COGNITIVE PROCESSING THEMES FOR

SMOKING AMONG LESBIANS

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COGNITIVE PROCESSING THEMES FOR SMOKING AMONG LESBIANS

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DISSERTATION ABSTRACT

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This study explored perceptions of motivation for smoking among lesbians. A convenience sample of 20 participants completed an online survey with 18 open-ended, reflection questions about their perceptions of the relationships between smoking and psychosocial and situational influences, outcome expectancies, coping strategies, and self-efficacy. Content analysis was used to examine the qualitative data. Results suggested that participants did not perceive a connection between being a lesbian and smoking. Participants minimized the existence of benefits to smoking other than physical sensations and relief of negative affect. The majority of participants reported desire to quit smoking but had limited self-efficacy about their related abilities. Participants described frequent use of cognitive, distraction techniques to cope with cigarette cravings. The results of this study provide a theoretical framework to guide future studies.

Style manual used: Publication Manual of the American Psychological Association, 2001 (5th ed).

Computer software used: Microsoft Office Word and Excel 2007 and SurveyMonkey (www.surveymonkey.com)

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CHAPTER 1: INTRODUCTION

Background Information

The need for increased concern and further understanding of smoking is echoed among health advocates and reflected in numerous health focus areas. In a 2001 report, former United States Surgeon General, David Satcher, declared that smoking was a new "full-blown epidemic" spreading throughout the United States. Per his report, the epidemic prematurely claimed the lives of approximately three million United States' women since 1980. Further, approximately 165,000 women died from smoking related diseases in 1999 alone. Smoking was identified as the leading cause of several smoking-related neoplastic, cardiovascular, respiratory, and pediatric diseases (United States Department of Health and Human Services [USDHHS], 2001a).

The Centers for Disease Control and Prevention (CDC) played a prominent role in the development of Healthy People 2010, a comprehensive, national health promotion and disease prevention agenda. This agenda's goal was to create significant reductions in United States citizens' non-healthy lifestyles during the first decade of the 21st century through the improvement of the quality and expectancy of life and elimination of health discrepancies (USDHHS, 2001a). Former Surgeon General David Satcher called this document the "blue print for health for the coming decade" (Gay and Lesbian Medical Association [GLMA], 2001a). One of the several objectives identified in this document

addressed the most preventable cause of disease related to deaths in America, tobacco use. To promote reductions in tobacco use, this agenda called for the identification and elimination of disparities between different demographic populations, particularly disparities associated with gender, socioeconomic status, race/ethnicity, and sexual orientation (USDHHS, 2001a).

Gender Disparities

Although there was a recent decrease in cigarette use among men, this pattern was less significant among women. As of 1998, 22 percent of women aged 18 years or older smoked cigarettes (USDHHS, 2001b). Healthy People 2010 (priority area 3; 2001) called for the reduction of women's smoking rates to no more than 12 percent among women of reproductive ages. General population estimates of smoking among adolescent females magnify smoking concerns. Data from the 1990s found that rates of cigarette smoking in women leveled out, but smoking among adolescent girls began rising at alarming rates (17.9 percent in 1991 to 23.6 percent in 1997). The existence of this increase among adolescent females may, with time, contribute to an overall increase in the rate of cigarette smoking among women due to most women first initiating smoking during teen years (USDHHS, 2001b).

Disparities among Females Based on Sexual Orientation

The need to address this chilling 'epidemic' is even more evident upon examination of disparities in smoking behavior related to sexual orientation. Research that specifically investigated smoking among lesbians has consistently found

significantly higher smoking prevalence rates among lesbians than women in the general population. The Institute of Medicine found that as many as two times as many lesbians reported cigarette smoking than heterosexual women (USDHHS, 2001a). Research by Case, Austin, Hunter, Manson, Malspeis, Willett, et al. (2004) reported similar conclusions based on their sample of 116,671 female registered nurses between 25 and 43 years of age. Lesbians and bisexual women (LB) were approximately two times as likely to currently smoke than heterosexual women (L=19 percent, B=21 percent, HW [heterosexual women]=11 percent). Furthermore, 60 percent of lesbians and 50 percent of bisexuals reported a history of smoking. Notably, the high prevalence rate found in the last study mentioned was among health care professional with increased familiarity of the health consequences associated with smoking in comparison to the lay person.

Ryan, Wortley, Easton, Pederson, and Greenwood (2001) conducted a metanalysis of eight studies between 1984 and 1998 that reported on smoking among adult-aged LB. Results indicated that smoking prevalence was consistently higher among LB than the general population, with prevalence rates ranging from 11 to 50 percent among LB. Cochran, Mays, Bowen, Gage, Bybee, Roberts, et al. (2001) metanalysis on cancer and health prevention efforts among LB incorporated an assessment of smoking. This review was of five large surveys (n=1200) that all used more than convenience sampling alone for participant recruitment. Results yielded similar results as Ryan et al. (2001) literature review. Lesbian rates of smoking, both at the time of the study and in the past, significantly surpassed the prevalence rates of women in the general population. However, these authors found evidence that indicated smoking rates were less than

expected based on national estimates. Nevertheless, there was an overrepresentation of smoking reflected in the history of lesbian participants. In addition, the concern about tobacco use among this population becomes even more elevated when occasional smokers are considered in prevalence rate estimates. In their national sample, Bradford, Ryan, and Rothblum (1994) found that 30 percent of lesbians smoked cigarettes daily and an additional 11 percent smoked occasionally.

The reduction in this health disparity in the near future is, unfortunately, not anticipated. Currently, the rates of smoking among lesbian, gay, and bisexual (LGB) youths are just as high as adults (Washington, 2002). Given that most people begin smoking in their teen years, it seems likely that the disparity in smoking among LGB youths will remain a concern when this age-cohort becomes older (Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998). Higher prevalence of tobacco use has also been found among lesbian college students. In McCabe, Boyd, Hughes, and D'Arcy's (2003) study of a random sample of 3,607 undergraduate students, LB were four times as likely to have smoked in the past month in comparison to HW. Concern about health-disparities is amplified with consideration of trajectories of prevalence. In a random sample of American colleges and universities, Eisenberg and Wechsler (2003b) found that smoking rates among heterosexual students eventually decreased, but this decline was not evident for individuals who engaged in both same-sex and opposite-sex experiences. The authors reported that they chose to use the research criterion of lifetime sexual experience with same and/ or opposite sex partners because they wanted to include participants who may not have felt comfortable with identifying as lesbian or bisexual but who had engaged in

same-sex sexual activity.

Research comparing bisexual women and lesbians who smoke consistently found higher prevalence rates among bisexual women. Diamant, Schuster, and Lever (2000) found that approximately one-third of lesbians and half of bisexual women reported active tobacco use. Several researchers (e.g., McCabe et al., 2003) pointed to the confounding effect of combining LB in data analysis as that bisexual prevalence rates may have inflated the smoking rates for LB subgroups. For example, when considering lesbians and bisexual women as separate groups, Eisenberg and Wechsler (2003b) found that bisexual college women had one and a half to three times the odds of smoking, binge drinking, and marijuana use compared to HW. The researchers did not find this relationship when comparing lesbians alone to HW. Due to the confounding effect of combining LB, this study targeted lesbians and not bisexual women.

Paucity of Research

To date, most research on smoking among lesbians is limited to smoking prevalence. Issues related to smoking initiation, patterns, and quitting is negligent (Sanchez, Meacher, & Beil, 2005). In December 2002, several representatives from agencies such as the National Cancer Institute, the Centers for Disease Control and Prevention, and the American Legacy Foundation convened at the National Conference on Tobacco and Health Disparities with the intent of developing a plan to address tobacco-related health disparities. Needs of sexual minority groups were targeted in several of the focus areas of this conference. Among the needs recognized was a call for the examination of the context of tobacco use and the effects of acculturation, stress,

coping, and discrimination on the etiology of smoking, trajectories, and quitting. An additional call was directed at increased efforts at psychosocial research to enhance knowledge about the role of cultural beliefs, perceptions, and behaviors among diverse groups. Lastly, embedded in this conference's challenge was the need to examine associated cognitive processing themes (Fagan, King, Lawrence, Petrucci, Robinson, Banks, et al., 2004) as they relate to tobacco use. In their review of the literature on smoking among LB, Hughes and Eliason (2002) also concluded that there is a lack of information to illuminate cognitive processing themes associated with smoking among this population.

Cognitive Processing Themes

The majority of existing research on smoking among lesbians has thus far focused on speculation about situational and psychosocial influences on smoking among lesbians without empirical investigation of such influences (Hughes & Eliason, 2002). This study sought to examine cognitive predictors of smoking maintenance among lesbians. Cognitive processing themes associated with smoking include perceptions of psychosocial (Fagan et al., 2004) and situational influences (Brandon et al., 2004; Gilbert et al., 2000), outcome expectancies (Brandon, Herzong, Irvin, & Gwaltney, 2004; Gilbert, Sharpe, Ramanaiah, Detwiler, & Anderson, 2000), and beliefs about self-efficacy and coping strategies (Brandon et al., 2004; Etter, Bergman, Humair, & Pernegeri, 2000; Shadel & Cervone, 2006). This study referred to cognitive predictors such as these as motivations to smoke. Maintenance refers to the continuation of smoking, not smoking onset or cessation (Mowery, Farrelly, Haviland, Gable, & Wells, 2004).

Psychosocial Influences

Research has suggested that lesbians' social roles and responsibilities may be somewhat different from their heterosexual counterparts, and some of these differences may be more conducive to the maintenance of smoking across the lifespan. For example, Cochran (2001) contended that lesbians are less likely to raise children or engage in other "scheduled" life events (e.g., life role changes such as marriage). Cochran (2001) use of the term "scheduled" was borrowed from Pearlin (1999, p. 163). Hughes and Eliason (2002) described how less restriction from gender-role socialization may contribute to greater substance use in general. Research has connected increased risk-taking among women with conforming less to gender-role socialization and engaging in less stereotypical female roles (e.g., having a male-dominated job; Aaron, Markovic, Danielson, Honnold, Janosky, & Schmidt, 2001; Eisenberg & Wechsler, 2003a; Hughes & Eliason, 2002; Ryan et al., 2001). Increased risk taking has been directly linked to increased risk for smoking (Gilbert & Gilbert, 1995; Heath, Madden, Slutske, & Martin, 1995; Sher, Bartholow, & Wood, 2000; Zuckerman, Ball, & Black, 1990).

Accumulating evidence suggests that norms impact smoking among lesbians. For example, the norm of smoking has been linked to the lesbian community's reliance on bars for socialization (Aaron et al., 2001; Bux, 1996; Cabaj, 1995; Gruskin, Hart, Gordon, & Ackerson, 2001; Saunders, 1999). Bux (1996) described beliefs that the *bar culture* is a consequence of the increased feelings of comfort and lack of fear when around other individuals with diverse sexual orientations. Cabaj (1995) contended that both laws and policies and societies' lack of acceptance and/or acknowledgement of gay

people restrict the available socializing to bars and homes, where alcohol and other drugs are more likely to be present. Furthermore, modeling, social desirability (Ryan et al., 2001), and acculturation (USDHHS, 2001a) may then magnify the high rates of smoking when smoking is the perceived community norm. In a study of lesbian and bisexual women in college, Eisenberg and Wechsler (2003a) found that the greater the number of hours spent socializing was positively correlated with smoking behavior. They concluded that the norm of openness and acceptance in emphasizing personal choice may indirectly lead to smoking. Taken altogether, this evidence indicates that the bar culture may normalize cigarette smoking, thus increase smoking rates among this population.

In the national health promotion and disease prevention agenda, Healthy People 2010 (USDHHS, 2001a) described a possible connection between smoking and a common presumption among LGB youth of cultural disenfranchisement, which was described as a belief that the norms of mainstream society does not apply to them (LGB youth). Lesbian youth may believe that smoking is more acceptable, because of perceptions within the community that normalize smoking and increase tolerance for smoking. Furthermore, lesbians may use smoking to create an observable means to express similarities with their perceptions of socially desirable traits within the lesbian community. For example, a young lesbian may smoke to assert her independence and power (Ryan et al., 2001).

Despite lesbians being vulnerable to the multiple struggles described previously, there is a growing amount of evidence that suggests mediating variables protect lesbians from poorer overall psychological adjustment than HW (Hughes & Eliason, 2002). For

example, research has identified positive community norms and behaviors such as openness to counseling (Cochran, 2001) pharmacological treatment such as antidepressants (Diamant & Wold, 2003; McCabe et al., 2003) and exercise (Aaron et al., 2001). Factors such as these may attenuate the stress experienced by lesbians. Therefore, the link between the identified psychosocial influences and smoking among lesbians remains unclear.

Another psychosocial variable that has been linked to tobacco use among LGBT (T=transgendered) individuals is directed tobacco marketing. Tobacco marketing targeted at LGBT has been shown to influence smoking among this group (Drabble, 2000; Ryan et al., 2001; Washington, 2002). For example, in order to increase "Big Tobacco's" consumer base, the tobacco industry promoted sales through sponsorships at cultural events and holidays, contributions to nonprofit organizations related to diverse sexual orientations, and cigarette advertisements in LGBT publications (Drabble, 2000). Healthy People 2010 (USDHHS, 2001a) suggested that tobacco companies deliberately market to LGBT communities by endorsing various charities to make them appear as a "valuable friend." Case in point, in 1990 Philip Morris Companies Incorporated donated more than $800,000 to AIDS charities and $10,000 to the Gay and Lesbian Alliance the following year.

Situational Influences

To reduce smoking disparities, efforts need to specifically target enhanced understanding of perceptions of situational influences on smoking among lesbians. Gilbert et al. (2000) reported that situational influences impact one's motivation to

smoke. A situation may be associated with an affective state that increases one's desire to smoke. An individual may seek a cigarette to reduce negative affect (e.g., boredom, anxiety) or to enhance positive affect (e.g., pleasure). Situational influences that predict smoking are not necessarily the same for lesbians as they are for HW because of diverse life experiences associated with sexual orientation.

Research has identified a potential link between smoking and situational stress associated with sexual orientation identity development, internalized homophobia, fear of diverse sexual orientation being revealed against wishes, and open acknowledgement of sexual orientation (Bontempo & D'Augelli, 2002; Hughes & Eliason, 2002; Ryan et al., 2001). Lesbians' high prevalence rates have also been linked to stigma (Cabaj, 1995) and experiences of societal homophobia and discrimination (Ryan et al., 2001). It is hypothesized that lesbians may be use smoking to help alleviate associated negative affect.

Outcome Expectancies

Smoking is influenced by what an individual expects from a cigarette. If a desired outcome occurred during past uses of cigarettes, the expected benefits have been reinforced (Gilbert & Gilbert, 1995; Gilbert et al., 2000; Pulvers, Catley, Okuyemi, Scheibmeir, McCarter, Jeffries, et al., 2004). Research has identified common factors associated with motivations to smoke based on desired effects: cognitive enhancement, negative affect reduction, positive affect enhancement, and weight/appetite suppression (Gilbert et al., 2000). For example, a woman may expect a cigarette to serve as an agent to promote her ability to concentrate on a task if, on previous occasions, she felt a

cigarette promoted her concentration or ability to perform in other cognitive ways.

Coping Strategies

The need for cultural-specific research includes examination of coping strategies. O'Connell, Hosein, Schwartz, & Leibowitz (2007) reported that coping strategies skills may lower the intensity of desire to smoke to a more tolerable level and distract from the desire by filling time. An exploratory investigation to identify coping strategies identified by lesbians who smoke is crucial for future analysis of differential impact of the coping strategies to reduce, counteract, or distract from desire to smoke among lesbians (Drabble, 2000; Savin-Williams, 1994).

A lesbian may smoke to mediate situational stress (Cabaj, 1995; Ryan et al., 2001). Examination of these perceived situational stressors as well as coping strategies may promote ability to identify alternative reinforcers to replace ones sought through smoking (i.e., replacement of means to produce desired goal states). Jenks (2001) found that identification of such alternatives is a key component of reducing psychological addiction. This study sought to identify such situational triggers to promote understanding of smoking among lesbians.

Self-Efficacy

Self-efficacy represents one's confidence about her or his ability to control thoughts, feelings, behaviors, and the environment to obtain a goal in a situation (Bandura, 1997 as cited in Brandon et al., 2004). According to Bandura's social cognitive

theory, stronger self-efficacy is linked to greater likelihood of goal achievement (Bandura & Locke, 2003).

Self-efficacy is situation-specific as that related beliefs will vary based on situational demands (Brandon et al., 2004). Self-efficacy is linked to outcome expectancies and beliefs about one's ability to resist the urge and avoid smoking a cigarette when exposed to a cue that typically triggers desire to smoke a cigarette (e.g., boredom, sadness, stress). One's confidence in her ability to abstain from smoking is influenced by her beliefs about what will occur with and without a cigarette (Etter et al., 2000).

Significance

This study examined perceptions of motivation to smoke among lesbians based on social cognitive models of addiction (e.g., Brandon et al., 2004; Bandura & Locke, 2003). The significance of this study was two-fold. The first was to better understand tobacco-related disparities, and the second was to provide more culturally-sensitive knowledge to inform prevention and intervention strategies.

The National Conference on Tobacco and Health Disparities called for research to generate a better understanding of tobacco-related disparities (Fagan et al., 2004). This research may provide more culturally-sensitive knowledge about smoking among lesbians to inform prevention and intervention strategies (Ryan et al., 2001). Previous research has not yet adequately examined tobacco-related disparities between lesbians and HW and, without this examination, health psychologists and other health care professionals do not have to adequate information to inform and tailor accurate clinical

prevention and intervention (e.g., education, communication, outreach, counseling, and smoking cessation). Related to this, Meyer (2001) reported that LGBT public health issues include both areas of increased risk for disease (regardless of uniqueness in exposure) and areas that call for specialized cultural competency in approach regardless of the existence of risk disparity. The combination of lack of information, the potential for increased risk for diseases that are attributable to smoking, and the demand for specialized cultural competency justified the significance of this study.

Research Questions

The purpose of this study was to better understand the perceptions of motivations (i.e., not underlying predisposition, physiological influences, or unconscious motivations) that influence smoking maintenance among lesbians who smoke cigarettes. The primary emphasis was on maintenance, not smoking initiation or cessation. Research questions included:

(1) What cognitive processing themes related to perceptions about psychosocial influences contribute to smoking behavior among lesbians who smoke.

(2) What cognitive processing themes related to perceptions of situational influences contribute to smoking behavior among lesbians who smoke.

(3) What cognitive processing themes related to outcome expectancies contribute to smoking behavior among lesbians who smoke.

(4) What cognitive processing themes related to perceptions about coping strategies contribute to smoking behavior among lesbians who smoke.

(5) What cognitive processing themes related to perceptions about self-efficacy

contribute to smoking behavior among lesbians who smoke.

Operational Definitions

Lesbian

Due to the lack of consensus in conceptualizations of sexual orientation and the complexity of measuring sexual orientation (Sell & Becker, 2001), in this study lesbian referred to the participant's identification as a lesbian, which was self-reported on the demographic section of the survey (Refer to Appendix A). This study did not specifically assess same-sex attraction or behavior. Consistent with Hughes and Eliason (2002), this study assumed that a great variation exists in respect to affection, erotic preferences, and behaviors of lesbians. Identified lesbians likely consisted of women who are mostly sexually and emotionally attached to other women (Hughes & Eliason, 2002). This study also recognized that lesbians past or current sexual partners may not be limited to women (Liddle, 2006).

Smoking Status

The Surgeon General's Report on Women and Smoking (USDHHS, 2001b) used data from the National Health Interview Survey to determine smoking prevalence among adults 18 years of age or older. In this survey, smoking was determined by whether the respondent smoked 100 or more cigarettes in her or his lifetime and if he or she smoked at the time of the survey. These prevalence rates included individuals who did not smoke cigarettes on a daily basis. The Surgeon General's Report on Women and Smoking used

data from the Monitoring the Future Survey to reflect smoking prevalence among high school students. Smoking prevalence was estimated based on smoking one or more cigarettes in the past 30 days. Daily smoking was estimated based on whether the participant smoked one or more cigarette per day during the 30 days preceding the data collection.

Smoking status has not been clearly defined and standardized across studies. Further, past research on smoking among lesbians has not been consistent in reporting how smoking status was defined. Hughes and Eliason (2002) reported that definitions of substance abuse are ambiguous across studies. In Ryan et al. (2002) review of eight studies on smoking among LGB, they noted that current smoking was not defined in half of the studies.

In this study, smoking status was determined by response to the following two questions: (1) Have you smoked 100 or more cigarettes in your lifetime; and (2) Do you currently smoke cigarettes. The participant had to respond "yes" to both of these questions in order to continue with the survey. If the participant responded "no" to one or more of these questions, she was informed that she did not meet selection criteria, thanked for her time and participation, and given resources with smoking information. Data from participants who responded "no" to one or more of these questions were not included in the final data analysis, because they did not meet selection criteria.

Cognitive Processing Themes

Cognitive processing themes correspond to the complex patterns of thoughts that determine how experiences are perceived and conceptualized (Freeman & Dattilio, 1992). This study examined conscious patterns of thought that predicted lesbians' deliberate decisions to smoke cigarettes. This study emphasized motivational influences linked to smoking continuation.

Cognitive processing themes associated with motivational influences for smoking were examined using a social cognitive theoretical framework. Such constructs have been linked to addiction research and include perceptions of psychosocial and situational factors (Gilbert, McClernon, Rabinovich, Plath, Jensen, & Meliska, 1998; Leventhal, Keeshan, Baker, & Wetter, 1991) outcome expectancies (Bandura & Locke, 2003; Brandon et al., 2004; Gilbert et al., 2000), self-efficacy, and coping strategies (Bandura & Locke, 2003; Bliss, Garvey, & Ward, 1999l; Etter et al., 2000; O'Connell et al., 2007).

The identification of cognitive processing themes in relationship to the research questions occurred through an analysis of common emerging themes in the qualitative reflection responses across participants. Underlying predispositions (e.g., personality traits), physiological influences (e.g., nicotine cravings), and unconscious motivations (e.g., self-destructive drives) were beyond the scope of this study and were not directly examined.

Psychosocial Influences

Psychosocial influences consist of cultural variables, norms, values, and community determinants and an individual's social experiences in society that influences tobacco use (Fagan et al., 2004). The majority of existing research on smoking among lesbians that goes beyond prevalence rates or provides hypotheses about influences to smoking disparities between lesbians and HW has focused on psychosocial influences on smoking, including community norms, socialization patterns, tobacco marketing (e.g., Aaron et al., 2001; Cabaj, 1995; Gruskin et al., 2001; Washington, 2002)

This study sought to examine lesbians' perceptions of how such influences impact smoking. For the purposes of this study perceptions of psychosocial influences were assessed through responses the participants provided to the following reflection questions: (1) What messages are you getting from others in your life about smoking (e.g., from friends, partner, and other family members)? Please name and describe at least two sources of the messages and the messages you get from each of the sources; (2) How, if at all, does smoking relate to being a lesbian and/or coming out; and (3) How, if at all, may society affect your smoking (Refer to Appendix B).

Situational Influences

Situational influences refer affect when smoking is desired and when this desire is acted on by a smoker (Gilbert & Gilbert, 1995; Gilbert et al., 2000). Preliminary studies on smoking among lesbians have provided hypotheses about situational influences that may be linked to smoking disparities between lesbians and HW, including stress and mood state (e.g., Gruskin et al., 2001). For example, situations that induce increased

stress also increase desire to smoke (e.g., Perkins & Grobe, 1992), because an individual may expect smoking to help alleviate the negative feelings (e.g., generate increased feelings of relaxation). This study explored perceptions of situational influences to smoking among lesbians via the following questions: (1) In what situations do you feel most tempted to smoke (please name/describe at least 2); (2) In what situations are you most likely to smoke (please name/describe at least 2); (3) When do you feel it is most difficult not to smoke; (4) What situations do you find it easier to not smoke; and (5) What, if any at all, situations associated with being lesbian contribute to smoking (Refer to Appendix B).

Outcome Expectancies

This study sought to identify lesbians' conscious expectancies that influence smoking. Expectancy refers to a cognitive strategy that includes the process of organizing and interpreting information to determine responses (Brandon et al., 2004). Outcome expectancies are beliefs an individual has that a behavior will result in a certain outcome (Bandura, 1977, cited in Brandon et al., 2004). For the purposes of this study, expectancies referred to an individual's perceptions about the benefits and effects of smoking. Such expected benefits and effects have been identified as mediators to smoking and are related to an individual's intentions to achieve a desired goal-state. In other words, smoking a cigarette is done in response to the intent to facilitate a certain outcome (Gilbert & Gilbert, 1995; Gilbert et al., 2000). For the purposes of this study, these variables were assessed through participant self-report in response to the following reflection questions: (1) What things do you look forward to when you have a cigarette;

(2) How do cigarettes help or benefit you; and (3) What is it like when you can't have a cigarette (e.g., are there any changes in your thoughts, feelings, and/or behavior.

Coping Strategies

Coping refers to "the efforts made by an individual to manage external or internal demands that strain his or her resources, in a manner that serves to modify the effects of such stressors" (Heffernan, 1998, p. 520). O'Connell et al. (2007) described possible means for the management of these internal and external demands. They reported that coping strategies skills may lower the intensity of desire to smoke to a more tolerable level and distract from the desire by filling time. Desire to smoke refers to the mental craving, urge, or temptation for a cigarette (Gilbert et al., 2000). For the purpose of this study, coping strategies refer to the tools and intentional approaches a lesbian who smokes employs to reduce intensity, counteract, or distract from her desire to smoke. Coping strategies were assessed through responses to the following reflection questions: (1) How do you overcome a craving for a cigarette when you cannot have one; and (2) When you think about smoking a cigarette but do not, what are the reasons for not doing so (Refer to Appendix B).

Self-Efficacy

Self-efficacy refers to an individual's confidence in her or his ability to work towards and attain a goal (Bandura, 1982 cited in Levin, Ilgen, & Rudolf, 2007). Studies of addictive behaviors have examined the role of self-efficacy (Brandon et al., 2004). Bandura (1997, 1999 as cited in Brandon et al., 2004) contended that self-efficacy plays a

role in the establishment of goals, effort directed at attainment of such goals, ability to tolerate frustration and obstacles to goal-achievement, and the likelihood that set goals are attained. Levin et al. (2007) reported that self-efficacy relates to abstinence in substance abuse disorders in that it has "an important role in (a) the decision to change substance-related behavior, (b) the reduction in substance use during treatment, and (c) the maintenance of treatment gains at follow-ups" (p. 108).

This study conceptualized self-efficacy in relationship to smoking as the degree of confidence a lesbian has in her ability to control her smoking, abstain from smoking at desired times, or to quit smoking. For the purposes of this study self-efficacy was assessed through the following reflection questions: (1) If you wanted to temporarily abstain from smoking, what is the longest period you could go without a cigarette and how does this time period compare with the length of time you want to be able to temporarily abstain from smoking; (2) If you wanted to temporarily abstain from smoking, what would be some potential challenges; (3) If you wanted to quit smoking, how successful would you be; and (4) If you wanted to quit smoking, what would be some potential challenges (Refer to Appendix B).

CHAPTER 2: LITERATURE REVIEW

Disparities

Health Disparities

Tobacco use is a health concern of great magnitude in the United States. The list of diseases attributable to smoking has been expanded with each Surgeon General report since its conception in 1964 (USDHHS, 2004). In 2004, the USDHHS reported that smoking can potentially damage nearly every organ in the human body and create overall reductions in general health. Smoking is the most modifiable risk factor for multiple health concerns and premature death (Case et al., 2004; USDHHS, 2004). Data has linked smoking to cancer (bladder, cervical, esophageal, kidney, laryngeal, leukemia, lung, oral, pancreatic, and stomach), cardiovascular disease (abdominal, aortic aneurysm, atherosclerosis, cerebrovascular, coronary heart), and respiratory disease (chronic obstructive pulmonary, pneumonia). Smoking also has been associated with harmful respiratory concerns (wheezing, coughing, poor asthma control, bronchitis, phlegm, and dyspnea), cataracts, hip fractures, sexual dysfunction, low bone density in postmenopausal women, and impaired reproductive effects (fetal death and stillbirths, sudden infant death syndrome, fertility, low birth weight, and some pregnancy complications; USDHHS, 2001b; USDHHS, 2004).

It is estimated that one in every five deaths and at least 30 percent of all cancer related deaths are attributable to smoking in the United States (USDHHS, 2004). Among women, deaths due to lung cancer increased 600 percent since 1950 and, as of 1987, lung cancer has been more responsible for women's deaths than breast cancer (Kelly, Blair, & Pechacek, 2001). Three million women have died from smoking-related deaths since 1980 (Kelly et al., 2001). In the U.S., approximately 438,000 annual deaths are due to smoking. Further, annual economic costs are 167 billion dollars (75 billion in medical expenditures, 92 billion from lost productivity). Within the last 40 years, 12 million deaths have been attributed to smoking (USDHHS, 2007).

Smoking prevalence, adverse health effects, and the associated economic costs continue at alarming rates despite increased public awareness of the dangers associated with smoking and the need for prevention and intervention strategies. Healthy People 2010 (USDHHS, 2001a) and the "National Conference of Tobacco and Health Disparities" (Fagan et al., 2004) are two strategic efforts that target smoking. The first of these, Healthy People 2010 (USDHHS, 2001a), is a 10-year national health promotion and disease prevention agenda released by the United State's government that was developed through the collaborative efforts of several agencies including the USDHHS. This health agenda was the third of its type released since the first one in 1979, which was then called, "Surgeon General's Report on Health Promotion and Disease Prevention" (Sharma, 2001). This "10 year blueprint for public health" identified smoking as a priority area to promote healthy life (Meyer, 2001, p. 856).

Soon after Healthy People 2010 (USDHHS, 2001a) was released, a group of practitioners and researchers convened at the inaugural "National Conference of Tobacco and Health Disparities" (2002) to review current research, identify gaps, and develop a research agenda to eliminate tobacco-related health disparities. In attendance were representatives from several agencies and organizations, including the National Cancer Institute, CDC, American Legacy Foundation, and American Cancer Society (Fagan et al., 2004). This group defined tobacco-related health disparities as "differences in the patterns, prevention, and treatment of tobacco use; the risk, incidence, morbidity, morality, and burden of tobacco-related illness that exist among specific population groups in the United States; and related differences in capacity and infrastructure, access to resources, and environmental tobacco smoke exposure" (Fagan et al., 2004, p. 211).

Conclusions from both Healthy People 2010 (USDHHS, 2001a) and the "National Conference of Tobacco and Health Disparities" (2002) called for efforts to reduce tobacco-related disparities through further examination of differences in epidemiology, psychosocial influences, and treatment and prevention efforts among more burdened populations. Healthy People 2010 (USDHHS, 2001a) and the "National Conference of Tobacco and Health Disparities" (Fagan et al., 2004) recommended examination of smoking disparities among burdened populations. In each of these calls for change, diverse sexual orientation groups were identified as being at-risk for tobacco disparities.

Lesbian Smoking Rates

This study addressed tobacco use among lesbians. The review of literature will reveal evidence related to disparities in prevalence rates, cognitive processes related to smoking motivation among lesbians, and methodological limitations of past research.

The vast majority of existing studies on lesbian smoking are based on investigations that collected a broad range of information about lesbian health-related behaviors (e.g., Aaron et al., 2001; Bradford et al., 1994; Case et al., 2004; Cochran et al, 2001; Diamant et al., 2000; Hughes & Eliason, 2002; Rankow & Tessaro, 1998; Valanis et al., 2000). Such studies tend to assess smoking prevalence along with additional health-related behaviors. Therefore, the depth of trend information about lesbian smoking is limited to information on prevalence with little recognition of standard issues in smoking research such as initiation, smoking patterns, and quitting behaviors (Ryan et al., 2001). The following section will describe current research on smoking disparities among lesbians. The research is organized by level of study specificity and depth of information provided in reference to lesbian smoking. The following sections are then organized based on a select number of subgroups within the lesbian community that reflect different ethnic backgrounds and age cohorts. Methodological limitations associated with the paucity of research on the disparity will be explored in greater detail in a subsequent section.

The vast majority of past research on lesbian smoking targets prevalence rates and concludes that lesbians smoke more than heterosexual women. Ryan et al. (2001) conducted a metanalysis of studies on smoking among lesbians, gay males, and bisexual

males and females (LGB). These authors examined eight studies conducted between 1984 and 1998 and found consistently higher prevalence rates of smoking among LB in comparison to HW, with rates ranging from 11-50 percent. The authors noted that the higher prevalence rates among LB existed despite the higher educational attainment of the majority of the LB sample. In research on smoking within the general population (e.g., Gilbert & Gilbert, 1995; Heath, Madden, Slutske, & Martin, 1995) a negative association exists between smoking and education (USDHHS, 2001b; Hanson, 1994).

Cochran et al. (2001) investigated five studies on influences on cancer among LB. The authors found that lesbians smoke significantly more than the national norms for women in the general population. They also found that lesbians who did not smoke, were more likely to endorse smoking in the past (i.e., they endorsed a history of smoking but did not smoke at the time of data collection).

Case et al. (2004) studied women's health risk factors, including smoking, in a study of 116,671 registered nurses in 14 states. Data for this study was collected during 1989. Similar to conclusions from more recent data, LB were almost two times as likely to report current smoking (L=19 percent, B=21 percent, HW=11 percent). Further, 60 percent of lesbians and 50 percent of bisexual women reported a history of smoking but not smoking at the time of data collection.

Three nonprobability studies produced fairly consistent prevalence rates. Diamant, Wold, et al. (2000) used a 1997 population-based sample recruited through random phone interviews from Los Angeles County Health Survey of women. They found that one-third of lesbians and 50 percent of bisexual women reported current

tobacco use. Lesbian and bisexual women remained more likely to use tobacco after controlling for age, educational attainment, annual income, and employment status. Bradford et al. (1994) earlier research yielded consistent results in their examination of a data set from 1984 and 1985. They found that 30 percent of lesbians smoke cigarettes daily. Recruitment for this latter study was initially targeted at 10 cities but later became a national survey due to snowballing effects of sampling methodology in which the recruitment was through specialized social events and social networks. Rankow and Tessaro (1998) found a fairly consistent rate of smoking in their convenience sample of lesbian and bisexual women in North Carolina who self-identified as LB or who had past or present sexual relationships with other women regardless of their identified sexual orientation. They found that 28 percent of LB indicated being current smokers.

Lesbians of Color

Studies that incorporated greater percentages of lesbians of color into their samples have revealed higher rates of smoking among lesbians of color in comparison to more white-dominated samples. Sanchez et al. (2005) conducted a study in the Bronx, New York that used data from 130 self-identified Black or Hispanic LB who engaged in same sex relationships. Eighty percent of this sample acknowledged a history of smoking (i.e., not smoking at the time of data collection but having identified as a smoker at one point in the past), 60 percent reported current smoking, and one-third reported smoking more than 10 cigarettes per day. There were several limitations to this study related to lack of generalizability in that the sample was recruited from a dance club where individuals who tend to smoke are likely to be overrepresented. Mays, Yancey, Cochran,

Weber, and Fielding (2002) investigated how smoking disparities may relate to identification as a sexual minority and being an African American, Hispanic, or Asian American women living in Los Angeles County. These authors compared data from a population-based survey in Los Angeles County to a large nonpopulation-based survey of LB living in Los Angeles County. Results of this study indicated that LB smoked approximately two times as much as HW. Disparities in current tobacco use based on sexual orientation of diverse groups were greatest among Hispanic females (30.3 LB, 13.4 HW, $p<.001$). This disparity was not significant among Asian American (20.3 LB, 13.2 HW, $p<.19$) and African American females (8.0 LB, 22.0, $p<.20$).

There are several potential confounding factors to estimates of smoking prevalence among lesbians of color. Liddle (2006) indicated that lesbians of color may be less likely to openly acknowledge same-sex relationships because of collectivistic community norms that espouse avoidance of group conflict and also potentially encourage secrecy about behavior that is not congruent with the desired norms, including same-sex relationships. Caution should be used when generalizing the results of studies on women of color who identify as lesbian. It is likely that research collected on this sample is biased, overrepresents a select subgroup of the lesbian community, and does not reflect the majority of lesbians of color who engage in same-sex relationships because of lack of identification as lesbian.

Age Cohorts

The USDHHS (2001b) reported that in the 1990s rates of cigarette smoking among women in the general population leveled out, but they began rising at alarming

rates among adolescent girls (17.9 percent in 1991 to 23.6 percent in 1997). USDHHS (2001b) described fear that the increase among adolescent girls would, with time, contribute to an overall increase in the rate of cigarette smoking among women because smoking onset tends to be during the teen years (USDHHS, 2001b). In 2007, the USDHHS reported that smoking among youth (data was not gender-specific) decreased between 2000 and 2003, but they cautioned that a plateau in the rate of decline has recently become apparent.

There is mixed evidence about the current rates of smoking among teens in the general population. Mowery et al. (2004) examined smoking rates among male and female adolescents. They described research that found adolescent smoking rates were on the rise during the 1990s, despite earlier declines between 1970 and 1984. They reported that the results from the Youth Risk Behavior Survey indicated that smoking among high school students during the month prior to the data collection increased from 27.5 percent to 34.8 percent from 1991 to 2000. However, the authors noted that the Monitoring the Future Study found dramatic increases between 1991 and 1997 and then a dramatic decrease between 1997 and 2002. Notably, the 2002 prevalence rate was 26.7 percent, which was the lowest prevalence ever found in the Monitoring the Future Studies.

Mowery et al. (2004) surmised that the majority of smokers begin before the age of twenty. They analyzed data from the National Youth Tobacco Surveys that were administered to middle and high school students during 1999 and 2000. From these results, the authors concluded that 51 percent of 11-18 year olds have tried smoking and that the majority of these individuals experimented with smoking on a weekly basis.

Further, 31 percent of adolescents experimented with smoking (smoked at least one puff but did not smoke more than 25 cigarettes). Merline, O'Malley, Schulenberg, Bachman, and Johnston (2004) also examined changes across time based on data from the Monitoring the Futures Studies, which include a nationally representative sample of 17,000 high school seniors in approximately 135 schools. These authors followed up with a random selection of 2,400 of these participants who were biennially mailed a self-report survey until they were 30 years of age and then once again at 35 years of age. Results from this study concluded that participants who reported smoking during the first survey (12^{th} grade) were 12 times more likely to be smoking at the age of 35 than those who had reported not smoking during the first survey. These results give evidence to smoking patterns being established by the end of high school.

Research that specifically targets LGB teens found increased smoking prevalence in comparison to heterosexual counterparts. Bontempo and D'Augelli (2002) combined two data sets, 1995 Massachusetts Youth Risk Behavior Survey and 1995 Vermont Youth Risk Behavior Survey. Both of these studies used an assessment used by the CDC called the Youth Risk Behavior Surveillance System. Both states added assessment items targeted at sexual behavior and demographics. The instrument used in Massachusetts also assessed sexual identity and type of community (e.g., urban, suburban, or rural.) Out of the combined sample of 9,188 ninth through twelfth graders, 315 of the students identified as LGBQ. $9\text{-}12^{th}$ graders and 315), and found that LGB teens were more likely to smoke cigarettes than their heterosexual peers.

Wechsler, Rigotti, Gledhill-Hoyt, and Hang (1998) used data from the Harvard School of Public Health College Alcohol Study, which was a larger data set than the Monitoring the Future Studies that was used by both Mowery et al. (2004) and Merline et al. (2004). Wechsler et al. (1998) examined cigarette smoking between 1993 and 1997 in two large, national random samples of students enrolled in selected universities (140 colleges in 1993 and 130 in 1997). They found increases in smoking prevalence by 28 percent between 1993 and 1997 and increases in smoking were found at 85 percent of the colleges studied. The proportion of those who quit smoking decreased between studies. The authors noted that these results were consistent with the Monitoring of the Future Studies and that the rise in smoking among college students seemed reflective of the increase in adolescent smokers that occurred during the early 1990s.

Similar to research on LGB teens, evidence suggests that LGB college-aged individuals smoke more than heterosexual counterparts. Further, the tapering off found in smoking prevalence among heterosexual college students was not reflected among the LGB community (Eisenberg & Wechsler, 2003b). McCabe, Boyd, Hughes, and D'Arcy (2003) examined smoking behaviors based on sexual orientation. They surveyed 3607 undergraduate students, and 3.3 percent of this sample self-identified as LGB. They found that LB were four times as likely to have smoked cigarettes in the past month. Eisenberg and Wechsler (2003b) also investigated college-aged smokers and disparities linked to sexual orientation. They used data from the 1999 College Alcohol Study, which is a national, random sample of colleges. They found that bisexual women were two

times more likely than heterosexual women to smoke, but they found no significant differences in smoking when comparing lesbians to HW.

Gruskin et al. (2001) examined smoking and alcohol use among various age cohorts of LB who were enrolled in a large health maintenance organization (N=9965). This study found that 20-49 year old LB were more likely to be current smokers than HW and that sexual orientation was associated with smoking after controlling for the effects of stress, depression, and sociodemographic variables. Smoking prevalence patterns that compare disparities linked to diverse sexual orientations are reflected in studies targeted at older age cohorts as well. Valanis, Bowen, Bassford, Whitlock, Charney, and Carter (2000) compared health-related behaviors among women aged 50-79 years of age who participated in the Women's Health Initiative (N=93,311). This study relied upon a convenience sample and found that LB were more likely to be current and past smokers than HW. The studies described above reflect disparities between LB and HW throughout the lifespan and reveal that current smoking trends among LB youth will remain a concern in the future.

Cognitive Processing Themes

Whether or not disparities exist between lesbians and HW, culturally-specific research investigations of influences on smoking among LB are warranted (Drabble, 2000). In a metanalysis of substance use and abuse in LGBT populations, Hughes and Eliason (2002), acknowledged the lack of inclusion of the role of cognitive processes on motivations related to substance abuse among LGBT. These authors specifically referred to the lack of attention in the specific areas of beliefs, expectations, coping strategies, and

self-efficacy that relate to substance abuse in general. This paucity is reflected throughout literature on substance abuse among LB.

This study investigated the following cognitive processing themes associated with smoking among lesbians: perceptions of situational and psychosocial influences, outcome expectancies, coping strategies, and self-efficacy. The following review will summarize research hypotheses associated with situational and psychosocial influences to smoking among lesbians. However, the lack of information associated lesbian smoking and outcome expectancies, coping strategies, and self-efficacy necessitates examination of research of HW. Attempts to connect this research to lesbian lives will be made.

Theoretical Model

This study followed a social cognitive model of addiction. Consistent with these models, behavior is explained through the examination of the interactions of an individual's behavior, environment, and psychological processes (e.g., thinking, beliefs, constructions of understanding). These psychological processes are referred to as cognitive processes (Brandon et al., 2004). Bandura (1999, as cited in Feldman, 2005) indicated that each of these variables influence each other. Bandura and Locke (2003) noted that individuals are guided by motivation, self-evaluation, and self-regulation and that self-efficacy, outcome expectations, and other sociocognitive factors influence the former.

Motivation is described by cognitive literature as the consequence of an individual's thoughts, expectations, and goals (Feldman, 2005). In respect to smoking, cognitions such as these predict an individual's experience of motivation to smoke.

Bandura (1977, as cited in Webb, Hendricks & Brandon, 2007) described motivation as the reason for doing something and described motivational factors, including past reinforcement, promised reinforcements, and vicarious reinforcements. An individual affected by such motivational influences will control her or his behavior (i.e., self-regulate) with consideration of several factors, including self-efficacy (i.e., confidence in personal capabilities), comparisons to others (e.g., peer social group), and outcome expectancies.

Brandon et al. (2004) reviewed three common integrated, social learning models of addiction and, from their integration of these models, developed a description of associated constructs that were explored and used in this study. The described constructs included self-efficacy, outcome expectancies, and coping strategies. Brandon et al. noted that these constructs are often described in a wide variety of ways in the various models that they used to derive their descriptions of the constructs. Further, they noted that the models were greatly influenced by cognitive theory. This study emphasis on conscious motivation was consistent with this theoretical perspective. The study explored how a lesbian who smokes understands and thinks about motivation to her smoking through analyses of her self-reports and comparisons with other research participants.

Factors such as these interact with situational and psychosocial factors to influence smoking maintenance. For example, Leventhal et al. (2001) contended that smoking interventions typically target coping skills and self-efficacy to help an individual overcome psychosocial and situational motivations to smoke. These psychosocial and situational motivations impact cognitions and behavior related to smoking. An individual

who smokes may be in a situation that triggers desire to smoke. The combination of an individual's beliefs about the effect or benefits of smoking (i.e., outcome expectancies) and the individual's self-efficacy and coping strategies will contribute to actual smoking behavior (Levanthal et al., 2001). The combination of these beliefs and behaviors is consistent with social learning theory (Bandura, 1997 as cited in Parry, 2001). This study specifically applied these constructs associated with models of addiction to smoking. The examination of the relationship between these constructs and smoking provided the opportunity to better understand the etiology of cigarette smoking among lesbians, as called for by Gruskin et al. (2001).

Psychosocial Influences

Research findings call into question the unique influences on elevated risk for smoking among lesbians and illustrate the need for adequate exploration of perceptions of psychosocial influences on smoking among this community (Fagan et al., 2004). Conclusions from the National Conference on Tobacco and Health Disparities include a call for investigations of psychosocial factors associated with tobacco use among LGBT populations. Psychosocial issues "are broader than the individual and encompass that individual's social context, experience in society, culture, history and so forth" (Fagan et al., 2004, p. 214). Psychosocial research on smoking among LGBT populations helps to create better conceptualizations of how individual and community factors come together to influence smoking (Fagan et al., 2004).

Socialization. The social context of lesbians may affect smoking behavior through numerous routes. Smoking rates are impacted by cultural norms and values, modeling,

and social desirability. Individuals are prone to adopt behavioral norms of their reference group when socializing with the group (Levanthal et al., 2001; USDHHS, 2001a). It follows that as a lesbian observes members of her reference group using tobacco (modeling), her desire to fit in with the group (social desirability) may lead her to adopt behavioral norms modeled, in order to feel greater social connection and acceptance from peers. Consequently, such patterns of smoking are then perpetuated and reinforced. This process of smoking acquisition is consistent with social learning theory (Levanthal et al., 1991). It is important to note that the majority of lesbians do not smoke. Therefore, social acceptance and connection in the lesbian community does not mandate that all lesbians smoke or have accepting attitudes towards smoking (Fagan et al., 2004).

Community values and norms. Smoking is associated with cultural values and norms. In her literature review, Hanson (1994) cited research that identified common values among women in the general population who smoke in comparison to non-smokers. Smokers were more likely to assume values associated with a rejection of stereotypical, conventional female gender roles, (e.g., cigarettes may serve as a feminist symbol for power and assurance), rebelliousness, nonconformity, and sensation seeking.

Research that targets the lesbian community has suggested that smoking prevalence may also be reflective of underlying community norms of openness, acceptance, personal choice (Eisenberg & Wechsler, 2003a), lowered inhibitions (Hughes & Eliason, 2002), and cultural disenfranchisement, which is described as "a perception among youth that the dominant/ mainstream culture is not relevant to them." Cultural disenfranchisement may contribute to more accepting attitudes surrounding smoking

among LGB (USDHHS, 2001a). Smoking may also be fostered by common perceptions among female youth that smokers are more fun-loving and non-conformist than nonsmokers (Lucas & Lloyd, 1999). Evidence suggests that several of these values and norms may be more prevalent within the lesbian community and may possibly generalize from attitudes towards same sex behaviors to tobacco use.

It is important to highlight research that reflects attitudes that are not supportive of smoking among the LGB community. Evidence suggests that lesbians are actively pursuing health promotion (Case et al., 2004). Witeck-Combs Communications and Harris Interactive study found that 59 percent of adults (gay and heterosexual combined) prefer smoke-free bars. Out of this percentage, 70 percent of LGBT participants endorsed willingness to pay more for entry into bars that are smoke free whereas only 52 percent of their heterosexual counterparts reported willingness to do the same ("Six out of Ten," 2003).

Identify development. Acculturation, as described above, is especially evident during the transition from adolescence to young adulthood. This developmental stage also marks a time period in which individuals are especially prone to initiate smoking (USDHHS, 2001b; Washington, 2002). Ninety percent of smokers begin during their teen years, and LGBT initiate smoking at even younger ages (Washington, 2002). Smoking may serve as a tool to assert age-related desires for independence (Garofalo et al., 1998; Ryan et al., 2001), transition into adult status (Hanson, 1994), and individuality (Goebel, 1994).

During this developmental time, phase of life themes such as social connection (Goebel, 1994; Savin-Williams, 1994) and identity formation (Ryan et al., 2001) are also salient. In attempts to facilitate peer connections, behaviors that peer group approve of are often adopted. When norms of smoking and acceptance of such behavior exists, smoking may serve to promote peer acceptance and social bonds while also enhancing self-esteem (Goebel, 1994; Savin-Williams, 1994).

In addition to facilitating social connections, smoking may help alleviate stress associated with the complexities of identity formation (Ettorre, 2005). Research has linked smoking to experience of anxiety and depressive symptoms (Breaslau, Peterson, Schultz, Chilcoat, & Andreski, 1998). The process of LB identity formation tends to include phases of self- exploration and discovery, identity acquisition and acceptance, self-labeling (Case et al., 2004; Liddle, 2006; Saewyc, Bearinger, Heinz, Blum, & Resnick, 1998), open acknowledgement to others about sexual orientation (Hughes & Eliason, 2002; Liddle, 2006), and affiliation and involvement with the lesbian and gay community (Liddle, 2006). During identity formation, LB may struggle with decisions about when to acknowledge same-sex attractions and when to remain closeted. The decision to keep same-sex attractions hidden from society tends to be associated with the desires to minimize fear of negative and painful societal reactions (Savin-Williams, 1994) and/or to comply with cultural norms among some communities that may be tolerant of same-sex relationships as long as they are not labeled as such (Liddle, 2006). Consequently, LB may create public identities separate from private identities (Savin-Williams, 1994). It is often the case that when such decisions are made, special efforts are

made to continue periodic participation in LGB community events or gatherings to maintain a sense of connection and feel the comfort of an affirmative community that espouses similar shared values and norms (Liddle, 2006).

Internalized homophobia. As LB explore gay identity, it is common for challenges to emerge in respect to addressing internalized homophobia due to life in a heteronormative society (Ettorre, 2005), social stigma, religious teachings, and a sense of loss of socially sanctioned life choices and milestones (Liddle, 2006). Internalized homophobia refers to LGB personal beliefs and attitudes that have integrated negative cultural beliefs and attitudes about diverse sexual orientations and nonheterosexual behavior (Saewyc et al., 1998). During gay identity development, internalized homophobia may conflict with perceptions of one's sexual identity and produce internal turmoil marked by feelings of denial, shame, and self-hatred (Bux, 1996: Saewyc et al., 1998). Internalized homophobia may also impact attitudes towards other LB (Amadio & Chung, 2004).

There is a dearth of empirical research that specifically targets how substance use is related to unique factors associated with being a lesbian, such as identity formation and internalized homophobia (Hughes & Eliason, 2002). Ryan et al. (2001) conducted a metanalysis on research related to smoking among LB. They reviewed studies that targeted youth and young adults conducted between 1980 and 1995 and adults between 1984 and 1998. These authors concluded that it was difficult to determine little more than smoking prevalence rates because the majority of studies reviewed targeted collection of a broad range of information related to health and social issues that exist within the

LGBT community and did not emphasize an in-depth understanding of variables that influence smoking. Despite the lack of specific conclusions about the relationship between smoking and LB identity, the authors noted that smoking may serve as a coping tool to alleviate stress associated with the coming out process and internalized homophobia.

Assessments of internalized homophobia are in early developmental stages with limited utility. This may be attributed to difficulty associated with measurement of internalized homophobia. Concerns identified about existing measures include face-valid questions that are clearly not gay-affirming. Social desirability may influence the respondent to report less internalized homophobia than the individual may have in reality. Further, respondents who are more active or connected to the LGB community may be better at recognizing gay-affirming attitudes than individuals who are not as connected or active. This difference may translate into results that reflect differences in internalized homophobia that are not based on actual insidious aspects of internalized homophobia and are instead reflective of social desirability associated with gay-affirming attitudes (Amadio & Chung, 2004).

Preliminary evidence has connected internalized homophobia to psychological distress and poor self-esteem (Amadio & Chung, 2004), but only limited research has specifically examined the relationship between internalized homophobia and substance use (Hughes & Eliason, 2002). However, Amadio and Chung (2004) studied internalized homophobia and substance use among LGB. They recruited participants from Pride Fest in Atlanta, Georgia and found that females with lower internalized homophobia had a

higher prevalence of lifetime smoking (this relationship was not found in conjunction with monthly use). This finding calls to question the relationship between internalized homophobia and smoking and also how active involvement in the community influences substance use. The authors concluded that more involvement in the lesbian community was associated with lower internalized homophobia and higher substance use. The authors attributed the higher substance use to popularity of substances in the lesbian community. The authors also noted that a bias was created by the sample being collected from a group that probably overrepresented gay-affirming attitudes and active involvement in the gay community.

Pursuit of safe and supportive environments. Lesbian and bisexual young women seek tools and environments to facilitate social connections with other LGBT, formulate identity, establish individuality and independence, address internal and external homophobia, cope with gay-related stress (Gruskin et al., 2001), and create a sense of belonging, acceptance, and affirmation (Liddle, 2006). Liddle (2006) described how affiliation with the LGB community is an important to competent of lesbian identity formation as reflected in lesbian identity development models. For many lesbians, gay bars serve as a reliable, safe, and accepting setting to create social connections and experience supportive peers. However, an unhealthy outcome of reliance on bars is that smoking tends to be overrepresented in bars and be more normalized than it would be in other settings (Healton & Nelson, 2004). Further, research on college-aged women has found that problematic alcohol use commonly precipitates smoking onset (Saules, Pomerleau, Snedecor, Mehringer, Shadle, Kurth, et al., 2004).

Travers and Schneider (1996) interviewed 17 LG youth who revealed patterns of stress related to aggression, rejection, alienation/isolation, and verbal or physical harassment. Participants also reported self-monitoring behavior in order to better assure that their sexual orientation would not be revealed. Participants described a tendency to go to bars due to the combination of these stressors, the limited opportunities to socialize with LGBT peers, and the visibility and excitement of the bars.

Use of bars for socialization is not limited to young adults. Cabaj (1995) described a range of factors that may promote continued reliance on bars throughout the lifespan, such as legal prohibitions and lack of societal acceptance and acknowledgement of gay individuals. The lack of an affirmative climate outside of such social outlets perpetuates socialization in settings where alcohol and other drugs are more common. This is true in spite of the increased awareness of alternatives to bars and parties that develops with increased age and greater peer networks within the community. However, there is some evidence to suggest that patterns of bar patronage change with age. Gruskin et al. (2001) found that younger LB may be more likely than older LB to engage in the bar culture for socialization needs. This conclusion was based on a random sample (N=9,965) of 20-34 year olds who self-identified as lesbian.

Disparities in protective factors. There are a number of protective variables associated expectations about social roles and role changes (e.g., marriage and childbirth; Cochran, 2001), and responsibilities that promote smoking cessation among HW (Hughes & Eliason, 2002). It is important to consider how differences in such variables between LB and HW may relate to the maintenance of smoking among LB. Several researchers

believe that these protective variables may not serve as strong of a modifying role for the effects of smoking for LB in comparison to HW (Aaron et al., 2001; Burgard et al., 2005; Cochran, 2001; Drabble, 2000; Hughes & Eliason, 2002). Lesbian and bisexual women are less likely to have children (Cochran et al., 2001; Hughes & Eliason, 2002) and cannot legally marry (Hughes & Eliason, 2002). Differences in such factors between HW and LB may produce less normative age-related declines in smoking. Merline et al. (2004) and DuNah, Holly, and Ahn (1991) found that being married is related to reduced risk for smoking in comparison to being unmarried or separated. Merline et al. (2004) also found that being a parent is linked to reduced rates of smoking. However, parents whose children did not live with them were more likely to smoke than individuals with no children. Cochran (2001) examined a number of atypical, stressful life events and experiences that may exacerbate smoking and hinder smoking cessation among LB. She reported that potential differences in family structures (e.g., possible decreased likelihood of family unit including children, loss of child custody, difficulties with being able to marry) may lead to less age-related declines in smoking.

Age-related declines in smoking as one enters middle adulthood become more strongly impacted by occupational status and work life (Merline et al., 2004). Sorensen, Barbeau, Hunt, and Emmons (2004) reported that smoking prevalence among females in blue-collar jobs is approximately 33 percent in comparison to 20 percent among women who work in white-collar jobs. The authors associated this higher prevalence rate to job stress, less tobacco control work programs, and a means to facilitate camaraderie among workers. Cochran (2001) reported that LB are more likely to obtain work in the labor

market. Merline et al. (2004) found that homemakers were less likely to smoke than individuals who worked outside of the home. Hughes and Eliason (2002) described how less gender-role socialization among LB and increased desire for jobs that place less emphasis on conformity to socialized gender roles contributes to LB greater pursuit of jobs that have historically been dominated by males. Women who work in male-dominated work settings tend to use alcohol more than women who do not. It is not clear if the factors that increase alcohol use among LB in these settings may be the same as those that lead to smoking (Hughes & Eliason, 2002).

Equity in resources. Eisenberg and Wechsler (2003a) provided hope for the future based on their study of college students and support provided by educational institutions. They described this hope being contingent on the improved environmental and institutional allocation of support and resources for sexual minority students' physical, emotional, and social health needs. Based on a random sample of American college and university students**,** they found that higher rates of smoking among schools were associated with greater percentage of LGB enrolled. They attributed this finding to a larger LGB peer network increasing socialization opportunities at parties in which smoking and alcohol may be present (alcohol was positively correlated with smoking in this study). In further investigation of this correlation between smoking and percentage of LGB enrolled in the institution, it became apparent that smoking rates were mediated by the number of campus resources. Smoking prevalence among LB was lower with greater number of campus resources for sexual minority students. Further, there was no relationship between campus wide behavioral norms of smoking and behavioral norms of

LB enrolled in the same institution. The authors concluded that behavioral norms of the majority culture were influential as was behavioral norms of their peer LB reference group. Lesbian and bisexual women's lack of adoption of norms of the majority culture and the mediating effects of campus support and resources support the need for targeted, culture specific studies of how findings such as these may point to resiliency, strengths, and successes of the LB community.

Tobacco marketing. The Surgeon General's report, "Women and Smoking," identified tobacco marketing (i.e., advertisements and promotions) as contributing to smoking among lesbians. Such efforts targeted at women usually communicate a relationship between smoking and independence (Kelley et al., 2001; Krupka & Vener, 1992), liberation, camaraderie, and iconoclasm (Washington, 2002). In order to increase the amount of consumers, influence new smokers, and encourage a specific brand loyalty, the tobacco industry has used three general means to market and promote sales of cigarettes in LGBT communities. These include sponsorship of special events and cultural holidays, contributions to nonprofit organizations, and advertising in LGBT publications (Drabble, 2000).

Mowery et al. (2004) found that exposure to marketing by the tobacco industry is connected to established smoking. Healton and Nelson (2004) challenged that smoking needs to be conceptualized as a social justice issue. These authors argued that tobacco companies have attempted to silence antismoking strategies such as those made by the American Legacy Foundation and organizations created through the MSA in attempt to educate Americans about the dangers of smoking. In Witeck-Combs Communication and

Harris Interactive study, 89% of LGBT adults indicated that they did not see a targeted antismoking campaign towards LGBT ("Six out of Ten," 2003). By using media as a tool, there seems an increased chance of change. For example, reductions in smoking among Florida teens were found after a targeted antismoking campaign (Niederdeppe, Farrelly, & Haviland, 2004).

Situational Influences

Gilbert et al. (2000) reported that situational influences impact one's motivation to smoke and subsume cognitive and affective states. For example, cigarette smoking is commonly related to emotion regulation. One may seek a cigarette to reduce negative affect (e.g., boredom, stress, anxiety) or to enhance positive affect (e.g., pleasure).

Gay-related stress. Lesbian and bisexual women's current and historical experience in society contributes to smoking. Sadly, lesbians' experiences in society tend to be marked by a climate that often includes experiences of stigmatization, marginalization, victimization, rejection, verbal harassment, discrimination, and social inequalities (Bontempo & D'Augelli, 2002; Cochran, 2001; Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998; Hughes & Eliason., 2002; Meyer, 2001; Ryan et al., 2001). Gay-related stress is used as an umbrella term to encapsulate the psychological toll of these experiences (Bontempo et al., 2002; Hughes et al., 2002; Ryan et al., 2001).

Research has generated accumulating evidence to describe potential sources and impact of gay-related stress. Lesbian and bisexual women are often stigmatized (Cabaj, 1995) by homophobia and discrimination (Aaron et al., 2001, Gruskin et al., 2001; Ryan et al., 2001; Valanis et al., 2000), harassment, marginalization (Hughes & Eliason, 2002;

Ryan et al., 2001), verbal and physical abuse, vandalism, a plethora of other hate-crimes (Garofalo et al., 1998; Savin-William, 1994), and rejection from peers, family, religion, educational systems, and social institutions (Savin-Williams, 1994). Crocker, Major, and Steele (1998) define a victim of stigma as, "a person whose social identity, or membership in some social category, calls into question his or her full humanity-their person is devalued, spoiled or flawed in the eyes of others" (p.504). Research has consistently connected disenfranchised groups who are more isolated and stigmatized to increased risk for smoking (Healton & Nelson, 2004).

Lesbians' experience of discrimination has been found in numerous studies. Bradford et al. (1994) found that 52 percent of a nonprobability, sample of L (N=1,925) who participated in the National Lesbian Healthcare Survey reported a being verbally attacked for sexual orientation and an additional four percent reported that this verbal attack "might have happened" (p. 234). Mays and Cochran (2001) found similar experiences of discrimination faced by LB. These researchers used a population-based survey from 1995, the MacArthur Foundation National Survey of Midlife Development in the United States, to investigate LGB mental health impact from discrimination among 25 to 74 year olds in the United States (N=3032: LB female=2.2 percent, GB males=2.9 percent). Results found that 76 percent of LGB reported a history of discrimination in comparison to only 65 percent of heterosexuals. Ninety-eight percent of heterosexual participants reported that they were discriminated against for reasons other than their sexual orientation whereas 25 percent of LGB reported sexual orientation alone influenced their experience of discrimination. Seventeen percent reported that their

sexual orientation and other status-factors combined were what they perceived as the basis for their experience of discrimination. Significantly more LGB reported that their discrimination contributed to impairments in their overall quality of life than their heterosexual counterparts (LB females=62.5 percent, GB males=41 percent; HW=20 percent, heterosexual males=18.2 percent; $p<.05$). This study also found that psychiatric disorders increased in association with higher amounts of discrimination experienced and that sexual minority experiences of discrimination negatively impacted mental health.

Evidence suggests that smoking and other forms of substance abuse are common reactions to social factors (Cochran, 2001; Mays & Cochran, 2001). Smoking may serve as a coping tool to ameliorate negative affect (Gilbert & Gilbert, 1995; Krupka & Vener, 1992). It follows that LB increased exposure to multiple forms of gay-related stress in society may contribute to the higher rates of smoking among LB (Ryan et al., 2001). This hypothesis is one of the most common used to explain the higher smoking prevalence among LGB (Rosario, Schrimshaw, & Hunter, 2004).

Stigma and other forms of gay-related stress may be especially harmful when a LB is a young adult trying to recognize and synthesize her sexual orientation into identity. Gay-related stress may complicate this process and potentially increase risk for substance abuse and emotional difficulties (Saewyc et al., 1998). Saewyc et al. (1998) contended that LB adolescents are at increased risk for verbal abuse, physical assaults, sexual abuse, conflict with the law, eating disorders, and suicide attempts. These investigators examined data from 1984-1985 Minnesota Adolescent Health Survey. This study included 394 LGB students in grades seven through 12 who lived in Minnesota.

Results found that the majority of the sample reported low level of overall psychological well-being and were at risk for suicidal ideation and/or attempt (one in three females who were 15 years old or older attempted suicide). Further, one in three females who were 15 years old or older engaged in drug use and 27.1 percent of females drank heavily, which was defined as five or more alcoholic drinks per setting.

Garofalo et al. (1998) found that LGB adolescents were significantly more likely than their heterosexual counterparts to be threatened or physically assaulted. This finding was based on a sample of 4,159 ninth through 12th graders in Massachusetts public high schools.

Mental health. The evidence presented thus far that is suggestive of reduced mental health and increased stress among lesbians should not be viewed as implying that sexual orientation caused the concerns. In their review of the literature, Hughes and Eliason (2002) did not find significant evidence to support that there is a difference between overall psychological adjustment, but there was some evidence of higher levels of stress and depressive symptoms. According to Mays and Cochran (2001), the majority of LB do not have psychiatric disorders and studies that indicate increased levels of stress and general mental health concerns in comparison to HW have been linked to extremely negative societal reactions and the climate society cultivates for LGBT (Mays & Cochran, 2001). The majority of LGB youth learn to cope with their daily life stressors and become healthy individuals (Savin-Williams, 1994). Rothblum and Factor (2001) studied lesbians and their heterosexual sisters in attempt to better understand comparisons in mental health and demographic factors. From their sample of 762 participants, they

found that the lesbian sisters endorsed higher self-esteem than their heterosexual sisters.

There is a growing amount of research to suggest that stress from sources such as internalized homophobia, guilt, and self-blame increase after experiences of victimization (Bontempo & D'Augelli, 2002). Mays and Cochran (2001) and Cochran (2001) found that mental health outcome and overall stress levels were attenuated by the amount and experience of discrimination, victimization, and stigma. Bontempo and D'Augelli (2002) argued that impairment from stress in forms of substance abuse and mental health vulnerability is mediated by victimization, which exacerbates any underlying concerns such as internalized homophobia and identity confusion. They used a data set from 9,188 9-12th grade students collected from two different state surveys of public high schools: the 1995 Massachusetts Youth Risk Behavior Survey and the 1995 Vermont Youth Risk Behavior Survey. Post hoc analysis of these results indicated that LB were at greater risk for smoking, drinking, marijuana and cocaine use, victimization, truancy because of fear, and suicide attempts than HW. However, examination of victimization as a mediator lead to more informed conclusions in that LBGQ (Q=questioning) youths who experienced low levels of victimization were similar to their heterosexual peers and those who experienced high rates of victimization were significantly more prone to risky health behaviors.

There have been multiple calls for research to further investigate the link between mental health, disclosure of sexual orientation to others, and painful societal reactions (Bradford et al., 1994; Savin-Williams, 1994). Although there is research to support that stigma increases mental health concerns among lesbians, there is little research that

specifically examines whether, or how, smoking may be a response to stigma and the associated mental health concerns. Gruskin et al. (2001) found that smoking was related to sexual orientation after controlling for the effects of stress, depression, and sociodemographic variables in their random sample of 9,965. Hughes and Eliason (2002) reported that the link between stress and alcohol and other drugs has been found among heterosexual women but not among lesbians. It is not clear whether this pattern would generalize to smoking.

Outcome Expectancies

Research targeted at the general population has found evidence that smoking behavior is mediated through the combination of cognitive processes related to nicotine-use expectancies, goal states, mood, and alternative reinforcers in addition to personality traits. These processes determine situations in which smoking is desired and then engaged (Gilbert & Gilbert, 1995; Gilbert et al., 2000).

The construct of expectancies is heavily rooted in cognitive and social learning research. Bandura reported that expectancies influence motivation (1977, cited in Webb et al., 2007). Outcome expectancies refer to beliefs that certain behaviors will result in certain outcomes (Bandura, 1977 as cited in Brandon, 2004). In conjunction to smoking, outcome expectancies include beliefs about the benefits and effects (i.e., outcome) of smoking a cigarette in a given situation and one's intent to produce such outcomes. Put simply, a cigarette is smoked with the intent to facilitate a goal. Brandon et al. (2004) emphasized that a perceived expectancy may influence behavior regardless of the accuracy of the belief. In other words, a person may do something because he or she

believes the behavior will yield even if the behavior does not actually produce the desired outcome.

Smoking behavior may occur in reaction to one's desire to achieve the goal-state associated with smoking (Gilbert et al., 2000). This phenomenon is consistent with Bandura's social learning theory and other learning theories that are based on the premise that expected effects guide behavior and that the behavior is reinforced if the desired effect is produced (Gilbert et al., 2000).

Smoking maintenance is influenced by perceived outcome expectancies that are positively reinforced when one smokes and the expectancy is achieved (Gilbert et al., 2000; Jenks, 2001; Kelly et al., 2001; Pulvers et al., 2004). Examples of expected outcomes of smoking include weight/appetite suppression, negative affect reduction (Gilbert et al., 2000; USDHHS, 2001b), cognitive enhancement, and pleasure enhancement (Gilbert et al., 2000).

Coping Strategies

Coping refers to expending effort to modify, respond, and control stress that occurs in reaction to perceived threats associated with life's problems (Heffernan, 1998). For the purpose of this study, coping strategies refer to the tools a smoker employs to help counteract the desire to smoke. Coping strategies may be cognitive of behavioral. Examples of cognitive coping strategies include self-talk (i.e., thoughts targeted at self to overcome desire to smoke), thought of negative health effects or other negative effects of smoking, thought of positive effects of abstaining, distraction of attention, purposeful delay, and power. Examples of behavioral coping strategies are activity related strategies

such as compensation though food or other consumables, intentional engagement in other activity including exercise or another means to physically escape a situation in which desire in intensified (Bliss et al., 1989).

Levin et al. (2007) reported that coping strategies impact how self-efficacy affects treatment outcome for substance use disorders. For example, an individual may have a great degree of confidence in her or his ability to quit smoking but lack the knowledge or ability to act in ways to reduce her or his likelihood of smoking. The person may be over-confident due to a high level of self-efficacy. Without the necessary coping strategies to accompany the high self-efficacy, an individual may be prone to disappointment when she or he is unsuccessful with smoking cessation.

Health promotion. Jenks (2001) highlighted how confidence one's ability to abstain from smoking may be enhanced through increased cognizance of alternative means to promote desired outcome expectancies (e.g., increased relaxation) through paths other than smoking. It follows that, these alternative means, or coping strategies, serve as alternative reinforcers to promote the desired or expected goal state.

Research on the lesbian community pays little attention to factors that may protect lesbians from smoking and promote healthy lifestyles and resiliency. More research is needed to identify adaptive coping strategies (Drabble, 2000; Savin-Williams, 1994) and alternative means achieve mediate situational stress and achieve desired goal states or outcomes through alternative means than smoking cigarettes (Jenks, 2001; Levin et al., 2007). Such means may include counseling, medication, and/or exercise.

There is a growing body of research that reflects a greater openness to counseling and other supportive interventions (Hughes & Eliason, 2002; Rothblum & Factor, 2001). Sorenson and Roberts (1997) conducted a nationwide study of "normal" social and health practices of lesbians (N=1633). Results revealed that approximately 80 percent of lesbians had a history of some counseling and 50 percent had been in therapy at least one time. Bradford et al. (1994) found similar results in their national, convenience-based sample that studied lesbian healthcare. They found approximately three quarters of their sample had a history of counseling or professional mental help support. Cochran and Mays (2000) found that LGB were more likely to have received mental health services within the last year. This openness to counseling seems reflective of a positive community norm about use of counseling (Cochran, 2001). This positive community norm may attenuate the relationship between substance use and stress among LB (Hughes & Eliason, 2002). Past research has found that rates of smoking cessation have been enhanced with individual and group counseling (Sanchez et al., 2005).

Evidence also suggests that LB may be more open to use of medication to buffer stress and other mental health concerns (Diamant & Wold, 2003). Case et al. (2004) found that almost two times as many LB used pharmacological treatment such as antidepressants than HW. McCabe, Boyd, Hughes, and D'Arcy (2003) found that among their sample of undergraduates, use of prescription antidepressant medications were was almost five times as high among LB than HW (N=3607 undergraduates). It follows that use of such medication may mediate stress and painful reactions to societal stigma and reduce the need for tobacco for self-regulation, that is if this connection truly does exist.

An additional means to serve as an alternative coping strategy may include exercise. Through the utilization of a convenience-based sample from the Pittsburg area, Aaron et al. (2001) concluded that lesbians and HW engage in similar amount of exercise. However, lesbians are more likely to participate in more vigorous exercise. This research suggests that lesbians are a distinct community whose differences in coping strategies may mediate the health effects of smoking and reduce the disparity in health consequences despite increased smoking prevalence.

Alternative conceptualization of smoking adaptability. Heffernan (1998) described a possible alternative conceptualization to substance use among LB. This author described how "maladaptive coping styles" such as substance use may, in reality, be "adaptive coping styles" in that substance use facilitates the initial "joining process" among groups such as LB and replaces older, potentially greater threats such as avoidance and escapism. This author argued that the assumption that increased rates of drinking may not necessarily be a reflection of poor self-esteem or shame and instead be much more about strengths and social connection. Although Heffernan (1998) primarily explored alcohol use in the study, the study calls to question the assumption that increased rates of smoking may be more of a healthy coping strategy than what many researchers suggest.

Self-Efficacy

In addition to outcome expectancies, coping strategies (Levanthal et al., 2001), degree of situational risk (Etter et al., 2000), and psychosocial influences, beliefs about self-efficacy contribute to smoking behavior. Perceptions about self-efficacy (i.e., belief

about personal capabilities) influence motivation and performance based on metanalysis (Bandura & Locke, 2003). Further, an individual's sense of self-efficacy differs depending on the situation, outcome expectations (Etter et al.), and psychosocial influences (Leventhal et al.).

In relationship to smoking, self-efficacy refers to the confidence an individual has in her ability to abstain from or quit smoking (Brandon et al., 2004). Self-efficacy is positively correlated with behavior change and smoking cessation. Studies on adolescents have found a positive correlation between self-efficacy and progression from experimental to regular smoking (Brandon et al., 2004). Smoking interventions often target enhancement of self-efficacy by altering beliefs related to outcome expectancies (e.g., costs and benefits) and building healthier coping strategies (Sorenson et al., 2004).

According to Parry et al. (2001), smoking behavior is strongly influenced self-efficacy and the perceived degree of control one has over behavior such as smoking. Optimistic beliefs (e.g., "I do not need this cigarette to feel relaxed") tend to generate associated desired outcomes more than negative beliefs (e.g., "I cannot feel relaxed without a cigarette").

Studies of addictive behaviors have examined the role of self-efficacy (Brandon et al., 2004). Self-efficacy impacts one's establishment of goals, the efforts towards goal-achievement, ability to cope with and overcome obstacles, and the likelihood for goal-obtainment (Bandura, 1997, 1999 as cited in Brandon et al., 2004). In relationship to substance abuse, self-efficacy influences whether an attempt is made to alter cigarette smoking patterns and to maintain gains (Levin et al., 2007).

Beliefs associated with self-efficacy depend on the situation, outcome expectancies, and coping strategies (Brandon et al., 2004). For example, an individual may perceive a situation as stressful and want to regulate one's mood through a cigarette (e.g., Gilbert et al., 2000). If a cigarette has served to reduce feelings of stress in the past, the individual may desire a cigarette to experience that outcome again. If an individual wants to abstain from smoking, he or she may rely on alternative means to reduce negative affect (e.g., employ alternative coping strategies). If the individual is confident in their ability to abstain, her or his self-efficacy may be strong and abstaining may be easy. If self-efficacy is poor, she or he may be prone to smoke. Self-efficacy will change depending on the situation and the intensity of the desire, history of smoking or not smoking providing desired outcome, and different beliefs about coping skills. As Etter et al. (2000) suggested, self-efficacy is influenced by beliefs about what will occur with a cigarette and what will occur without a cigarette.

Disparities Based on Group Membership

Research has identified demographic-specific differences associated with the extent that that cognitive processing themes influence smoking motivation (Gilbert et al., 2000; Zuckerman & Kuhlman, 2000). Past research has targeted the identification of differences in cognitive processing themes among genders with the intent to better understand the disparities in prevalence rates found between men and women. The incentive for and decision-making that triggered such population-specific inquiry is clearly generalizable to lesbians.

Research has found gender differences associated with motivations for smoking.

Based on this research, women smoke more in emotional and social situations and men smoke more in situations calling for close attention to a job (Zuckerman & Kuhlman, 2000). Further, general population-based research has found that women smoke more for weight-management than males and that males smoke more for cognitive enhancement than females (Gilbert et al., 2000). These differences seem attributable to the discrepancies related to beliefs, expectations, and coping between genders.

Evidence also supports that HW and lesbians are motivated to smoke for different reasons. As previously stated, smoking is often used for weight and appetite suppression among women in the general population (Gilbert et al., 2000; Krupka & Vener, 1992; Saules et al., 2004; USDHHS, 2001b; Zucker, Harrell, Miner-Rubino, Stewart, Pomerleau, & Boyd, 2001). Further, fear of weight gain is perceived as a barrier to smoking cessation among women in the general population (Pirie, Murray, & Luepker, 1991; USDHHS, 2001b). It is not clear whether the described relation between smoking and weight gain among women in the general population is applicable to lesbians. Research reports that lesbians typically have higher levels of body fat and are more accepting of diverse body sizes than HW (Aaron et al., 2001; Case et al., 2004; Cochran, 2001; Mays et al., 2002; Rothblum & Factor, 2001; Valanis et al., 2000). Therefore, it is not clear whether lesbians perceive weight-appetite suppression as a motivation to smoke or fear of weight gain as a barrier to smoking cessation. Lesbians may not smoke for weight-management promotion to the same degree as HW and smoking cessation efforts for lesbians targeted at identification of alternative weight-management strategies may be unwarranted and not reflective of optimal, culturally-sensitive smoking cessation efforts.

Methodological Limitations in Research on Lesbian Smoking

The majority of research that compares smoking prevalence between HW and lesbians has found that lesbians smoke more than HW. However, there are several methodological limitations associated with these studies that make accurate prevalence rates difficult to determine and call into question the ability make generalizations from the conclusions gleaned (AMA, 1996). The majority of these limitations are related to research methodology concerns such as the inconsistent operationalization of terms (e.g., sexual orientation, what criteria constitutes the designation of "smoker" status), recruitment and sampling strategies, heterosexism and stigma, distrust of researchers and their motives, and the pace of change in societies' acceptance of diverse sexual orientations.

Standardization of Terms

Throughout research there is a lack of consistent, agreed upon operational definition of several of the constructs used in this study. This lack of uniformity is reflected in the multiple conceptualizations of sexual orientation (Diamant, Wold, Spritzer, & Gelberg, 2000; McCabe, Boyd, Hughes, & D'Arcy, 2003). This lack of uniformity limits comparison between studies and generalizability from these studies (Boehmer, 2002; Hughes & Eliason, 2002; Ryan et al., 2001). Gruskin et al.'s (2001) called for standardization of terms used in research on LB.

The Council on Scientific Affairs of the American Medical Association (CSA-AMA, 1996) defined sexual orientation as an individual's self-perception and self-

identification as gay, lesbian, bisexual, or heterosexual. Both Eisenberg and Wechsler (2003a) and Gruskin et al. (2001) warned about using identification as a means to assess sexual orientation because identification may eliminate a sizable portion of individuals who have a history of engaging in same-sex behavior but who are not comfortable claiming the label or who do not consider themselves LGB. Unlike the conceptualization used by the CSA-AMA, Laumann (1994, cited in Gruskin et al., 2001) included components that reflect behavior (history of same-sex experience) and desire (feeling of attraction to members of the same sex).

Arguments exist in support of and against a variety of definitions of sexual orientation, including whether behavior should be used as a criterion. Ryan et al. (2001) reviewed eight studies related to smoking among LGB that were conducted between 1984 and 1998. These authors concluded that seven of these eight studies defined LGB status by self-identification and the eighth was based on behavior. Cochran (2001) used behavior within the year prior to define sexual orientation. Concerns about potential bias to this study included not all individuals being sexually active within a given year, which increased the risk for misclassification bias and reduced the predictive value of the results. Eisenberg and Wechsler (2003b) also used history of sexual behavior in lieu of self-identity as LGB. They noted that what exactly defines sexual behavior is not clear and pointed out that there is a large range of behavior that can be lumped under the umbrella of "sexual activity." Such differences may include, but are not limited to, intercourse, oral stimulation, and mutual masturbation. To add to this concern about bias created from the lack of standardization, Diamant, Schuster, McGuigan, and Lever

(1999) reported that 70.5 percent of self-identified lesbians have a history of vaginal intercourse with men and 5.7 percent had a male sexual partner within the past year. This research suggests that an assessment of behavior alone may yield inaccurate conclusions and misclassification within the LGB population.

Similar concerns exist for use of identification alone when attempting to standardize operationalization of sexual orientation. Eisenberg and Wechsler (2003b) reported that definitions should be based on lifetime experience of same sex-sex relationships because some individuals engage in same-sex contact but do not identify as LB. These individuals may not identify as LB due to a decreased level of comfort with openness about sexuality than those who are openly gay. Hughes and Eliason (2002) noted that this is especially applicable for various subgroups within the LGB community as there are differences related to self-identification among cultural groups. For example, African Americans tend to identify as bisexual more often than homosexual. Liddle (2006) described struggles with negotiation of conflicting cultural values based on membership in different cultural communities (e.g., ethnic and LB). She noted how some cultures (e.g., American Indian, Asian, and Latina) value collective identity and explicitly labeling one's LGB identity may create shame for their family and culture and increase the likelihood of the individual being rejected. In such communities, the family may have been more tolerant of the individual's same-sex orientation if the orientation was not named as LGB explicitly.

Research (e.g., Savin-Williams, 2001) among various age cohorts has also revealed differences in orientation related to identification. In several studies (e.g., Savin-

Williams, 2001), the majority of youth and young adults who are attracted to members of the same sex did not identify as LGBT in studies. The authors connected this lack of identification as LGBT with stress, lack of societal acceptance, and hesitancy to use socially ostracizing labels. Research participants who identify as LGBT during youth and young adulthood may skew data to overrepresent members of the population who identify at a younger age. It is not clear whether there are underlying processes, traits, and behaviors that may be different among these groups (Savin-Williams, 1994).

Recruitment and Sampling Strategies

Studies on lesbians as a distinct subgroup of women have often been pioneering efforts in psychology and strategies to promote methodology in LB studies are in their infancy. Boehmer (2002) examined 20 years of research on LGBT and concluded that there is a lack of representative, population-based data on LGBT, a lack of uniform definitions of LGBT, and differences in sampling that limit the generalizability of results.

Eisenberg and Wechsler (2003b) described how large national surveys have failed to ask about sexual orientation. Hughes and Eliason (2002) noted that a very large number of participants have to be screened to generate enough participants with diverse sexual orientation to allow for comparisons. Meyer (2001) advised against large-scale random surveys to sample LGBT. She attributed this caution to the low number of LGB respondents who identify in probability samples making it difficult for investigators to study variability among LGBT groups. Cochran (2001) and Drabble (2000) reported similar concerns about sample sizes being too small to examine within group subcultures (e.g., race/ethnicity, socioeconomic level, etc). Meyer (2001) called for continued

targeted research through means such as a convenience sample in order to generate more population-specific information. Other researchers have also noted that the small population size (Rankow & Tessaro, 1998), the lack of visibility as a subgrouping of women (Cochran, 2001; Saunders, 1999), and the relatively hidden and geographically dispersed nature of the population (Burgard et al., 2005; Ryan et al., 2001) necessitates the continued use of convenience samples.

It is important to note that several methodological concerns are linked to the use of convenience samples. Such sampling techniques limit generalizability (McCabe, Boyd, Hughes, & D'Arcy, 2003) and create bias because participation is often recruited through snowball techniques that include use of mailing lists of organizations and personal social connections, membership rosters, attendance at a gay community event, and advertisements in a gay newspaper. These participants tend to be from more visible members of the gay communities and are created through loosely structured social networks. Lesbians who do not openly disclose their sexual identity are often excluded. The samples also tend to be highly educated and white (Hughes & Eliason, 2002; Ryan et al., 2001), younger than 35 years of age, and college-educated with an annual income less than that of a comparable HW sample (Valanis et al., 2000). Furthermore, the samples also are more likely to include individuals who have health concerns that increase their visibility and rate of interactions with researchers (Eisenberg & Wechsler, 2003b) or individuals who are more active in health-seeking behaviors (Rankow & Tessaro, 1998). These sample characteristics tend to vary dramatically from the built-in comparison groups of HW and do not reflect the heterogeneity that exists within the population (Ryan

et al., 2001).

Heterosexism and Stigma

As mentioned earlier, methodological problems include the lack of openness of some LB about their sexual orientation due to fear of social retaliation (Saunders, 1999). Social stigmatization, therefore, influences underreporting of diverse sexual orientations (CSA-AMA, 1996). Rankow and Tessaro (1998) reported that any research on LGBT is inherently subject to bias due to heterosexism. Meyer (2001) added that inequality in resources due to heterosexism a methodological obstacle. Meyer described inequalities in resources that such as a lack of programs and proposals on non HIV-related LGBT health issues, poor funding, and negligent publication of existing research.

There is a lack of a clear consensus to provide estimates of the number of individuals who have diverse sexual orientations within the overall population (Hughes & Eliason, 20002). The CSA-AMA (1996) reported that LGBT sexual orientation is most likely underreported due to stigma and, therefore, population estimates may be higher than what research has estimated thus far. Cochran et al. (2001) reported that two to four percent of women are lesbians. Diamant and Wold (2001) reported that lesbians make-up about 3.6 percent of the female population and noted that the rate of female bisexuality is unknown. Eisenberg and Wechsler (2003b) found that six percent of their college sample endorsed a history of having same-sex partner. These authors used this history as a measure of sexual orientation instead of self-identity because of their desire to avoid underreporting due to concerns about the acceptability of LGBT self-identity. Cochran (2001) asserted that the small size of the LGBT population limits ability to generate

statistical power from the research.

Distrust of Researchers

Saunders (1999) also suggested that lack of trust among LB towards researchers and their motives is a potential contributor to the difficulty of doing research in this area. Distrust of researchers and affiliated health-care providers creates both a limitation to research and, ultimately, serves as a barrier to culturally-competent healthcare (Cochran et al., 2001; Diamant, 2000). Diamant and Wold (2003) reported that there is little known about the health-seeking behaviors of LB. It is surmised that research needs to better understand how mistrust of researchers and stigma and other harmful social factors have negatively impacted mental health for LGBT, created access and barriers to care, and prevented culturally-competent services (Ettorre, 2005; Diamant, 2000).

Travers and Schneider (1996) interviewed 17 gay and lesbian youths to identify factors contributing to barriers in receiving addiction services. These youth reported barriers related to aggression, rejection, alienation, harassment, and discrimination. They also noted that their sexual orientation is too often ignored as an issue or an inordinate amount of focus on sexual orientation occurred.

Use of Linear Statistics

Research has not generated clear conclusions about the relationship between gay-related stress and substance use among lesbians. After controlling for the effects of stress, depression and sociodemographic variables, Rosario et al. (2004) proffered that research yields inconsistent results about how the coming out process and gay-related stress linked

to substance use among LGB. The authors wondered if the lack of clear results was attributable to curvilinear relationships between the levels of affiliation with the LB community, with greatest substance use occurring with individuals who were least and most affiliated with the community. In attempts to further study this relationship, these authors asked a group of ethnically diverse 14-21 year olds to complete a series of three separate interviews across a 12-month time-span. These individuals were recruited from urban, LGB affiliated organizations and two college LGB organizations. Participants were asked questions related to their use of alcohol and other drugs, experience of gay-related stress, and attitudes towards homosexuality (N=76 females, 80 males). They found that LGB cigarette use did not change within the 12 months of the study and that gay-related stress did not significantly impact substance use patterns. However, more descriptive findings were revealed upon examination of nonlinear trends. They found curvilinear relationships between involvement in LGB community and alcohol and marijuana use. Changes in cigarette use were not significant across the time span of the study. The authors hypothesized that the curvilinear relationship between alcohol and marijuana may stem from anxiety and stress associated with changing peer networks and recreational activities within the gay community, associated stresses of coming out, sense of freedom generalizing from openness about sexual orientation to reduced boundaries in areas such as alcohol and other drugs, and bars serving as a common setting for initial socialization within the community. Rates may then later decrease as confidence replaces insecurities, greater identity integration with attributes of self (e.g., interests), greater self-

acceptance, and increased knowledge of socialization opportunities outside of the bar scene.

CHAPTER 3: METHOD

Research Questions

The purpose of this study was to better understand the conscious perceptions of motivations (i.e., not underlying predisposition, physiological influences, or unconscious motivations) that influence smoking maintenance among lesbians who smoke cigarettes (e.g., i.e., not smoking initiation or cessation). Research questions included:

(1) What cognitive processing themes related to perceptions about psychosocial influences contribute to smoking behavior among lesbians who smoke.

(2) What cognitive processing themes related to perceptions of situational influences contribute to smoking behavior among lesbians who smoke.

(3) What cognitive processing themes related to outcome expectancies contribute to smoking behavior among lesbians who smoke.

(4) What cognitive processing themes related to perceptions about coping strategies contribute to smoking behavior among lesbians who smoke.

(5) What cognitive processing themes related to perceptions about self-efficacy contribute to smoking behavior among lesbians who smoke.

Participants

The population studied was females who smoke cigarettes and identify as lesbian.

Participants included lesbians, 19 years of age or older who smoked more than 100 cigarettes in their lifetime and currently smoked cigarettes. The age group of 19 and older was used because in the state of Alabama, one of the collection states, age of consent is 19. Due to concerns about asking participants to disclose information to parents that may be emotionally or psychologically risky if these issues have not previously been discussed, it was decided to limit participation to those participants 19 and above.

Twenty participants completed the study. All individuals who responded to one reflection question completed all 18 of the reflection questions. However, several participants who responded to the four selection criteria questions did not respond to any reflection question despite being deemed eligible for participation. The data from the individuals who only responded to the selection criteria questions was not used. That is, the selection criteria questions to determine eligibility were not analyzed if a reflection question was not attempted. All individuals who responded to one reflection question completed all 18 of the reflection questions. However, there was a small number of responses that were simply "not sure" or "?" with no elaboration (Refer to Appendix F).

It was assumed that the individuals who responded to all four selection criteria questions but none of the reflection questions did so for reasons associated with the use of online methodology and some individuals' desire to view the reflection questions for reasons other than intent to immediately, if at all, complete the study. The decision to omit this data from the selection criteria questions was based on several individuals' reports that they previewed the survey to be familiarized with the questions prior to

recruiting participants (refer to Recruitment Procedures*)*. In order to view the reflection questions, individuals had to first respond "yes" to all four selection criteria questions. Individuals involved with recruitment also reported hearing disclosures from various potential participants that they previewed the questions prior to taking the time to address them in completion. This pattern limited the primary investigator's ability to make conclusions about how many individuals viewed the reflection questions actually opted to not respond to reflection questions verses the number of individuals who decided to participate at a later date, not participate at all, forward the email link to potential participants, etcetera. The on-line format does not allow for tracking of all respondents, however, estimates indicate approximately 30 participants opened the survey measure and completed some of the selection criteria questions but did not complete the reflection items.

Procedure

Qualitative Methodology

This study's research design was qualitative due to the exploratory nature of the investigation and the study's intent, to better understand perceived cognitive processing themes associated with smoking among lesbians. The research questions were addressed through information gathered from a qualitative study using 18 reflection questions that were exploratory in nature (Refer to Appendix B).

There were numerous advantages for use of qualitative methodology. For the purposes of this study, a key advantage of qualitative methodology over quantitative

methodology was linked to the limited research on smoking among lesbians. According to Ponterotto (2005), qualitative methodology is especially conducive to generating knowledge from individuals who have been overlooked in traditional research, as is the case with lesbians. Additionally, qualitative research seeks pursuit of emerging, discovery-oriented data to produce complex categories that are representative of the reality and standpoints of participants. It does not attempt to merge data with the existent, less than appropriate theories (Hill, Thompson, & Williams, 1997). Qualitative research does not typically examine specific hypothesis as is common with quantitative research (Smyth, 2004). Unlike likert scales and other quantitative methodologies, qualitative investigation is designed to go beyond surface information to full, in-depth descriptions of an experience (Polkinghorne, 1995). This full, in-depth data provides a more accurate reflection and understanding of the social and cultural context of the subjective experiences of the participants (Haverkamp, Morrow, and Ponterotto, 2005) to help generate informed theory (Smyth, 2004).

The need for qualitative methodology was also supported by criticisms of the existing research on smoking. Prior research on substance abuse among individuals with diverse sexual orientations suggested that curvilinear relationships exist between substance abuse and several factors associated with smoking (e.g., involvement in the gay community) and, consequentially, prior research that used quantitative statistical analyses may be have generated inaccurate conclusions (e.g., Rosario et al., 2004). Unlike several of these quantitative investigations, qualitative research assumes nonlinear relationships between variables (Hill et al., 1997).

Standardized, short-answer, open-ended reflection questions were used generate the data. This format is often used in qualitative investigations when a research investigator has a clear idea of the information sought from the research study, and is appropriate when a literature review is able to accurately identify some of the associated variables but the full complexity and range of responses of the participants remains unknown (Morse & Field, 1995). Gilbert and Gilbert (1995) and other researchers provided some insight into such variables in the general population, but, as Fagan et al. (2004) pointed out, there is very little known about cultural variables associated with being lesbian that influence tobacco use. A short-answer, open-ended reflection format enhances participants' freedom in responses which, in turn, improves validity and meaningfulness (Morse & Field, 1995). Such formats help create an understanding of the participant's perceptions, thoughts, opinions, and attitudes about the topic under study (Berg, 2004; Travers & Schneider, 1996).

Recruitment Procedures

This research was reviewed by the Auburn University Institutional Review Board (AU IRB) for the Use of Human Subjects in Research. Recruitment was purposeful, convenience-based for several reasons. Convenience sampling is common for studies of hidden and geographically dispersed populations such as lesbians in which sampling accessibility may rely on social networks or participation in specialized events (Mays et al., 2002). Meyer (2001) argued that large-scale probability sampling is not always ideal for studies involving sexual minorities and should not replace targeted research. Further, Polkinghorne (1995) reported that qualitative research methodology, as was used in this

study, involves purposeful selection of participants who can provide increased clarity and understanding about the experience of the topic (e.g., smoking). Additionally, such sample recruitment and selection methods have been recommended in qualitative studies among groups who may have concerns about status identification (Polkinghorne, 1995).

Since this study involves lesbians, a group which is often marginalized, relatively hidden and geographically dispersed, and underserved (Burgard et al., 2005; Ryan et al., 2001), recruitment included snowball sampling and posting of recruitment flyers (Refer to Appendix C) in public access locations (e.g., bulletin boards in coffee shops) at lesbian affirming organizations. The recruitment announcement was emailed to the identified contact person at the lesbian affirming listerservs and electronic bulletin boards targeted at individuals in St. Louis, Missouri. Examples of such organizations include, The Vital Voice and Gay St. Louis. The email included an introduction to the study followed by a permission to post request and the recruitment script (Refer to Appendix C). These organizations had public access posting locations on websites or electronic bulletin boards for announcements and research recruitment. The sites held the right to reject or remove inappropriate announcements.

A snowball recruiting technique occurred through the investigator soliciting personal social and organizational networks of friends and asking them to recruit potential participants who they know. Promotional tools in the form of a bookmark or business card with the web address were used to promote this recruitment process (Refer to Appendix D). This is a recognized snowballing method (Hughes & Eliason, 2002; Mays et al., 2002) that involves distributing promotional tools (e.g., bookmarks and

business cards) advertising the research and listing the web address (Refer to Appendix D). One means to facilitate the recruitment, was postings on Facebook (www.facebook.com) and Myspace (www.myspace.com). Facebook and Myspace are social networking sites designed to connect users. According to the home page on Facebook, about 85 percent of college student have a Facebook profile and 60 percent of the student with these accounts log on daily and 85 percent at least once per week. Recruitment that used these social networking sites involved individuals with accounts posting general announcements about the survey on their sites or directly contacting potential participants about the study through the site.

Measures

There were no expected risks associated with participation in this study. All results from the study were anonymous and the researcher was unable to identify participants through their responses. Participant consent to participate was confirmed once the participant clicked on the link to the survey at the bottom of the informational consent document (Refer to Appendix E) and submitted responses to selection criteria (Refer to Appendix A) and the reflection responses (Refer to Appendix B). Participants were able to withdraw from the study at any time during completion of the reflection responses. However, because responses are anonymous they could not be withdrawn from the study after they have been submitted.

The primary investigator paid for use of Survey Monkey, an online software system, to house the survey and data until the survey was closed for analysis of data. Survey Monkey had built in security methods to protect participant confidentiality and to

keep the data private and secure. Further, the primary investigator purchased an additional encryption program though Survey Monkey for added security during transmission of information. This encryption method is often used by online banking systems and for Health Insurance Portability and Accountability Act (HIPPA) compliancy (www.surveymonkey.com).

The reflection questions took an estimated 30 minutes to complete. Participants answered four forced-choice questions related to the criteria for the study (Refer to Appendix A). These questions determine whether the participant identified as a lesbian, met smoking criteria for the study (i.e., had smoked more than 100 cigarettes and smoked at the time of participation), and were 19 years of age or older. If selection criteria were not met a message appeared that expressed appreciation for her interest and stated that selection criteria were not met for the purpose of the study. The reader was then encouraged to contact the primary investigator with any questions and was provided contact information for resources through the CDC and American Lung Association. A disclaimer was attached that stated there was no formal agreement between the agencies and the primary investigator.

If participation criteria were met the participants were taken to a webpage with the reflection questions (Refer to Appendix B). The reflective survey questions used in this study were based on the areas of focus in the research questions and were developed to help participants reflect upon perceptions of influences to smoking under the following cognitive processing themes: (1) perceptions of psychosocial influences; (2) perceptions of situational influences; (3) outcome expectancies; (4) coping strategies; and (5) self-

efficacy. The development of these questions was influenced by the results of previous studies on cognitive processing linked to smoking (Etter et al., 2000; Gilbert & Gilbert, 1995; Gilbert et al., 2000; Jenks, 2001; Kelly et al., 2001; Pulvers et al., 2004; Zuckerman & Kuhlman, 2000) and a review of variables that have been proposed to relate specifically to smoking among lesbians (Eisenberg & Wechsler, 2003a; Gruskin et al., 2001; Heffernan, 1998; Hughes & Eliason, 2002; Mays et al., 2002;. Merline et al., 2004; Meyer, 2001; Rosario et al, 2004; Ryan et al, 2001; Sanchez et al., 2005).

The questions made specific reference to the experience of the reader. For example, the first reflection question asked, "What messages are you getting from others in your life about smoking (e.g., from friends, partner, and other family members)." Morse and Field (1995) stated that this direct reference to the participant enhances the meaningfulness of the responses. When the reflection questions were completed and submitted, a message appeared that expressed appreciation for participation and provided resources for learning more about smoking (CDC and American Lung Association). The disclaimer stated that no formal agreement between the agencies and the primary investigator existed. This was the same message that was received by participants who did not meet selection criteria.

Data Analysis

Content Analysis

Qualitative research generates theoretical constructs and hypotheses as a result of the researcher systematically examining common themes and then subjectively

identifying recognizable patterns. Through this process of grouping constructs (i.e., sorting chunks of data), themes are created that can be used for hypothesizing about relationships between variables (Fern, 2001: Berg, 2004). Berg (2004), an author of a book on qualitative analysis, used the term "chunks" to describe the content units that emerged and defined chunks as "generally segments of the text from field, notes, interview transcripts, or whatever textual data are being analyzed" (p.285). Qualitative data for research includes words, phrases, or sentences, not numerical units as in quantitative research (Berg, 2004).

Consistent with content analysis for qualitative research, the data generated from the reflection responses were identified, organized and indexed, synthesized, and analyzed in a systematic and rigorous set of steps to address the research questions under study (Berg, 2004). This consisted of the researcher becoming very familiar with the data through repeated review, attempting to make sense of it by identifying, considering, and weighing how alternative constructs best described emerging themes and how to catalogue the themes selected (Holliday, 2002).

Both manifest and latent elements were used for data analysis. Manifest elements refer to the parts of the responses that are countable (Berg, 2004). For example, a participant may respond that her primary motivation for smoking is for stress reduction. "Stress reduction" is countable, content unit and, thus, a manifest element. An example of latent content may include a participant responding that she smokes mostly because of her tendency to overload her schedule with responsibilities and an ongoing feeling of being "tight as a drum." A latent element may include the primary investigator's

subjective interpretation that the participant is smoking for stress management (Berg, 2004).

Stage 1. The survey was closed once twenty participants completed the survey, and the data was moved to a Microsoft Excel file. The original text format from the survey was maintained throughout content analysis, including original grammar, typos, and punctuation. Separate Microsoft Word documents were created to record question with all 20 of the participants' responses verbatim (Refer to Appendix F). The documents were annotated with the question number followed by the participant number to facilitate later analysis. For example, Q1P1 was participant one's response to question one. The primary investigator repeatedly reviewed these documents in order to become familiar, comfortable, and knowledgeable about the data. The responses to each reflection question were examined closely, without reference to the other 17 questions, in order to identify tentative key areas and generate ideas about suggested patterns that linked the data together in meaningful ways across the participants' responses. At the bottom of each of these documents, a section for *Notes to Self* was included for associated thoughts about the research that developed during the recording process but that were not directly a part of the methodology at that time. These documents were referred to as Raw Data documents and served as a reference throughout content analysis.

Stage 2. A separate Microsoft Word document for each reflection question was created to capture the primary investigator's tentative ideas about the emerging patterns in the data. The documents used tables that had a header row with the identified, tentative themes and underlying rows with the grouped content units that supported the themes.

Content units included a combination of word, phrases, and sentence elements (Berg, 2004).

The themes were revised as analysis proceeded if the data did not support their utility and applicability, a new phrase better described the theme, or the interpretations changed as more data was synthesized and integrated. This enabled the primary investigator's conclusions to be better grounded in the data that emerged. Microsoft Word's find, cut, and paste functions permitted easy transfer of content to facilitate sorting, managing, and coding while identify overarching themes and the associated data chunks. Such grouping processes also revealed emerging subthemes associated with the theme, as identified in the header row. For example, coping themes that emerged were cognitive or behavioral in nature. Within each of these themes, subthemes emerged. For example, cognitive methods of coping consisted of cognitive distraction and, to a lesser extent, replacement strategies. A Notes to Self section was also included under each table so that tentative hypothesis, questions about the data, concerns, and any related information was recorded to aid later inquiry and direction.

Stage 3. After the documents with table for all 18 questions complete, new Word documents labeled *Magnitude* were developed for each of the five research question under investigation. The research questions included all associated reflection questions. For example, the document for the research question on situational influences to smoking included reflection questions numbered four through eight. As the responses to each of question were reviewed, the documents with the raw data were frequently referred back to in order to confirm content units, accuracy in recording, and clarification.

The intent of the Magnitude documents was to help track the frequency of content units under each theme and subtheme in order to determine the magnitude of the observation. For this process, tallies were used to mark the frequency of occurrence. According to Berg (2004), a general "rule of thumb" is that the content unit being tallied must occur at least three times in order to be deemed a meaningful pattern. The author added that anything less is an accident or a coincidence (p. 287). To be included in the results section, the occurrence had to be meaningful. The "proportion of the sample that had made similar comments or statements" determined the strength of magnitude, with the higher the percentage being associated with the stronger magnitude (p. 287). To note the tally, "(n=)" was used with the number of occurrences of the content unit being "n," not the number of participants who responded with the particular content that was being assessed. For example, a participant may have responded that she copes with nicotine cravings by going for a walk or calling a friend. This would result in "n=2" if they were grouped under the same theme. The "n" value would be added to the number of similar content units that emerged across participants.

There are several important additional considerations for the stage of data analysis being described. Participants sometimes provided responses with more than one content unit, and these content units may have been chunked into various themes and subthemes. Thus, participants responses may be reflected in a variety of areas, and the total number of tallies could potentially be greater than 20, the number of participants. The content unit revealed in a participant's response was coded only once. For example, the participant may have provided a lengthy response that repeatedly referred to different situations in

which stress triggered temptation. Stress would only be noted once for that participant and receive only one tally mark for that question. The different situations linked with the stress would be noted under the respective themes, not with stress. The results section would then label each theme and/or subtheme associated each specific tally report. For example, "Alcohol, n=12" refers to the theme that consisted of content units related to alcohol use and the 12 separate references to it from participants.

Themes with high magnitudes were more likely to have subthemes identified, especially if patterns within the theme emerge. However, not all themes revealed subthemes. For example, the theme negative affect often consisted of a wide range of content units that were not always able to be grouped together into a subtheme.

While tallying, the primary investigator reevaluated each questions' generated themes and subthemes and whether they provided an overarching description of the associated subthemes and/or content units. Revisions were made accordingly and were continued throughout the analysis. For example, titles for the themes were changed if a new title was more overarching than the previous. Also, this document was used to describe how the criteria fit together and how the terminology is to be conceptualized. As with all the documents developed, Notes to Self were recorded throughout this process as well to notate tentative theoretical interpretations, ideas, questions, and musings so that they could be referred back to at a later time for consideration. Tables were generated to reflect the research question and the matching themes and subthemes.

Stage 4. Two participants' responses were put into a narrative to provide support for the examples of the themes that emerged from content analysis of responses to each question.

CHAPTER 4: RESULTS

The research questions were addressed through content analysis of reflection questions. The primary investigator systematically examined the participants' responses, identified the content units in each response, indexed and organized the content units, and analyzed the content units to identify themes and the strength of each theme. To facilitate this process, the content units were annotated with Q, the question number, and P, the participant number. The actual question and participant number followed the Q and P. For example, the fourth participant's response to the third reflection question was annotated with Q3P4. Refer to Appendix F for a complete, verbatim report of participants' responses. Refer to Appendix G for tables that illustrate the themes that emerged in response to each reflection question. The tables use the phrase *Response Units* to refer to the number of content units associated with each theme in the participants' responses. More than one response unit could have come from a participant's response to one reflection question, because it was possible for more than one content unit to emerge from one participant's response to one question. The tables also use the term *Participants* to reflect the number of participants in the sample that responded with messages associated with each theme.

Psychosocial Influences

The first research question was, "What cognitive processing themes related to perceptions about psychosocial influences contribute to smoking behavior among lesbians who smoke." Reflection questions that addressed this research question were numbered one through three in the online questionnaire. The following questions were designed to explore this question and generate meaningful explanations: (1) What messages are you getting from others in your life about smoking (e.g., from friends, partner, and other family members)? Please name and describe at least two sources of the messages and the messages you get from each of the sources); (2) How, if at all, does smoking relate to being a lesbian and/or coming out; and (3) How, if at all, may society affect your smoking.

Reflection Question 1

The first question asked, "What messages are you getting from others in your life about smoking (e.g., from friends, partner, and other family members)? Please name and describe at least two sources of the messages and the messages you get from each of the sources)." The majority of messages referenced were from family (n=14), friends (n=14), and partner (n=7). *Affect* (n=21) was often identified in these messages. The affect with the greatest magnitude (i.e., the proportion of the participants that gave similar responses; Berg, 2004) was concern (n=8), which was followed by anger (n=3), and disgust (n=3). Other affective expressions identified that did not reach a meaningful magnitude, included frustration, secrecy, guilt, fear, discomfort, and frustration. The following were

examples of these affect-laden messages:

> Q1P1 "Concern, frustration, anger. My mother and friends."
>
> Q1P8 "Well I smoke when I drink...and I drink a lot. So I hardly get positive responses from friends. None of my close friends smoke. So i always feel like I'm doing something wrong.--Even though i claim i'm not addicted (However the craving only comes to me once I have alcohol in me)...My parents hate it. I try to hide it in the backyard late at night (of course only if I'm drinking)...My Dad's dad died of lung cancer. And when I was little I used to give one of my brothers that smoked a hard time...So they all give me shit for smoking if they find out...So it's something that I'm not comfortable doing around close friends and immediate family memembers."

The surface content of the messages consisted of both positive and negative messages. Negative messages were most often related to fears about the participants' health (n=13). The magnitude of this observation was strong. It is important to note that the strength of this magnitude was not based on the number of participants who referred to health in their message. Instead the strength was based on content units, the number of messages about health. Examples included:

> Q1P2 "partner, does not smoke hates it does not like me smoking for health reasons and money mom, smokes sometimes does not tell me to quit but would support me if i needed help"
>
> Q1P20 "partner - general health concerns friends - general health

concerns”

Q1P11 “family - it is bad for me and I need to quit friends - it is bad for me

Themes emerged about whether or not the participants’ environments normalized smoking. Both themes, *Norm* (n=7) and *Not Norm* (n=7), were most often related to participants specific reference to how common smoking was in their environment. The following examples reflect data chunks that merged to create the category labeled Norm:

Q1P3 “Most of my friends smoke but we do talk about stopping alot but I do not know any of my friends who have been able to stay stopped for any length of time. My family wants me to stop and tells me so all the time. My partner does not smoke and hates that i do. She always talks to me about stopping. She is not a nag but she does get to me because she tells me that it hurts to see me smoke and that kind of gets to me.”

Q1P4 “friends...most of my friends smoke so they give me positive feedback.

family...my family is concerned about my health, they think I shouldn't smoke.”

Examples of Not Norm included:

Q1P8 “Well I smoke when I drink...and I drink a lot. So I hardly get positive responses from friends. None of my close friends smoke. So i always feel like I'm doing something wrong.--Even though i claim i'm not addicted (However the craving only comes to me once I have alcohol in

me)...My parents hate it. I try to hide it in the backyard late at night (of course only if I'm drinking)...My Dad's dad died of lung cancer. And when I was little I used to give one of my brothers that smoked a hard time...So they all give me shit for smoking if they find out...So it's something that I'm not comfortable doing around close friends and immediate family members."

Q1P18 "Really, the only negative messages I receive about smoking are from my mom and society in general. My friends and partner (who used to smoke) don't care one way or another if I smoke a cigarette. The message from my mom is of concern for my health. She also used to smoke and it contributed to her health problems now. I think there is an air of disgust from society about smokers. I live in a city that has banned smoking in public areas so you have to smoke outside establishments. You tend to get negative looks from others."

Reflection Question 2

The second question was, "How, if at all, does smoking relate to being a lesbian and/or coming out." Three themes emerged from this question. The first theme asserted that no relationship existed between smoking and being a lesbian and/ or coming out (*Not Related*, n=13). Another theme emerged that identified stress relief as a link between smoking and being a lesbian and/or coming out (*Negative Affect*, n=4). The final theme to emerge consisted of uncertainty about the existence of a relationship between smoking and being a lesbian and/or coming out (*Not Sure*, n=3).

Not Related (n=13) was the theme that emerged with the greatest magnitude. The strength of the magnitude for this theme (Not Related) makes the theme one of the most convincing explanations to address the reflection question. The Not Related theme emerged from participants who denied that an association existed between smoking and being a lesbian and or coming out. Examples of such responses are:

> Q2P3 "I do not think it has anything to do with it."
>
> Q2P12 "I don't put the two together at all"
>
> Q2P20 "Is not related in any discernable way"

The next theme, Negative Affect, was labeled such because when the data chunks from participants' responses were sorted a theme emerged that suggested that, for some participants, smoking relieved stress associated with phases of sexual orientation identity development and general stressors of being gay. It is important to note that two of the four responses included tentative phrases to suggest that the connection was not one the participants were sure existed. Examples include:

> Q2P17 "Perhaps one of the many reasons I started in high school was due to the stresses of being gay."
>
> Q2P10 "There was never a relationship for me...expect maybe that I smoke more when I'm stressed, and during that time I was stressed."

The Not Sure theme was developed to reflect the participants who provided responses containing expressions of doubt and uncertainty. An example of such a response came from a participant who commented, "I know alot of lesbians who smoke, but I'm not sure if it relates in any way to being a lesbian" (Q2P19).

Three of the participants' responses to this question revealed their uncertainty about whether smoking was norm among lesbians. Notably, two of these responses were grouped under the theme Not Sure and one under Not Related. The participant's data was sorted under Not Related because she noted that the majority of the lesbians she knew smoke but added that the relationship between smoking and being lesbian/ coming out did *not* apply to her experiences. An example a participant's response that was grouped with the Not Sure theme was, "I don't know if it does, but it is a very popular habit among lesbians" (Q1P9).

Reflection Question 3

The third question asked, "How, if at all, may society affect your smoking." Themes that emerged from this category were fairly equal in magnitude. Responses produced themes that stated society influences smoking through socialization patterns (*Socialization*, n=5) and legislation that affects smokers (*Legislation*, n=5). Another theme emerged that reflected beliefs that society does not affect participants' smoking.

Socialization referred to participants' messages about processes that promote peer interaction, connection, and learning from each other. Example of responses with content units grouped together to create this theme were:

> Q3P14 "I tend to smoke more socially or if I am out at a bar. If I am around smokers, I usually smoke more than normal. I notice if I'm in an establishment where smoking is not allowed, I usually do not mind not smoking and I am strongly for the banning of smoking in public places (bars, restaurants, etc)"

Q3P2 “when your out w/ friends or having a drink it feels natural to smoke w/ friends”

Legislation was another theme that emerged from the question about perceived societal effects on smoking among lesbians. The participants reported that such Legislation efforts restricted smoking, especially through restrictions on where smoking was permitted and through increased taxes on cigarettes. Examples of data segments that were sorted to create this theme were:

Q3P6 “restrictions on smoking areas”

Q3P18 “The ban of smoking in public places has definitely decreased my smoking. Also, the price of cigarettes is so high that I seldom want to by them.”

The Not Related theme emerged from participants who reported that society does not affect their smoking. Example responses were as follows:

Q3P10 “It doesn't.”

Q3P20 “It does not”

Situational Influences

The second research question was, “What cognitive processing themes related to perceptions of situational influences contribute to smoking behavior among lesbians who smoke.” Reflection questions that addressed this research question were numbered four through eight in the online questionnaire. The reflection questions were: (4) In what situations do you feel most tempted to smoke (please name/describe at least 2); (5) In

what situations are you most likely to smoke (please name/describe at least 2); (6) When do you feel it is most difficult not to smoke; (7) What situations do you find it easier to not smoke; and (8) What, if any at all, situations associated with being lesbian contribute to smoking.

Reflection Question 4

The question, "In what situations do you feel most tempted to smoke (please name/describe at least 2)," revealed themes of feeling most tempted to smoke when alcohol was present (*Alcohol*, n=12), in order to reduce negative affect (Negative Affect, n=8), after eating (*Food*, n=6), when around other smokers (*Proximity to Smokers*, n=5), while drinking coffee (*Coffee*, n=3), and at specific points in time (*Time Intervals*, n=3).

The Alcohol theme was produced from the data segments that made reference to alcohol and environments where alcohol use was the norm. Environments that were mentioned were bars, parties, and clubs. Examples of participant responses were:

> Q4P15 "parties, bars, alcohol consumption"
>
> Q4P7 "While I am drinking and while I'm stressed out and upset."
>
> Q4P1 "Because I only meet other lesbians in bars, it is difficult for me to stop smoking when constantly in that environment."

Negative Affect was a theme that emerged earlier in response to the research question about Psychosocial Influences. This term emerged based on similar patterns in data across reflection questions. In respect to Situational Influences, participants' responses included content attributing temptation to smoke to a desire to alleviate Negative Affect, including stress, boredom, anxiety, irritability, and being upset. All

eight participants who made some such attributions specifically used the term “stress” in their responses. Example participant responses were:

> Q4P3 “When I am stress about something. When I am bored. If I go longer than 2 hrs without smoking I getting really anxious and become very bitchy.”
>
> Q4P7 “While I am drinking and while I'm stressed out and upset.”

Food responses was a theme that emerged from data clusters. This theme referred to feeling the desire to smoke after eating food. Example participant responses included:

> Q4P6 “when drinking alcohol in really stressful situations after heavy food in a round where many people smoke”
>
> Q4P16 “After a meal & on a drive.”

The theme Proximity to Smokers emerged from participants’ responses that suggested being around other smokers served as a temptation to smoke. Example participant responses were:

> Q4P5 “When drinking or out with friends who are smoking.”
>
> Q4P14 “When I am very stressed, smoking seems to relieve it a bit. When I am around other smokers, I sometimes smoke even though I am not in the mood for a cigarette.”

Data chunks that emerged and were grouped together to establish the theme Time Interval included reports that smoking related to s a certain amount of time passing or a certain period of the day or week, such as the morning or weekend. Responses that made

reference to temptation for a cigarette after eating or while drinking coffee were not grouped under the Time Interval theme as that coffee and food can be consumed at any period in the day. Responses were sorted under Time Interval and Food or Coffee if a certain time period (e.g., morning) was specifically referred to in addition to coffee of food. Examples of participant responses included:

> Q4P3 "When I am stress about something. When I am bored. If I go longer than 2 hrs without smoking I getting really anxious and become very bitchy."
>
> Q4P17 "In the morning, after coffee and after eating. Also when I am in social situations (bars, friend's house, etc) and when I'm stressed."

Reflection Question 5

The fifth reflection question was, "In what situations are you most likely to smoke (please name/describe at least 2)." Themes that emerged included environments with alcohol (Alcohol, n=14), socialization with other smokers (Proximity to Smokers, n=10), attempts to reduce negative affect (Negative Affect, n=5), when in a car (*Car*, n=3), and after eating (Food, n=3). The strength of the magnitude was especially strong for the themes related to Alcohol (n=14) and Proximity to Smokers (n=10). Examples of responses that made up the theme of Alcohol included:

> Q5P19 "with other people who smoke or at bars, clubs, concerts, etc"
>
> Q5P20 "In social situations with other smokers. When relaxing at home"

Examples of Proximity to Smokers included:

> Q5P19 "with other people who smoke or at bars, clubs, concerts, etc"

Q5P20 “In social situations with other smokers. When relaxing at home”

Examples of participant responses with content units that were grouped under the “Negative Affect” theme included:

Q5P7 “While I am drinking and if I'm stressed out and upset.”

Q5P10 “After eating. When I'm stressed.”

Car and Food both seemed to have minimal strength in magnitude, which suggested that the occurrences were meaningful but not necessarily as salient as the themes of Alcohol, Proximity to Smokers, and perhaps even Negative Affect. An example response from the Car theme was “When I am drinking and when I drive to and from work every day” (Q5P11). An example from the Food theme was, “After a meal & on a drive” (Q5P16).

The following examples illuminated how more than one content unit can arise from a participant’s one response. The examples below reflect how participants’ responses can reveal how more than one chunk of data and can be linked to more than one theme. Both of the participants’ responses below were sorted under themes related to Negative Affect and Alcohol.

Q5P1 “Under stress, at bars hanging out”

Q5P7 “While I am drinking and if I'm stressed out and upset.”

Reflection Question 6

The sixth reflection question was, “When do you feel it is most difficult not to smoke.” Only one meaningful theme emerged from the content analysis, and this theme

emerged from the pattern of data segments that referenced environments with alcohol (Alcohol, n=11). The magnitude of this response and the fact that it was the only theme with any meaningful frequency made a strong argument that participants felt it was most difficult to not smoke when alcohol was in the immediate environment. Examples of participants' responses that related to the alcohol theme included:

Q6P7 "While I am drinking alcohol at a bar."

Q6P15 "drinking alcohol"

Reflection Question 7

This reflection question asked, "What situations do you find it easier to not smoke." Three new themes emerged from these questions. The first theme referred to situations that involved certain individuals or a group of individuals (*With Someone*, n=8), the second theme was generated from the frequent reference to situations in which smoking was prohibited or inconvenient (*Not Possible*, n=6), and the third theme made reference to it being easier to not smoke when at home in comparison to other situations (*Home*, n=5). These results suggest that participants found it easier to not smoke when with they were with a particular person or persons and when smoking was either prohibited or inconvenient. Home was also a theme that emerged as a moderate protecting variable from smoking based on the occurrence pattern.

The With Someone theme referred to participants' responses with content referring to being in the company of an individual or individuals who did not approve of smoking, such as the participants' partner or a family member. Being in the company of nonsmokers was also coded under this theme. Examples of responses that fit the theme of

With Someone included:

> Q7P8 “Around people that don't like it, or in a dining situation, or if I'm around family memebers that don't approve.”
>
> Q7P13 “around parents”

The Not Possible theme reflected a wide range of responses that had the commonality of not being able to smoke because smoking was either prohibited or inconvenient. This theme related to the earlier Legislation theme that emerged, but it was different in that Not Possible was a theme with a wider scope. It included more than just legislation as that the encapsulated situations in which smoking was inconvenient to the smoker regardless of any laws or formal policies. Examples of situations that have made smoking inconvenient were found in content units that made reference to cold weather, the workplace, or the participant being too busy. Example participant responses included:

> Q7P14 “When I am at a place where smoking is not allowed and not around smoke.”
>
> Q7P18 “With my partner who does not smoke. Also, when it is very cold outside, I don't want to go outside to smoke.”

The Home theme was created to reflect the responses that specifically referred to home as a situation in which the participant found it easier to not smoke. Example participant responses included:

> Q7P2 “when im at home and relaxed i dont smoke in my house”
>
> Q7P5 “At home.”

Reflection Question 8

The eighth reflection question was, "What, if any at all, situations associated with being lesbian contribute to smoking?" The theme with the greatest magnitude included participant responses that no relationship existed (*No Relationship*, n=10). Other themes that emerged were references to the role of bars for entertainment and socialization (*Bar Scene*, n=4), the use of cigarettes to reduce negative affect associated with situations specific to being lesbian (Negative Affect, n=3), and not being sure about the existence of a relationship between the factors (Not Sure, n=3).

No Relationship referred to the grouping of content units with messages that smoking did not relate to situations associated with being lesbian. Example responses that fell under the None theme include:

> Q8P3 "I do not know of anything that tie the two together."
>
> Q8P7 "I feel that there is no correlation between the two variables."

Bar Scene was chosen as a label for responses that referred to bars as influences to smoking among lesbians, because three of the four participants specifically used the phrase *bar scene* in their response. One of these participants noted that the bar scene may contribute to smoking but added that bars, regardless of the sexual orientation of their guests, influence smoking. This participant noted, "I wouldn't blame my smoking habits on being a lesbian. I think if you are in the bar scene often that that contributes to smoking. But that is across the board with gay bars and straight bars" (Q8P14).

Negative Affect was used as it was used with previous reflection questions. As with past questions, negative affect included reference to stress and depression. It is

important to note that two of the three content units used when tallying this theme to determine magnitude and meaningfulness were tentative. One of these two participants questioned whether stress associated with denial during her early phases of sexual orientation identity development contributed to overall stress level, which increased smoking. The other participant initially referred to the relationship to stress reduction and then added that she was uncertain about whether this stress influenced smoking regardless of her sexual orientation.

The Not Sure theme included messages about not having a firm opinion about the question. One participant stated, “I'm really not sure” (Q8P19). The Not Sure theme consisted of responses that did not identify any other variables that related to smoking among lesbians. For example, the two tentative statements about negative affect that were described in the last paragraph were grouped with Negative Affect instead of the Not Sure.

Outcome Expectancies

The third research question was, “What cognitive processing themes related to outcome expectancies contribute to smoking behavior among lesbians who smoke.” Reflection questions that addressed this research question were numbered nine through 11 in the online questionnaire. The reflection questions were: (9) What things do you look forward to when you have a cigarette; (10) How do cigarettes help or benefit you; and (11) What is it like when you can’t have a cigarette (e.g., are there any changes in your thoughts, feelings, and/or behavior).

Reflection Question 9

Results produced from the ninth reflection question, "What things do you look forward to when you have a cigarette" illuminated several themes and subthemes. The four themes that emerged consisted of the enjoyment of physical sensations not associated with physiological withdrawal or eating (*Physical Sensations*, n= 9), the reduction of unwanted negative affect (Negative Affect, n=7), relief from physical discomfort (*Physical Relief*, n=4), and promotion of cognitive skills (*Cognitive Enhancement*, n=3).

Physical Sensations referred to bodily experiences that were not intended to provide relief of physiological withdrawal or discomfort following overeating. Physical Sensations was the theme with the greatest magnitude. Seven participants' responses contained content associated with this theme. From these seven participants, nine content areas were generated and tallied to estimate magnitude. In other words, two of these participants identified two physical sensation associated with the theme Physical Sensations in their one response. For example, one participant reported, "The feel of it between my lips. The first few puffs and the nicotine buzz" (Q9P8). This response was coded twice, one for the feel between the lips and the other for the nicotine buzz associated with the first drags of the cigarette. Physical Sensations was further divided into the following subthemes based on the persistent patterns in responses: Nicotine High (n=3) and Feel (n=3).An example response that fell under both the Nicotine High and Occupation of Hands came from participant one who reported, "The rush; something to do with my hands" (Q9P1).

The Negative Affect theme was used similarly for Outcome Expectancies as was used in previous areas such as Situational Influences. Participants described looking forward to a cigarette's ability to calm the nerves, relieve stress and enhance relaxation, and reduce edginess. Example responses with these themes were as follows:

> Q9P12 "that i won't feel edgy anymore and i feel a bit of calmness"
>
> Q9P19 "it calms my nerves and tastes good with alcohol"

Physical Relief described reduction of physiological craving and relief from discomfort of overeating. The primary investigator assumed that the term "craving" was used by participants to refer to a physiological experience of a nicotine craving, not an emotional craving. This decision was made after thorough analysis of these participants' responses to the other questions. It was concluded that what would be defined as an emotional craving was captured through terms that are now lumped under negative affect. Examples of participant responses related to this theme included:

> Q9P18 "that is hard to put into words. I get a craving and the cigarette satisfies that craving. I tend t"
>
> Q9P15 "the break from what i was doing...the diminshed feeling of nicotine craving"

The theme labeled Cognitive Enhancement emerged from the participants' responses that contained messages about smoking serving as a tool to help organize their thought processes and provide cognitive clarity. For example, participants described how smoking helped them transition between situations, provided a break from a task, and created an opportunity to collect thoughts. In one response the participant stated, "The

feel of it...a moment to collect my thoughts" (Q15P16).

Reflection Question 10

The next question targeted at Outcome Expectations was, "How do cigarettes help or benefit you." Three themes were revealed from this exploration. The themes were reduction of negative affect (Negative Affect, n=9), no benefits from cigarettes exist (*No Benefits*, n=5), and assistance in weight management and digestion (*Weight and Digestion*, n=3).

Again, Negative Affect was created by clustering content units related to the use of cigarettes to reduce stress and boredom. This was the theme with the greatest magnitude. Example responses were as follows:

> Q10P12 "they help with my stress levels. nothing other than that"
>
> Q10P14 "They help me digest sometimes. Also, if I am highly stressed, a cigarette sometimes calms me down."

The label for No Benefit was chosen because it provided a straightforward description of the content that was clustered to produce the theme. Example responses include:

> Q10P12 "they help with my stress levels. nothing other than that"
>
> Q10P14 "They help me digest sometimes. Also, if I am highly stressed, a cigarette sometimes calms me down."

Weight and Digestion was selected as the title of the theme instead of Food, because Food was used previously in association with the desire to smoke after situations involving food. Content units that revealed this pattern included reference to cigarettes

helping them stay thin, preventing eating more than desired, and promoting digestion. An example response is, “They keep me thin” (Q10P4).

Reflection Question 11

The reflection question asked, “What is it like when you can’t have a cigarette (e.g., are there any changes in your thoughts, feelings, and/or behavior.”) Participant responses centered on themes of Negative Affect (n=11), No Effect (n=5), and *Cognitive Changes* (n=4). The large proportion of responses with Negative Affect themes suggested that the sample often perceived not having a cigarette as leading to negative affect. Again Negative Affect included responses with meaningful, clustered content units such as anger, anxiety, frustration, irritability, depression, sensitivity, moodiness, disappointment, grouchiness, meanness, desperation, stressed, and/or feeling unfulfilled. The following were responses provided:

> Q11P2 “im frustrated, sensitive, angry, moody, shaky,”
>
> Q11P3 “Oh my god yes!!!! I become very irratable and bitchy. I bit peoples heads off around me and I begin to feel really depressed and start looking at all the negative stuff around me. All I can think about is how to get a cigarette. I get to the point where I would do anything to get a cigarette.”

Several of the participants responded that they did not feel an effect and/or that they were not addicted enough to feel an effect from not being able to have a cigarette when they could not have one. Thus, the assigned label for this theme was No Effect. Examples included:

Q11P19 ” i really dont have too much of a problem. i enjoy smoking...but i dont feel like i cant live without them”

Q11P9 “Im okay with it”

The final theme to emerge from these responses related to Negative Cognitive Changes, which was different than the earlier identified theme of Cognitive Enhancement in that enhancement is on the opposite end of the continuum from negative changes. Content units that were integrated under this umbrella term included increased pessimistic orientation, poor concentration, or overly focused on obtaining cigarettes or what is would be like to have one. For example, one participant stated, “Oh my god yes!!!! I become very irratable and bitchy. I bit peoples heads off around me and I begin to feel really depressed and start looking at all the negative stuff around me. All I can think about is how to get a cigarette. I get to the point where I would do anything to get a cigarette” (Q11P3).

Coping Strategies

The forth research question was, “What cognitive processing themes related to perceptions about coping strategies contribute to smoking behavior among lesbians who smoke.” Questions numbered 12 through 13 were targeted at this research question. More specifically, the reflection questions used to generate meaningful exploration related to this question were: (12) How do you overcome a craving for a cigarette when you cannot have one; and (13) When you think about smoking a cigarette but do not, what are the reasons for not doing so.

Reflection Question 12

The reflection question, "How do you overcome a craving for a cigarette when you cannot have one," revealed two primary themes and their associated subthemes. The two themes were *Cognitive Techniques* (n=12) and *Behavioral Techniques* (n=7). Based on the participants' data and for the purposes of this content analysis, Cognitive Techniques referred to coping strategies in which altering perception, interpretation, or attention helped reduce and overcome a craving for a cigarette when the participant was not able to have one. Cognitive Techniques was further divided into two subthemes: *Distraction* (n=9) and *Replacement* (n=3). Examples of Replacement Cognitive Techniques consist of prayers and thinking about health. Responses that yielded content units grouped under this theme were:

> Q11P2 "stay busy so my minds not thinking of having one"
>
> Q11P18 "Cognitive tricks to distract myself from the couple of minutes when the craving is strong. Then it dissipates itself."

The theme Behavioral Techniques was also based on the participants' data and coined such for the purposes of this content analysis. Behavioral Techniques referred to the participants' active engagement in physical, observable behaviors to overcome cigarette cravings when unable to smoke. Examples of Behavioral Techniques that were reported by the participants were putting something other than a cigarette in their mouth (n=5). This was done via eating, chewing gum, or drinking water. The other behavioral methods identified were the use of other mind-altering substances (e.g., caffeine) and sleep. One participant responded, "well either chewing tobbaco, or some other form of

mind altering drug---like caffenie..or snorting a A.D.D. medication tablet (which i've only done like twice)....otherwise i just pout it out if i can't get a cigarette" (Q12P8).

Reflection Question 13

Several themes were revealed by the reflection question, "When you think about smoking a cigarette but do not, what are the reasons for not doing so." The theme with the greatest magnitude was Not Possible (n=9). This theme was also previously generated from the data gathered to address the research question about Situational Influences. In respect to Coping Strategies, the Not Possible theme was further divided into the subthemes of *Smoking Banned* (n=5) and *No Opportunity* (n=4). Smoking Banned referred to not being able to smoke because smoking was prohibited in a certain settings, such as the work place or school. No Opportunity was derived from the content units with messages describing not having cigarettes, being too busy, or smoking being an inconvenience. Examples of participants' responses included:

Q13P16 "Being in place where smoking is NOT permitted."

Q13P2 "i always smoke unless im at work and cannot"

Q13P17 " inconvenient, at work"

The theme *Immediate, Unwanted Consequences* (n=5) emerged from content units that described not smoking because dislike of the associated bad taste in mouth, bad breath, odor, or guilt. Also one participant described her fear of experiencing a nicotine high that would impair her functioning met the criteria for the Immediate, Unwanted Consequences theme. Notably, three of the five content units were derived from the same participant's (Q13P8) response, "Reasons for not: Bad breath, It'll stink on my clothes,

someone might smell it on me...or, it might make me too buzzed to function on what i'm doing."

The theme, *Values and Identity*, (n=4) also emerged to explain reasons for not smoking despite thoughts of smoking. The chunks of data that combined to shape this theme included references to the value for health and self-identification as a healthy, athletic person. An example of the response was, "I am a fairly healthy person. I am a member of weight watchers so I watch what I eat. I am fit. I like to run and work out. I am very into homeopathic medicine and natural ways of healing. So, I realize that, other than alcohol, is what's holding me back from living a completely healthy lifestyle. So, this sometimes helps me talk myself out of smoking" (Q13P14).

Two themes that emerged with less magnitude, although still meaningful, were With Someone (n=3) and *Weather* (n=3). With Someone was a theme that previously emerged in response to the Situational Influences reflection question that asked when was it easier to not smoke. For both of these questions, the theme With Someone included reference to not smoking because of being in the company of a certain individual (e.g., girlfriend, mother, family).

Self-Efficacy

The fifth research question was, "What cognitive processing themes related to perceptions about self-efficacy contribute to smoking behavior among lesbians who smoke." Reflection questions 14 through 17 were used to explore this topic. The questions were: (14) If you wanted to temporarily abstain from smoking, what is the longest period you could go without a cigarette and how does this time period compare

with the length of time you want to be able to temporarily abstain from smoking; (15) If you wanted to temporarily abstain from smoking, what would be some potential challenges; (16) If you wanted to quit smoking, how successful would you be; and (17) If you wanted to quit smoking, what would be some potential challenges.

Reflection Question 14

A range of responses were provided with respect to this reflection, which asked "If you wanted to temporarily abstain from smoking, what is the longest period you could go without a cigarette and how does this time period compare with the length of time you want to be able to temporarily abstain from smoking." Response themes that emerged included *Permanent Cessation* (n=13) and *Temporary Abstinence* (n=4). One participant (Q14P2) reported ambivalence about abstaining in general and a different participant (Q14P11) described never having the desire to abstain from smoking. The response of participant another participant was, "i could abstain indefinatly" (Q14P13). The last response was not directly addressing the research question, so it was not coded.

Permanent Cessation was a theme with strong magnitude that was shaped by a large portion of the participants. This theme's label referred to the participants' common desire to eventually achieve complete smoking cessation. Subthemes associated with the participants' beliefs about the longest they could go without a cigarette were also revealed because of the theme's magnitude. The subthemes included *Hours to Days* (n=4), *Several Days* (n=2), *Two Weeks* (n=4), and *One Month or More* (n=3). Participants responded in the following ways:

Q14P1 “2 weeks; I'd like to go forever.”

Q14P4 “I can go about a day without smoking, but I would like to quit for good.”

The theme label for Temporary Abstinence was chosen because it represented the participants who indicated goal for temporary abstinence from smoking, not permanent smoking cessation. For example, one participant reported, “Usually a day or two and I'd like to not smoke for weeks” (Q14P17). The magnitude of this category may, in reality, be weaker than it appears as that two of the content units that were grouped together under the theme Temporary Abstinence were somewhat ambiguous and the primary investigator used subjective interpretation and opinion to determine their meaning and placement. These two responses were as follows:

Q14P15 “8 -10 hours...sleeping”

Q14P16 “12 hours”

Reflection Question 15

In responses to, “If you wanted to temporarily abstain from smoking, what would be some potential challenges,” data revealed patterns related to environments with alcohol (Alcohol, n=8), being around other smokers (Proximity to Smokers, n=5), changes in mood and irritability (Negative Affect, n=5), and nicotine craving and withdrawal (*Nicotine Addiction*, n=3). Besides Nicotine Addiction, each of these themes emerged previously. The themes that emerged previously and again in response to this question were the same conceptually. They captured and represented similar grouped messages. That is, the description of each theme was consistent across content analysis.

Examples of responses that led to the theme identification of Alcohol were:

> Q15P5 “Being at a smoky bar, drinking, being around others who are smoking.”
>
> Q15P6 “drinking alcohol, partying”
>
> Q15P8 “Having to fight the craving when I drink...and being in bars with people who smoke.”

Examples of responses under the theme Proximity to Smokers included:

> Q15P18 “others around me smoking, drinking alcohol”
>
> Q15P1 “Social group largely smokes; we spend a lot of time in bars.”

The theme Negative Affect was generated based on content units from responses such as:

> Q15P3 “The physical craving. The going crazy in my head. The being mean to people I love.”
>
> Q15P11 “Stress and going out”

The theme Nicotine Addiction emerged from participants’ descriptions of potential challenges related to physical craving, addiction to nicotine, and experience of withdrawals. One participant wrote, “I am addicted to the nicotine in cigarettes” (Q15P4).

Reflection Question 16

The question, “If you wanted to quit smoking, how successful would you be” revealed themes that could be meaningfully clustered together, including *Not Very* (n=10), *Optimistic about Success* (n=6), and *Fair to Good* (n=4). The selection of labels used for each theme was based on the degree of confidence about success that was suggested by the content units in each participant’s response. The magnitude of response

for Not Very was much stronger than the other two themes that emerged. Examples of responses that fit the pattern of Not Very included:

Q16P7 “I haven't tried, but I feel that I will have problems. I would not be successful.”

Q16P10 “I've tried several times. So, probably not very successful.”

Q16P15 “i have not been in the past”

Optimistic about Success was formed based on participants’ responses such as:

Q16P5 “I could do it.”

Q16P6 “very successful”

Examples of responses that led to the theme Fair to Good were:

Q16P9 “well I'm working on that so 70%”

Q16P16 “Well, I've quit three times previously. One of these days it will stick.”

Reflection Question 17

The final reflection questions targeted at Self-Efficacy was, “If you wanted to quit smoking, what would be some potential challenges.” Themes that emerged from the response data were environments with alcohol (Alcohol, n=6), socialization with other smokers (Proximity to Smokers, n=5), and Negative Affect (n=4). The Alcohol theme was shaped by responses that included:

Q17P6 “drinking alcohol, partying”

Q17P15 “alcohol. It has alays been the downfall of a successful quit.”

Proximity to Smokers included content units from the following participants’ responses:

Q17P4 “It would be hard to hang out with my friends, because most of them smoke.”

Q17P17 “being around other smokers in my family”

Examples of responses that were clustered into the Negative Affect theme were:

Q17P12 “the mood swings”

Q17P1 “My stress, social anxiety disorder and depression.”

Most Significant Reason

Reflection Question 18

Most significant reason was an open-ended question at the survey. It asked, “Other than possible physical addiction, what is the most significant reason that you continue to smoke.” The themes that emerged were to cope with Negative Affect, (Negative Affect, n=7), personal enjoyment of smoking (*Enjoyment*, n=7), to promote socialization with others (Socialization, n=3), and desire to smoke while in environments with alcohol (Alcohol, n=3). The themes labeled Negative Affect, Alcohol, and Socialization were operationalized the same way they were with previous questions in the study. The only new theme that emerged from participants’ responses was Enjoyment.

The theme of Enjoyment was developed due to the repeated references to participants’ reports that they like the act of smoking, feelings cigarettes produced, and taste of cigarettes. This theme was similar to the pervious identified Physical Sensations theme, but differed because Physical Sensations left did not account for participants’ enjoyment of the act of smoking.

Q18P4 “To keep thin, and because I like the feeling it gives me.”

Q18P16 “Because I still want to. I like smoking. I like the way it feels on the back of my throat.”

Q18P19 “it gives me something to do with my hands and helps me to relax in social situations and it takes good with a cold beer”

Socialization was a theme captured previously in response to reflection questions about Situational Influences. This theme overlapped with similar themes of messages about promotion of social interaction through such means as relaxing nerves during social times. Below are two examples of responses that fit the Socialization theme for this question.

Q18P14 “I think smoking has become something mental for me. I feel it relieves stress and I know I also have related it to "social/break time" which somewhere in my head comes off as a positive thing.”

Q18P19 “it gives me something to do with my hands and helps me to relax in social situations and it takes good with a cold beer”

Summary: Participant Narratives

To summarize the findings from this study, two summaries of participants’ narratives were developed to provide support for and examples of the themes that were identified during the analysis of all participants data. All responses from the participants are provided in Appendix F.

Participant 1. Motivation to smoke was primarily attributed to the relief of negative affect, including tension, stress, anxiety, and depressive symptoms. Of this

symptom pattern, the participant identified stress as the primary motivating factor associated with her smoking. An additional perceived motivation to smoke was the relationship she felt existed between smoking and socialization. The participant noted that patronage at bars was a norm within her social network and that smoking was a norm at bars. She added that she goes to bars in order to meet other lesbians and for socialization in general. Smoking also provided the participant with a sense of pleasure from the "rush." She indicated that it was easiest to not smoke while at home or with her mother in an indoor setting. Per this participant, she coped with cigarette craving by anticipating future gratification from a cigarette. The largest perceived obstacle to abstinence from smoking or smoking cessation was coping with negative affect. Further, she described a low sense of self-efficacy in respect smoking cessation.

Participant 2. This participant attributed her motivation to smoke primarily too negative affect reduction, relief of physical discomfort after eating a big meal, when drinking alcohol, and while driving in the car with her girlfriend. She feels emotionally attached to cigarettes. She described mood swings as her greatest barrier to smoking cessation and has little self-efficacy for cessation without the support of others. When she cannot have a cigarette, she experiences negative affect such as anger, moodiness, and shakiness. When she wants to not smoke and is not at home where *not* smoking is easier, she employs cognitive distraction techniques. The participant's girlfriend wants her to quit. Her mother seemed to indirectly send messages that normalized smoking through her (mother) own smoking behavior, but the participant feels support her mother would support her in any cessation effort.

CHAPTER 5: DISCUSSION

Several studies have identified disparities in the prevalence rates of smoking between lesbians and HW (heterosexual women) that have indicated that lesbians have higher rates of smoking (Case et al., 2004; Cochran, 2001; Gruskin et al., 2001; McCabe et al., 2003; Ryan et al., 2001). This research has also suggested that these patterns of smoking may be related to cultural norms established or maintained within the lesbian community (Aaron et al., 2001; Bux, 1996; Cabaj, 1995; Gruskin, Hart, Gordon, & Ackerson, 2001; Saunders, 1999). This accumulating evidence has lead to a call for studies to more fully examine these disparities and understand if there are cultural-specific, community norming, behaviors or attitudes that support smoking behavior among lesbians (Meyer, 2001). The need for qualitative investigations related to these issues is even more significant when one considers that there is a paucity of research on cultural variables associated with diverse sexual orientation groups that influence tobacco use (Drabble, 2000; Fagan et al., 2004; Ryan et al., 2001).

The purpose of this study was to explore the cognitive processing themes, psychosocial influences, situational influences, coping strategies and self-efficacy factors that lesbians identify as relating to their smoking behavior. The results of this qualitative, exploratory investigation might possibly help inform counseling professionals' understanding of motivations to smoke among lesbians and provide more culturally-sensitive knowledge to guide prevention, intervention strategies, and cultural

competency in general. A series of stimulus questions were used to consider how these factors influence lesbians smoking behaviors and behaviors associated with smoking cessation. The discussion of the results will be organized in relation to these five questions.

Research Questions

Question 1

This question, "What cognitive processing themes related to perceptions about psychosocial influences contribute to smoking behavior among lesbians who smoke," focused on understanding the psychosocial factors that might influence smoking behavior among lesbians. The results suggested that the participants received messages from family, friends, and partners about their smoking. These messages were often affect-laden with expressions of concern, anger, and disgust about their smoking behavior. Another salient theme revealed that many of these messages conveyed concerns about the implication of smoking on the participants' health.

One of the purposes of this stimulus question was to also assess whether within the lesbian community there was support for or a link to smoking behavior. This also included consideration of whether the coming out process was linked to smoking behavior. The results of this study, relevant to this question did not support this relationship. The majority of the participants did not indicate that this relationship existed, many participants responses were quite definitive in denying that this relationship existed. Among the few responses that contended that a relationship might

exist appeared to be very tentative, expressing uncertainty about the relationship. However, it is important to clarify that the majority of these respondents made reference to their own struggles with sexual orientation identity development and that their smoking behavior could potentially be linked to their use of smoking to cope with the associated stressors of coming out and dealing with social and cultural stressors associated with being a lesbian. These results bring into question the assumption that smoking behavior may be a reinforced behavior within the lesbian community (Ryan et al., 2001; Savin-Williams, 1994).

Other factors that participants' identified as psychosocial influences included legal legislation and socialization patterns. The legislation participants referred to included laws prohibiting smoking in certain locations and taxes on cigarettes. Socialization patterns referred to being in social situations, around friends, or, as in Participant 19 stated, interacting the "lesbian scene." However, it is critical to note that the majority of participants denied that societal patterns actually influenced their smoking behavior.

Question 2

This question was, "What cognitive processing themes related to perceptions of situational influences contribute to smoking behavior among lesbians who smoke." There was an overlap in the themes that emerged in response to questions about what situations trigger the strongest temptation to smoke and in what situations one is most likely to smoke. Unlike research from Gilbert et al. (2000) that supported the separation of temptation to smoke from actual engagement in smoking behavior, the results of this

study did not support a meaningful difference between these variables. The lack of differences might be an accurate representation of the actual association between temptation and engagement among this sample. From a comparison of the themes that emerged in response to each of these focus areas, a clear pattern was revealed in which participants attributed both the greatest temptation to smoke and the greatest likelihood of smoking to situations that involved alcohol use. This relationship, between alcohol use and smoking triggers and situations is magnified when we focus on the themes that emerged from the question about situations in which participants experience the greatest difficulty with not smoking. The only theme to emerge in response to this question related to alcohol use. These results suggested that among lesbians, alcohol use served as the strongest trigger to smoke, related to situations where they are most likely to smoke, and situations involving alcohol were the greatest challenges to not smoking.

This finding suggests that social situations in which alcohol use is involved may more strongly predict or relate to smoking behavior than norms or behaviors within the lesbian community. This was also supported by other results associated with this research question. When asked about potential relationships between situational variables associated with being lesbian and/or coming out, the theme with the greatest magnitude was, once again, one that suggested that there was no such relationship. Another theme emerged to reflect the perspectives of those who were not sure if a relationship existed. The combination of these two themes (No Relationship and Not Sure) contained the perspectives of more than half of the participants, which suggests significant doubt that such a connection exists. Results suggested that the relationship might be more related to

how and where lesbians may socialize, this can be within environments for which alcohol is a prominent part of the socialization.

Additional themes revealed in the results associated with situational influences included situations involving the experience of negative affect, socialization with other smokers, and eating. Coffee and time intervals (i.e., certain times of the day or after a certain amount of time) were also themes identified as triggers to temptation. However, coffee and time intervals did not emerge in response to inquiries about situations that have the greatest likelihood of triggering participants' smoking. Driving in the car was a theme that emerged in response to situations in which smoking is the most likely to occur but did not emerge in response to feeling the greatest temptation to smoke. From this data there is the suggestion that the relationship between feeling a temptation to smoke, or a trigger, does not always correspond to actual smoking behavior. For example, perhaps it is common to feel temptation to smoke during the morning while getting dressed and drinking coffee but no opportunity for smoking is present due to time constraints.

When discussing situational influences and cessation of smoking or not engaging in smoking participants reported that it was the easiest to abstain when they were with somebody who did not smoke or disapproved of the participant smoking. Another meaningful theme to emerge suggested that participants found it easiest to abstain from smoking if it were not possible because of barriers such as smoking restrictions.

Question 3

This question was, "What cognitive processing themes related to outcome expectancies contribute to smoking behavior among lesbians who smoke." One important

consideration of this study was the anticipated effects that reinforced smoking behavior among lesbians. Several themes emerged to describe anticipated effects that positively reinforce smoking. These included expectations about the associated enjoyment of physical sensations (e.g., nicotine high, the feel of a cigarette in the mouth or hands, taste), relief of negative affect (e.g., stress reduction), physical relief (e.g., relief of symptoms associated with nicotine addiction, relief after overeating), and cognitive enhancement (e.g., promotion of thought organization and transition). The themes with the greatest support seemed to be those associated with the physical sensations such as the nicotine high or the desire to have a cigarette in one's hands. The other theme that was overwhelmingly prominent was the use of smoking to reduce negative affect. This included using smoking to reduce with stress. These motivations for smoking have been reported in other studies on smoking behavior, including smoking behavior among heterosexual women (Gilbert & Gilbert, 1995; Gilbert et al., 2000; Krupka & Vener, 1992).

Perceptions about the benefits of smoking reflected an equitable mix of messages about the perceived nonexistence of benefits to smoking and the perceived impact that cigarettes have on negative affect. These results suggested that among the lesbians in this study there was a high level of awareness that smoking *benefits* were often overshadowed by the awareness of the negative outcomes related to smoking. The results also did not find strong support for smoking to promote weight management and digestion, however these themes did emerge among some of the participants. Research on women in the general population has identified weight/appetite suppression as a common motivation to

smoke (Gilbert et al., 2000; Krupka & Vener, 1992; Saules et al., 2004; USDHHS, 2001b; Zucker et al., 2001) and fear of weight gain as a common barrier to smoking cessation (Pirie et al., 1991; USDHHS, 2001b). This study's findings that suggested lesbians do not perceive weight concerns as a strong motivation to smoke is consistent with previous research that found lesbians typically having greater body fat and increased openness to diverse body sizes in comparison to HW (Aaron et al., 2001; Case et al., 2004; Cochran, 2001; Mays et al., 2002; Rothblum & Factor, 2001; Valanis et al., 2000).

Participants reported that experience of negative affect (e.g., stress, boredom, anxiety, and irritability) was the most common reaction to not being able to smoke. Just over half of the participants noted this experience. It should be noted that some participants stated that they experience no changes when they cannot smoke, however this was a very small percentage of the overall sample. Cognitive changes, such as poor concentration and fixation on obtaining cigarettes, also emerged as a theme to describe the experience of participants when they cannot smoke.

Question 4

This question was, "What cognitive processing themes related to perceptions about coping strategies contribute to smoking behavior among lesbians who smoke." Responses related to this question area referred to the cognitive and behavioral techniques deliberately employed to distract from, reduce, or counteract the intensity of one's desire to smoke. There was evidence that the cognitive coping strategies often involved the use of distraction techniques, such as attempting to shift attention away from smoking in order for the craving to decrease in intensity. Cognitive coping also included

intentionally replacing thoughts with a different focus. An example of this was provided by a participant who described her tendency to use prayer to redirect the focus of her thoughts.

Behavioral coping also emerged as a theme linked to coping. Participants were able to identify several behaviors that they use to help them deal with their desires to smoke. For example, some participants' reported chewing gum or drinking water to counteract their desire to have a cigarette.

Participants were also asked about periods in which they wanted to smoke but did not smoke. In such situations participants had to rely on some factor to reduce the intensity of cravings. Not being able to smoke was the theme that emerged most often to describe what stopped participants from smoking when smoking was desired. This included externally influenced restrictions on smoking such as not being permitted to smoke while at work, indoors, or school. These results are in part linked to the previously discussed findings related to psychosocial influences. There were indications that sometimes smoking behavior is influenced by legislation that prohibits smoking in public and work settings. As there is an increase in state-wide initiatives to prohibit smoking in public areas, the process of coping with smoking desires and developing cessation skills will become more significant for all smokers, including lesbians. Additionally factors leading to not smoking among those in the current study included not having any cigarettes and not smoking due to inconvenience or involvement in a different activity preventing such behavior.

Question 5

This question was, "What cognitive processing themes related to perceptions about self-efficacy contribute to smoking behavior among lesbians who smoke." A clear theme emerged in this study to suggest that smoking cessation was a goal among the majority of participants. A surprising theme that was identified among a small portion of the sample was goals associated with temporary abstinence, not permanent smoking cessation. Lack of confidence about smoking cessation efficacy was a significant theme for many participants in this study. This is in contrast to the equal number of participants who described optimism or having a moderate likelihood of success if cessation were to be attempted. Participants reported expected durations of smoking abstinence of a few hours to one month or more if smoking cessation were attempted.

This study's research findings about self-efficacy points out the importance of examination of self-efficacy when working towards smoking cessation with lesbian clients. Consistent with social cognitive theory, stronger self-efficacy improves actual achievement of goals (Bandura & Locke, 2003). The sample in this study reported smoking cessation as a common goal and also identified a lack of confidence about their smoking cessation efficacy. This poor self-efficacy may perpetuate the smoking disparity between lesbians and HW. Although this study does not compare lesbians and HW, it might be that lesbians and HW have similar goals about smoking cessation but have different norms related to perceptions of self-efficacy. This would suggest outcome of intervention efforts would improve if lesbians' self-efficacy were targeted more so than their overall motivation to change as that the motivation already exists.

Several challenges to both temporary and permanent cessation emerged in this study. In response to maintaining even temporary abstinence, alcohol use once again appeared to relate to smoking behavior. Specifically, there were clear indications that maintaining abstinence from smoking was often the most challenging in situations were alcohol would be present. This relationship is very important when considered in relation to the results relating to situational influences. These findings suggested that alcohol use and social situations with alcohol (e.g., bars) was the greatest influence socially on one's smoking behavior and greatly challenged the desire and action not to smoke. Additional themes associated with challenges to smoking cessation included being around other smokers, experiencing negative affect (e.g., mood swings, stress, irritability).

Greatest Influences on Smoking

An overall final reflection question asked participants to identify what they perceived as the greatest influence to their smoking. In response to this question, the strongest theme to emerge was smoking for the enjoyment aspect. This may be directly related to the other prominent themes that were identified among the responses. Almost as many participants indicated that social situations and alcohol were also significant influences on smoking behavior. These themes have been reflected in several other areas of this study and provide an important consideration for working with lesbians who smoke. It is important to consider how all these variables relate to each other when understanding smoking behavior among lesbians.

Conclusion

Cognitive processing themes that emerged suggested smoking among lesbians is strongly related to pursuit of enjoyment (including physical sensations associated with the act of smoking and the consequential nicotine high), urge to smoke while drinking alcohol, and use of cigarettes to reduce negative affect and/or promote socialization. Cognitive processing themes repeatedly referred to smoking as a process or behavior to address negative affect such as stress, boredom, and anxiety. Such motivations to smoke are consistent with previous literature. Gilbert et al. (2000) described how affective states influence desire to smoke and cigarettes are frequently used to reduce negative affect or to enhance positive affect, including sensations of pleasure.

A significant consideration is that the findings of this study contained limited, and often only tentative references to this relationship as it related to being a lesbian woman. Specifically, there was limited support to the assumption that smoking was somehow a supported behavior in the lesbian community. When a link was made to the lesbian community and smoking behavior it more directly related to stress that one may experience in the process of coming out or in sexual orientation development. It was suggested by some participants that smoking might be used to deal with the stress associated with these experiences. However, as previously noted, this was not a connection made by many participants and it was often made tentatively. In addition, no specific references were made to participants' experiences with stigma, such as social homophobia and discrimination.

Previous research on smoking among lesbians has offered theoretical explanations for how gay-related stress relates to smoking. These explanations refer to the effect of societal stigmatization (e.g., being devalued or perceived as flawed because of having a diverse sexual orientation), marginalization, victimization (e.g., verbal harassment and physical abuse), rejection (e.g., from family, religion, social institution, educational systems), discrimination, and social inequalities (Bontempo et al., 2002; Gruskin et al., 2001; Hughes et al., 2002; Ryan et al., 2001; Savin-Williams, 1994) and bar culture (Bux, 1996; Cabaj, 1995; Gruskin et al., 2001).

Application of social learning theory suggests that the lack of perceived connection between smoking and being lesbian and/or coming out could be significant. Bandura and Locke (2003) described how individuals are guided by motivation, self-evaluation, and other sociocognitive factors. This study suggested that among some lesbians smoking may help them deal with the stress associated with being a lesbian in our society, but this was not a relationship or influencing factor recognized or identified by a large majority of the participants.

No question specifically addressed lesbian community norms and values. This information might have provided insight about whether lesbians who smoke perceive smoking and/or alcohol use are conceptualized as common patterns within the lesbian community. Results could not clearly identify smoking as a perceived norm among the lesbian community, but the results did provide reason to speculate about the combined impact of alcohol and socialization among lesbians who smoke. Application of social learning and cognitive models of addiction would make reference to how modeling of

smoking is connected to adoption of such behavior (Levanthal et al., 1991). Thus, even if participants' social group has mixed messages about the norms and values related to smoking, the modeling that occurs while drinking alcohol may perpetuate smoking.

This consideration also raises significant concerns when considered in relation to findings about cessation of smoking. The findings suggested that the participants felt the greatest self-efficacy about their ability to abstain from smoking when in situations where smoking was not permitted, when smoking was an inconvenience, and when around certain individuals who they did not want to expose to their smoking. Participants' active attempts at smoking were most frequently cognitive distraction techniques and, to a less extent, behavioral strategies such as chewing gum. However, participants reported they were most challenged and experienced the greatest difficulty with abstaining from smoking when in situations where alcohol was present.

This is important when considering that participants' indicated that smoking cessation was a common goal. About an equal number of participants reported poor self-efficacy as did those who reported strong self-efficacy associated with their ability to achieve their smoking cessation goals. Results about intent to quit smoking are consistent with previous literature that argued that lesbians are actively pursuing health promotion (Case et al., 2004). The results also allude to the potential benefits of further exploring means to promote coping strategies and self-efficacy. Jenks (2001) described how self-efficacy can be promoted through increased awareness of options related to coping strategies. Participants in this study mostly described cognitive and behavioral coping techniques that specifically related to distraction. Perhaps increased awareness about

coping strategies that serve as alternative reinforcers to produce the desired goal state (e.g., relaxation) is needed.

Limitations

Convenience Sample

Limitations in recruitment and sampling strategies are associated with the study's use of a convenience sample. Although the purposes of this study supported the use of convenience samples (refer to chapter 1), concerns are inherent to this need. The sample was most likely biased because recruitment was predominantly from loosely structured, social networks. Lesbians who are not open about their sexual identity were likely excluded. The heterogeneity within lesbians was not represented in the study's sample. For example, many of the individuals involved with recruitment were Caucasian and lived near St. Louis, Missouri. This potentially limited the ethnic and geographic diversity of the sample.

Use of Internet

The research design used the Internet. By nature, such methodology might exclude individuals who do not have access to computers, are not computer literate, or are not comfortable or able to express themselves through written text. An additional concern associated with the survey being online is the loss of ability to interpret participants' expressiveness, fervor, and intensity in responses. One of the only clues to such reactions occurred when a participant added punctuation for emphasis, such as three explanation marks after one response but no punctuation after any of their other response.

Addiction Disparities

Participants' responses suggested that the sample varied widely in their perceptions of their degree of addiction. For example, some participants described feeling powerless to their addiction and other noted that they felt they could quit smoking at any time. The effects of controlling for addiction level are left unknown.

Operationalization of Terms

This study's conceptualization of smoking status and sexual orientation are not generalizable across all research on smoking and lesbians. For example, smoking status can be determined from the constructivist tradition in which individuals perceptions determine smoking status. To promote comparability between studies some researchers prefer to operationalize smoking status based on a certain number of cigarettes being smoked daily (e.g., USDHHS, 2007). Consider the results of this study to demonstrate the potential impact of such inconsistencies. A participant's response indicated she smoked three cigarettes a week on average. Some researcher would question whether she should be considered a smoker. Further questions about differences in smoking behavior relate to identification as a social smoker verses regular smoker. Themes that emerged from the reflection questions might have varied depending on whether smoking occurred only in social situations verses smoking that occurred on a more frequent and regular schedule.

Reflection Questions

The wording might have been confusing, at times the scope of the reflection questions seemed outside of the parameters of the research questions, and the wording of

questions was sometimes awkward, double-barreled, too long, or grammatically incorrect. It seemed as though greater attention to the development of research questions would have produced more revealing patterns. In other words, methodology might have been enhanced if increased efforts at survey development were incorporated. Means for such promotion could have included a small brainstorming group consisting of a few individuals who were smokers and/or lesbians and individuals with knowledge of the related research. This team could have also discussed what questions to use to address the research questions, the ability for the questions to elicit the information sought, the clarity and the flow of the questions, whether the text was culturally appropriate, etcetera.

Questions designed to reveal subtle differences in perceived motivations most often failed to produce meaningful differences as hoped. This lack of difference in response might have given evidence to suggest participants found the questions redundant and did not attend directly to the differences being sought from the question. However, the lack of difference in response could have easily been an accurate reflection of no meaningful differences existing (e.g., temptation to smoke may be very strongly correlated with actual smoking). For example, question 15 referred to challenges associated with temporary abstinence and question 17 to challenges linked to smoking cessation. Temporary abstinence revealed primary themes of being in situations with alcohol, socializing with other smokers, experiencing negative affect, and nicotine addiction. Smoking Cessation revealed primary themes as being in situations with alcohol, socializing with other smokers, and experiencing negative affect. The only meaningful difference between the two questions was the emergence of addiction in

response to temporary abstinence but not permanent cessation. The same concern about lack of meaningful differences seemed to exist with questions four and five, which explored temptation to smoke verses likelihood of smoking respectively.

Questions also would have been improved if specific references to the participant, no lesbians in general, were made (Berg, 2004). For example, the questions referring to the link between smoking and being lesbian and coming out might have been enhanced if the question was worded with the following phrase, "How, if at all, does your smoking relate to you being…"

A final concern about the questions was specifically related to the questions targeted at reasons for not smoking when feeling the desire. The link between this question and coping skills seems weak at best. Yet, the information generated did seem to relate to the broader motivations to smoke emphasis of the study.

The intent of this research was to generate a wide range of exploratory information to guide future research. However, there is potential for enhancement of the meaningfulness generated if more specific prompts had been used. For example, questions related to psychosocial influences did not directly refer to community norms and experiences. However, participants did seem to indirectly refer to such influences. For example, the Socialization theme emerged in response to several questions. When participants responded to a question about the influence of society on smoking, a theme that emerged described socialization as an influence to smoking and the grouped content that generated this theme made reference to increased smoking frequency when in social situations, around friends, or, as participant 19 stated, in the "lesbian scene."

The sexual orientation of the friends and individuals in the social situations described are not known. Thus, conclusions about norms in the lesbian community cannot be made from this data. However, according to Bradford et al., (1994, as cited by Liddle, 2006), research has found that almost two thirds of lesbians' friends are also lesbian and about this same percentage of lesbians participate in a community event for lesbians at least once per month. Other data about socialization from this research question suggested that the participants' socialization involved mixed messages about smoking in that there was an equitable amount of messages that normalized and pathologized smoking. The message sources were a mix of family, friends, and partners. Theoretical applications of Bradford et al. research findings and this study's data linking socialization themes to smoking calls to question if socialization with other lesbians influences smoking differently than socialization with HW.

Data Analysis

Data analysis was qualitative that involved the primary investigator made subjective interpretations during analysis. The subjectivity, by nature, produced questions about accuracy in interpretation. The primary investigator could have unintentionally created bias by looking for anticipated categories to emerge and, consequently, increasing the risk for themes to emerge that did not really exist. Conclusions about accuracy would have been better supported if independent coders were use for interpretation. Accuracy of analysis would have been further enhanced if principles related to Grounded Theory were used. For example, grounded theory involves the participants playing an active role in interpretation and analysis (Berg, 2004). Such involvement of participants in this study

was not possible due to the anonymous nature of the data collection.

Implications and Recommendations

Research

Future research efforts should focus on more fully exploring the relationship between alcohol and smoking among lesbians. It was apparent that this was a strong influencing factor on maintaining smoking behavior. What will be critical is an examination of how these variables may relate to other psychosocial variables (e.g., community norms and values) that may contribute to smoking. The limitations of this study did not allow for a direct consideration of cultural norms within the lesbian community that might also reinforce smoking behavior but the study suggested that it may be related to socialization factors, such as socializing in environments where drinking may occur. It will be important to consider how this relates to socialization, maintenance of smoking and smoking cessation interventions.

The need for more intensive cultural-specific examinations of the influence of alcohol on smoking is supported by the saliency of the perceived role alcohol has on smoking among lesbians. For example, participants reported perceptions that legislation (e.g., smoking restrictions) decreases their own likelihood of smoking. Results also pointed towards the overlapping roles of alcohol and socialization in contributing to smoking. Thus, a research question is posed about whether prevalence rates are affected by recent state bans on smoking in public places. With such bans smoking in environments with alcohol are limited. This limitation would likely make smoking

inconvenient and, ultimately, decrease smoking. Socialization would then reinforce this nonsmoking. Cognitive associations pairing alcohol with cigarettes might also weaken, reducing the potential of alcohol triggering desire to smoke.

This study provided an exploratory investigation that produced a theoretical framework to guide future studies tailored to the hypothesized relationships in this study. This framework can be used to guide emphasis of future studies. For example, focus groups would provide a rich opportunity to further explore how smoking is linked to the complex interrelationships between negative affect, community norms and values, and socialization. Discussion could generate exploration of the link between identify formation, stress, and smoking. The multiple participants would promote diversity of new ideas and unique thoughts, provide information about shared everyday knowledge about cohort, and allow for the researchers to ask follow-up questions and request explanations for statements (Fern, 2001). The results discovered by this study also support future use of qualitative approaches that apply more principles of grounded theory. A component of grounded theory is working with participants when identifying emerging and determining accuracy of interpretations. This study was anonymous and, consequently, such interactions were not possible. However, had the opportunity been there the primary investigator could have asked participants for specific explanations about their perceptions of how the themes that emerged are interconnected and reflect (or not reflect) their perceptions and experiences.

Increased research targeted at resiliency, protective factors, strengths, and smoking cessation success may also aid in cultural competency and understanding of

motivations for smoking among lesbians. One means to explore such variables might examine gay males. Existing data suggests that tobacco disparities between gay and heterosexual males are not as significant as the disparity between lesbians and HW (McCabe, 2003). Future research could examine resiliency, protective factors, and strengths among gay males in order to better understand cultural-specific influences to tobacco. Themes surrounding negative affect in this study were revealed, but the specific association between gay related stress and smoking did not clearly emerge. Most of the findings called to question whether the participants perceived any such connection. Perhaps norms that transcend smoking and diverse sexual orientation explain smoking better than gay related stress. For example, values of personal choice, acceptance, openness (Eisenberg & Wechsler, 2003), lowered inhibitions (Hughes & Eliason, 2002), and cultural disenfranchisement (USDHHS, 2001a) better explain the smoking disparity between lesbians and HW. Discovery-oriented research targeted at identification such factors combined with research that compares lesbians' perceptions about smoking to gay males' perceptions about smoking might generate such explanations.

Clinical

The themes that emerged from this study may be used to inform clinical practice, community-based intervention and prevention efforts, and consultative relationships. An example of application of these finding can be reflected in a counselor's clinical work with a lesbian who presents for psychotherapy with a primary treatment goal to reduce or quit smoking.

In the initial stages of therapy, clinicians are encouraged to perform a general assessment of the role of alcohol in the client's life, socialization patterns, mood and affective struggles, and common coping patterns. This exploration should not specifically be linked to smoking and, instead, be a broader exploration of these patterns. After this general exploration, more direct assessments about smoking patterns should occur. Prompts may be provided as needed (e.g., level of openness to smoking among social networks and family, how alcohol consumption influences the occurrence of smoking). The counselor and client should then engage in a collaborative discourse about the client's perceptions about how each of the before mentioned variables reinforce her smoking, if at all. Exploration should also explore the perceived benefits, effects, and triggers that the client connects to her smoking. The counselor is encouraged to have the client identify both positive and negative benefits, effects, and triggers in order to reveal potential barriers to treatment goals.

Throughout psychotherapy, explicit discussion of the client's motivation to change and her self-efficacy might also improve treatment efficacy. To build the client's self-efficacy, the counselor is encouraged to help the client identify mediating factors to her smoking (e.g., being around partner or in a smoke-free bar). The information revealed should be conceptualized as signs of strength and resiliency. The client should be positively reinforcement for her ability to abstain more (or completely) with the influence of such mediating variables. Ideally, this positive reinforcement will enhance the client's self-efficacy.

The counselor is encouraged to help the client become more familiar with her perceptions about what motivated her smoking initiation and her continued smoking behavior. The counselor is encouraged to broach the potential for additional factors that the counselor speculates might be related to the client's smoking but, from the counselor's perceptive, is outside of the client's self-awareness. This broaching should be done with tentativeness and sensitivity to the client's current cognitive processing themes related to smoking. An example of such discussion includes exploration of influences to the client's negative affect and counselor tentatively describing how gay-related stress might have in the past or might be currently contributing to her smoking. If the client seems open to such exploration, the counselor is encouraged to empower her to discuss the potential relationships. However, the counselor must meet the client where she is and not adamantly attempt for the client to assume the counselor's perspective that such a relationship exists. Attention must always focus on the client's stage of change, the client's subjective construction of her reality, and heterogeneity among lesbians who smoke (e.g., smoking may be differently impacted by the geographic location lived in, age cohort of the smoker (Hughes & Eliason, 2002), occupation, and socioeconomic status (Barbeau et al., 2004).

During psychotherapy, the client should explore how she might use cigarettes to cope and also to promote socialization. Psychotherapy could focus on identifying alternative means to promote desired goal-states. For example, the client might indicate that she smokes to reduce stress and promote relaxation. The counselor could help the client learn additional strategies to achieve the desired goal-state. Specific attention also

should be given to strategies to cope with triggers to smoking, such as alcohol consumption or being in settings with alcohol. Some of strategies might include going to bars where smoking is banned or having a cigarette with a friend every other time the friend smokes. Consistent with social cognitive theory, short-term gains and small accomplishments will enhance the client's self-efficacy.

Summary

Overall, this study provided a conceptual framework for understanding the influences on smoking among lesbians. The findings suggested that there was a limited perception that there were benefits to smoking but the physical sensations associated with smoking and perceived coping outcomes of smoking were strong influences. Moreover, while participants did not report a strong relationship between being a lesbian and being within the lesbian community and smoking, a strong relationship between smoking and inability to stop smoking was connected to alcohol and situations where drinking occurs. The results also suggested that it will be important to continue to investigate these variables to more fully understand why lesbians not only smoke but continue to even while desiring to stop.

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APPENDIX A: DEMOGRAPHIC QUESTIONS

Are you a lesbian?

Have you smoked 100 or more cigarettes in your lifetime?

Do you currently smoke cigarettes?

Are you 19 years of age of older?

APPENDIX B: REFLECTION QUESTIONS

As you respond to the questions, please reflect on your thoughts about smoking and provide a detailed response.

1. What messages are you getting from others in your life about smoking (e.g., from friends, partner, and other family members). Please name and describe at least two sources of the messages and the messages you get from each of the sources).
2. How, if at all, does smoking relate to being a lesbian and/or coming out?
3. How, if at all, may society affect your smoking?
4. In what situations do you feel most tempted to smoke (please name/describe at least 2)?
5. In what situations are you most likely to smoke (please name/describe at least 2)?
6. When do you feel it is most difficult to not smoke?
7. What situations do you find it easier to not smoke?
8. What, if any at all, situations associated with being lesbian contribute to smoking?
9. What things do you look forward to when you have a cigarette?
10. How do cigarettes help or benefit you?

11. What is it like when you can't have a cigarette (e.g., are there any changes in your thoughts, feelings, and/or behavior)?
12. How do you overcome a craving for a cigarette when you cannot have one?
13. When you think about smoking a cigarette but do not, what are the reasons for not doing so?
14. If you wanted to temporarily abstain from smoking, what is the longest period you could go without a cigarette and how does this time period compare with the length of time you want to be able to temporarily abstain from smoking?
15. If you wanted to temporarily abstain from smoking, what would be some potential challenges?
16. If you wanted to quit smoking, how successful would you be?
17. If you wanted to quit smoking, what would be some potential challenges?
18. Other than possible physical addiction, what is the most significant reason that you continue to smoke?

APPENDIX C: RECRUITMENT FLYER

Subject: Research Invitation: Smoking among Lesbians

There is too little research on the needs of lesbians who smoke. Please consider participation in this research study if you are a lesbian who smokes and are 19 years of age or older. Please spread the word if you know somebody who fits this description. Input is greatly needed.

To participate in this study or to learn more about what participation entails, go to (https://www.surveymonkey.com/s.aspx?sm=mEFI2icZiRXq7nbNihGRyw_3d_3d Participation takes about 30 minutes. No identifying information will be collected (i.e., participation is anonymous). This study is a part of a dissertation requirement for Counseling Psychology at Auburn University, AL.

Thank you for your time and consideration. It is with people like you that this important study can be effectively carried out.

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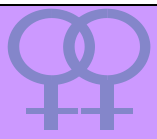
APPENDIX D: PROMOTIONAL TOOLS

Help us collect more information about the needs of lesbians who smoke. If you are a lesbian who smokes, your input is greatly needed. Please go to the following website for more information about how to participate in a research study to help:

https://www.surveymonkey.com/s.aspx?sm=mEFI2icZiRXq7nbNihGRyw_3d_3d



Your input is greatly needed!

There is too little known about smoking among lesbians. This information is crucial for culturally-sensitive smoking prevention and intervention. If you are a lesbian who smokes cigarettes, please click on the link below to learn about a research study that may help. Participation is anonymous.
https://www.surveymonkey.com/s.aspx?sm=mEFI2icZiRXq7nbNihGRyw_3d_3d

APPENDIX E: INFORMATIONAL LETTER

for a Research Study entitled

"Smoking among Lesbians"

You are invited to participate in a research study to examine influences to smoking among lesbians. This study is being conducted by Erin Aholt, BA, under the direction of Jamie Carney, PhD, in the Auburn University Department of Counselor Education, Counseling Psychology, and School Psychology. You are eligible to participate in this study if you identify as a lesbian, are age 19 or older, and smoke cigarettes.

If you choose to participate in this research study, you will be asked to answer a series of online, reflection questions. The questions pertain to your thoughts about your motivations for smoking. It is estimated that this process should not take longer than 30 minutes.

A possible risk associated with your participation in this study includes the potential to feel discomfort from an increased awareness about your smoking. It is anticipated that this risk is not beyond what you may experience on a daily basis. If you are feeling discomfort, keep in mind that you may withdraw from the study at any time. Possible benefits associated your participation in this study include a greater self-understanding of issues related to motivations for smoking and, possibly, a positive

reaction to having volunteered to contribute to health promotion among lesbians. We cannot promise you that you will experience such benefits.

Your participation in this study is completely voluntary. All results from this study are anonymous, and the researcher will be unable to identify participants through their responses. Please understand that you can withdraw from the study at any time during completion of the reflection responses. Reflection responses cannot be withdrawn from the study after they have been submitted because responses are anonymous. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University or the Department of Counseling Education, Counseling Psychology, & School Psychology.

Any data obtained in connection with this study will remain anonymous. Protection of your privacy and the data you provide will be done by using SSL encryption for the online survey. This software is commonly used for sites requiring transmission of secure information. Information collected through your participation will be used to meet the researcher's dissertation requirement and, possibly, published in a professional journal and/or presented at a professional meeting.

If you have questions about this study, contact Erin Aholt, BA, or Jamie Carney, PhD, at (334) 844-5160. If you have questions about your rights as a research participant, you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334) 844-5960 or email at hsubjec@auburn.edu or IRBChair@auburn.edu.

Having read the information above, you must decide if you want to participate in this research project. If you decide to participate, please click the "Next" icon below to access the survey questions. If you decide to participate, the data you provide will serve as your agreement to do so. You may print a copy of this letter to keep.

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APPENDIX F: RAW DATA

Participants' Responses to Reflection Questions

Question1.What messages are you getting from others in your life about smoking (e.g., from friends, partner, and other family members)? Please name and describe at least two sources of the messages and the messages you get from each of the sources)?

Q1P1 Concern, frustration, anger. My mother and friends.

Q1P2 partner, does not smoke hates it does not like me smoking for health reasons and money mom, smokes sometimes does not tell me to quit but would support me if i needed help

Q1P3 Most of my friends smoke but we do talk about stopping alot but I do not know any of my friends who have been able to stay stopped for any length of time. My family wants me to stop and tells me so all the time. My partner does not smoke and hates that i do. She always talks to me about stopping. She is not a nag but she does get to me because she tells me that it hurts to see me smoke and that kind of gets to me.

Q1P4 friends...most of my friends smoke so they give me positive feedback. family...my family is concerned about my health, they think I shouldn't smoke.

Q1P5 Smoking is unhealthy....(friends, family)

Q1P6 partner: smoking is unhealthy, please stop housemate: smoking is nice to relax

Q1P7 My family is one source and they disagree with it completely. My other source is my friends and they are okay with it because most of them smoke.

Q1P8 Well I smoke when I drink...and I drink a lot. So I hardly get positive responses from friends. None of my close friends smoke. So i always feel like I'm doing something wrong.--Even though i claim i'm not addicted (However the craving only comes to me once I have alcohol in me)...My parents hate it. I try to hide it in the backyard late at night (of course only if I'm drinking)...My Dad's dad died of lung cancer. And when I was little I used to give one of my brothers that smoked a hard time...So they all give me shit for smoking if they find out...So it's something that I'm not comfortable doing around close friends and immediate family memembers.

Q1P9 Its hard to quit around people who smoke. They are very encouraging of smoke breaks. My nonsmoker friends try to help me stop.

Q1P10 Quit. Friends, girlfriends

Q1P11 family - it is bad for me and I need to quit friends - it is bad for me

Q1P12 My co workers are on my case about quitting. my sister says it makes me age faster

Q1P13 Parents are completely against smoking(deaths in family directly related to smoking).Peers see smoking as more of a stress relief

Q1P14 My mother doesn't like that I smoke and tells me to quit. My partner points out the fact that I run out of breath easily and how disgusting it looks.

Q1P15 none

Q1P16 most friends know that it is unhealthy, but also realize how difficult it is to quit...my partner and I quit smoking for a couple of months with Chantix...she believes that we should quit, but neither of us are ready to try again. Plus, the medication is so frightfully expensive!

Q1P17 My friends, who don't smoke, tell me to stop. Co workers tell me to stop. Most of my family smokes so they don't say much because it would be hypocritical.

Q1P18 Really, the only negative messages I receive about smoking are from my mom and society in general. My friends and partner (who used to smoke) don't care one way or another if I smoke a cigarette. The message from my mom is of concern for my health. She also used to smoke and it contributed to her health problems now. I think there is an air of disgust from society about smokers. I live in a city that has banned smoking in public areas so you have to smoke outside establishments. You tend to get negative looks from others.

Q1P19 Most of my friends and family are very against me smoking, even if its only occassional or social smoking. My roomate does not allow me to smoke in the apartment.

Q1P20 partner - general health concerns friends - general health concerns

Question 2. How, if at all, does smoking relate to being a lesbian and/or coming out?

Q2P1 Stress relief

Q2P2 not related

Q2P3 I do not think it has anything to do with it.

Q2P4 I don't think they are related.

Q2P5 ?

Q2P6 not at all?!

Q2P7 I don’t think it does at all.

Q2P8 Well, before I came to terms with being gay I started craving that sense of having a mind altering feeling (around the second semester of my Junior yr. of high school)...I never understood why until a coupple of years later...One close friend described to me at the time that, "You seem to be hurting deep down inside."....Yeah. But smoking, among other things i.e...cutting, excessive drinking, and such were all factors that I delt with while discovering who I was...I was in denial for so long--what four and a half years?...that I got so mixed up with what I was 'supposed' to be. And not accepting who I really was.

Q2P9 I don't know if it does, but it is a very popular habit among lesbians

Q2P10 There was never a relationship for me...expect maybe that I smoke more when I'm stressed, and during that time I was stressed.

Q2P11 It does not relate

Q2P12 I don't put the two together at all

Q2P13 Not at all

Q2P14 I don't think it does. I have a diverse group of friends...male, female, gay, and straight. I don't think smoking is related to me being gay or part of my coming out.

Q2P15 does not

Q2P16 Not so much. The only connection I see is that there is plenty of smoking in bars. But that holds true for hetero bars as well as lesbian bars.

Q2P17 Perhaps one of the many reasons I started in high school was due to the stresses of being gay.

Q2P18 I know very few lesbians that don't smoke. However, for me, it is not directly connected.

Q2P19 I know alot of lesbians who smoke, but I'm not sure if it relates in any way to being a lesbian.

Q2P20 Is not related in any discernable way

Question 3. How, if at all, may society affect your smoking?

Q3P1Not sure.

Q3P2 when your out w/ friends or having a drink it feels natural to smoke w/ friends

Q3P3 Society has changed alot since I first started smoking. I started smoking when I was 13. Back then you could smoke anywhere--no one really thought anything about it. I live in a state where there is no smoking in any buildings and you must be at least 25 feet away from a building outside to smoke. It is strickly inforced. I think it is a good thing becasue it helps me not smoke as much because I have to take the effort to find a smoking area. I have to physically walk away from my girlfriend and stand in an area while I smoke so it helps me smoke less.

Q3P4 Society tells me that smoking will keep me thin.

Q3P5 People who smoke tend to smoke to relieve stress. We all know that gays have more stress in everyday life...

Q3P6 restrictions on smoking areas

Q3P7 I think if society was completely against it I would quit.

Q3P8 Well I think that my smoking was not affected family-wise at all..B/c my eldest brother was a drug addict, who got clean...And my middle brother was a cronic ciggeratte smoker who I watched quit four times, if not more (When I was in grade school)...I think that society def makes smoking look 'cool'...it just does...They have us under their spell..idk..But I started smoking b/c of the 'coolness factor' for like a second...but then i realized wow...nicotine buzz is AMMAZZING...And that's another reason I won't smoke cronically...I like the buzz too much...I wouldn't wanna loose it.

Q3P9 Social smoking is pretty much the only time I smoke

Q3P10 It doesn't.

Q3P11 Society did not affect my smoking

Q3P12 if i'm around friends that smoke i tend to smoke more

Q3P13 it dosnt

Q3P14 I tend to smoke more socially or if I am out at a bar. If I am around smokers, I usually smoke more than normal. I notice if I'm in an establishment where smoking is not allowed, I usually do not mind not smoking and I am strongly for the banning of smoking in public places (bars, restaurants, etc)

Q3P15 disapproves of and I dont care

Q3P16 Society is in the mode of restricting smoking now. For the rebels, it make provoke them to try and smoke them anyway.

Q3P17 Not much. They just make it harder to smoke when I please.

Q3P18 The ban of smoking in public places has definitely decreased my smoking. Also, the price of cigarettes is so high that I seldom want to by them.

Q3P19 I know the "lesbian scene" makes me smoke more. Because when I'm out at clubs, that is when I smoke the most.

Q3P20 It does not

Question 4. In what situations do you feel most tempted to smoke (please name/describe at least 2)?

Q4P1 Because I only meet other lesbians in bars, it is difficult for me to stop smoking when constantly in that environment.

Q4P2 after a big meal its a must during a stesstful day at work its a must(im a server) with coffee or alcohol

Q4P3 When I am stress about something. When I am bored. If I go longer than 2 hrs without smoking I getting really anxious and become very bitchy.

Q4P4 In bars and at coffee shops.

Q4P5 When drinking or out with friends who are smoking.

Q4P6 when drinking alcohol in really stressful situations after heavy food in a round where many people smoke

Q4P7 While I am drinking and while I'm stressed out and upset.

Q4P8 I feel most tempted to smoke..Numeral One...When I'm drinking. 2..When

a large crowd of acquatinces are smoking. 3..When I am at the highest level of stress.

Q4P9 at the bar, while drinking, in crowds of other smokers

Q4P10 After eating. When I'm stressed.

Q4P11 When drinking alcohol and driving in the car

Q4P12 After a good dinner When i'm at break at work

Q4P13 I smoke mostly while at school, or while i am at social events with friends

Q4P14 When I am very stressed, smoking seems to relieve it a bit. When I am around other smokers, I sometimes smoke even though I am not in the mood for a cigarette.

Q4P15 parties, bars, alcohol consumption

Q4P16 After a meal & on a drive.

Q4P17 In the morning, after coffee and after eating. Also when I am in social situations (bars, friends house, etc) and when I'm stressed.

Q4P18 When drinking alcohol or out at a bar.

Q4P19 while at lesbian clubs while drinking

Q4P20 On the weekends After a meal

Question 5. In what situations are you most likely to smoke (please name/describe at least 2)?

Q5P1 Under stress, at bars hanging out

Q5P2 after a meal in a bar

Q5P3 When I am by myself. Or when I am with friends who smoke.

Q5P4 In bars and at coffee shops with friends.

Q5P5 Same as #4 (When drinking or out with friends who are smoking.)

Q5P6 when drinking alcohol in a round where many people smoke

Q5P7 While I am drinking and if I'm stressed out and upset.

Q5P8 1. When I'm drinking 2. If it's social

Q5P9 while drinking, with other smokers

Q5P10 After eating. When I'm stressed.

Q5P11 When I am drinking and when I drive to and from work every day

Q5P12 When i'm stressed out when i watch a movie with people smoking

Q5P13 school and bars

Q5P14 If I am at a bar around other smokers and I have been drinking, I almost definitely smoke more than usual. I almost always smoke while driving. I believe because of boredom.

Q5P15 drinking, stressed

Q5P16 After a meal & on a drive.

Q5P17 In the car and at bars.

Q5P18 When drinking alcohol with another person that smokes. I also enjoy smoking when grilling outside.

Q5P19 with other people who smoke or at bars, clubs, concerts,etc

Q5P20 In social situations with other smokers When relaxing at home

Question 6. When do you feel it is most difficult to not smoke?

Q6P1 At bars with other people.

Q6P2 when im in the car with my girlfriend

Q6P3 When I am upset about something. Or it has just been a few hours since my last smoke.

Q6P4 At work.

Q6P5 When drinking.

Q6P6 when drinking alcohol

Q6P7 While I am drinking alcohol at a bar.

Q6P8 When I'm drinking.

Q6P9 while drinking, with other smokers

Q6P10 After eating.

Q6P11 When I am drinking

Q6P12 when i first wake up

Q6P13 wheni am at school

Q6P14 When I am around others that smoke.

Q6P15 drinking alcohol

Q6P16 When the idea is implanted in my mind and I can taste the cigarette in the back fo my throat.

Q6P17 When I'm drinking.

Q6P18 When drinking.

Q6P19 while drinking

Q6P20 After a meal

Question 7. What situations do you find it easier to not smoke?

Q7P1 At home.

Q7P2 when im at home and relaxed i dont smoke in my house

Q7P3 When I am enjoying being with my girlfriend. When I am with my family. I don't want to physically walk away from them to go to a smoking area so I try to last as long as I can without smoking. Usually I try to wait so long that my family or my girlfriend will finally say, "Will you please go smoke because you are becoming a real bitch."

Q7P4 At home.

Q7P5 At home.

Q7P6 in stressful situations after heavy food (ERROR????? Did reader misinterpret- not on table==confirm with part response to question 5)

Q7P7 While I am in a resturant eating.

Q7P8 Around people that don't like it, or in a dining situation, or if I'm around family memebers that don't approve.

Q7P9 when I am with nonsmokers

Q7P10 After 7 on weekdays. My days are finished at that time.

Q7P11 When I am with my family

Q7P12 when i'm sleeping

Q7P13 around parents

Q7P14 When I am at a place where smoking is not allowed and not around smoke.

Q7P15 smoke free environment,,,being around non smokers

Q7P16 On Chantix.

Q7P17 When I'm around all non smokers and I'm busy.

Q7P18 With my partner who does not smoke. Also, when it is very cold outside, I don't want to go outside to smoke.

Q7P19 when i'm home by myself

Q7P20 During the day at work

Question 8. What, if any at all, situations associated with being lesbian contribute to smoking?

Q8P1 Depression and stress make smoking a tension-reliever.

Q8P2 none

Q8P3 I do not know of anything that tie the two together.

Q8P4 going to lesbian bars encourages smoking.

Q8P5 ?

Q8P6 none

Q8P7 I feel that there is no correlation between the two variables.

Q8P8 I have no idea...besides what I said above about the mind altering craving while I was in denial.

Q8P9 the bar scene

Q8P10 None.

Q8P11 no situations associated with being a lesbian contributed to smoking

Q8P12 None

Q8P13 i dont think there areany

Q8P14 I wouldn't blame my smoking habits on being a lesbian. I think if you are in the bar scene often that that contributes to smoking. But that is across the board with gay bars and straight bars.

Q8P15 None

Q8P16 Perhaps a level of stress...but any stress would do it, I'd think...lesbian or not.

Q8P17 Being at gay bars.

Q8P18 the bar scene

Q8P19 i'm really not sure

Q8P20 Social acceptability of smoking among lesbians

Question 9. What things do you look forward to when you have a cigarette?

Q9P1 The rush; something to do with my hands.

Q9P2 when im stressed its like a breathe of fresh air when im stuffed from eating to much i feel better afer a cig. weird i know

Q9P3 The relief that comes from smoking. It relives the physical craving. Really that is the only thing a really look forward to anymore about smoking.

Q9P4 The nicotine high.

Q9P5 Stepping away from the current situation and entering a new one.

Q9P6 relax

Q9P7 The feel of it. Even though nicotine is a stimulant, I feel it relaxes me.

Q9P8 the feel of it between my lips. the first few puffs and the nicotine buzz!

Q9P9 I don't understand

Q9P10 The taste.

Q9P11 I tend to relax

Q9P12 that i wont feel edgy anymore and i feel a bit of calmness

Q9P13 being outside

Q9P14 We go on smoke breaks at work (with straight friends, so it is my social time while I am at work.

Q9P15 the break from what i was doing...the diminshed feeling of nicotine craving

Q9P16 The feel of it...a moment to collect my thoughts

Q9P17 The social factor. Smoking with other people and having conversation.

Q9P18 that is hard to put into words. I get a craving and the cigarette satisfies that craving. I tend t

Q9P19 it calms my nerves and tastes good with alcohol

Q9P20 Supplemental relaxation

Question 10. How do cigarettes help or benefit you?

Q10P1 Stress relief.

Q10P2 im emotionally attached

Q10P3 They do not help me at all. They are like a chain around my neck. I feel like a slave to them.

Q10P4 They keep me thin.

Q10P5 ?

Q10P6 relax

Q10P7 Relaxation

Q10P8 when i'm drinking they increase my all-around buzz

Q10P9 they dont

Q10P10 Relaxes me, sometimes.

Q10P11 they do not benefit me, I just like to smoke

Q10P12 they help with my stress levels. nothing other than that

Q10P13 its like a few minutes to clear my head and re-group my thoughts

Q10P14 They help me digest sometimes. Also, if I am highly stressed, a cigarette sometimes calms me down.

Q10P15 keep me from eating more

Q10P16 Wow. I suppose they don't really. I never really thought of it that way.

Q10P17 They give me something to do when I'm bored, feeds my addiction.

Q10P18 I can't think of any direct benefits.

Q10P19 i think they help me relax in social situations, but otherwise i see no real benefit

Q10P20 relaxation

Question 11. What is it like when you can't have a cigarette (e.g., are there any changes in your thoughts, feelings, and/or behavior)?

Q11P1 Anger, anxiety

Q11P2 im frustrated, sensitive, angry, moody, shaky,

Q11P3 Oh my god yes!!!! I become very irratable and bitchy. I bit peoples heads off around me and I begin to feel really depressed and start looking at all the

negative stuff around me. All I can think about is how to get a cigarette. I get to the point where I would do anything to get a cigarette.

Q11P4 I get anxious.

Q11P5 Im not that addicted...

Q11P6 when i drink i get angry, otherwise i forget

Q11P7 I really get focused on the getting the cigarettes.

Q11P8 Well if I'm drinking, and I'm craving a cigarette, I get really disappointed as though i haven't fulfilled my entire needs...Actually I keep a Tin of chewing tobacco in my drawer in case i run out of cigarettes...So instead of driving to the store intoxicated in the middle of the night (which i've done a few times before)..i have some form of nicotine awaiting me to settle the craving.

Q11P9 Im okay with it

Q11P10 I'm antsy, anxious, and annoying.

Q11P11 I get irritated

Q11P12 I get Grouchy, mean, can concentrate,

Q11P13 no real changes

Q11P14 Not in my thoughts or feelings but I believe that sometimes when I am having a bad day (stressed) and do not have any cigarettes, I tend to get crabby or bitchy.

Q11P15 irritable, stresses

Q11P16 I get anxious.

Q11P17 Anxious

Q11P18 not really. Sometimes, I start to really think about what it would be like to have a cigarette when I don't have one but this lasts only a short while. I can typically talk myself out of one.

Q11P19 i really dont have too much of a problem. i enjoy smoking...but i dont feel like i cant live without them

Q11P20 Mood shifts; lower frustration tolerance

Questions 12. How do you overcome a craving for a cigarette when you cannot have one?

Q12P1 Think about the next time I can have one.

Q12P2 stay busy so my minds not thinking of having one

Q12P3 I pray to god to help me get through it. I try to think about other things. Then I pray some more.

Q12P4 I try not to think about it.

Q12P5 Think about something else.

Q12P6 i forget about it. eat fruit. drink water

Q12P7 I try not to think of it and get my mind off of it.

Q12P8 well either chewing tobbaco, or some other form of mind altering drug---like caffenie..or snorting a A.D.D. medication tablet (which i've only done like twice)....otherwise i just pout it out if i can't get a cigarette.

Q12P9 I think about being healthy

Q12P10 Chew gum.

Q12P11 I don't, I just wait until the time that I can have one

Q12P12 i'll have to sleep, or keep super busy to keep my mind off it

Q12P13 i dont get cravings

Q12P14 Chew gum.

Q12P15 eat or sleep

Q12P16 Gum works for a while...ice cream heals everything.

Q12P17 eat

Q12P18 Cognitive tricks to distract myself from the couple of minutes when the craving is strong. Then it dissipates itself.

Q12P19 i busy myself with something else

Q12P20 Keep busy

Question 13. When you think about smoking a cigarette but do not, what are the reasons for not doing so?

Q13P1 Because I'm in my mother's company or indoors where it isn't permitted.

Q13P2 i always smoke unless im at work and cannot

Q13P3 I do not want to have to step away from my girlfriend. I do not want to have to go outside. It is raining or cold but mainly I do not want to miss time with my girlfriend or family.

Q13P4 My health.

Q13P5 Guilt

Q13P6 don't want the taste in my mouth

Q13P7 Around my family I will not.

Q13P8 Reasons for not: Bad breath, It'll stink on my clothes, someone might

smell it on me...or, it might make me too buzzed to function on what i'm doing.

Q13P9 I'm an athlete, I don't want mouth or lung cancer.

Q13P10 I'm at work or unable to step out of a room.

Q13P11 I get busy with something else

Q13P12 i have to go outside in the cold to smoke, so i would say laziness

Q13P13 better things to do

Q13P14 I am a fairly healthy person. I am a member of weight watchers so I watch what I eat. I am fit. I like to run and work out. I am very into homeopathic medicine and natural ways of healing. So, I realize that, other than alcohol, is what's holding me back from living a completely healthy lifestyle. So, this sometimes helps me talk myself out of smoking.

Q13P15 lackof cigarettes or lack of opportunity

Q13P16 Being in place where smoking is NOT permitted.

Q13P17 inconvenient, at work

Q13P18 Not having any; too cold outside; trying to be healthy

Q13P19 i'm either at work and busy, or in class and busy

Q13P20 Do not want to smell like smoke in particular contexts

Question 14. If you wanted to temporarily abstain from smoking, what is the longest period you could go without a cigarette and how does this time period compare with the length of time you want to be able to temporarily abstain from smoking?

Q14P1 2 weeks; I'd like to go forever.

Q14P2 ive gone one day i want to for good but to attached

Q14P3 I went 2 weeks one time to try and please my girlfiend. I went crazy. I am not sure I will ever try that again. Now a days the longest I would go would be like maybe 8 hrs. Like traveling on a plane or something like that.

Q14P4 I can go about a day without smoking, but I would like to quit for good.

Q14P5 a few weeks. would like to quit

Q14P6 at least 5 days, eventually i wanna stop smoking

Q14P7 I have tried and the longest have went without is 4 hours.

Q14P8 Well I'd like to go a few months I guess...But I'm not too worried about it...b/c I only crave it when I drink...which is about, on average, 3 cigarettes a week

Q14P9 I can go two weeks right now. I'd like to actually stop

Q14P10 I can abstain for about 1 day. I'd like to quit all together though.

Q14P11 Depends on who I am with and where I am. 2 weeks if I am with my parents and not drinking. 2 hours if I am with my friends drinking. It all depends on the situation. I have never wanted to temporarily abstain from smoking

Q14P12 i went 27 days once. i didn't do it for myself. did it for my girlfriend. she dumped and have been smoking since

Q14P13 i could abstain indefinatly

Q14P14 This New Years, I stopped smoking for a few weeks, which I did pretty easily. A higher stress level at home caused me to pick it up again. Once I eliminate the stress I have in my life now (which is stressed caused from my family), I plan on quitting permanantly, which I believe will be easy due to the

high encouragement I get from my partner to quit smoking.

Q14P15 8 -10 hours...sleeping

Q14P16 12 hours

Q14P17 usually a day or two and I'd like to not smoke for weeks

Q14P18 I can go long periods of time with smoking though the craving is still there. I have gone 6 months here recently. I would like to not crave a cigarette but that I cannot control at this point.

Q14P19 i have went years at a time without smoking. i just recently started smoking again about a year ago. before then, it was about 5 years since i smoked.

Q14P20 Several days compared to fully abstaining

Question 15. If you wanted to temporarily abstain from smoking, what would be some potential challenges?

Q15P1 Social group largely smokes; we spend a lot of time in bars.

Q15P2 mood swings

Q15P3 The physical craving. The going crazy in my head. The being mean to people I love.

Q15P4 I am addicted to the nicotine in cigarettes.

Q15P5 Being at a smoky bar, drinking, being around others who are smoking.

Q15P6 drinking alcohol, partying

Q15P7 I feel that the repeation of the act would the hardest. I have such a habit of lighting a cigarette that would be the hardest challenge.

Q15P8 Having to fight the craving when I drink...and being in bars with people

who smoke.

Q15P9 going to the bar

Q15P10 Withdrawls.

Q15P11 Stress and going out

Q15P12 i would have to join a gym and find something to do during my breaks at work that doesn't involve smoking

Q15P13 none

Q15P14 That I would want a cigarette.

Q15P15 irritability

Q15P16 See above [previous response was, “12 hours”]. I'd like to be able to take them or leave them...or get to a point where I could smoke once per day.

Q15P17 coffee and drinking

Q15P18 others around me smoking, drinking alcohol

Q15P19 trying to not smoke when i'm out at a club

Q15P20 Dealing with the time period for mood to adjust to a normal state

Question 16. If you wanted to quit smoking, how successful would you be?

Q16P1 Right now? Not very.

Q16P2 not without help

Q16P3 I feel that it would have to come to a point where the desire to stop would have to be greater that the desire to smoke. I am a recovery drug addict and I know from that experince that I have to hit some pretty low bottoms before the desire to stop will take hold and then I will become willing to do whatever it takes

to stop. If I hit the total surrender with the cigarettes then I could stop and I know this because I have not used any drugs or alchol for almost 5 years now.

Q16P4 Not very successful.

Q16P5 I could do it.

Q16P6 very successful

Q16P7 I haven't tried, but I feel that I will have problems. I would not be successful.

Q16P8 I'd cheat a lot.

Q16P9 well I'm working on that so 70%

Q16P10 I've tried several times. So, probably not very successful.

Q16P11Not very successful

Q16P12 right now. i wouldn't be.

Q16P13 100% sucessful

Q16P14I believe once I am able to eliminate the highly stressful things in my life, that quitting smoking will not be a challenge for me.

Q16P15 i have not been in the past

Q16P16 Well, I've quit three times previously. One of these days it will stick.

Q16P17 probably not so successful right now

Q16P18 Very successful. Right now, I see nothing wrong with smoking a couple of cigarettes a week.

Q16P19 i think i could quit fairly easily. but in social situations i would find it a little hard.

Q16P20 Fair to good.

Question 17. If you wanted to quit smoking, what would be some potential challenges?

Q17P1 My stress, social anxiety disorder and depression.

Q17P2 mood

Q17P3 Going through the withdrawls. Cigaretts have been a long time friend of mine. I have smoked for 25 years. I am only 38. So most of my life I have smoked. It has become apart of me--part of my identity.

Q17P4 It would be hard to hang out with my friends, because most of them smoke.

Q17P5 same as #15 [#15 Being at a smoky bar, drinking, being around others who are smoking.)

Q17P6 drinking alcohol, partying

Q17P7 I haven't tried, but I feel that act of quitting and for the first few days would be extremely difficult.

Q17P8 Well, whenever I'd drink....I'd loose my inhibiations and goal-oriented thought process and then i'd probally smoke a cigaratte lol.

Q17P9 going to the bar

Q17P10 Withdrawls.

Q17P11 Weight gain and headaches

Q17P12 the mood swings

Q17P13 none

Q17P14 Perhaps being around others that smoke.

Q17P15 alcohol. It has alays been the downfall of a successful quit.

Q17P16 Getting to the point where I actually wanted to quit...wholeheartedly is the only challenge.

Q17P17 being around other smokers in my family

Q17P18 drinking alcohol

Q17P19 when i'm around friends it would be harder

Q17P20 Dealing with the time period for mood to adjust to a normal state

Question 18. Other than possible physical addiction, that is the most significant reason that you continue to smoke?

Q18P1 Stress.

Q18P2 emotionally attached

Q18P3 Physical addiction is the most significant reason I would say. And it being part of my identity.

Q18P4 To keep thin, and because I like the feeling it gives me.

Q18P5 I enjoy it

Q18P6 yes

Q18P7 I have no reasons.

Q18P8 My addiction to cigarettes is when I drinking...that's the only time I crave it..so I suppose that's a matter of my mind being conditioned.

Q18P9 the bar scene

Q18P10 Just the physical addictioin.

Q18P11 I like to smoke

Q18P12 it's an escape for me

Q18P13 social interaction

Q18P14 I think smoking has become something mental for me. I feel it relieves stress and I know I also have related it to "social/break time" which somewhere in my head comes off as a positive thing.

Q18P15 stress, even though I know it is not a stress reducer

Q18P16 Because I still want to. I like smoking. I like the way it feels on the back of my throat.

Q18P17 I honestly don't know. It feels good.

Q18P18 I like it.

Q18P19 it gives me something to do with my hands and helps me to relax in social situations and it takes good with a cold beer

Q18P20 Relaxation

APPENDIX G: TABLES

Themes Identified by Research Questions

Table 1

Psychosocial Influences

Reflection Question	Response Units*	Participants**
Question 1: Messages		
Affect	21	10
Concern	8	8
Anger	3	3
Disgust	3	3
Health	13	11
Norm	7	7
Not Norm	7	6
Question 2: Sexual Orientation		
Not Related	13	13
Negative Affect	4	4
Not Sure	3	3
Question 3: Societal Influences		
Socialization	5	5
Legislation	5	5
Not Related	4	4

*_Response Units_ refers to the number of content units associated with each theme in the participants' responses. More than one response unit could have come from a participant's response to one reflection question.

**The number under _Participants_ represents the number of participants in the sample that responded with messages associated with each theme.

Table 2

Situational Influences

Reflection Question	Response Units	Participants
Question 4: Most Tempted		
Alcohol	12	12
Negative Affect	8	8
Food	6	6
Proximity to Smokers	5	5
Coffee	3	3
Time Intervals	3	3
Question 5: Most Likely		
Alcohol	14	14
Proximity to Smokers	10	10
Negative Affect	5	5
Car	3	3
Food	3	3

Table 2 (continued)

Situational Influences

Reflection Question	Response Units	Participants
Question 6: Difficult to Not		
Alcohol	11	11
Question 7: Easier to Abstain		
With Someone	8	8
Not Possible	7	7
Home	5	5
Question 8: Sexual Orientation		
No Relationship	10	10
Bar Scene	4	4
Negative Affect	3	3
Not Sure	3	3

Table 3

Outcome Expectancies

Reflection Question	Response Units	Participants
Question 9: Effects		
Physical Sensations	9	7
Nicotine High	3	3
Feel	4	4
Negative Affect	7	7

Table 3 (continued)

Outcome Expectancies

Reflection Question	Response Units	Participants
Physical Relief	4	4
Cognitive Enhancement	3	3
Question 10: Benefits		
Negative Affect	9	9
No Benefits	5	5
Weight and Digestion	3	3
Question 11: Not Smoking Outcomes		
Negative Affect	11	11
No Effect	5	5
Cognitive Changes	4	4

Table 4

Coping Strategies

Reflection Question	Response Units	Participants
Question 12: Means to Overcome Cravings		
Cognitive	12	11
Distraction	9	9
Replacement	3	3
Behavioral	7	6

Question 13: Not Smoking, Despite Desire		
Not Possible	9	9
Smoking Banned	5	5
No Opportunity	4	4
Immediate, Unwanted Consequences	5	5
Values and Identity	4	4
With Someone	3	3
Weather	3	3

Table 5

Self-Efficacy

Reflection Question	Response Units	Participants
Question 14: Longest Period without Smoking		
Permanent Cessation	13	13
Hours to Days	4	4
Up to Two Weeks	6	6
Once a Month or More	3	3
Temporary Abstinence	4	4
Question 15: Temporary Abstinence Challenges		
Alcohol	8	8
Proximity to Smokers	5	5
Negative Affect	5	5
Nicotine Addiction	3	3

Question 16: Cessation Confidence		
Not Very	10	10
Optimistic about Success	6	6
Fair to Good	4	4
Question 17: Cessation Challenges		
Alcohol	6	6
Proximity to Smokers	5	5
Negative Affect	4	4

Table 6

Most Significant Reason

Reflection Question	Response Units	Participants
Question 18: Most Significant Reason		
Negative Affect	7	7
Enjoyment	7	7
Socialization	3	3
Alcohol	3	3

APPENDIX H: AU IRB

1. Informational Consent

INFORMATION LETTER
for a Research Study entitled
"Smoking among Lesbians"

You are invited to participate in a research study to examine influences to smoking among lesbians. This study is being conducted by Erin Aholt, BA, under the direction of Jamie Carney, PhD, in the Auburn University Department of Counselor Education, Counseling Psychology, and School Psychology. You are eligible to participate in this study if you identify as a lesbian, are age 19 or older, and smoke cigarettes.

If you choose to participate in this research study, you will be asked to answer a series of online, reflection questions. The questions pertain to your thoughts about your motivations for smoking. It is estimated that this process should not take longer than 30 minutes.

A possible risk associated with your participation in this study includes the potential to feel discomfort from an increased awareness about your smoking. It is anticipated that this risk is not beyond what you may experience on a daily basis. If you are feeling discomfort, keep in mind that you may withdraw from the study at any time. Possible benefits associated your participation in this study include a greater self-understanding of issues related to motivations for smoking and, possibly, a positive reaction to having volunteered to contribute to health promotion among lesbians. We cannot promise you that you will experience such benefits.

Your participation in this study is completely voluntary. All results from this study are anonymous, and the researcher will be unable to identify participants through their responses. Please understand that you can withdraw from the study at any time during completion of the reflection responses. Reflection responses can not be withdrawn from the study after they have been submitted because responses are anonymous. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University or the Department of Counseling Education, Counseling Psychology, & School Psychology.

Any data obtained in connection with this study will remain anonymous. Protectection of your privacy and the data you provide will be done through use of SSL encryption software for the online survey. This software is commonly used for sites requiring transmission of secure information. Information collected through your participation will be used to meet the researcher's dissertation requirement and, possibly, published in a professional journal and/or presented at a professional meeting.

If you have questions about this study, contact Erin Aholt, BA, or Jamie Carney, PhD, at (334) 844-5160. If you have questions about your rights as a research participant, you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334) 844-5960 or email at hsubjec@auburn.edu or IRBChair@auburn.edu.

Having read the information above, you must decide if you want to participate in this research project. If you decide to participate, please click the "Next" icon below to access the survey questions. If you decide to participate, the data you provide will serve as your agreement to do so. You may print a copy of this letter to keep.

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