counseling & SC Groups		
Saw a counselor	5.3%	2.9%
Attended SC program for free	7.9%	5.7%
Attended SC program for fee	5.3%	2.9%
Average	6.17%	3.83%

Participants display low utilization of methods commonly championed as effective when used together. Usage of NRT, pharmacological aids, and counseling is particularly low during successfully maintained attempts. Participants tended to use NRT more during unsuccessful attempts (19.7%) than successful attempts (6.4%). Use of medication declined from 15.8 percent with unsuccessful attempts to 2.9 percent with the successful attempts. Very few participants saw a counselor or attended a smoking cessation program during unsuccessful attempts (6.17%), and even fewer (3.83%) did so during their successful attempt.

Other methods used more frequently and successfully by participants include getting rid of cigarettes (42.9%), choosing a quit date in advance (25.7%), and going cold turkey (51.4%). During their successful quit attempt, over forty percent of successful quitters employed informal, cognitive behavioral therapy-like tactics

including positive self-talk and altering thoughts about what cigarettes do for them. Despite participants not attending formal counseling or quit groups, they ended up successfully using select components often found in formal treatment settings. Only 20.0 percent of successful quitters involved their friends in the quit process.

Self-Efficacy for Quitting in General

Self-efficacy for quitting and staying quit in general was assessed using a Likert-type scale, as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, and 5 = Strongly Agree. The numbers assigned to the Likert-type items represent a “greater than” relationship. The means for each item are listed below in order from greatest, meaning the respondent group tended to agree most with the statement, to smallest, meaning the group tended to agree least with the statement.

Table 11: Self-Efficacy for Quitting in General

Item	Mean	SD
I feel confident about quitting/staying quit because I have been successful in other health changes in the past (eating better, drinking less alcohol, etc)	3.72	0.95
I feel confident about quitting/staying quit because a family member was successful in quitting/staying quit	3.33	1.02
I feel confident about quitting/staying quit because a friend was successful in quitting/staying quit	3.31	0.96
I worry about quitting/staying quit because I can't stop nicotine cravings.	2.98	1.34
I feel confident about quitting/staying quit because I am/was not a heavy smoker	2.95	1.25
I feel confident about quitting/staying quit because I smoke/d light cigarettes	2.49	1.15

Survey participants tended to agree most with feeling confident about quitting/staying quit from cigarettes because of success in other health changes, followed by confidence due to a family member's success and then a friend's success in quitting. Participants agreed least with worrying about quitting because of

difficulty stopping nicotine cravings, confidence about quitting because of not being a heavy smoker, and confidence about quitting because of smoking light cigarettes.

Self-Efficacy and Social Support for Navigating a Smoking Environment as a Non-Smoker

Self-efficacy and social support for navigating a smoking environment as a non-smoker were assessed using a Likert-type scale, as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, and 5 = Strongly Agree. The numbers assigned to the Likert-type items represent a “greater than” relationship. The means for each item are listed below in order from greatest, meaning the respondent group tended to agree most with the statement, to smallest, meaning the group tended to agree least with the statement.

Table 12: Self-Efficacy and Social Support for Navigating a Smoking Environment

Item	Mean	SD
The benefits from quitting outweigh the challenges.	4.18	0.89
My friends who smoke are generally accepting of people who quit smoking.	4.00	0.88
My smoking friends say they want to quit smoking.	3.75	0.88
I am able to socialize with smoking friends without smoking.	3.67	1.08
I feel confident in my ability to refuse a cigarette that is offered to me.	3.43	1.31
Quitting smoking is a lonely process.	3.41	1.23
If I go out drinking with friends, I worry I might smoke.	3.08	1.53
I involved my friends in my quitting (asking for support, telling not to give cigarettes)	3.08	1.25
I avoid situations where people will be smoking when I am not smoking.	3.02	1.19
Very few people know I am trying to quit/stay quit	2.95	1.56
I need to limit the time I spend with smoking friends to help me quit/stay quit	2.83	1.25
It is challenging to become known as a non-smoker after being a smoker.	2.80	1.31
If I quit smoking I will “miss out” on things with my friends.	2.35	1.38

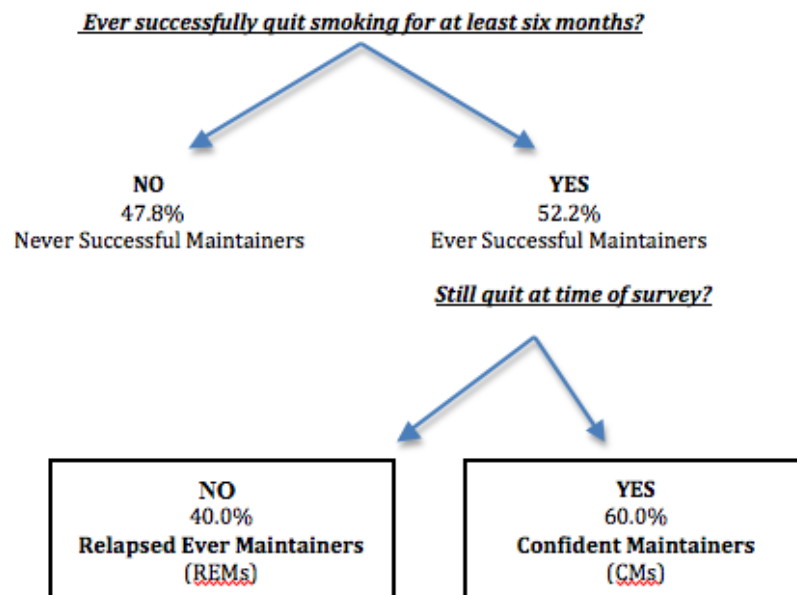
Participants agreed most strongly that the benefits from quitting outweigh the challenges and that their still-smoking friends are accepting of people who quit smoking. The respondent group also tended to agree that their smoking friends say they want to quit, that they are able to refuse a cigarette that is offered, and that quitting smoking is a lonely process. Means are just slightly above a neutral score for items about worrying about smoking if going out drinking, involving friends in the quit process, and avoiding situations where people will be smoking when the participants are not smoking. Neutrality continues with the statement “Very few people know I’m trying to quit/stay quit” and with the need to limit time spend with smoking friends to assist in the quit process. Participants agree less with the notion that it is challenging to become known as a non-smoker after being a smoker, and agree least that they will “miss out” on things with friends if they quit smoking.

CONFIDENT MAINTAINERS

Definition

Phase 2 participants were classified as Confident Maintainers (CMs) according to the following protocol: Participants had been successfully quit for at least six months and were *still* quit at the time of the study. These CMs were then compared to participants who those who had *ever* successfully quit for at least six months, but had relapsed at the time of the study (REMs).

Figure 1: Visual Representation of Protocol Decisions



More than half of Phase 2 participants (52.2%) had *ever* successfully quit for more than six months. This means 52.2 percent of participants had ever technically entered the “Maintenance” stage of change for smoking cessation. Of these “ever maintainers,” two-thirds (60.0%) were *still quit* at the time of the study. This still-quit group was designated as Confident Maintainers (CMs) for the purpose of this analysis. The other 40.0 percent of “ever maintainers” had relapsed at the time of the survey. This 40.0 percent that had ever successfully quit for at least six months but had relapsed at the time of the study was designated “Relapsed Ever Maintainers,” or “REMs.” Over forty percent of REMs (42.8%) had smoked 20-30 days in the past month, and the remainder has smoked 1-19 days. Two thirds were thinking about quitting in the next six months, and more than half in the next 30 days.

Comparing Current Confident Maintainers to Relapsed Ever Maintainers

Confident Maintainers (CM) and Relapsed Ever Maintainer (REM) groups had several similarities.

- The vast majority of CMs and REMs, over 80 percent, had smoked to socialize at parties, bars or clubs, when drinking alcohol, and to hang out with friends.
- More than 60 percent of each group enjoy/enjoyed smoking.
- The vast majority of both groups, over 90 percent, did not associate smoking with their identity as a LGBTQ person.
- Most Confident Maintainers (90.5%) and Relapsed Ever Maintainers (71.4%) believed the benefits of quitting outweighed the challenges.
- About half of each group worried about quitting/staying quit because of failed past quit attempts.

The two groups displayed differences in responses to items about self-efficacy for quitting and staying quit.

- One hundred percent of Confident Maintainers (CMs) were confident in their ability to socialize with smoking friends without smoking themselves, compared to 64.3 percent of Relapsed Ever Maintainers (REMs).
- Over 90 percent of CMs were confident in their ability to refuse an offered cigarette, compared to 35.7 percent of REMs.
- Very few CMs (9.5%) worried about “missing out” on things with friends because of not smoking. Over 40 percent of REMs worried.

- About one-quarter of CMs worried about smoking when drinking with friends. About two-thirds of REMs worried.
- Very few CMs (9.5%) worried about staying quit because they can't stop nicotine cravings, compared to 42.8 percent of REMs who worried.
- The vast majority of CMs (81.0%) felt confident about quitting/staying quit because of success in other health changes in the past, compared to just over half of REMs (57.1%).
- All CMs (100%) said they do not want to be a smoker, compared to 71.5 percent of REMs.

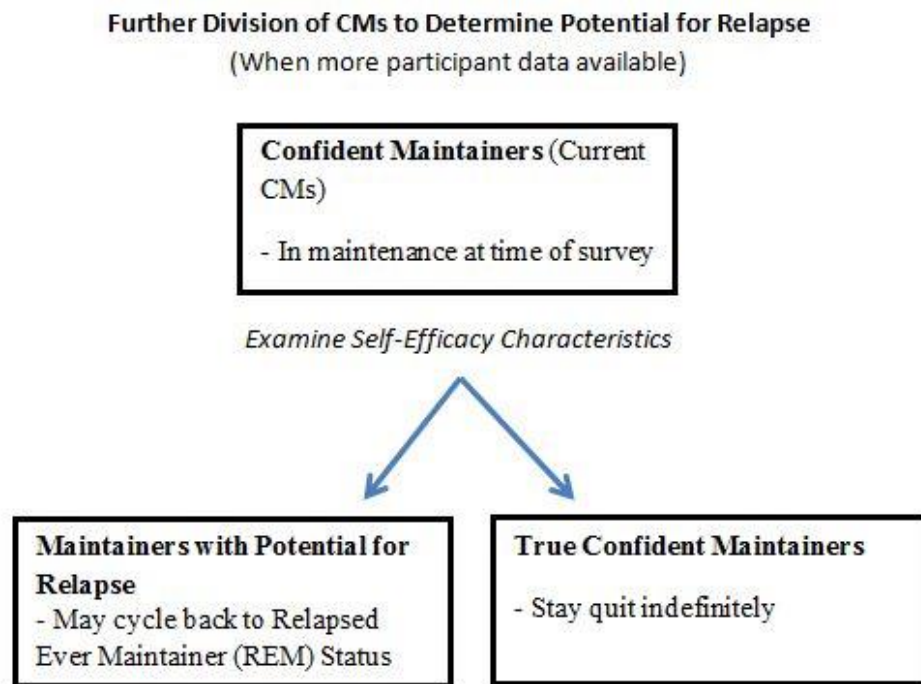
Additionally, Confident Maintainers' most successful quit attempts appear to be of longer duration than those of Relapsed Ever Maintainers.

Table 13: Quit Attempt Length

Most Successful Quit Length	CMs	REMs
6-11 Months	9.5 %	28.6%
1-2 Years	28.6%	28.6%
3-5 Years	33.3%	28.6%
6+ Years	28.6%	14.2%

In the future, when more participants take the survey, Confident Maintainers could be further divided into those who are truly confident and those displaying characteristics of real potential for relapse. A comparison of self-efficacy item means between two further groups of Confident Maintainers will be valuable. The sample size was simply too small to continue stratifying groups in this study.

Figure 2: Visual Representation of Further CM Division



This information is important because researchers could then investigate what characteristics current Confident Maintainers with the potential for relapse display that will eventually lead them to cycle back to REMs. Characteristics of successful true CMs will also be helpful in guiding others to success.

Limitation of Confident Maintainers Estimation Design

There is a limitation in this method of estimating Confident Maintainers. It is impossible to know if the participants grouped into Confident Maintenance by the protocol (sustained six month quitting at time of the survey) will relapse in the future. They are compared to the six-month relapse group for the sake of exploring similarities and differences between those who were in Maintenance and definitely relapsed and those who are in Confident Maintenance and have not yet/possibly will not relapse.

CHAPTER 5

DISCUSSION

SUMMARY

The major finding of this study was LGBTQ identity has to do with risk factors leading to smoking initiation and peer smoking group, but not addiction or cessation. Data from LGBTQ participants in the qualitative Phase 1 and quantitative Phase 2 indicate LGBTQ identity is not heavily tied to quitting, nor does it seem to influence the quitting process despite being salient in the smoking uptake process. This finding has wide implications for further practice and research. Perhaps expensive, intensive LGBTQ-specific quit programs that do not even outperform standard programs are not necessary. Further, smoking cessation practitioners needn't worry that they may be ill equipped to assist LGBTQ clients in quitting smoking. In the end, the challenges present when quitting smoking seem to be unique to quitting smoking — not to LGBTQ identity.

Risk factors for LGBTQ smoking confirmed by participants in this study include individual risk factors like loneliness, depression, stress, lack of support, maladaptive coping skills, other substance use, and the desire for social acceptance (Matthews, et al., 2011; Ryan, et al., 2001). Risk factors on the other levels of the Social Ecological Model were also confirmed. These include factors on the relationship level like family, friends, peer groups, and particularly peer influence

surrounding smoking and tobacco use (Baillie, et al., 2005). Community risk factors, like limitations on socialization settings that lead to heavy use of bars and clubs for socialization were confirmed, as were risk factors on the societal level of the SEM like overarching cultural homophobia, religious ideology, and heteronormativity (Ryan, et al., 2001; American Lung Association, 2010). Participants also confirmed the interconnectedness of risk factors between levels. For example, Marcus' fear of sharing his identity with existing friends and family led to him seeking out the gay community at a gay bar. His nervousness at the bar prompted him to start smoking to calm down, blend in, and meet other people.

The LGBTQ participants in Phase 1 and Phase 2 of this study shared their experiences with smoking, attempted quitting, and for some, successful sustained quitting. The main themes from this study's results reflect the challenges and successes of quitting smoking, and give rise to recommendations for further research and practice. First, participants experienced smoking adoption risk factors related to the LGBTQ identities they hold, but their quit process tended to not involve their LGBTQ identity. Second, the trial-and-error process is an extremely salient theme that holds true to individual participant differences. The majority of successful quitters tried to quit smoking many times before learning what tactics worked best for them as an individual. Third, the most successful quitters, categorized in the newly-created stage grouping called Confident Maintenance, were successful for a variety of reasons that set them apart from participants not confident in their ability to stay quit.

PROGRESSION OF SMOKING HABITS

Progression of smoking habits is influenced by childhood exposure to smoking, peer group smoking, and the pathway from smoking experimentation to addiction. Participants experienced exposure to smoking parents, peers, and siblings, all of which have been shown to influence youth smoking habits (Brook, Whiteman, Czeisler, Shapiro, & Cohen, 1997; Chassin, et al., 1984). Phase 1 results are consistent with existing literature stating that smoking behaviors of parents have an impact on smoking behavior of children, smoking parents increase children's risk of smoking, and children of never smoking parents have a 71 percent reduction in odds of daily smoking (Bricker, et al., 2003; Chassin, et al., 1996; Flay et al., 1994). Two-thirds of the Phase 1 interview participants grew up with at least one parent smoking. Most Phase 1 participants spoke of seeing parents and family members smoke, and how it was "just regular, just familiar." Despite a parent advising their child not to smoke, "actions speak louder than words."

More than half of Phase 2 survey participants grew up with a smoking parent or primary caregiver (53.7%) and the vast majority have other family members who smoke or smoked (79.1%). Even if a parent quits smoking, their child is still at higher risk to start smoking than a child of never-smoking parents (Bricker, et al., 2003). Data from Phase 1 and 2 participants supports the literature indicating that growing up in a smoking home is related to participants' smoking themselves.

Familial Modeling of an Eventual Coping Mechanism for Child LGBTQ Identity Stress

It is possible that participants gravitated toward smoking as a coping mechanism for dealing with LGBTQ identity stress because they had seen parental

modeling of smoking. It was an accessible stress-reduction tool and it simultaneously granted them entry into an alternative social world that often catered to components of their LGBTQ identity.

Results indicate that a majority of Phase 1 and 2 participants grew up with immediate family members smoking. Results also indicate that participants underwent periods of internal and external hardship when recognizing, developing, and accepting their LGBTQ identity through various processes and stages, which is often seen in LGBTQ identity development literature (Cass, 1976; D'Augelli & Peterson, 1995; Fassinger, 1991). People often desire to be included in groups that provide “them the opportunity to express certain parts of themselves” (McLeod, et al., 2008). LGBTQ individuals were able to relieve identity-relates stress and affiliate themselves with a desired peer group through smoking, a behavior often learned from caregivers.

Smoking to Construct Social Identity for LGBTQ Participants

While parental modeling of smoking is one of the most key components of children's starting to smoke, non-parental factors of social influence, including siblings and peers who smoke, have been documented as influencing smoking uptake (Alexander, Piazza, Mekos, & Valente, 2002; Botvin, et al., 1992; Bricker, et al., 2003; Engels & Knibbe, 1999; Swan, Creeser, & Murray, 1990). These relationship factors were confirmed as influential to nearly all Phase 1 participants' smoking adoption. Perhaps the most pervasive reason for participants smoking adoption found in this study, and confirming existing literature, was that participants “gravitated to the behaviors and images of the peer group who smoked”

(McLeod, et al., 2008) and used smoking to “construct a social identity” (McLeod, et al., 2008). LGBTQ participants in this study often based their peer-group selection and social identity construction around factors that allowed them rebelliousness, independence, and freedom, factors reflected in smoking uptake literature (Graves, 2000). This mirrors another study by Moran (2010) that showed social identities of young smokers included components of rebelliousness and alternative images.

Smoking was a gateway to socialization with a desired group and a building block for their LGBTQ identities. Participants could, as seen in previous studies, assume an image, immerse themselves in a group of their choice, and oftentimes said image is one of rebellion or an alternative nature (Nichter, Nichter, Vuckovic, Quintero, & Ritenbaugh, 1997). Because participants were LGBTQ, their desired groups usually had something to do with their LGBTQ identities. Participants in Phase 1 and Phase 2 both cited the desire to align themselves with a rebellious group through smoking, with nearly 40 percent of Phase 2 participants starting smoking to feel rebellious.

Social Adoption to Individual Addiction

One of the most pervasive findings that emerged from participant interview data was the progression of smoking habits from irregular or social to a habitual addiction. Research supports cigarette smoking as extremely common in the LGBTQ social environment and amongst LGBTQ peers (American Lung Association, 2009; Hatsenbuehler, Wieringa, & Keyes, 2011; Ryan, et al., 2001; The Fenway Institute, 2008; Yarhouse & Tan, 2005). Smoking uptake is often socially driven in the LGBTQ

community, and as illustrated by Phase 1 and 2 participants, it turns into an individual addictive habit.

Phase 1 and 2 participant's experiences confirm existing literature describing dual phases of the smoking process: "Experimentation and consolidation. Experimentation refers to the period when cigarettes were tried for the first time and smoking was irregular, whereas consolidation refers to when smoking became a regular behavior" (McLeod et al., 2008). Phase 2 participants starting out smoking mostly with friends (73.6%) and starting out smoking with friends and then becoming addicted themselves (66.1%). Participants in Phase 1 and 2 went through a process of social experimentation, usually linked to their desire to fit in with a particular social group and often predisposed by parental and familial smoking. Smoking adoption research indicates that people start smoking to gain entry to a group of people that holds desirable characteristics and to investigate who they are (McLeod et al., 2008).

Phase 1 and 2 participants are unique because their LGBTQ identities and the LGBTQ-specific smoking risk factors were heavily influential on their decision to experiment with smoking. Again, these risk factors include individual risk factors like depression, relationship level factors like family, friends, and peer groups, community risk factors, like availability of bars and clubs for socialization, and societal level risk factors like overarching cultural homophobia, religious ideology, and heteronormativity. Experimentation with smoking led to consolidation of Phase 1 and 2 participants' habits, and from that point on the majority of participants continued socializing with other smokers. The processes of experimentation and

consolidation were the same for LGBTQ individuals as literature documents them for non-LGBTQ individuals, but the risk factors that led LGBTQ individuals to the actual initiation process were specific to their LGBTQ identities.

TRIAL AND ERROR: QUITTING METHODS

As stated in Chapter 4, the main quit methods used by participants who had every successfully quit for at least six months were cold turkey quit with no weaning, getting rid of cigarettes, and positive self-talk. These methods were the most popular during their most successful quit attempt, and this attempt usually followed several unsuccessful attempts with many other methods used.

Most people say they want to quit, but of the 40 percent of smokers in the United States who make a dedicated attempt to quit each year, the success rate is under five percent (Ferguson, Schuz, & Gitchell, 2012; National Institutes of Health, 2006). Exploring how that small portion of quitters is so successful will help others follow their success. All Phase 1 participants had successfully quit smoking for more than six months, 52.2 percent of Phase 2 participants had successfully quit, and most participants in this study (66.7%) said their still-smoking friends want to quit. Since the LGBTQ population in the United States smokes at twice the rate of the general population (American Lung Association, 2009), is vital to understand how successful LGBTQ quitters manage to quit and remain quit.

The most pervasive theme from Phase 1 and 2 participants' quitting was the use of the "trial and error" method. Participants learned which tactics worked and did not work for them during failed quit attempts. Participants then employed that knowledge during subsequent attempts. Phase 1 and 2 participants trial and error

method confirms that the “overriding strategy was learning from past mistakes” (Wolburg, 2009). Participants’ past mistakes include choosing to use or ignore quit tools that had negative side effects, did not fit into their lifestyle, or were simply perceived as ineffective, as well as social mistakes like avoiding socialization opportunities out of fear of relapse and then feeling lonely.

Learning from the past does not always mean learning from past mistakes. For example, nearly one-third of Phase 2 participants visited a quitting website during their unsuccessful attempts while just 5.7 percent visited a website during their successful attempt. It is possible they gained knowledge from the website they employed during subsequent attempts, yet they did not need to re-visit the website again. More research is needed to confirm this notion, but it is important to recognize that unsuccessful attempts helped participants prepare for their successful attempt. It is also important to note that quitting websites are tools people use when trying to quit. LGBTQ-specific quitting websites would be a cost-effective way to provide quitting information. They would also allow for some LGBTQ content, despite that findings from this study do not support LGBTQ identity as a major factor in the quit process. Findings do not indicate that quit aids that do include LGBTQ identity would be *harmful* to LGBTQ quitters, so until further study proves they are detrimental, LGBTQ content may be attractive to some LGBTQ quitters.

Low Usage of Evidence-Based Treatments

The extremely low usage of “gold standard” Evidence-Based Treatments for smoking cessation, which include nicotine replacement therapy, prescription

medication for quitting, and counseling or smoking cessation programming is of note (Campion, Checinski, & Nurse, 2008). A 2008 review of randomized controlled trials indicates that use of nicotine replacement therapy increases chances of quitting by 50 to 70 percent (Stead, Perera, Bullen, Mant, & Lancaster, 2008). A 2008 recent review of pharmacotherapy RCTs found that varenicline and bupropion exceeded the placebo in efficacy for six and 12 month smoking abstinence, but 12 month abstinence was under 30 percent (Eisenberg, Filion, Yavin, Belisle, Mottillo, Joseph, Gervais, O'Loughlin, Paradis, Rinfret, & Pilote, 2008). It is widely believed that a combination of NRT or medication as well as counseling is the most effective quit tactic. People who use NRT or medicines and behavioral/psychosocial tactics together have a much higher success rate for quitting than people who use only one main method of quitting (The National Tobacco Cessation Collaborative, 2011).

Usage of NRT and pharmacotherapies tends to be low across the board (Shiffman, Brockwell, Pillitteri, & Gitchell, 2008). Not even 25 percent of most recent quit attempts in the United States are aided by NRT (Apelberg, Onicescu, Avila-Tang, & Samet, 2010). Phase 2 participants confirmed this, and their use of NRT, pharmacotherapies, and counseling is particularly low during successfully maintained attempts. Phase 2 participants tended to use NRT more during unsuccessful attempts (P2: 19.7%) than successful attempts (P2: 6.4%). Use of prescription smoking-cessation medication declined from 15.8 percent with unsuccessful attempts to 2.9 percent with the successful attempt. Very few Phase 2 participants saw a counselor or attended a smoking cessation program with

unsuccessful attempts (6.17%), and even fewer (3.83%) did so during their successful attempt.

While further study is necessary to determine exactly why Phase 2 participants did not use NRT, prescription medication, and counseling at a higher rate, Phase 1 qualitative data and current literature offer some insight. Phase 1 participants noted the expense of NRT and medication, as well as experiencing side effects that deterred them from using these quit tools during subsequent attempts. Existing literature cites worry about safety and effectiveness of NRT and pharmacotherapy as a common deterrent to their uptake (Ferguson, et al., 2012). Perhaps Phase 2 survey respondents underwent negative experiences with NRT or medications, or perhaps they were poorly adherent to proper dosing and perceived the tools to be ineffective like other quitters (Shiffman, Ferguson, et al., 2008 & Gitchell, 2008). Existing smoking cessation studies bring up the culture of the United States and how it applauds individualism and unaided achievement (Wolburg, 2009). Seeking out “help” to quit from a counselor, prescription medication, or nicotine replacement therapy could be deemed as weakness and failure.

No Phase 1 participants sought out counseling or joined a smoking cessation group, and only 5.9 percent of Phase 2 participants did so during their most successful attempt. Most Phase 1 and 2 participants quit smoking on their own, sans help from a counselor, smoking cessation group, or use of nicotine replacement therapy. More than half (51.4%) of Phase 2 participants successfully quit for more than six months by going cold turkey, meaning they underwent a sudden, complete

withdrawal from nicotine. Over 75% of long-term successful quitters in three previously existing studies indicated cold turkey as their method (Doran, et al., 2006; Fiore, et al., 1990; C. Lee & Kahende, 2007). The learning process, although cited as difficult and often discouraging, made participants' successful quit attempt feel earned and deserved. This trial and error process along with the challenges and eventual reward confirms processes non-LGBTQ quitters experience (Wolburg, 2009). It appears that the trial and error process itself is likely to be present in a successful quitter's smoking cessation journey, whether that quitter is LGBTQ or non-LGBTQ.

The quitting relapses, method choices, and lack of NRT and medication usage present in this study reaffirm Wolburg's notion that quitting messages should frame "quitting is the goal regardless of how it is achieved and should also position seeking help as a sign of strength" (2009). There is no way to know exactly why Phase 2 participants used NRT, medications, and counseling as such low rates, but the fact remains the rates for these effective methods were low. However, Phase 1 participants' negative experiences with said methods offer some insight, but investigation into reasons why people seldom chose these methods is warranted. Participants tended to quit "on their own," but perhaps they might have had an easier time with some NRT, medication, or counseling help.

E-Cigarettes

Electronic cigarettes are buzzing in the media and current literature, and this study would be remiss not to mention them (Schute, 2013; Bullen, Howe, Laugesen, McRobbie, Parag, Williman, & Walker, 2013). The e-cigarette has been around since

2004 (Purkayastha, 2013). While e-cigarettes can deliver nicotine replacement as well as a traditional NRT and people do use them to try and quit smoking cigarettes, toxins in the e-cigarette fluid may be harmful (Bullen et al., 2010; Goniewicz, Knysak, & Gawron, 2013; Vansickel & Eissenberg, 2013). Two Phase 1 participants, Brandon and Simon, said they were aware of e-cigarettes at the time they quit smoking but neither actually used them. Simon even said he thought the man in the e-cigarette television commercial was sexy, but it was not enough to get him to buy the product. A large portion of Phase 2 participants, 40 percent, used e-cigarettes in unsuccessful quit attempts but just 8.6 percent used them in their successful attempt.

A recent randomized controlled trial by Bullen et al. comparing e-cigarettes, the nicotine patch, and a placebo amongst 657 smoking participants found that the e-cigarette group had a 7.3 percent confirmed abstinence rate from traditional cigarettes at 6 months post-quit day. The patch group had a 5.8 percent abstinence rate and the placebo group 4.1 percent. Due to sample size constraints and the low rate of quitting overall, the researchers did not have the power to draw conclusions about one method over another (2013). A news article about the study concluded that patch and e-cigarette participants quit at about the same rates (Shute, 2013).

Existing research about the e-cigarette is inconclusive and its e-cigarette's effectiveness as a quit aid is still under debate. Both of these facts could have contributed to the low usage in Phase 1 and varying usage in Phase 2. Usage is likely to increase over time as more information about the e-cigarette's safety and effectiveness becomes available.

Encouragement During Relapse

Smoking cessation literature places emphasis on the fact that unsuccessful quit attempts, or relapses, can be very discouraging to people trying to quit (Romer & Jamieson, 2001; Wolburg, 2009). With each relapse, perception of the difficulty of quitting for good increases (Romer et al., 2001). Half of Phase 2 participants, successful and not, had two to six quit attempts in the past 12 months, which is below the eight to ten attempts often required for successful sustained quitting (Institute of Medicine, 2007). Each attempt shows participants what methods and tools work best, and the trial and error process was very difficult. The importance of encouragement during relapses, and framing each relapse as a learning experience on the road to success and not in terms of failure, cannot be understated (Abrams & Niaura, 2004).

CONFIDENT MAINTENANCE

A new maintenance category stage term called “Confident Maintenance” was introduced in Phase 1 Findings to help distinguish between nicotine-addicted participants who were confident in their ability to stay quit for the long-term and those who were not. Individuals enter the “maintenance” stage of smoking cessation technically at six months post-quit, but there is more to the maintenance stage than simply a six month designation. Quitters in maintenance vary widely in their perceived ability to stay quit, despite all having been quit more than six months. Phase 2 participants were classified as potential Confident Maintainers (CMs) if they had been successfully quit for at least six months and were *still* quit at the time of the study. These potential CMs were then compared to participants who

those who had *ever* successfully quit for at least six months, but had relapsed at the time of the study (REMs). For example 52.2% of Phase 2 participants had *ever* quit smoking for more than six months and were technically in the maintenance stage. Of those 52.2% who were “ever successful maintainers,” more than half (60.0%) were *still quit* at the time of the survey and were called potential CMs. The other 40.0% of the “ever successful maintainers” had relapsed at the time of the study and were called REMs, or “relapsed ever maintainers.” While it is not possible with this study design to know if CMs will truly stay quit, it is still valuable to analyze this most successful group’s characteristics.

Why is the Confident Maintenance Stage Necessary in Addiction Studies?

With behaviors other than quitting addictive substances, the maintenance stage of the Transtheoretical Model is often followed by the termination stage. When an individual reaches termination, it means returning to the behavior is no longer even a consideration or option for that individual. Progression through the stages of change is usually viewed as a cycle instead of a direct linear pathway (Prochaska, DiClemente, & Norcross, 1992). The cycle includes relapse and repeated progression through the appropriate stages (Migneault, Adams, & Read, 2005). Substance addiction is commonly viewed as chronic (McLellan, 2002). A chronic view means repeated cycling through the stages and eventual stagnation in the “maintenance” stage with termination deemed impossible.

The idea that most people with substance addiction remain vulnerable to a relapse for their entire lives is pervasive, but not every addict exhibits a chronic condition that lasts a lifetime (McLellan, 2002). With the chronic/not chronic

addiction debate still underway, the termination phase is usually not used in the field of addiction studies because it leaves no room for a chronic condition. For this reason, it is important to dissect nuances of the maintenance stage when looking at addiction. Participants in this study highlight two different ways of being in the maintenance stage of smoking cessation. Many participants had been quit for at least six months, and met the technical definition of “successful quitters” in maintenance, but two different types of successful quitters emerged: Those confident about maintaining long-term quit status, classified here as “Confident Maintainers,” and those who were not and remained in the maintenance stage. This new subtype offers room for more discussion of successful quitters, and other researchers have also created subtypes within the stages of change (DiClemente & Hughes, 1990; Migneault, et al., 2005) .

Characteristics of Confident Maintainers

Phase 1 and 2 participants identified with common challenges faced by those trying to quit smoking. Confident maintainers in both phases were able to navigate their specific challenges successfully. For example, in Phase 2, one hundred percent of CMs were confident in their ability to socialize with smoking friends without smoking themselves, over 90 percent were confident in their ability to refuse an offered cigarette, and very few (9.5%) worried about “missing out” on things with friends because of not smoking. Phase 1 CMs maintain similar self-efficacy for socializing with friends without smoking. Wolburg (2009) explains that most individuals who are trying to quit smoking face intense triggers and temptations to

smoking again. Often, individuals find the loss of company and sense of companionship that accompanies smoking to be extremely profound.

Wolburg also notes that loss of smoking as a bonding social facilitator and as a companion activity to drinking are also difficult for quitters to cope with (2009). Phase 2 participants tended to drink frequently, with 96.9 percent drinking at least once a week and 54.7 percent drinking five *or* more drinks in a row during the past 30 days. The drinking trigger is particularly salient with this group, because 85 percent smoked when drinking alcohol. Phase 1 and 2 participants who were able to navigate these challenges, including socializing while drinking, remain smoke-free, *and* feel fulfilled in their lives, were most likely to fall into the confident maintenance stage. For example, only about one-quarter of CMs in Phase 2 worried about smoking when drinking with friends, while nearly two-thirds of Relapsed Ever Maintainers worried.

Two-thirds of Phase 1 interview participants were confident maintainers, meaning they had characteristics the other successful quitters did not possess: confident thoughts about their power over cigarettes and a well-developed ability to manage themselves as non-smokers within a still-smoking social context. A feeling of “true readiness” to quit was also an important part of the most successful quitters’ confidence. Smokers who are not ready to quit often do not remain successful in quit attempts, or resist quitting in and of itself (Davis, et al., 2011). These participants were confident that they would never smoke again during their lifetimes.

The majority of Phase 1 participants in confident maintenance felt more attached to their outcome expectations, motivators, and status as a quit person than the few who were simply in the maintenance stage. Those in maintenance, not confident maintenance, worried about their ability to stay quit indefinitely. Maintainers also voiced that they quit for reasons not completely related to their own agenda. For example, Liza quit to improve her young son's breathing and decrease his chance of smoking. She is attached to her son's health, not her own, and plans to smoke again as soon as her son grows up and moves out. Liza, like other participants in maintenance who were not in confident maintenance, struggled with staying quit. The social aspect of not smoking proved to be very difficult for them. Cigarettes were always on their mind, and they continually thought of the social and personal voids left in their lives from lack of smoking.

If Phase 1 participants involved others in their quitting process, the participants greatly increased their self-efficacy for maintaining quit status. If participants did not tell their still-smoking friends about quitting, and instead avoided their friends so as not to be tempted to smoke, the participants' had no opportunity to increase their self-efficacy for maintaining quit status and felt extreme anxiety over missing social time, mirroring findings from smoking cessation literature (Wolburg, 2009). Confident maintainers, on the other hand, told their friends they were quitting, involved their friends in the quit process, successfully interacted with smoking friends during their action phase of quitting, and now can socialize with still-smoking friends without smoking. Phase 2 confident maintainers were also much more confident in their ability to stay quit in

smoking situations. Participants in Phase 1 voiced the importance of taking time to gain insight into their individual needs for quitting. They confirmed existing findings that planning ahead for realistic situations proved to be effective for managing social challenges as a non-smoker (Wolburg, 2009). Still-smoking friends were supportive of the participant quitting. They also indicated they would like to quit smoking, which is not surprising seeing as most smokers want to quit (Ferguson, et al., 2012).

MAJOR FINDING

The major finding from this study is that while cigarette smoking risk factors and use were experienced in ways unique to participants' LGBTQ identities, the experience of quitting was not unique to LGBTQ identity. LGBTQ identity has been heavily cited as a risk factor for cigarette smoking within all levels of the Social Ecological Model (Matthews, et al., 2011; Ryan, et al., 2001; Yarhouse & Tan, 2005; American Lung Association, 2009; Ryan, et al., 2001; Jerome, Halikitis, & Siconolfi, 2009; Anderson, 2007). Phase 1 interview findings confirm the existing literature about risk factors for smoking uptake and continuation amongst LGBTQ individuals, and risk factors are situated within all levels of the Social Ecological Model (SEM). A plethora of studies cite LGBTQ-specific risk factors for smoking uptake as significant. At the time of this study, authors of just one article concluded that sociodemographic or LGBT-specific variables were not related to participants' intention to quit smoking (Burkhalter et al., 2009). Findings from Phase 1 and 2 of this dissertation are consistent with Burkhalter and colleagues' conclusions, but in

the midst of such strong LGBTQ-specific smoking uptake factors, they are still quite unexpected.

LGBTQ participants in Phase 2 started smoking because they wanted to rebel, their friends smoked, or they wanted to fit in with an alternative crowd. Exactly half of survey respondents had LGBTQ friends at the time of their own smoking uptake. However, in both Phase 1 and Phase 2, LGBTQ identity did not surface as an important factor related to quitting motivation, the quit process, or maintaining quit status. Many participants in Phase 1 and Phase 2 had partners who encouraged them to quit, and that partner support dynamic is significant because it is *partner support* -- not simply because the partner and participant were of the same sex or gender.

Participants may be more “settled” in their LGBTQ identities when they try to quit smoking than when they started smoking. Coping with developing components of LGBTQ identity, whether viewed through Cass’ stage layout of confusion, comparison, tolerance, acceptance, pride, and synthesis (1979) or D’Augelli’s non-linear model of six identity processes (1995), is often difficult (Wolburg, 2009). While participants tended to start smoking early in their lives to cope, participants as a whole did not associated the loss of smoking with a loss of their LGBTQ identity. Participants viewed quitting as getting rid of something harmful, of something that made them less than their ideal selves. It is possible that participants were able to quit smoking without the worry of losing part of their identity because they were much more developed in themselves. They may have understood that quitting does not change their identity.

RECOMMENDATIONS FOR PRACTICE

LGBTQ community centers and outreach organizations are extremely strapped for cash and funding. Abrams and Niaura (2003) recommend that smoking cessation efforts be on a graduated scale, meaning it is advisable to capitalize on the notion of trying less intense, simpler methods first and ramping up efforts as needed. If LGBTQ organizations subscribe to this idea, they can use their limited funds very wisely by starting with wide-reaching, low-intensity interventions first. Adding smoking cessation information to their organization's webpage is an excellent place to start. Organizations can perform a needs assessment to get a sense of their community's interest in smoking cessation and make the appropriate adjustments to their offerings over time. Even though we want to take a broad public health approach, the best way is to tailor the quit process to a person's individual wants and needs (Abrams & Niaura, 2003).

All this is not to say that LGBTQ-specific smoking cessation programs should be completely thrown by the wayside. Such programs tend to be inordinately expensive and are not proven to produce better outcomes than standard programs (Greenwood & Hunt, 2002; GentiumConsulting, 2005; Harding, et al., 2004). Findings from this study indicate LGBTQ identity may not be a factor in quitting, so the funding for such a program could be allocated to strategic smoking cessation outreach that starts small. If, in the end, an organization finds they have a group of people who are interested in a LGBTQ-specific program, they could consider offering it to them. If they do so, it is essential the organization records all happenings and evaluates the program's fidelity of implementation and overall

effectiveness. More research about how LGBTQ-specific programs work is always needed.

Recommendations for counselors, therapists, and supportive friends of LGBTQ quitters include a very heavy focus on self-efficacy for navigating peer and social situations. Involving still-smoking friends in the contemplation, action, and maintenance phases is extremely important. Involving these peers means asking them to refuse bum attempts, informing them of plans to quit and active quitting, and continuing to socialize during action and maintenance to decrease the negative outcome expectation of “missing out.”

Other recommendations mirror recommendations made by health practitioners experienced with smoking cessation. Unending encouragement during relapses, and framing a relapse as a learning experience on the trial-and-error journey to a successful sustained quit attempt, are vital (Tinich, 2007). Practitioners of all kinds, including professional counselors, hospital staff trained in brief smoking cessation interventions, public health program developers, smoking cessation group facilitators, and even the friends and loved ones of a smoker would be well advised to adopt this outlook.

It is possible that public health practitioners hesitate to approach the issue of LGBTQ smoking cessation because they worry about the complex involvement in LGBTQ identity in the quit process. Practitioners may worry they are not equipped to guide LGBTQ quitters through the identity challenges that quitting smoking may bring up. Practitioners should feel a sense of relief from the results of this dissertation. While LGBTQ identity is heavily involved in smoking adoption, and

LGBTQ quitters are still LGBTQ when they quit smoking, LGBTQ identity is not deeply intertwined or influential on the quit process. Many smokers, LGBTQ or not, deal with similar social and personal challenges while smoking. The challenges are not challenges because of the gender of a quitter's partner, the quitter's LGBTQ identity, or the LGBTQ identities of a quitter's friends. The challenges of quitting smoking transcend sexual orientation and gender identity.

According to the results of this study, the quitting process is not distinctive to LGBTQ quitters, and practitioners should be willing to discuss LGBTQ identity with quitters but should not worry they are not equipped to help an LGBTQ quitter quit smoking. The challenges of quitting are universal. A "nonjudgmental approach" to quitting smoking is advised (Tinich, 2007), and this nonjudgmental approach should absolutely carry over to a quitter's LGBTQ identity. Additionally, based on the findings from Phase 1 and Phase 2 of this study, LGBTQ-content specific smoking cessation programs may not be necessary. LGBTQ community centers and organizations could shy away from the intensive, identity-focused quitting programs in favor of more cost effective tactics.

Since findings from this study confirm LGBTQ-specific risk factors for smoking uptake, the appropriateness of interventions aimed at the LGBTQ population during identity formation cannot be understated. Public health is all about prevention. Preventing smoking uptake is just as important as preventing smoking related disease by encouraging smoking cessation. This study highlights the need for programs for LGBTQ inclusion, celebration, and support that will decrease LGBTQ-specific risk factors for smoking.

RECOMMENDATIONS FOR FURTHER RESEARCH

Recommendations for further research begin with shortcomings from this particular study. Several questions were not asked in Phase 1 because they became relevant when analyzing Phase 2 data. Phase 2 results raised the idea of revisiting Phase 1 participants to further explore findings from data analysis. For example, a research question about the “why” arose from the study’s findings that LGBTQ identity does not seem to be involved in the quit process and in maintaining quit status. Exploring more of the “why” LGBTQ identity is not involved in the quit process and what this means to participants, instead of just accepting that it is not involved in the quit process, would be valuable. Further research should also replicate the Phase 1 qualitative study in different geographic locations. Phase 1 participants were all White, lived in North Georgia, and grew up in the South, so conducting a similar study in other areas will allow for comparison of results between participant populations.

A true large-scale quantitative study with similar research questions, adapted and streamlined from this study’s Phase 2 findings, would also be extremely valuable. This requires an investigation into more effective means of survey distribution and potentially funding for CenterLink LGBTQ community centers to disseminate the survey. Larger-scale dissemination may allow for recruitment of a more diverse group of respondents, seeing as Phase 2 respondents were predominantly White with a concentration in Georgia and Missouri. Additionally, a free-response section on the survey for participants to provide help and tips to other quitters is very important. Phase 1 participants had an

opportunity to give advice and recommendations for quitting, and Phase 2 participants were not provided with the same opportunity. After analyzing Phase 2 data, it became clear that further research endeavors in this field should allow participants space to leave advice for quitting.

It is vital that researchers investigate why so few participants in Phase 1 and Phase 2 used the quit methods deemed most effective by practitioners and scholars: Nicotine replacement therapy or pharmacological interventions and counseling or therapy. If this is the best combination of quit methods, why did so few participants use each method for their most successful, maintained quit attempt? What barriers stand in the way of this combination of methods? How do LGBTQ smokers perceive these methods? This research would help deepen the understanding of LGBTQ quitters and why they choose certain methods over the most highly recommended methods. Perhaps our most successful Confident Maintainers could be joined by a plethora of other successful quitters in the future.

LIMITATIONS

This study has several limitations. Phase 1 recruiting was more difficult than anticipated. The overseeing editor of four Atlanta-area newspapers refused to print the recruiting ad and refunded payment. Via phone, he communicated that his newspapers did not want to be involved in promoting anything LGBTQ. Four Atlanta suburbs missed out on newsprint recruiting for this reason.

Another limitation centers around revisiting participants for further topical exploration. Despite immediate transcription and analysis after Phase 1 interviews, and the further topical exploration this allowed during subsequent interviews,

several topics did not emerge as important for more study until after the completion of Phase 2 survey data analysis. For example, specific topics like why participants did not pursue counseling or a smoking cessation group and concrete reasons why quitting smoking was not associated with a loss of LGBTQ identity.

Both phases of this study rely on participants' memories of their lives. Retrospective studies are always subject to recall bias, a change in participant memories over time (Hassan, 2006). While it is impossible to ensure complete clarity and honesty from participants, the researcher made an effort to ask similar questions during interviews to check the fidelity of participants' information. For example, if a participant said smoking uptake occurred in middle school, a question later may begin with, "You mentioned you started smoking around age 13?" and the participant could either confirm, correct, or be confused by this. More often than not, participants took this opportunity to add more information to a certain segment of their interview. Several questions on the Phase 2 survey followed a similar pattern. Only one Phase 1 participant's interview was eliminated when it was discovered he was not being truthful about his smoking habits.

It is impossible to guarantee accuracy of participant memories (Hassan, 2006). We as researchers are often required to instill a great deal of good faith into our participants. It is a risk we take when we ask others to share their lives. Despite meeting participants at a location of their choosing on their turf, learning from them and trying to speak in their own language, and checking during the interviews (and on several occasions afterward by phone) to make sure I understood the point they were making, and my perception that the truth value of

the work is high, my belief is all I have. The applicability of Phase 1 findings to the larger Phase 2 group is acceptable, but there are differences between group results. Another limitation of this study is the inability to know why the groups varied, meaning knowing if variation was due to the data collection methods or to inherent differences between group participants. It was also much easier for me to understand the nuances of participants' lives and quit processes in the qualitative setting than to assess them in the quantitative setting. These limitations would benefit from further exploration possibly with a larger-scale study or revisiting Phase 1 participants to explore some Phase 2 survey results.

Generalizability is also a challenge with Phase 1 and Phase 2 studies. Individuals who participated in Phase 1 interviews were all White and from the North Georgia area. This means that Phase 1 results may not be generalizable to groups in other locations or with different racial or ethnic backgrounds. Phase 2 survey results indicate that many results are generalizable to a larger group, but the Phase 2 group was mostly White as well. Phase 2 participants were from 23 states, including Georgia, but most participants were from Georgia, Missouri, and Florida. The geographic and demographic limitations of this study are important to mention.

Limitations specific to Phase 2 stem mostly from difficulty in recruiting participants. Once recruited, participants did a great job completing the survey in its entirety, but reaching participants in the first place developed into a particular challenge. CenterLink LGBTQ community centers were difficult to work with for the most part. A handful championed the project but others wanted money or refused to disseminate recruitment materials, despite receiving advance notice about the

study, free pre-printed survey announcement materials, information about the participant iPod Shuffle incentive drawing, and ample opportunity to ask questions. Survey data analysis was constrained to basic surveillance due to small sample size. This could be remedied by offering community centers a stipend for disseminating recruitment materials.

Several measurement items were eliminated from the survey simply due to space constraints. It would be beneficial to include these items in future studies about LGBTQ smoking cessation. Finally, this study did not capture reasons participants may have chosen not to participate in Phase 1 or Phase 2 despite having seen recruitment materials. There was simply no way for the researcher to assess this, and therefore selection bias may be present in participant groups for both phases.

Finally, a major limitation stems from inability to confirm participant' smoking cessation. Phase 1 and 2 data are based solely on participants' word. Participants did not take a carbon monoxide level test or any other test to check that they had truly quit smoking when they said they did. There is also no way of ensuring that participants who had quit at the time of the study will remain quit, despite their best intentions.

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APPENDIX A
INTERVIEW GUIDES

1st Iteration of Guide: January 2, 2013

Tell me a little bit about how you started smoking

Do you remember the very first time you smoked a cigarette?

- Location
- Age

LGBTQ identity a factor in starting smoking?

- Perception of being LGBTQ

LGBTQ social environment a factor?

- Friends smoked?

Family members smoke?

Tell me about your typical smoking habits

- Frequency
- # per day
- When would smoke
- Brand

How long did you smoke?

When did you first start thinking about quitting?

Do you remember anything in particular that made you think about quitting?

- e.g. Someone else quit?

Did you share your desire to quit with anyone?

- If so, how did it go?

When did you quit for good (or this last time if they've already mentioned quit attempts)?

Did you anticipate any good or bad things coming out of quitting?

- Prompts: Personal? Social?

Tell me about the first time you tried to quit

- Methods used?

Did you try to quit more than once?

- Methods used, what worked and what did not work

What made the difference when you were finally able to quit and stay quit?

3rd Iteration of Guide: January 23, 2013

Introduce MYSELF and my background: Reciprocity in sharing.

Tell me a little bit about how you started smoking

Ask about personal LGBTQ identity (Question added 1-24-2013, moved up in interview/edited for details 1-28-2013)

- Coming out journey
- Identity today

Do you remember the very first time you smoked a cigarette?

- Location
- Age

LGBTQ identity a factor in starting smoking?

- Perception of being LGBTQ

LGBTQ social environment a factor?

- Friends smoked?

Family members smoke? (1.1)

Tell me about your typical smoking habits

- Frequency
- # per day
- When would smoke
- Brand

How long did you smoke?

When did you first start thinking about quitting?

Do you remember anything in particular that made you think about quitting?

- e.g. Someone else quit?

Did you share your desire to quit with anyone?

- If so, how did it go?

When did you quit for good (or this last time if they've already mentioned quit attempts)?

Did you anticipate any good or bad things coming out of quitting?

- Prompts: Personal? Social?

Tell me about the first time you tried to quit

- Methods used?

Did you try to quit more than once?

- Methods used, what worked and what did not work

What made the difference when you were finally able to quit and stay quit?

Think back to when you first considered trying to quit. What was your life like?

- Where you went for fun?

- If you worked, where?

- Friends?

- LGBTQ identity?

- Anyone you knew who quit?

How did others react to you quitting?

- Tell me how you dealt with their reactions

What challenges did you face from your friends when you were quitting?

- Challenges from environment?

- How did you overcome the challenges?

Where/from whom did you find support when you were quitting?

-Much loser and freer conversation here-

Once you quit, tell me about how you've managed to stay quit.

Prompts: Dealing with challenges, seeking support, tactics to deal with them.

As you know, lots of people in the LGBTQ community still smoke. Any thoughts about how you're able to succeed in staying quit when others are not?

What advice or suggestions would you give to somebody who is trying to quit?

Trying to stay quit?

APPENDIX B

PHASE 2 SURVEY CONSENT FORM AND SURVEY ITEMS

LGBTQ Smoking Research Study

University of Georgia

Quick info about the study:

Thank you for your interest in this survey! We appreciate your helping us learn about smoking in the LGBTQ community. The information you share will be kept confidential and used to improve the health of others. Please read the informed consent below before beginning the survey.

I agree to participate in the LGBTQ Smoking Research Study, formally titled “A Sequential Exploratory Examination of Successful Smoking Cessation among LGBTQ Individuals”, which is being conducted by Jessie Barnett under the direction of Dr. Jessica Muilenburg, University of Georgia, Department of Health Promotion and Behavior. My participation is voluntary, I can refuse to participate or stop taking part at any time without giving any reason, and without penalty or loss of benefits which I would otherwise be entitled.

The reason for this study is to find out more about experiences of cigarette smoking, smoking cessation attempts, methods for quitting, LGBTQ identity, and the social environment. Things we find from this research will be used to help understand smoking and quitting and help other LGBTQ individuals live healthier lives. This survey is meant to be taken by individuals 18 or older who identify as lesbian, gay, bisexual, transgender, or queer and either currently smoke cigarettes or have smoked in the past. My participation in this research involves one online survey. The survey takes 5-25 minutes. I should answer the questions based on what I really do and feel. I may stop the survey at any time and skip any question I choose. The benefits to my participation in the research include a better understanding of my experiences with smoking and how those experiences influence my life. There are no more than minimal risks associated with participation in this research. I may experience mild discomfort from answering questions about past experiences and there is a risk of breach of confidentiality due to the sensitive nature of the data to be obtained regarding sexual orientation, the coming out process, and smoking history.

Internet communications are insecure and there is a limit to the confidentiality that can be guaranteed due to the technology itself. However once

the materials are received by the researcher, standard confidentiality procedures will be employed. The survey asks for no individually-identifiable information like name, email, or phone number, and the survey is hosted by a password-protected online server that will strip the IP-address from my response so to the researchers will not know which computer I took the survey from.

The researcher will answer any further questions about the research, now or during the course of the project, and can be reached by telephone at: 404-626-3395 or email at ugasmokingstudy@gmail.com. Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 629 Boyd Graduate Studies Research Center, Athens, GA, 30602-7411; Telephone (706) 542-3199; E-mail address IRB@uga.edu.

Completing the survey is voluntary. If you do not wish to participate in the survey, simply do not proceed with the survey. By proceeding, you are indicating that you understand the procedures described above, the researchers have answered all of your questions, and you consent to participating in the survey. As a thank-you for participating in the survey, you can also enter the optional drawing for one of five iPod Shuffles! When you complete the survey, you will be automatically re-directed to the iPod Shuffle Drawing Entry form.

Entering the drawing is voluntary. Survey participation is not required to enter the drawing. If you would like to enter the drawing without taking the survey, copy and paste this link into your internet browser:

https://ugeorgia.qualtrics.com/SE/?SID=SV_1Up9N6jUbvkgDwp

Thank you very much for your help,
Jessie Barnett, MPH
Ugasmokingstudy@gmail.com

Primary Investigator
Dr. Jessica Muilenburg jlm@uga.edu
The University of Georgia

****Please note, to protect your privacy, the survey will not allow you to save your place and resume later. Please complete the survey in one sitting.****

Q2 Do you agree to participate in this survey?

☐ Yes (1)

☐ No (2)

Q3 Are you 18 years of age or older?

☐ Yes (1)

☐ No (2)

Q4 Do you self-identify as lesbian, gay, bisexual, transgender, or queer?

☐ Yes (1)

☐ No (2)

Q5 Do you live, work, or “play” in the United States or a U.S. Territory?

☐ Yes (1)

☐ No (2)

Q6 Have you smoked more than 100 cigarettes in your lifetime?

☐ Yes (1)

☐ No (2)

Q95 These questions are about smoking in general.

Q8 Do/did any of your other family members smoke? (siblings, grandparents, aunts/uncles, etc)

☐ Yes (1)

☐ No (2)

Q12 Do you have a friend or family member who has become ill from a smoking-related illness?

☐ Yes (1)

☐ No (2)

Q7 Did/do either of your parents or primary caregivers smoke cigarettes?

☐ Yes (1)

☐ No (2)

Q80 Do you identify anywhere under the transgender umbrella? (genderqueer, non-conforming, transperson, etc)

☐ Yes (1)

☐ No (2)

Q81 How do you identify?

- ☐ Genderqueer of gender non-conforming (1)
- ☐ Male to Female/Transwoman (2)
- ☐ Female to Male/Transman (3)
- ☐ Other (4)

Q82 Since you selected the Other response, how would you describe your identity under the trans umbrella?

Q83 How would you describe your sexual orientation?

- ☐ Gay (1)
- ☐ Lesbian (2)
- ☐ Bisexual (3)
- ☐ Homosexual (4)
- ☐ Heterosexual/Straight (5)
- ☐ Unsure or questioning (6)
- ☐ Other (Please describe) (7)

Q84 Other- Please describe your sexual orientation

Q217 In what state or U.S. territory do you live?

- ☐ Alabama (1)
- ☐ Alaska (2)
- ☐ American Samoa (3)
- ☐ Arizona (4)
- ☐ California (5)
- ☐ Colorado (6)
- ☐ Connecticut (7)
- ☐ Delaware (8)
- ☐ District of Colombia (9)
- ☐ Florida (10)
- ☐ Georgia (11)
- ☐ Guam (12)
- ☐ Hawaii (13)
- ☐ Idaho (14)
- ☐ Illinois (15)
- ☐ Indiana (16)
- ☐ Iowa (17)
- ☐ Kansas (18)
- ☐ Kentucky (19)
- ☐ Louisiana (20)
- ☐ Maine (21)
- ☐ Maryland (22)
- ☐ Massachusetts (23)
- ☐ Michigan (24)
- ☐ Minnesota (25)
- ☐ Mississippi (26)
- ☐ Missouri (27)
- ☐ Montana (28)
- ☐ Nebraska (29)

- ☐ Nevada (30)
- ☐ New Hampshire (31)
- ☐ New Jersey (32)
- ☐ New Mexico (33)
- ☐ New York (34)
- ☐ North Carolina (35)
- ☐ North Dakota (36)
- ☐ Northern Marianas Islands (37)
- ☐ Ohio (38)
- ☐ Oklahoma (39)
- ☐ Oregon (40)
- ☐ Pennsylvania (41)
- ☐ Puerto Rico (42)
- ☐ Rhode Island (43)
- ☐ South Carolina (44)
- ☐ South Dakota (45)
- ☐ Tennessee (46)
- ☐ Texas (47)
- ☐ Utah (48)
- ☐ Vermont (49)
- ☐ Virginia (50)
- ☐ Virgin Islands (51)
- ☐ Washington (52)
- ☐ West Virginia (53)
- ☐ Wisconsin (54)
- ☐ Wyoming (55)

Q15 The next two sections are about your experiences as an LGBTQ individual. Please mark how many times certain things happened in your life because you are LGBTQ.

Q16 Someone called you a derogatory name like fag, queer, dyke, etc.

- ☐ Never (1)
- ☐ Once (2)
- ☐ Twice (3)
- ☐ Three or more times (4)

Q17 Someone verbally insulted or abused you.

- ☐ Never (1)
- ☐ Once (2)
- ☐ Twice (3)
- ☐ Three or more times (4)

Q18 Someone threatened you with violence.

- ☐ Never (1)
- ☐ Once (2)
- ☐ Twice (3)
- ☐ Three or more times (4)

Q19 You were treated unfairly by coworkers.

- ☐ Never (1)
- ☐ Once (2)

☐ Twice (3)

☐ Three or more times (4)

Q20 You were discriminated against in a job.

☐ Never (1)

☐ Once (2)

☐ Twice (3)

☐ Three or more times (4)

Q22 You were treated unfairly by employers, bosses, supervisors.

☐ Never (1)

☐ Once (2)

☐ Twice (3)

☐ Three or more times (4)

Q23 You were treated unfairly by neighbors.

☐ Never (1)

☐ Once (2)

☐ Twice (3)

☐ Three or more times (4)

Q24 Someone chased or followed you.

☐ Never (1)

☐ Once (2)

☐ Twice (3)

☐ Three or more times (4)

Q25 You were treated unfairly by institutions like schools or the courts.

☐ Never (1)

☐ Once (2)

☐ Twice (3)

☐ Three or more times (4)

Q26 Someone threw an object at you.

☐ Never (1)

☐ Once (2)

☐ Twice (3)

☐ Three or more times (4)

Q27 You were treated unfairly by people in helping jobs, like doctors.

☐ Never (1)

☐ Once (2)

☐ Twice (3)

☐ Three or more times (4)

Q28 You were discriminated against for services.

☐ Never (1)

☐ Once (2)

☐ Twice (3)

☐ Three or more times (4)

Q29 You were treated unfairly by teachers and/or professors.

☐ Never (1)

☐ Once (2)

☐ Twice (3)

☐ Three or more times (4)

Q30 Someone spit on you.

☐ Never (1)

☐ Once (2)

☐ Twice (3)

☐ Three or more times (4)

Q31 You were discriminated against for housing.

☐ Never (1)

☐ Once (2)

☐ Twice (3)

☐ Three or more times (4)

Q67 During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?

☐ 0 days (1)

☐ 1 day (2)

☐ 2 days (3)

☐ 3-5 days (4)

☐ 6-9 days (5)

☐ 10-19 days (6)

☐ 20 or more days (7)

Q68 How many nights a week do you drink alcohol?

☐ 0 (1)

☐ 1 (2)

☐ 2 (3)

☐ 3 (4)

☐ 4 (5)

☐ 5 (6)

☐ 6 (7)

☐ 7 (8)

Q98 Do you see yourself as a:

☐ Ex-smoker (1)

☐ Once in a while smoker (2)

☐ Regular smoker (3)

☐ Non-smoker (4)

Q201 During the past 30 days, on how many days did you smoke cigarettes?

☐ 0 (1)

☐ 1-9 (2)

☐ 10-19 (3)

☐ 20-29 (4)

☐ all 30 days (5)

Q203 Do you want to quit smoking for good?

☐ Yes (1)

☐ No (2)

Q204 Are you thinking about quitting in the next 6 months?

☐ Yes (1)

☐ No (2)

Q205 Are you thinking about quitting in the next 30 days?

☐ Yes (1)

☐ No (2)

Q206 How soon after you wake up do you smoke your first cigarette?

☐ within 5 minutes (1)

☐ 6-30 minutes (2)

☐ 31-60 minutes (3)

☐ after 60 minutes (4)

Q207 Do you find it difficult to refrain from smoking in places where it is forbidden?

☐ Yes (1)

☐ No (2)

Q208 Which cigarette would you hate most to give up?

☐ The first in the morning (1)

☐ Any other (2)

Q209 On the days that you smoke, how many cigarettes per day do you smoke?

☐ 10 or less (1)

☐ 11-20 (2)

☐ 21-30 (3)

☐ 31 or more (4)

Q210 Do you smoke more frequently during the first hours after awakening than during the rest of the day?

☐ Yes (1)

☐ No (2)

Q211 Do you smoke even if you are so ill that you are in bed most of the day?

☐ Yes (1)

☐ No (2)

Q86 How old were you when you tried smoking for the first time?

☐ 14 or younger (1)

☐ 15-18 (2)

☐ 19-21 (3)

☐ 22-25 (4)

☐ 26+ (5)

Q87 Have you ever gotten cigarettes from: (check all that apply)

☐ Vending machine (1)

☐ Siblings (2)

☐ Bumming (from friend) (3)

☐ Bumming (from stranger) (4)

☐ Parent or caregiver gave to you (5)

☐ Stole from parent/caregiver (6)

☐ Bought at store (7)

☐ Stole from store (8)

☐ Bar or club (9)

☐ Other (10)

Q89 What kind of cigarettes do/did you usually smoke?

☐ Unfiltered (1)

☐ Filtered (2)

☐ 100s, 120s. etc (longer cigarettes) (3)

☐ Lights (like Marlboro Gold, Camel Blue, etc) (4)

☐ Ultra Lights (like Marlboro Silver, Salem Silver Box, etc) (5)

☐ Slims (6)

☐ Wides (7)

☐ Menthols (8)

☐ Other (9)

Q90 What other type of cigarettes do you smoke?

Q99 When you first started smoking, about how many of your friends smoked?

☐ None (1)

☐ Some (2)

☐ Half (3)

☐ Most (4)

☐ Almost all (5)

Q103 At this time, about how many of your friends smoke?

☐ None (1)

☐ Some (2)

☐ Half (3)

☐ Most (4)

☐ Almost all (5)

Q100 When you first started smoking, about how many of your friends were LGBTQ?

☐ None (1)

☐ Some (2)

☐ Half (3)

☐ Most (4)

☐ Almost all (5)

Q102 At this time, about how many of your friends are LGBTQ?

☐ None (1)

☐ Some (2)

☐ Half (3)

☐ Most (4)

☐ Almost all (5)

Q104 Please use the answers: SD = Strongly Disagree D = Disagree N = Neither agree nor disagree A = Agree SA = Strongly Agree

Q106 I started smoking to feel rebellious.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q107 I started smoking to fit in with an alternative crowd.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q108 I started smoking because someone I looked up to smoked.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q109 I started smoking to help conceal my LGBTQ identity. (for example, to fit in with a straight group or a non-LGBTQ peer group)

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q110 I have smoked to socialize at parties.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q111 I have smoked to socialize at bars or clubs.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q112 I have smoked when drinking alcohol.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q114 Please use the answers: SD = Strongly Disagree D = Disagree N = Neither agree nor disagree A = Agree SA = Strongly Agree I smoke/smoked:

Q115 ...to hang out with my friends.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q116 ...to meet romantic partners.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q117 ...to break away from the group and be in a more intimate setting with other smokers.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q118 Please answer the next questions even if you have quit smoking. SD = Strongly Disagree D = Disagree N = Neither agree nor disagree A = Agree SA = Strongly Agree

Q119 I enjoy smoking.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q120 Smoking is part of who I am.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q121 I associate smoking with my identity as a LGBTQ person.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q122 I do not want to be a smoker.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q123 I never planned to be someone who smokes.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q125 Have you ever experienced any negative health symptoms from smoking?

- ☐ Yes (1)
- ☐ No (2)

Q126 When you started smoking, were you aware of the health risks?

- ☐ Yes (1)
- ☐ No (2)

Q127 Have you ever felt guilty for smoking?

- ☐ Yes (1)
- ☐ No (2)

Q128 Have you ever felt stress from hiding your smoking from friends, coworkers, or family?

- ☐ Yes (1)
- ☐ No (2)

Q185 Thank you so much. This survey is very important and we appreciate your honest answers.

Q121 Have you ever smoked:

Q122 To cope with daily life stress?

- ☐ Yes (1)
- ☐ No (2)

Q123 To cope with stress from being LGBTQ?

- ☐ Yes (1)
- ☐ No (2)

Q125 To cope with stress from romantic relationships?

- ☐ Yes (1)
- ☐ No (2)

Q126 To cope with feeling sad or upset?

- ☐ Yes (1)
- ☐ No (2)

Q127 To self-medicate mental health issues like depression, ADD, bi-polar, etc?

- ☐ Yes (1)
- ☐ No (2)

Q128 To cope with family reactions to your LGBTQ identity?

- ☐ Yes (1)
- ☐ No (2)

Q129 To cope with religion conflicting with your LGBTQ identity?

- ☐ Yes (1)
- ☐ No (2)

Q130 Have you ever smoked cigarettes daily, that is, at least one cigarette every day for 30 days?

- ☐ Yes (1)
- ☐ No (2)

Q131 How old were you when you started smoking regularly? (either with friends or alone)

- ☐ 14 or younger (1)
- ☐ 15-18 (2)
- ☐ 19-21 (3)
- ☐ 22-25 (4)
- ☐ 26 or older (5)

Q132 Please use these answers for the next few questions: SD = Strongly Disagree D = Disagree N = Neither agree nor disagree A = Agree SA = Strongly Agree

Q133 I started out smoking mostly with friends.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q134 I started out smoking mostly alone.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q213 I started out smoking with friends, but then I became addicted myself.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q135 I started out smoking alone and then began smoking with other people.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q214 I started smoking to get a smoke break at work.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q139 Have you ever thought about quitting smoking?

- ☐ Yes (1)
- ☐ No (2)

Q140 When thinking about quitting, do/did any of these things worry you? (check all that apply)

- ☐ Failing at another quit attempt (1)
- ☐ Losing social bonds associated with smoking (3)
- ☐ Weight gain (4)
- ☐ Loss of coping tool for stress (5)
- ☐ Substituting another bad habit (6)

☐ Loss of an enjoyable thing (7)

☐ Loss of part of your LGBTQ identity (8)

Q141 When thinking about quitting, do/did you look forward to any of these things? (check all that apply)

- ☐ Saving money from cigarettes (1)
- ☐ No more stigma or shame from smoking (2)
- ☐ Improved health (3)
- ☐ Feel better about yourself (4)
- ☐ Improving exercise or sports (5)
- ☐ Protecting others from secondhand smoke (6)
- ☐ Better smelling clothes/breath (7)
- ☐ Easier to alter voice (usually applies to transpeople when transitioning MTF) (8)
- ☐ Presenting a better image to others (your workplace, school, family etc) (9)
- ☐ Save money on health insurance (10)
- ☐ Cleaner house/fewer nicotine stains (11)

Q158 Have you ever tried to quit smoking?

- ☐ Yes (1)
- ☐ No (2)

Q159 During the past 12 months, have you tried to quit smoking?

- ☐ Yes (1)
- ☐ No (2)

Q160 During the past 12 months, how many times have you tried to quit smoking?

- ☐ 1 time (1)
- ☐ 2 times (2)
- ☐ 3 times (3)
- ☐ 4 times (4)
- ☐ 5 times (5)
- ☐ 6 times (6)
- ☐ 7 times (7)
- ☐ More than 8 times (8)

Q178 These questions are about social issues and topics related to quitting. SD = Strongly Disagree D = Disagree N = Neither agree nor disagree A = Agree SA = Strongly Agree

Q174 It is challenging to become known as a non-smoker after being a smoker.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q176 My friends who smoke are generally accepting of people who quit smoking.

- ☐ SD (1)

- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q177 My smoking friends say they want to quit smoking.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q179 I am able to socialize with smoking friends without smoking.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q180 I feel confident in my ability to refuse a cigarette that is offered to me.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q183 If I quit smoking I will "miss out" on things with my friends.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q185 If I go out drinking with friends, I worry I might smoke.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q187 I need to limit the time I spend with smoking friends to help me quit/stay quit.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q190 The benefits from quitting outweigh the challenges.

- ☐ SD (1)
- ☐ D (2)

- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q191 I avoid situations where people will be smoking when I am not smoking.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q192 Quitting smoking is a lonely process.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q215 I involved my friends in my quitting (asking for support, telling not to give cigarettes).

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q216 Very few people know I am trying to quit/stay quit.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q193 Do you currently have a partner or significant other?

- ☐ Yes (1)
- ☐ No (2)

Q195 Does your partner/significant other encourage you to quit smoking/stay quit?

- ☐ Yes (1)
- ☐ No (2)

Q196 Which of these statements applies to you the most? (select one)

- ☐ I try to quit/stay quit for myself. (1)
- ☐ I try to quit/stay quit for someone else (partner, child, family, etc). (2)

Q142 Please use these answers for the next set of questions. SD = Strongly Disagree D = Disagree N = Neither agree nor disagree A = Agree SA = Strongly Agree I worry about quitting/staying quit because:

Q143 ...of failed past quit attempts.

- ☐ SD (1)

- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q144 ...few of my friends have been able to quit/stay quit.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q146 ...I can't stop nicotine cravings

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q147 I feel confident about quitting/staying quit because:

Q149 ...I have been successful in other health changes in the past (eating better, drinking less alcohol, etc).

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q151 ...a friend was successful in quitting/staying quit.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q152 ...a family member was successful in quitting/staying quit.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q153 ...I smoke(d) light cigarettes.

- ☐ SD (1)
- ☐ D (2)
- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q154 ...I am/was not a heavy smoker.

- ☐ SD (1)
- ☐ D (2)

- ☐ N (3)
- ☐ A (4)
- ☐ SA (5)

Q162 Have you ever tried to quit smoking but been unsuccessful? (For this survey, "unsuccessful" means you started smoking again before 6 months had passed.)

- ☐ Yes (1)
- ☐ No (2)

Q161 Think back to the times you tried to quit and were UNSUCCESSFUL. (For this survey, unsuccessful; means you couldn't stay quit for 6 months. You started smoking again before 6 months had passed.)

Did you use or do any of these things during your UNSUCCESSFUL quit attempts? (check all that you tried)

- ☐ read a quitting book (1)
- ☐ used a quitting website (2)
- ☐ talked to yourself about quitting (3)
- ☐ changed thoughts about cigarettes (4)
- ☐ got a quit buddy (5)
- ☐ increased physical activity (6)
- ☐ put things in mouth (candy, pretzels, etc) (7)
- ☐ got rid of cigarettes (8)
- ☐ involving friends in quitting process (for example, told them not to give you cigarettes) (9)
- ☐ weaned down (10)
- ☐ nicotine lollipop (11)
- ☐ made friends with other ex-smokers (12)
- ☐ limited the time of day smoked (13)
- ☐ chose a quit date in advance (14)
- ☐ e-cigarette (15)
- ☐ tobacco pouch (16)
- ☐ smokeless tobacco (17)
- ☐ cold turkey quit (after weaning down) (18)
- ☐ cold turkey quit (sudden quit- no weaning involved) (19)
- ☐ Nicotine patch (20)
- ☐ Nicotine gum (21)
- ☐ Nicotine lozenge (22)
- ☐ Nicotine inhaler or nasal spray (23)
- ☐ Wellbutrin ® or Zyban ® (also known as Bupropion) (24)
- ☐ Chantix ® (also known as Catapres) (25)
- ☐ avoided friends that still smoke (26)
- ☐ avoided bars/clubs, etc (27)

- ☐ relocated away from still-smoking friends (28)
- ☐ waited until truly ready to quit (29)
- ☐ saw a counselor (30)
- ☐ hypnosis (31)
- ☐ attended a smoking cessation program for free (32)
- ☐ attended a smoking cessation program for a fee (33)

Q197 Have you ever successfully quit smoking for more than 6 months?

- ☐ Yes (1)
- ☐ No (2)

Q199 How long was your most successful quit attempt?

- ☐ 6-11 months (1)
- ☐ 1 -2 years (2)
- ☐ 3-5 years (3)
- ☐ 6-10 years (4)
- ☐ 11-15 years (5)
- ☐ 16-20 years (6)
- ☐ More than 21 years (7)

Q200 Think back to your most successful quit attempt (6+ months). Did you do/use any of these things during your SUCCESSFUL attempt and when staying quit? (Select all that apply)

- ☐ read a quitting book (1)
- ☐ used a quitting website (2)
- ☐ talked to yourself about quitting (3)
- ☐ changed thoughts about cigarettes (4)
- ☐ got a quit buddy (5)
- ☐ increased physical activity (6)
- ☐ put things in mouth (candy, pretzels, etc) (7)
- ☐ got rid of cigarettes (8)
- ☐ involving friends in quitting process (for example, told them not to give you cigarettes) (9)
- ☐ weaned down (10)
- ☐ nicotine lollipop (11)
- ☐ made friends with other ex-smokers (12)
- ☐ limited the time of day smoked (13)
- ☐ chose a quit date in advance (14)
- ☐ e-cigarette (15)
- ☐ tobacco pouch (16)
- ☐ smokeless tobacco (17)
- ☐ cold turkey quit (after weaning down) (18)
- ☐ cold turkey quit (sudden quit- no weaning involved) (19)
- ☐ Nicotine patch (20)

- ☐ Nicotine gum (21)
- ☐ Nicotine lozenge (22)
- ☐ Nicotine inhaler or nasal spray (23)
- ☐ Wellbutrin ® or Zyban ® (also known as Bupropion) (24)
- ☐ Chantix ® (also known as Catapres) (25)
- ☐ avoided friends that still smoke (26)
- ☐ avoided bars/clubs, etc (27)
- ☐ relocated away from still-smoking friends (28)
- ☐ waited until truly ready to quit (29)
- ☐ saw a counselor (30)
- ☐ hypnosis (31)
- ☐ attended a smoking cessation program for free (32)
- ☐ attended a smoking cessation program for a fee (33)

Q156 We will never use this information to single you out and there is no way to link the info you provide to you. Thank you so much for taking this survey. There are just 3 topics left.

Q70 What is your age?

Q71 Are you Hispanic or Latino/a?

- ☐ Yes (1)
- ☐ No (2)

Q72 What is your race/ethnicity?

- ☐ White/Caucasian (1)
- ☐ Asian (2)
- ☐ Black/African American (3)
- ☐ American Indian or Alaska Native (4)
- ☐ Native Hawaiian or other Pacific Islander (5)
- ☐ Multi-racial (6)
- ☐ Other (please specify) (7)

Q73 Please specify your race/ethnicity

Q74 What is the highest education level you have completed?

- ☐ High school diploma or GED (1)
- ☐ Some college (2)
- ☐ Associates (2 year degree) (3)
- ☐ Bachelor's (4 year degree) (4)
- ☐ Master's (5)
- ☐ PhD/DSW, etc (doctorate, non-medical) (6)
- ☐ MD or other medical degree (7)

Q75 What is your annual income level?

- ☐ Less than \$10,000 (1)
- ☐ \$10,001-15,000 (2)
- ☐ 15,001-20,000 (3)
- ☐ 20,001-25,000 (4)
- ☐ 25,000-35,000 (5)

- ☐ 35,001-50,000 (6)
- ☐ 50,001-75,000 (7)
- ☐ 75,000 – 100,000 (8)
- ☐ \$100,001 or more (9)

Q77 What is your employment status? (check all applicable options)

- ☐ Employed for wages (1)
- ☐ Self-employed (2)
- ☐ Out of work more than 1 year (3)
- ☐ Out of work less than 1 year (4)
- ☐ Homemaker (5)
- ☐ Student (6)
- ☐ Retired (7)
- ☐ Unable to work (8)

Q78 What is your relationship status?

- ☐ Single, not dating (1)
- ☐ Divorced, not partnered (2)
- ☐ Widowed, not partnered (3)
- ☐ Legally married to same sex partner (4)
- ☐ Single, dating more than one person (5)
- ☐ Legally married to opposite sex partner (6)
- ☐ Partnered to/dating exclusively someone of the same sex (7)
- ☐ Partnered to/dating exclusively someone of the opposite sex (8)
- ☐ Other (9)

Q44 This section is also about your experiences as an LGBTQ individual. Please mark how many times these things have happened to you because you are LGBTQ.

Q34 Your property was purposely damaged or vandalized.

- ☐ Never (1)
- ☐ Once (2)
- ☐ Twice (3)
- ☐ Three or more times (4)

Q35 You were hit, beaten, or physically attacked.

- ☐ Never (1)
- ☐ Once (2)
- ☐ Twice (3)
- ☐ Three or more times (4)

Q36 Someone attempted to assault you.

- ☐ Never (1)
- ☐ Once (2)
- ☐ Twice (3)
- ☐ Three or more times (4)

Q37 Your property was stolen, as in a break-in, burglary, or theft.

- ☐ Never (1)

- ☐ Once (2)
- ☐ Twice (3)
- ☐ Three or more times (4)

Q38 You were raped or sexually assaulted.

- ☐ Never (1)
- ☐ Once (2)
- ☐ Twice (3)
- ☐ Three or more times (4)

Q39 Someone attempted to sexually assault you.

- ☐ Never (1)
- ☐ Once (2)
- ☐ Twice (3)
- ☐ Three or more times (4)

Q40 Someone attempted to steal or vandalize your property.

- ☐ Never (1)
- ☐ Once (2)
- ☐ Twice (3)
- ☐ Three or more times (4)

Q41 You were robbed, as in a holdup or mugging.

- ☐ Never (1)
- ☐ Once (2)
- ☐ Twice (3)
- ☐ Three or more times (4)

Q43 I am bothered by things that don't usually bother me.

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)

Q46 I do not feel like eating; my appetite is poor.

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)

Q47 I feel that I cannot shake off the blues even with help from my family or friends.

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)

Q48 I feel that I am just as good as other people.

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)

Q49 I have trouble keeping my mind on what I am doing.

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)

Q50 I feel depressed.

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)

Q53 I feel that everything I do is an effort.

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)

Q54 I feel hopeful about the future.

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)

Q55 I think my life has been a failure.

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)

Q56 I feel fearful.

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)

Q57 My sleep is restless.

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)

Q58 I am happy.

- ☐ 1 (1)

- ☐ 2 (2)

- ☐ 3 (3)

- ☐ 4 (4)

Q59 I talk less than usual.

- ☐ 1 (1)

- ☐ 2 (2)

- ☐ 3 (3)

- ☐ 4 (4)

Q60 I feel lonely.

- ☐ 1 (1)

- ☐ 2 (2)

- ☐ 3 (3)

- ☐ 4 (4)

Q61 People are unfriendly.

- ☐ 1 (1)

- ☐ 2 (2)

- ☐ 3 (3)

- ☐ 4 (4)

Q62 I enjoy life.

- ☐ 1 (1)

- ☐ 2 (2)

- ☐ 3 (3)

- ☐ 4 (4)

Q63 I have crying spells.

- ☐ 1 (1)

- ☐ 2 (2)

- ☐ 3 (3)

- ☐ 4 (4)

Q64 I feel sad.

- ☐ 1 (1)

- ☐ 2 (2)

- ☐ 3 (3)

- ☐ 4 (4)

Q65 I feel that people dislike me.

- ☐ 1 (1)

- ☐ 2 (2)

- ☐ 3 (3)

- ☐ 4 (4)

Q66 I cannot get "going".

- ☐ 1 (1)

- ☐ 2 (2)

- ☐ 3 (3)

- ☐ 4 (4)