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# GENDER DIFFERENCES IN CIGARETTE SMOKING: THE RELATIONSHIP BETWEEN SOCIAL PERCEPTIONS OF CIGARETTE SMOKERS AND SMOKING PREVALENCE

BY

# JUHEE WOO

# A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE

IN

SOCIOLOGY: HUMAN SERVICES PLANNING AND ADMINISTRATION

MINNESOTA STATE UNIVERSITY, MANKATO

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### i

# **ACKNOWLEDGMENTS**

Coming from a different country (South Korea), I experienced cultural differences while studying in the United States. Above all, what I found most interesting was differences between female college students in the U.S and in South Korea. Because I barely saw a woman freely smoking cigarettes in an open place in South Korea, I was quite shocked to see female students smoking cigarettes on campus. This cultural experience prompted me to study gendered cigarette smoking across countries. I would have not completed this research without help and support from many people. First, I would like to thank Dr. Diane Graham and Dr. Vicki Hunter for guiding me in the right direction and helping me to deepen my insight. I also would like to thank Dr. Paul Prew and Mr. Sang-Bong, Choi for giving me permission to carry out the survey with the students in the U.S and South Korea. Lastly, I appreciate my family, friends, and colleagues for their support. This thesis is dedicated to my mom, who has encouraged me to earn my Master's degree.

# **ABSTRACT**

Gender Differences in Cigarette Smoking: the Relationship between Social Perceptions of Cigarette Smokers and Smoking Prevalence
Juhee Woo, M.S., Minnesota State University, Mankato, Minnesota, 2012

This research is a descriptive study of gender differences in cigarette smoking. By comparing U.S college students with Korean college students, the researcher seeks to examine if there is a relationship between the extent of gender difference in social perceptions of cigarette smokers and the extent of gender difference in smoking prevalence. Results show that female smokers are more negatively evaluated than male smokers in both countries but the gender differences are greater in the Korean sample than the U.S sample. Likewise, the gender differences in smoking prevalence are greater in the Korean sample than the U.S sample. Consequently, this study finds a relationship between the extent of gender difference in social perceptions of cigarette smokers and the extent of gender difference in smoking prevalence.

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## INTRODUCTION

Many researchers have studied cigarette smoking in relation to their disciplines (such as health science, psychology, and sociology) so the subjects of studies about smoking are diverse. For example, researchers in the health science field studied smoking cessation and treatment (e.g., Keane and Coverdale 2011; Lawrence, Mitrou and Zubrick 2011; Coups et al. 2009) while others focused on studying adolescent smoking with regard to parental factors (e.g., Ringlever et al. 2011; van Zundert and Engels 2009; den Exter Blokland et al. 2007), smoking for weight control (e.g., Fiissel and Lafreniere 2006), or the linkage between smoking and depression (e.g., Audrain-McGovern et al. 2011; Malpass & Higgs 2009).

Some sociological studies in the United States and other western countries related cigarette smoking to gender differences by examining social images of male and female smokers (e.g., Nichter et al. 2006; Cooper and Kohn 1989; Eikind 1985) and smoking prevalence and behaviors of men and women (e.g., Gilbert 2007; Mermelstein 1999). However, none of these studies examined the potential relationship between the two, differences in social images of male and female smokers, and differences in smoking prevalence and behaviors of men and women. Thus, this study investigates how different social perceptions of male and female smokers are associated with differences in smoking prevalence between men and women.

Some researchers in Asian countries (South Korea, China, Taiwan, and Vietnam) also brought attention to gender differences in relation to cigarette smoking by examining

smoking prevalence or smoking frequency of both men and women in their populations. Those studies attributed the gender differences in smoking to traditional gender roles embodied in their society, but none of these studies verified their argument (e.g., Chung, Lim and Lee 2010; Lee et al. 2009; Mao et al. 2009; Tsai et al. 2008; Morrow et al. 2002).

When findings from the studies in Asian countries are compared to the studies in the United States, it seems that there is a greater gender difference in smoking prevalence and smoking frequency within the Asian population than the U.S population (Centers for Disease Control and Prevention 2010; National Center for Health Statistics 2008; Van Volkom 2008). Even though the criteria for the comparison between Asian countries and the United States in terms of smoking prevalence and smoking frequency are not presented (such as different year of study conducted, different sample characteristics, or different definition of a smoker), it is assumed that Asian countries and the United States show a different extent of gender differences in cigarette smoking.

This study compares the U.S population with one Asian population, South Korea, to examine the dimensions of gender differences in each country in terms of both social perceptions of a cigarette smoker and smoking prevalence. By comparing data from each country, the study examines the association between the extent of differences in social perceptions of male and female smokers and the extent of differences in smoking prevalence between men and women. This study will help to better understand gender differences relating to cigarette smoking in both Western and Asian populations, as well as how the different social perceptions of male and female smokers are related to different smoking prevalence between men and women in general.

# Research Question and Hypothesis

First, this study examines the difference in social perceptions between male and female smokers in two countries, the United States and South Korea. The researcher only focuses on negative social perceptions of both male and female smokers. Next, the study examines the difference in smoking prevalence between men and women in both countries. By comparing the results from the U.S and the Korean sample, the researcher tests the hypothesis of this study: there is a relationship between the extent of gender difference in social perceptions of cigarette smokers and the extent of gender difference in smoking prevalence. That is, the difference in social perceptions between male and female smokers is greater in South Korea as compared to the United States. In addition, with a greater difference in social perceptions between male and female smokers in South Korea, there is a greater difference in smoking prevalence between men and women in South Korea than the United States.

## REVIEW OF RELATED LITERATURE

Social Perceptions of Cigarette Smoking

Jenks (1992) conducted research with a sample of American adults who answered questionnaires relevant to cigarette smoking. The questions included three areas: risk, perceptions of their or others' smoking, and satisfaction with life and health. A total of 479 respondents in a metropolitan area of approximately one million people were randomly selected from a telephone directory. Cigarette smokers completed a questionnaire relevant to their own smoking; ex-smokers (defined as those who had stopped smoking at least six months before the study) were asked about their past smoking behaviors; and nonsmokers indicated their own views on why people smoke. Responses for the eight items relating to smoking (relaxation, weight control, physically addictive, psychologically addictive, pleasant activity, dirty habit, easy to quit, will lead major health problems) were provided based on a 5-point continuum, ranging from totally agree (1) to totally disagree (5).

Mean scores for the three groups on the eight items were analyzed by using an analysis of variance (ANOVA). Significant differences were found on all eight items among the three groups. Aside from the other two groups, nonsmokers were most likely to see relaxation and weight control as reasons for smoking, and they perceived smoking as more of a pleasant activity than the other two groups. Interestingly, smokers were most likely to regard smoking as both psychologically and physically addictive, as a dirty habit, and as leading to major health problems. Lastly, ex-smokers were least likely to agree

that it is physically and psychologically addictive. Jenk (1992) showed that not only non-smokers, but smokers also negatively viewed cigarette smoking and in some ways (addictiveness, dirty habit, health problem), smokers tended to consider cigarette smoking more negatively than non-smokers.

Murphy-Hoefer, Alder, and Higbee (2004) also conducted research to examine how college students perceive the risks of cigarette smoking and addiction to nicotine. Data were collected through a self-administered survey of 1,020 college students enrolled in two four-year liberal arts colleges in the United States. The respondents were divided into three groups, non-smokers (those who had not smoked a cigarette in the past 30 days), occasional smokers (those who had smoked cigarettes in 1-19 of the past 30 days), and frequent smokers (those who had smoked cigarettes in 20 or more days out of the past 30 days).

Smokers and nonsmokers differed in their perceptions about the health risks associated with smoking. When college students were asked the question, "Do you think people risk harming themselves if they smoke from 1-5 cigarettes every day?" 81% of nonsmokers responded with "definitely yes," while 64% of occasional smokers and 56% of frequent smokers answered the same. With the question, "Do you think people risk harming themselves if they only smoke on a weekend or a couple of days a week?" 59% of nonsmokers answered "definitely yes," whereas 28% of occasional smokers and 36% of frequent smokers agreed with it. Lastly, with the question asking about the addictiveness of tobacco use, 89% of non-smokers and 84% of both occasional and frequent smokers said "definitely yes" (Murphy-Hoefer et al. 2004:373).

Murphy-Hoefer et al. (2004) indicated that college students considered regular cigarette smoking addictive and harmful to their health. The researchers also showed that smokers, compared to non-smokers, tended to undervalue the health consequences associated with cigarette use. This result seems contrary to Jenks' (1992) finding that smokers were more aware of problems resulting from cigarette smoking than nonsmokers. However, the different findings of these two studies could be explained by the different age groups of their samples. Jenks (1992) studied adult smokers in the United States, whereas Murphy-Hoefer et al. (2004) focused on college students in the United States, which implies that smokers in younger generations may be less concerned about their health risks.

Social Perceptions of Smokers versus Nonsmokers

Dermer and Jacobsen (1986) conducted experiments with college students in the midwest area to examine first impressions of both smokers and nonsmokers. They randomly assigned a photograph of a college student who was neither extremely attractive nor unattractive to the participants. The participants were asked to carefully examine the photograph and record their first reactions by placing check marks anywhere along a series of rating scales. Some individuals in the photographs were holding a cigarette and the others were not. Also, after completing the survey, participants were asked to indicate whether or not they regularly smoked cigarettes.

Dermer and Jacobsen (1986) found that individuals photographed with a cigarette were evaluated more negatively than individuals without one; the cigarette smokers were rated to be less considerate, calm, disciplined, honest, healthy, well-

mannered, and happy than the counterparts. In addition, the effect of smoking material depended on the individual's sex, such that females were more negatively evaluated when smoking than males. In addition, smoking typically reduced the positivity of evaluations, regardless of whether the participants smoke. Dermer and Jacobsen (1986) assumed that the unfavorable effects of cigarette smoking might be due to health education that describes smoking as unhealthy, unclean, and unattractive.

The study of Dermer and Jacobsen (1986) represented negative social perceptions toward cigarette smoking in late 1970s and early 1980s. It seems that the negativity toward cigarette smoking has not much changed since then. Seiter et al. (2010) examined nonsmoker college students' perceptions of smokers and nonsmokers. For the study, 245 undergraduate students (107 men, 135 women, and three who failed to report their sex) were recruited from introductory communication courses at a large Western university in spring of 2007. The students viewed photographs of smoking or nonsmoking models and then rated the models' credibility, homophily, attractiveness, likeability, considerateness, cleanliness, and healthiness. Four undergraduate students (two men and two women) volunteered to serve as models in the photographs. The two photos of each model were identical, except that the model held a cigarette in one photo and no cigarette in the other.

Seiter et al. (2010) found that being viewed as a cigarette smoker damaged people's images. With the exception of two dimensions of credibility (extroversion and composure), smokers compared to nonsmokers were rated less favorably on every variable examined in this study. The most outstanding results of this study were perceptions of attractiveness and likeability. Although previous studies (e.g., Gibson and

Maurer 2000; Amsbary et al. 1994) argued that smokers were rated no differently in terms of attractiveness and likeability, this study found that smokers were rated significantly lower than nonsmokers on these two variables. Thus, Seiter et al. (2010) stated that perceptions of smokers had become increasingly negative, based on the comparison between previous studies and their own. The researchers also attributed the increasing negative perceptions toward cigarette smokers to the increasing public awareness that smokers' behaviors are dangerous not only to the smokers, but also to those who are exposed to secondhand smoke.

Social Perceptions of Cigarette Smokers

Cooper and Kohn (1989) conducted research with 229 community college students in Canada to understand the social image of young female smokers. Those participants read a brief narrative about a young female college student and rated her based on 14 bipolar scales. Half of the participants read a narrative in which the young female college student smoked and the other half read one in which she did not.

Consequently, those college students rated the young female college student less positively for social attractiveness (e.g., masculinity versus femininity, health, and success as a student) and personal resourcefulness (e.g., wisdom, self-discipline, sophistication and gentleness) when she was presented as a smoker. To be specific, the subjects rated the young female college student who smoked as more masculine, less feminine, less healthy, a poorer student, less wise, less self-disciplined, less sophisticated, and less gentle. Cooper and Kohn (1989) pointed out the fact that many cigarette advertisements portrayed female smokers as self-confident, independent, sociable,

elegant, and feminine. However, what they found was different; the social images of female smokers were rather negative, like the previous subjects viewed female smokers as being unhealthy, foolish, tough, unladylike, and a poor student, and for younger subjects, trying to act older. The research, however, only applied to college students in Canada in the late 1980's.

Eikind (1985) studied the social image of female smokers through the view of young women in the United States. The sample was female student teachers at a college of higher education and female nurses in training at a school of nursing. Sixty-nine nurses and 38 student teachers, a total of 107 individuals, completed a questionnaire, and all the nurses and 36 student teachers were interviewed later on. According to the data analysis, 43% of the participants thought the impression given by a girl who smoked was negative, while 18% thought the impression had both positive and negative aspects. On the other hand, 35% thought that smoking made no difference in the impression and 5% answered "I don't know."

Eikind (1985) had a second questionnaire completed by 66 nurses and 28 student teachers, and the result presented more specific images of female smokers and non-smokers. The participants were given the identical list of 24 descriptive words and asked to pick ones that applied for 'girls who smoke' and 'girls who don't smoke.' 'Girls who smoke' were described mostly as unladylike, common, rough, liberated and cheap girls while girls 'who don't smoke' were described as feminine, intelligent, attractive, confident and well-behaved. Non-smoking participants were more likely to describe 'girls who smoke' with negative characteristics than smoking participants.

The result of the second questionnaire suggested that smoking and non-smoking participants had different views about the images of female smokers. Eikind (1985) argued that non-smokers' view of female smokers was based on the older cultural stereotype, which saw smoking as a male-oriented behavior, and thus considered smoking as unacceptable for women, while smokers saw women smoking as symbolic of social change and greater independence of women. In conclusion, both studies in Canada and in the United States represent negative social perceptions of female smokers in the 1980s.

Some women in the United States (mostly female smokers) believed there were positive aspects about women smoking, like liberated behavior, but it seemed that general social perceptions of women smoking were negative; unfeminine or unladylike.

Gender Difference in Social Perceptions of Cigarette Smokers

While the studies of Cooper and Kohn (1989) and Eikind (1985) paid attention to social perceptions of female smokers and presented how they were viewed compared to female nonsmokers, Nichter et al. (2006) studied social perceptions of both male and female young adult smokers and found gender differences. They explored gendered dimensions of smoking among U.S college freshmen through both qualitative (interviews and focus groups) and quantitative data (survey). The quantitative data was drawn from a questionnaire with 912 freshmen students who had smoked one or more puffs of a cigarette in his or her life time. Qualitative data came from in-depth interviews and focus groups with those who smoked most of their cigarettes at parties and those who smoked at parties but also smoked occasionally during the week.

Qualitative data analysis presented that smoking among women was viewed

negatively from both male and female students. The majority of male students showed the perception of female smoking as a "big turn off." One male smoker mentioned "I really think it's trashy. I wouldn't want to be seen with a girl who smokes even though I'm a smoker. I know it's a double standard but that's how I feel" and he added "women were just expected to have more control of themselves" (Nichter et al. 2006:224). Even young women who smoked at parties commented about women smoking as "just not as cool for a girl to smoke as a guy," "looks really trashy," "it's slutty," "looks unladylike," "it makes you look like you're not classy," and "uncontrolled" (Nichter et al. 2006:224). The negative images of female smokers seemed particularly true if they were seen smoking alone at a party or smoking too many cigarettes. On the other hand, comments about male smoking at parties by both male and female students were mostly positive, such as "looking masculine or manly," "looking like a rough guy," and "giving off a bad boy image" (Nichter et al. 2006:225).

Furthermore, from narrative data, the researchers found that female students felt the need to manage their public identities more than male students (Nichter et al. 2006). While both male and female students talked about appropriate behaviors for women, there was not discourse about appropriate behaviors for men. Nichter et al. (2006) related this issue to the popular notion that when girls publicly engaged in excess, for instance multiple sex partners or drinking too much alcohol, it would harm their reputation, whereas males were expected to engage in excessive behaviors and were rarely stigmatized. It is related to the statement of several female students that they would monitor each other and tell their girlfriends to stop smoking as it could harm their images.

Also, the female students avoided negative perceptions toward themselves by smoking as a group to divert attention from being seen as a smoker (Nichter et al. 2006). Interestingly, however, quantitative analysis found that there was not a significant difference between men and women regarding smoking prevalence and behaviors. For example, data indicated no difference in rates of party smoking; no difference in mean number of cigarettes smoked a day; and no difference in the percent of cigarettes smoked alone between male and female students (Nichter et al. 2006).

In sum, the analysis of the qualitative data indicated that both male and female students considered female smoking as inappropriate and viewed female smokers as slutty, trashy, and out of control, while they viewed male smokers in positive ways, such as masculine, manly, tough, relaxed, and in control. Although there were differences in social perceptions toward male and female smokers the analysis of the quantitative data indicated that smoking prevalence and smoking behaviors between men and women had no differences.

Different Smoking Behaviors between Men and Women

Gilbert (2007) studied young women's practice of cigarette smoking through semi-structured in-depth interviews with a volunteer sample of 20 female smokers, aged 18 to 24 in Australia. She showed that female smokers in Australia had a distinct way of smoking as compared to male smokers. For instance, the female smokers chose cigarettes which were designed specifically for women. Those cigarettes for women were mostly slim and long with light colors to make the cigarettes look 'feminine.' Cigarette brand choice was affected not only by the color of the cigarette, but also by the color of the

cigarette packet; packets that were either gold or white or a combination of white and gold were reported as appealing. Furthermore, there was a gender-appropriate way for smoking, like how to hold and ash the cigarette. In terms of ashing, women were supposed to lightly touch the end of the cigarette with their index finger and tap downwards on the cigarette to ash, while men would flick the end of the cigarette with their thumb.

Many of those female smokers in Australia were reluctant to smoke like other male smokers do because they did not want to appear as masculine or unattractive.

Gender-specific smoking styles, such as smoking certain cigarette brands and holding and ashing cigarettes in certain ways, presented that people utilized smoking as a means of representing their gender identity. When these female smokers did not conform to the gendered smoking behaviors, they were regarded as unattractive.

Smoking Prevalence in the United States

Even though the analysis of qualitative data (e.g., Gilbert 2007; Nichter et al. 2006) indicated that there were different smoking behaviors between men and women in Western countries, such as the United States and Australia, the results of surveys indicated that there was not a big difference between men and women in terms of smoking prevalence or smoking frequency in the United States. According to the Behavioral Risk Factor Surveillance System Survey Data (BRFSS) by Centers for Disease Control and Prevention, 19.1% of men and 15.1% of women were cigarette smokers in the United States. The cigarette smokers were the adults who reported that they currently smoked every day or some days. Data was collected through an ongoing,

state-based, and random-digit-dialed telephone survey of adults aged 18 years and older in 2010. Furthermore, the data was analyzed based on each state. It presented that South Carolina had the biggest gap between men and women in smoking prevalence (8.2%) while Pennsylvania had the smallest gap (0.1%). On the other hand, Missouri was the only state that had more female smokers than male smokers; the smoking rate of women was 21.4% and the smoking rate of men was 20.7%.

Comparing with the National Health Interview Survey in 2008 by National Center for Health Statistics, the smoking rate among adults in the United States has declined. The 2008 data indicated that 23.1% of men and 18.3% of women were cigarette smokers in the United States. When analyzed by race, among whites, 23.5% of men and 20.6% of women smoked; among blacks, 25.6% of men and 17.8% of women smoked; among Hispanics, 20.7% of men and 10.7% of women smoked; 9.9% of Asian adults smoked; and 24.3% of American Indian/Alaska Native adults smoked. This survey showed that more men were cigarette smokers than women although the gender difference in smoking prevalence differed across races.

Gender Difference in Smoking in East Asian Countries

Unlike the United States, researchers in Asian countries found that there was a significant difference between men and women when it came to smoking prevalence. Tsai et al. (2008) conducted a cross-sectional study through survey with randomly selected sample (827 adult men and 90 adult women smokers in Taiwan) to examine gender differences in smoking in the population. They found that a much larger percent of men reported smoking than women; the overall prevalence of smoking was nine times higher

among men than women. However, the gap was rapidly decreasing because the smoking rate among younger women had dramatically increased. In addition, men smoked significantly more cigarettes per day than women. For example, men smoked 18 cigarettes, whereas women smoked 11 cigarettes per day on average. This is clearly different with the finding of a study with U.S college students that smoking frequency was unrelated to gender (Van Volkom 2008).

Taiwanese women who reported smoking stated that they started smoking around 20 years old, much later than their Western counterparts (Tsai et al. 2008). Specifically, Van Volkom (2008) showed that both men and women smokers in U.S colleges mostly started smoking in high school. Taiwanese women tended to start smoking to control weight and relieve stress, and this coincided with the findings in western countries (Tsai et al. 2008). More women than men in Taiwan believed smoking was disadvantageous and the greatest disadvantages they mentioned were negative impression and image, poor health, and the likelihood of lung cancer. Based on the findings, it is argued that the lower smoking rate and frequency of female smokers in Taiwan partially depends on the negative social images attached to them.

On the other hand, Morrow et al. (2002) studied young women's views of male and female cigarette smoking and gender differences in smoking in Vietnam. They maintained that smoking in Vietnam is strongly gendered as elsewhere in Asia by pointing out the result of the national smoking prevalence survey in 1997; half of males but just 3.4% of females smoked regularly. For their study, a survey was completed by young female students (n=1018) and factory workers (n=1002) in Ho Chi Minh City,

which is Vietnam's larger metropolis. The age ranged from 15 to 24 years old (a mean age of 20) in both groups. Morrow et al. (2002) asked if participants had ever tried smoking (at least one puff) first, and then whether they smoked either 'occasionally', 'almost every day', or not at all. Respondents were classified as smokers if they answered yes to the first, and to either the second (occasionally) or the third question (almost every day).

The results indicated that 6.3% of the sample was smokers (5.2% occasional, 1.1% daily or almost daily) and 20% of the sample had tried smoking. There were statistically significant differences between workers and students (p<0.001), with the workers reporting greater levels of smoking. They were also asked to select any number of categories from a list to identify their feelings when seeing males and females smoking. The most popular choice relevant to female smokers were loose morals, whereas they chose neutral aspects for male smoking. They were also asked to select from a list of reasons to explain why most women do not smoke. Of the total sample, 76% chose social disapproval (no group differences) while only 20% picked health concern as the reason (significantly higher among students, p<0.001). The participants attributed female non-smoking to its inappropriateness while they viewed male smoking as normative.

A study of cigarette smoking in Chinese population also indicated greater gender differences in Asian countries. Mao et al. (2009) studied smoking among Chinese college students through self-administered questionnaires completed by 1874 students from 19 college campuses in Jiangsu province, China. The authors found that there was a significant gender difference in smoking prevalence; 70% male and 31% female students

reported having smoked in their lifetime, and 49% male and 5% female students reported having smoked in the past 30 days. In terms of the perceived benefit of smoking, there was also a significant gender difference in responses; more male students than female students believed that smoking would be beneficial in several aspects of their lives, such as helping with social interaction and making youth look more mature (Mao et al. 2009). In general, students had a low level of pro-smoking attitudes, but there was a significant gender difference in responses; male students had a higher level of pro-smoking attitudes than female students.

Mao et al. (2009) claimed that smoking in China had been historically a male-dominated behavior thus only few women smoked. The result of this study confirmed previous findings in different smoking prevalence between male and female college students in China. The 1996 China National Tobacco Survey reported that 18.47% of male college students smoked while 0.75% of female college students smoked. Based on the comparison between those two studies, it is found that smoking rates of both male and female college students have increased over last 10 years. Also, regardless of the time difference, there still is a significant gender difference in smoking prevalence.

Gender Difference in Cigarette Smoking in South Korea

Studies of cigarette smoking in other Asian populations help to understand smokers in South Korea, because their socio-cultural environments are very similar to one another. The Korean society is against smoking in general because of its damage to health. However, the negative social attitudes towards smoking apply to women more than men, based on the ideology of Confucianism embedded in Korean society (Chung,

Lim, and Lee 2010). For women, especially married women in South Korea, smoking is considered an unacceptable behavior, because people are influenced by the Confucian belief that women should serve their families, including husbands and children (Chung et al. 2010). Since married women are more likely to be pregnant than unmarried women, their smoking behavior is discouraged by family members for the health of the unborn child as well as the mother (Chung et al. 2010). As a result, both men and women in South Korea tend to quit smoking as they get married, but women are expected to quit smoking more than men because of the Korea-specific kinship system influenced by Confucianism (Chung et al. 2010).

According to Korean national survey datasets (KNSO 2008), the male smoking prevalence was about 10 times as high as that of females in 2007. In general, more men tend to smoke than women, even though the extent of difference varies across countries (Chung et al. 2010). European countries and the United States have relatively small differences in smoking prevalence, while South Korea and India report big differences. According to the data from Organization for Economic Cooperation and Development (2007), the smoking rate of Korean women was the lowest among developed countries. This is likely due to cultural definitions of gender in South Korea that imposes more negative images upon women smokers than men smokers (Chung et al. 2010). However, the recent increase in smoking rates of never-married, separated, widowed and divorced Korean women seems to contribute to the growing smoking rate of Korean women (Chung et al. 2010). On the other hand, the study of Taiwanese smokers attributed the increase in the female smoking rate to the opening of the tobacco market to foreign

cigarette companies and the tobacco industry's intentional targeting of women, along with changes in women's roles in East Asian society (Tsai et al. 2008).

While studies indicated that men had much higher self-reported smoking rates than women in South Korea, the validity of those studies was questioned because of the harsh attitude toward female smokers in South Korea (Lee et al. 2009). That is, female smokers in South Korea are likely to have underreported their smoking to a greater extent than men. Lee et al. (2009) conducted cross-sectional research with 322 Korean university students including 201 men and 121 women who participated in an annual health examination at the university health center. The participants completed a questionnaire asking about their smoking status along with the health examination that involved a nicotine level check. They were, however, not informed about the nicotine level check because awareness of the intention of the research would have influenced their responses. The analysis of the consistency of self-reporting and nicotine level check indicated that female college students underreported their smoking. According to the selfreporting, only 2.5% of female students smoked, but the urine test disclosed 15.7% of female students smoked. Compared to female students, there was a relatively small difference between the urine test results and self-reports among male students; 20.4% of male students smoked according to the urine test, and self-reports presented 15.5% male students smoked.

In conclusion, previous studies showed that the rate of female smokers in Asian countries was less than male smokers and that the frequency of smoking was also less among female smokers compared to male smokers. Even though both Western and Asian

countries symbolize smoking as a masculine activity, and thus have more negative attitudes toward female smokers, the studies of the United States and South Korea presented a different extent of gender difference in smoking prevalence and frequency. Regardless of the more negative social perceptions toward female smokers in the United States, a similar percentage of women with men were cigarette smokers, whereas substantially fewer women smoked cigarettes than men in South Korea. Although the result of self-reports of Korean female smokers was not valid, it should be noted that underreporting of smoking among Korean women also suggests greater gender differences in social perceptions toward smokers in Korean society.

Theory: "Doing Difference"

West and Zimmerman (1987) developed the theory of "doing gender," which postulated that people perform their gender, either masculinity or femininity. In societies, certain norms are constructed that are consistent with masculine displays versus feminine displays, and people are expected to practice the norms according to their gender. Performing their gender, either masculinity or femininity means that people accept and practice the norms that a society has formed. When one's behavior is in discord with the socially expected gender norms, he or she may be evaluated negatively because they do not conform to the social norms.

Smoking a cigarette has been more acceptable for men than women, thus men were able to smoke a cigarette freely while women smokers had to bear the damage to their social images (Nichter et al. 2006; Cooper and Kohn 1989; Eikind 1985). The social perception of cigarette smoking as a masculine activity makes it more difficult for women

smokers to achieve positive gender evaluations from others. Also, the feminine ways of cigarette smoking by women smokers demonstrate that women still perform their gender even if they rejected the traditional gender norms and engage in masculine activities.

The theory of "doing gender" by West and Zimmerman (1987) concentrated on gender differences as a mechanism that created social inequality. However, it did not explain how race, class, and other identities were related to producing greater social inequality when combined with gender. As a result, West and Fenstermaker (2005) introduced the theory of "doing difference" which combined gender, race, and class together and conceptualized them as differences that affect everyday human interactions. West and Fenstermaker (2005) argued that people experience gender, race, class, and other different social identities, which may be stressed or muted depending on the situation, in everyday life. In other words, even within the same gender, people experience different extents of social inequality based on their race, class, and other identities.

Likewise, perceptions of women smokers are different for women of different cultural backgrounds. Women in the United States would perform their gender differently than women in South Korea, because each country varies in the ways that gender is conceived. The reason why less women report smoking cigarettes in South Korea than in the United States may be because Korean society holds harsher attitudes toward female smokers than U.S society. This study examines not only gender differences in cigarette smoking in each country, the United States and South Korea, but also the extent of gender differences, based on different cultural definitions of masculinity and femininity.

Therefore, the theory of "doing difference" by West and Fenstermaker (2005) provides a fitting framework for this study.

Summary of Previous Studies

Jenk (1992) and Mulphy-Hoefer et al. (2004) studied social perceptions of cigarette smoking in the United States and found that both smokers and non-smokers were aware of the health risks of smoking. Also, Dermer and Jacobsen (1986) and Seiter et al. (2010) studied social perceptions of smokers versus nonsmokers with college students in the United States. Both studies showed that smokers were more negatively evaluated than non-smokers in their first impression. For instance, smokers were considered less considerate, calm, disciplined, honest, healthy, well-mannered, and happy (Dermer and Jacobsen 1986).

In addition, Dermer and Jacobsen (1986) found that female smokers were more disadvantaged than male smokers in the evaluation of first impressions. It indicated that there was a gender difference in social perceptions of cigarette smokers in the United States although both male and female smokers were more negatively viewed than nonsmokers in general. Some researchers focused on female smokers; how they were perceived compared to female nonsmokers (e.g., Cooper and Kohn 1989; Eikind 1985). These studies supported the idea that female smokers were more negatively viewed than female nonsmokers, such as unhealthy, unladylike, rough, more masculine and less feminine, and less physically attractive.

Nichter et al. (2006) studied both social perceptions of cigarette smokers and their smoking behaviors. While smoking among women was considered inappropriate,

thus female smokers were viewed in negative ways, male smokers were portrayed in positive ways, such as masculine, manly, tough, relaxed, and in control. In terms of smoking behaviors, Nichter et al. (2006) argued that girls were reluctant to smoke too many cigarettes, monitored each other to stop excessive smoking, and smoked in a group to mitigate the image of an individual smoker. Their findings coincided with Gilbert's (2007) findings that female smokers had gender-specific smoking styles, such as smoking certain cigarette brands and holding and ashing cigarettes in certain ways. However, the analysis of the quantitative data (party smoking rates, the number of cigarettes smoked a day, the percent of smoking alone) showed that there was not a significant difference between men and women in smoking behaviors (Nichter et al. 2006).

On the other hand, there were several studies in Asian countries that showed gender differences in cigarette smoking: Taiwan (Tsai et al. 2008), Vietnam (Morrow et al. 2002), China (Mao et al. 2009), and South Korea (Chung, Lim, and Lee 2010; Lee et al. 2009). These studies presented an evident difference in smoking prevalence and smoking frequency between men and women in Asian countries and attributed the difference to traditional gender norms in their culture.

Previous studies both in Western and Asian countries limited their findings to either gender differences in social perceptions of cigarette smokers or gender differences in smoking prevalence and smoking behaviors. Even though some researchers sought to examine gender differences in both the social perception of smokers and smoking prevalence and behaviors (e.g., Nichter et al. 2006; Morrow et al. 2002) they did not find the relationship between them.

# PROCEDURES AND METHOD

Sample

A convenience sample of college students was recruited from a university in each country, the United States and South Korea. About 200 students taking general education courses were the targeted sample in each university because most freshmen take general education courses regardless of their major. Since both countries legislate over 18 year olds as eligible for purchasing cigarettes, students younger than 18 years were excluded from the sample. Students older than 28 years were excluded as well, because this research only focused on young adults. In addition, since the researcher compared U.S college students with Korean college students in their social perceptions of cigarette smokers and smoking prevalence, international students in each country were excluded.

In the United States, 276 students taking Introduction to Sociology in a university in Minnesota participated in the research. After excluding 5 international students and 12 students who were younger than 18 or older than 28, a total of 259 students remained as the U.S sample. Among the 259 students, 48.3% (125) was male students and 51.4% (133) was female students, and there was one student who did not identify sex. The sample consisted of freshmen 51.7% (134), sophomore 35.9% (93), junior 9.3% (24), and senior 3.1% (8). Regarding race, 85.7% (222) of the sample was Caucasian, 7.7% (20) was African American, 0.8% (2) was Hispanic, 1.9% (5) was Asian, and 3.9% (10) was others. The average age of the sample was 19.2 years old.

In South Korea, 207 students taking Writing and Speaking at a university in

Daegu participated in the research. One international student and one student older than 28 were excluded from the sample, as a result, a total of 205 students remained as the Korean sample. Among the Korean sample, 53.2% (109) was male students and 46.8% (96) was female students. The Korean sample consisted of freshmen 55.6% (114), sophomore 22.4% (46), junior 12.2% (25), and seniors 9.8% (20). The average age of the Korean sample was 20.26 years old.

# Data Collection

The access to the sample was permitted by the instructors in each university. The procedure of data collection was the same in both countries except that the data from the Korean sample was collected by an assistant researcher in South Korea. Prior to administration of the survey, the researchers explained the purpose of the study and informed students that their responses on the survey will be analyzed without identification. The researchers also noted that the survey was anonymous, thus confidential. The students were also notified that participating in the survey was voluntary and they can stop the survey anytime they feel uncomfortable or skip questions. With the given information, students decided whether to participate in the research or not, and by completing the survey, the participants provided informed consent.

The college students in each country that agreed to participate in the research completed a self-administered questionnaire. The questionnaire consisted of 14 closed-ended questions, and took about 10 minutes to complete. The researchers were present in the classrooms during the survey in order to answer questions regarding the questionnaire. The questionnaire for both the U.S and the Korean sample was identical, except that the

questionnaire for the Korean sample was written in the Korean language. In addition, one demographic question about race was exempt in the questionnaire for the Korean sample, because South Korea is a single-race nation.

## **Variables**

One variable, social perceptions of cigarette smokers, was examined by two concepts: physical appearance and social appeal. The first concept, physical appearance, was based on six items: healthiness, cleanness, considerateness, self-discipline, wisdom, and sociability. Respondents were asked to choose where their position lied on a scale between two bipolar adjectives for each item (a. healthy vs. unhealthy, b. clean vs. dirty, c. considerate vs. inconsiderate, d. self-disciplined vs. indulgent, e. wise vs. unwise, f. sociable vs. unsociable) for both male and female college students smoking a cigarette (see appendix survey question 6 and 7).

The second concept, social appeal, was operationalized as a willingness to be friends with a cigarette smoker (both male and female cigarette smokers) and a willingness to date a cigarette smoker. For the willingness to be friends with a cigarette smoker, respondents were asked the question, "What do you think about being friends with a male college student who smokes a cigarette?" and they were asked to choose one from five response options (a. I do not want to be friends with a male smoker, b. I do not mind being friends with a male smoker but I prefer being friends with a male nonsmoker, c. whether he is a smoker or not does not matter at all, d. I do not mind being friends with a male nonsmoker, but I prefer being friends with a male smoker, e. I want to be friends only with a male smoker). The same question about a female college student who smokes

a cigarette was also asked (see question 8 and 9).

For the willingness to date a cigarette smoker, respondents were asked the question, "What do you think about dating someone who smokes a cigarette?" and five response options (a. I would not date a smoker, b. I do not mind dating a smoker but I prefer a nonsmoker, c. whether someone smokes a cigarette or not does not matter at all, d. I do not mind dating a nonsmoker but I prefer a smoker, e. I would date only a smoker) were given (see question 10). The following question was "In question 10, did you answer about dating a male smoker or a female smoker?" and it was asked to clarify the sex of their dating partner (see question 11).

The second variable, smoking prevalence, was examined by the smoking status of the respondents. The question, "Have you smoked a cigarette at least once a week for the past three months?" was asked with two response options, "Yes" and "No." Those who answered with "No" were considered as nonsmokers, and those who answered with "Yes" were considered as smokers and were asked additional questions about their smoking behaviors (see question 12).

For descriptive purposes, smoking behaviors of the smokers were examined with two concepts: extent of smoking and openness of smoking. The extent of smoking was operationalzed as the number of cigarettes smoked per week. The question, "How many cigarettes do you smoke a week?" was asked and five response options (a. 1 to 5, b. 6 to 10, c. 11 to 15, d. 16 to 20, e. more than 20) were given (see question 13). The openness of smoking was operationalzed as the frequency of public smoking. The question, "How often do you smoke in public (such as in the street or in front of buildings)?" was asked

and four response options (a. never, b. I rarely smoke in public, c. I smoke in public most of the time I smoke, d. every time I smoke) were given (see question 14).

Demographic variables, sex (male and female), race (Caucasian, African American, Hispanic, Asian, and Others), year in school (freshmen, sophomore, junior, and senior), whether an international student or not, and age, were also asked for descriptive purposes.

# Analysis

The first variable, social perceptions of cigarette smokers, was defined by two concepts: physical appearance and social appeal. For the physical appearance of cigarette smokers, respondents rated both male and female smokers on a scale with seven divisions (-3, -2, -1, 0, 1, 2, 3) between a pair of bipolar adjectives for six items (healthiness, cleanness, considerateness, self-discipline, wisdom, and sociability). The average score by the respondents in each item was calculated for both male and female smokers. The difference between male and female smokers in each average score presented the gender difference in the physical appearance of cigarette smokers.

Next, the social appeal of cigarette smokers was measured as a willingness to be friends with a cigarette smoker and a willingness to date a cigarette smoker. For the willingness to be friends with a cigarette smoker, respondents were asked what they think about being friends with a male smoker and being friends with a female smoker with five balanced response options (two negative, one neutral, two positive). The percentage of respondents who answered with one of the two negative responses (I do not want to be friends with a (fe)male smoker, I do not mind being friends with a (fe)male smoker but I

prefer a (fe)male nonsmoker) were calculated for both male and female smokers, and the percentage of the negative responses for male and female smokers was compared for the gender difference in the social appeal (friendship) of cigarette smokers.

For the willingness to date a cigarette smoker, respondents were asked what they think about dating someone who smokes a cigarette with five balanced response options (two negative, one neutral, two positive). The respondents were divided into two groups (those who answered about a male smoker and those who answered about a female smoker) based on their answer on survey question 11, "About question 10, did you answer about a male smoker or a female smoker?" The percentage of respondents who answered with one of the two negative responses ("I would not date a cigarette smoker" and "I do not mind dating a smoker but I prefer a nonsmoker") about a male smoker was calculated for the analysis of social appeal (dating) of male smokers. The same about a female smoker was calculated for the analysis of social appeal (dating) of female smokers. The purpose of analyzing social appeal (dating) of male and female smokers based on the respondents' dating partner was to include both heterosexual and homosexual respondents. The difference between male and female smokers in the percentage of negative responses presented the gender difference in the social appeal (dating) of cigarette smokers.

The second variable, smoking prevalence, was measured by the percentage of smokers in all respondents, based on their answer to the question about smoking status (smoker vs. nonsmoker). For the gender difference in smoking prevalence, the respondents were divided into two groups based on their sex (male and female). The

percentage of smokers in male students and the percentage of smokers in female students were calculated respectively and compared with each other. The difference between the two (male smokers vs. female smokers) presented the gender difference in smoking prevalence.

Smoking behaviors were described by the responses of those who were identified as a smoker. The smokers were divided into two groups based on their sex (male smokers and female smokers). For the number of cigarettes smoked a week, the number of respondents for each response option (1 to 5, 6 to 10, 11- 15, 16 to 20, and more than 20) was reported, and the results were compared by sex. For the frequency of smoking, the number of respondents for each response option (never, I rarely smoke in public, I smoke in public most of the time I smoke, and every time I smoke) was reported, and the results were compared by sex as well.

The two variables, the gender difference in social perceptions of cigarette smokers (physical appearance and social appeal) and the gender difference in smoking prevalence, were analyzed in the two countries (the United States and South Korea). To find the relationship between the two variables, the results for the two variables in the United States were compared to the results in South Korea.

# Limitations

This study had several limitations. First, the study had a convenience sample of college students from one general education course in the university in each country (the United States and South Korea). Since the focus of the study was young adults, the age of the targeted sample ranged from 18 to 28. However, the findings of this study cannot be

applied to young adults in the United States and South Korea, because the sample was college students, which excluded young adults who were not in college. The sample also cannot be generalized to all college students in each country, or even to all students in each university, because the sample was not chosen at random. Findings from this study will only explain perceptions of cigarette smokers, smoking prevalence, and smoking behaviors of the sample.

Initially, the researcher intended to find the relationship between the extent of difference in social perceptions of male and female smokers and the extent of difference in smoking prevalence and behaviors between male and female students. However, the sample size of female smokers in South Korea for the variable, smoking behavior, was expected to be too small to statistically analyze. For instance, suppose that the sample for the Korean population is 200 college students, and half of the sample is 100 female students. According to the previous finding, only 2.5% of Korean female students self-reported as a smoker, thus the researcher is expected to have only 2 or 3 female students who admit to being a cigarette smoker (2.5% of 100 female students) for the analysis of smoking behavior. For this reason, the extent of gender difference in smoking behavior was excluded from the research question. However, students who were identified as a cigarette smoker were asked questions about their smoking behaviors, and their responses were discussed.

In regard to self-reports of smoking, the possibility of underreporting among Korean female students was another issue. As Lee at al. (2009) found Korean female college students underreported their smoking, female students in this study also might

have underreported their smoking despite the notice the survey is anonymous thus their responses are kept confidential.

#### **RESULTS**

Social Perceptions of Cigarette Smokers: Physical Appearance

The U.S sample presented negative perceptions of cigarette smokers in physical appearance. Both male and female smokers received negative scores in the six items (healthiness, cleanness, considerateness, self-discipline, wisdom, and sociability) except the male smoker on the item, sociability (see table 1). The average score in the perception of sociability for the male smoker was positive (0.13) whereas the average score for the female smoker was negative (-0.20). Although both male and female smokers were evaluated negatively in their physical appearance, the female smoker received lower scores than the male smoker in all the six items. The largest mean difference between male and female smokers was on cleanness with a 0.37 difference (male smoker: -1.18, female smoker: -1.55), and the smallest mean difference between the male and the female smoker was on consideration with a 0.15 difference (male smoker: -0.96, female smoker: -1.11).

The Korean sample also presented negative perceptions of cigarette smokers in physical appearance. Like the U.S results, both male and female smokers received negative scores on all six items except one item, sociability (see table 1-1). For sociability, the average score of the male smoker was 0.22, whereas the average score of a female smoker was -0.44. In all six items, the female smoker received lower scores than the male smoker. The largest mean difference between male and female smokers was on sociability with a 0.66 difference (male smoker: 0.22, female smoker: -0.44) and the

smallest mean difference between male and female smokers was on consideration with a 0.17 difference (male smoker: -1.23, female smoker: -1.40). The smallest difference between male and female smokers on consideration coincided with the results from the U.S sample.

The difference between male and female smokers in the average score of six items for physical appearance was greater in the Korean sample than the U.S sample, except one item, cleanness. The U.S sample presented a greater difference between male and female smokers in the average score of cleanness than the Korean sample (the U.S: 0.37 difference, Korea: 0.29 difference).

Social Perceptions of Cigarette Smokers: Social Appeal (Friendship)

For a friendship with a male smoker, 45.2% of the U.S sample negatively responded (see table 2). Among the 45.2%, 6.6% answered with "I do not want to be friends with a male smoker" and 38.6% answered with "I do not mind being friends with a male smoker but I prefer being friends with a male nonsmoker." For a friendship with a female smoker, 54.1% of the U.S sample negatively responded (see table 3). Among the 54.1%, 9.7% answered with "I do not want to be friends with a female smoker" and 44.4% answered with "I do not mind being friends with a female smoker but I prefer being friends with a female nonsmoker." That is, more people negatively responded to being friends with a female smoker than being friends with a male smoker (8.9% difference).

The Korean sample also showed more negative responses on a friendship with a female smoker than a friendship with a male smoker (18.5% difference). About 44% of the sample negatively responded to being friends with a male smoker while 62.4% of the

sample negatively responded to being friends with a female smoker. Among the 44% of the sample who negatively answered about a friendship with a male smoker, 7.3% answered with "I do not want to be friends with a male smoker" and 36.6% answered with "I do not mind being friends with a male smoker but I prefer being friends with a male nonsmoker" (see table 2-1). For a friendship with a female smoker, 23.9% answered with "I do not want to be friends with a female smoker" and 38.5% answered with "I do not mind being friends with a female smoker but I prefer being friends with a female nonsmoker" (see table 3-1).

The difference between male and female smokers on the negative responses was greater in the Korean sample than the U.S sample (Korea: 18.5% difference, the U.S: 8.9% difference). In both countries, more people answered with less negative opinion about being friends with a smoker than a strong negative opinion. In other words, there were more people who answered with "I do not mind being friends with a (fe)male smoker but I prefer being friends with a (fe)male nonsmoker" than people who answered with "I do not want to be friends with a (fe)male smoker."

Social Perceptions of Cigarette Smokers: Social Appeal (Dating)

Overall perceptions of dating a cigarette smoker were negative in the United States (see table 4). Among the U.S sample (n=259), 85.3% negatively responded to dating a cigarette smoker, and this was greater compared to the percentage of negative response on a friendship with a smoker (friendship with a male smoker: 45.2%, friendship with a female smoker: 54.1%). Among the negative responses, there were more people who were strongly against dating a smoker than people with a less negative

opinion. About 57% said "I would not date a smoker" and 28.6% said "I do not mind dating a smoker but I prefer a nonsmoker." Among those who chose a male as their dating partner (n=131), negative responses on dating a cigarette smoker was 86.3% (see table 5). About 50% said "I would not date a smoker" and about 37% said "I do not mind dating a smoker but I prefer a nonsmoker." Among those who chose a female as their dating partner (n=124), negative responses on dating a cigarette smoker was 84.7% (see table 6). About 64% said "I would not date a smoker" and 21% said "I do not mind dating a smoker but I prefer a nonsmoker." The difference between male and female smokers on the percentage of negative responses about dating was only 1.6% (male smoker: 86.3% - female smoker: 84.7%), and it was less than the difference between male and female smokers on friendship (8.9% difference) among the U.S sample. Although the difference was small (1.6%), more people negatively responded to dating a male smoker than dating a female smoker. This result contradicts to the assumption of this study; people would have more negative perceptions of female smokers than male smokers.

In South Korea, 82.4% of the sample (n=205) negatively responded to dating a cigarette smoker (see table 4-1). Like the U.S sample, more people negatively responded to dating a smoker than a friendship with a smoker in South Korea (friends with a male smoker: 43.9%, friends with a female smoker 62.4%). Among those who chose a male for their dating partner (n=95), 86.3% negatively answered about dating a male smoker (see table 5-1). About 24% said, "I would not date a smoker" and about 62.1% said, "I do not mind dating a smoker but I prefer a nonsmoker." Among those who chose a female for their dating partner (n=110), 79.1% negatively answered about dating a female smoker

(see table 6-1). About 45% said, "I would not date a smoker" and 34.5% said, "I do not mind dating a smoker but I prefer a nonsmoker." The difference between male and female smokers on the percentage of negative responses was 7.2% (male smoker: 86.3% - female smoker: 79.1%) and it was less than the difference between male and female smokers on friendship (18.5% difference) among the Korean sample. When compared to the U.S sample, the Korean sample showed a greater gender difference in the percentage of negative responses about dating a smoker (Korea: 7.2% difference, the U.S: 1.6% difference). More people negatively responded to dating a male smoker than dating a female smoker, and this result coincided with the U.S result.

## Smoking Prevalence

In the U.S sample, 21.6% of male students (27 students) were cigarette smokers and 17.3% of female students (23 students) were cigarette smokers (see table 7). The difference between male and female smokers was 4.3% (male smoker 21.6% - female smoker 17.3%) and the difference was not statistically significant. On the other hand, 37% of male students (40 students) were cigarette smokers and only 3.1% of the female students (3 students) were cigarette smokers in the Korean sample (see table 7-1). The difference between male and female smokers was 33.9% (male smoker 37% - female smoker 3.1%), and the difference was statistically significant. Thus, the gender difference in the percentage of smoking prevalence was greater in the Korean sample than the U.S sample (Korea: 33.9% difference, the U.S: 4.3% difference).

### Smoking Behaviors

A total of 50 students (19.4%) were identified as cigarette smokers in the U.S

sample (male 27, female 23). For the number of cigarettes smoked per week among male smokers, 12 students answered with 1 to 5 cigarettes, 2 students with 6 to 10 cigarettes, 2 students with 11 to 15 cigarettes, 1 student with 16 to 20 cigarettes, and 10 students with more than 20 cigarettes. It seemed that most male smokers in the sample smoked either a small number of cigarettes (1 to 5) or more than one packet a week. Among male smokers, in regards of public smoking, 3 students said they never smoked in a public place, 8 students "rarely", 13 students said "most of the time," and 3 students said "every time." Most male smokers chose either "rarely" or "most of the time" rather than "never" or "every time." For the number of cigarettes smoked a week among female smokers, 12 students answered with 1 to 5 cigarettes, 2 students with 6 to 10 cigarettes, 1 student with 11 to 15 cigarettes, 2 students with 16 to 20 cigarettes, and 6 students with more than 20 cigarettes. For female smokers, 1 to 5 cigarettes a week was chosen the most. With public smoking, 2 students said they never smoked in a public place, 10 students "rarely," 8 students "most of the time," and 3 students "every time." Like male smokers, most female smokers also chose "rarely" or "most of the time" when it came to public smoking.

In the Korean sample, a total of 43 students (21.1%) were identified as cigarette smokers (male 40, female 3). Being questioned with the number of cigarettes smoked a week among male smokers, 3 students answered with 1 to 5 cigarettes, 3 students with 6 to 10 cigarettes, 1 student with 11 to 15, 4 students with 16 to 20, and 29 students with more than 20 cigarettes. "More than 20" cigarettes a week was the most common answer among male smokers in South Korea. Among male smokers, 4 students said they never smoked in a public place, 22 students "rarely", 11 students "most of the time," and 3

students "every time." Compared to male smokers in South Korea, there were only 3 female students who smoked. One of the 3 female smokers did not answer about her smoking behaviors. The rest two female smokers answered the same to both questions; they smoked 6 to 10 cigarettes a week and rarely smoked in a public place.

#### **DISCUSSION**

This research intended to examine if there is a relationship between the extent of gender difference in social perceptions of cigarette smokers and the extent of gender difference in smoking prevalence by comparing two countries, the United States and South Korea. In other words, the researcher wanted to see if a greater gender difference in social perceptions of cigarette smokers was related with a greater gender difference in smoking prevalence. The researcher hypothesized that there will be a greater gender difference in smoking prevalence in South Korea than the United States, thus there will be a greater gender difference in social perceptions of cigarette smokers in South Korea than the United States as well.

Smoking Prevalence

As the researcher supposed, there was a greater gender difference in smoking prevalence among Korean college students than U.S college students. About the same number of male and female college students were cigarette smokers in the United States, whereas fewer female students were cigarette smokers compared to male students in South Korea. Compared to the college students in the United States, more male students and fewer female students smoked cigarettes in South Korea.

Social Perceptions of Cigarette Smokers: Physical Appearance

Both male and female cigarette smokers were evaluated negatively in terms of healthiness, cleanness, consideration, self-discipline, and wisdom in both countries, the United States and South Korea. In addition, a female smoker was more negatively

evaluated than a male smoker in the five items in both countries. On the item, sociability, a male smoker received a positive score whereas a female smoker received a negative score in both countries. It showed that college students in both countries perceived male and female smokers differently when it came to sociability. While a female smoker was considered somewhat unsociable, a male smoker was considered somewhat sociable. In all items except cleanness (healthiness, consideration, self-discipline, wisdom, and sociability), the difference between male and female smokers in physical appearance was greater in the Korean sample than the U.S sample.

Social Perceptions of Cigarette Smokers: Social Appeal (Friendship)

In both countries, more people were negative about being friends with a female smoker than a male smoker. Also, of the negative responses about being friends with male and female smokers, more people said "I do not mind being friends with a (fe)male smoker but I prefer being friends with a nonsmoker" than "I do not want to be friends with a (fe)male smoker" in both countries. Thus, more people were less negative about a friendship with a smoker than strongly against it. The difference between male and female smokers in the negative responses of social appeal (friendship) was greater in the Korean sample than the U.S sample as well.

Social Perceptions of Cigarette Smokers: Social Appeal (Dating)

Compared to the perceptions about being friends with a smoker, more people were negative about dating a smoker in both countries. That is, some people may be okay with their friends' smoking but not okay with their dating partner's smoking. There was only a 1.6% gender difference in the negative perceptions of dating a smoker in the U.S

sample, and as compared to the U.S sample, a little bigger gender difference (7.2%) in the Korean sample. The gender difference in dating a smoker was smaller than the gender difference in a friendship with a smoker in both countries. It seems that people are negative about their partner's smoking regardless of gender, in general. Although the gender difference in the negative perceptions of dating a smoker was small (1.6% difference in the U.S sample and 7.2% difference in the Korean sample), more people negatively responded to dating a male smoker than dating a female smoker in both countries. It may seem contradicting to the assumption of this study; more people would have negative perceptions of a female smoker than a male smoker. However, when looking at the percentage of each of the negative response, more people were strongly against dating a female smoker than a male smoker in both countries. To be specific, in the Korean sample, most of the negative responses about dating a male smoker were the less negative opinion, "I do not mind dating a smoker but prefer a nonsmoker," while more people chose the strong opinion, "I would not date a smoker," than the less negative opinion about dating a female smoker. The percentage of the total negative responses on dating a smoker may be slightly larger when the smoker was male, but when comparing the percentage of the strong negative response between male and female smokers, more people were strongly against dating a female smoker than dating a male smoker (see table 5-1 and 6-1). In both countries, more people chose the strong opinion, "I would not date a smoker," in regards to a female smoker than a male smoker, and the gender difference in the strong opinion was greater in South Korea. This may help to understand the greater gender difference in smoking prevalence among the Korean sample.

In conclusion, this study among college students in the United States and South Korea revealed that the magnitude of gender differences in terms of social perceptions of cigarette smokers and smoking prevalence varied between the two countries. There was a greater gender difference in smoking prevalence among Korean college students than U.S. college students. Likewise, there was a greater gender difference in social perceptions of cigarette smokers among Korean college students than U.S college students. In most aspects of the physical appearance and social appeal (friendship and dating) of cigarette smokers, college students in both countries perceived a female smoker more negatively than a male smoker, and the magnitude of the gender differences was greater among Korean college students. Thus, the greater gender difference in smoking prevalence among Korean college students could be explained by their greater gender difference in social perceptions of cigarette smokers. Consequently, this study verified that there is a relationship between the extent of gender difference in social perceptions of cigarette smokers and the extent of gender difference in smoking prevalence. Although gender differences in this study were not statistically analyzed the results indicated how U.S and Korean college students differently perceived a cigarette smoker according to gender; how many of male and female college students were cigarette smokers in both countries; and how great the gender difference was in terms of the social perceptions of cigarette smokers and the smoking prevalence in both countries. Further research could focus on finding if there is a statistical significance on the relationship between gender and social perceptions of cigarette smokers in each country and how the strength of the relationship varies across countries.

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Table1: Average Scores for Physical Appearance of a Smoker (U.S Sample)

	Male (N)	Female (N)	Difference
Healthiness	-1.7588 (257)	-1.9300 (257)	0.1712
Cleanness	-1.1804 (255)	-1.5469 (256)	0.3665
Consideration	9608 (255)	-1.1098 (255)	0.1490
Self-Discipline	7765 (255)	945 (255)	0.1686
Wisdom	-1.2717 (254)	-1.5333 (255)	0.2616
Sociability	.1333 (255)	1953 (256)	0.3286

Table 1-1: Average Scores for Physical Appearance of a Smoker (Korean Sample)

	M ale	Female	Difference
Healthiness	-1.2878	-1.6927	0.4049
Cleanness	9610	-1.2537	0.2927
Consideration	-1.2341	-1.4049	0.1708
Self-Discipline	8439	-1.3805	0.5366
Wisdom	7610	-1.2146	0.4536
Sociability	.2195	4439	0.6634

N=205 for both male female smokers.

Table 2: Friendship with a Male Smoker (U.S Sample)

	Frequency	Percent	Cumulative Percent
A	17	6.6	6.6
В	100	38.6	45.2
С	134	51.7	96.9
No Response	8	3.1	100.0
Total	259	100.0	

a: I do not want to be friends with a male smoker

Table 3: Friendship with a Female Smoker (U.S Sample)

	Frequency	Percent	Cumulative Percent
a	25	9.7	9.7
b	115	44.4	54.1
с	111	42.9	96.9
d	2	.8	97.7
No Response	6	2.3	100.0
Total	259	100.0	

b: I do not mind being friends with a male smoker but I prefer a male nonsmoker c: Whether he is a cigarette smoker or not does not matter at all

a: I do not want to be friends with a female smoker
 b: I do not mind being friends with a female smoker but I prefer a female nonsmoker

c: Whether she is a cigarette smoker or not does not matter at all

d: I do not mind being friends with a female nonsmoker but I prefer a female smoker

Table 2-1: Friendship with a Male Smoker (Korean Sample)

	Frequency	Percent	Cumulative Percent
a	15	7.3	7.3
b	75	36.6	43.9
c	112	54.6	98.5
d	2	1.0	99.5
No Response	1	.5	100.0
Total	205	100.0	

a: I do not want to be friends with a male smoker

Table 3-1: Friendship with a Female Smoker (Korean Sample)

	Frequency	Percent	Cumulative Percent
a	49	23.9	23.9
b	79	38.5	62.4
c	74	36.1	98.5
d	1	.5	99.0
No Response	2	1.0	100.0
Total	205	100.0	

a: I do not want to be friends with a female smoker

b: I do not mind being friends with a male smoker but I prefer a male nonsmoker

c: Whether he is a cigarette smoker or not does not matter at all

d: I do not mind being friends with a male nonsmoker but I prefer a male smoker

b: I do not mind being friends with a female smoker but I prefer a female nonsmoker

c: Whether she is a cigarette smoker or not does not matter

d: I do not mind being friends with a female nonsmoker but I prefer a female smoker

Table 4: General Perceptions of Dating a Smoker (U.S Sample)

	Frequency	Percent	Cumulative Percent
a	147	56.8	56.8
b	74	28.6	85.3
С	34	13.1	98.5
d	2	.8	99.2
No Response	2	.8	100.0
Total	259	100.0	

- a: I would not date a cigarette smoker
- b: I do not mind dating a smoker but I prefer a nonsmoker
- c: Whether someone smokes a cigarette or not does not matter at all
- d: I do not mind dating a nonsmoker but I prefer a smoker

Table 5: Dating a Male Smoker (U.S Sample)

	Frequency	Percent	Cumulative Percent
a	65	49.6	49.6
b	48	36.6	86.3
c	18	13.7	100.0
Total	131	100.0	

- a: I would not date a cigarette smoker
- b: I do not mind dating a smoker but I prefer a nonsmoker
- c: Whether someone smokes a cigarette or not does not matter at all

Table 6: Dating a Female Smoker (U.S Sample)

	Frequency	Percent	Cumulative Percent
a	79	63.7	63.7
b	26	21.0	84.7
c	15	12.1	96.8
d	2	1.6	98.4
No Response	2	1.6	100.0
Total	124	100.0	

- a: I would not date a cigarette smoker
- b: I do not mind dating a smoker but I prefer a nonsmoker
- c: Whether someone smokes a cigarette or not does not matter at all
- d: I do not mind dating a nonsmoker but I prefer a smoker

**Table 4-1: General Perceptions of Dating a Smoker (Korean Sample)** 

	Frequency	Percent	Cumulative Percent
a	72	35.1	35.1
b	97	47.3	82.4
С	35	17.1	99.5
No Response	1	.5	100.0
Total	205	100.0	

a: I would not date a cigarette smoker

Table 5-1: Dating a Male Smoker (Korean Sample)

	Frequency	Percent	Cumulative Percent
a	23	24.2	24.2
b	59	62.1	86.3
С	12	12.6	98.9
No Response	1	1.1	100.0
Total	95	100.0	

a: I would not date a cigarette smoker

Table 6-1: Dating a Female Smoker (Korean Sample)

	Frequency	Percent	Cumulative Percent
a	49	44.5	44.5
b	38	34.5	79.1
С	23	20.9	100.0
Total	110	100.0	

a: I would not date a cigarette smoker

b: I do not mind dating a smoker but I prefer a nonsmoker

c: Whether someone smokes a cigarette or not does not matter at all

b: I do not mind dating a smoker but I prefer a nonsmoker

c: Whether someone smokes a cigarette or not does not matter at all

b: I do not mind dating a smoker but I prefer a nonsmoker

c: Whether someone smokes a cigarette or not does not matter at all

Table 7: Sex \* Smoking Status Cross Tabulation (U.S Sample)

		Smoker	Total	
		Smoker	Smoker Nonsmoker	
G.	M ale	27 (21.6%)	98 (78.4%)	125 (100%)
Sex	Female	23 (17.3%)	110 (82.7%)	133 (100%)
Total		50 (19.4%)	208 (80.6%)	258 (100%)

Table 7-1: Sex \* Smoking Status Cross Tabulation (Korean Sample)

		Smokin	Total	
		Smoker	Nonsmoker	
G.	M ale	40 (37%)	68 (63%)	108 (100%)
Sex	Female	3 (3.1%)	93 (96.9%)	96 (100%)
Total		43 (21.1%)	161 (78.9%)	204 (100%)

This research is a survey of cigarette smoking. You will be asked questions about your perceptions of cigarette smokers, whether or not you are a cigarette smoker, smoking behaviors (only if you are identified as a cigarette smoker), and demographic characteristics. All of your information will be kept private. It can be viewed only by the principal investigator and student co-investigator and kept under lock in key by the principal investigator for three years. The survey takes about 15 minutes to complete.

I understand that I can contact the principal investigator, Dr. Diane Graham, at 507-389-6169 or h.graham@ mnsu.edu and the student co-investigator, Juhee Woo, at 507-779-5058 or juhee. woo@ mnsu.edu about any concerns I have about this project. I understand that I also may contact the Minnesota State University, Mankato Institutional Review Board Administrator, Dr. Barry Ries, at 507-389-2321 or barry.ries@ mnsu.edu with any questions about research with human participants at Minnesota State University, Mankato.

I understand that participation in this project is voluntary and I have the right to stop at any time. My decision whether or not to participate will not affect my relationship with Minnesota State University, Mankato. By completing this questionnaire, I agree to participate in this study and state that I am at least 18 years of age. Also, I am aware that there are no direct benefits or compensation to me as a result of my participation in this research.

I understand that none of my answers will be released and no names will be recorded. I understand that the risks of participating in this study are minimal. I understand that participating in this study will help understanding on college students' perceptions of cigarette smokers and smoking prevalence and smoking behaviors.

Please print this page for your records before continuing.

o I am at least 18 years of age

MSU IRB LOG # 371143-3 Date of MSU IRB approval: 09/06/12

# There are total 14 questions to complete. Please read each question carefully and answer all the questions. Thank you for your participation.

1) What is	your sex?			
a	Male			
b				
2) What ra	ce do you identify	yourself with	?	
a	Caucasian			
b.	African Americ	can		
c	Hispanic			
d				
e				
b c	Freshmen Sophomore Junior Senior			
4) Are you	an international s	tudent?		
a	Yes			
b				
	ear were you born?	?	Dlagge over the	
			Please specify	

PLEASE FLIPTHE PAGE FOR NEXT QUESTIONS.

6) Please rate the following six descriptive words (A through F) when you see a <u>MALE</u> college student smoking a cigarette. (Ex: In case A, the lower score denotes unhealthier, the higher score, healthier)

		-3	-2	-1	0	1	2	3	
A	Unhealthy								Healthy
В	Dirty								Clean
С	Inconsiderate								Considerate
D	Indulgent								Self-disciplined
Е	Unwise								Wise
F	Unsociable								Sociable

7) Please rate the following six descriptive words (A through F) when you see a **<u>FEMALE</u>** college student smoking a cigarette. (Ex: In case A, the lower score denotes unhealthier, the higher score, healthier)

		-3	-2	-1	0	1	2	3	
A	Unhealthy								Healthy
В	Dirty								Clean
С	Inconsiderate								Considerate
D	Indulgent								Self-disciplined
Е	Unwise								Wise
F	Unsociable								Sociable

8) What do you think about <u>being friends</u> with a <u>MALE</u> college student who smokes a cigarette?
a I do not want to be friends with a male smoker
b I do not mind being friends with a male smoker but I prefer being friends with a male nonsmoker
c Whether he is a cigarette smoker or not does not matter at all
d I do not mind being friends with a male nonsmoker but I prefer being friends with a male smoker
e I want to be friends only with a male smoker
9) What do you think about <u>being friends</u> with a <u>FEMALE</u> college student who smokes a cigarette?
a I do not want to be friends with a female smoker
b I do not mind being friends with a female smoker but I prefer being friends with a female nonsmoker
c Whether she is a cigarette smoker or not does not matter at all
d I do not mind being friends with a female nonsmoker but I prefer being friends with a female smoker
e I want to be friends only with a female smoker
10) What do you think about <u>dating someone</u> who smokes a cigarette?
a I would not date a cigarette smoker
b I do not mind dating a smoker but I prefer a nonsmoker
c Whether someone smokes a cigarette or not does not matter at all
d I do not mind dating a nonsmoker but I prefer a smoker
e I would date only a cigarette smoker
11) For question 10, did you answer about dating a male smoker or a female smoker?
a Male smoker
b Female smoker

12) Hav	e you smoked a cigarette at least once a week for the past three months?
a. Yes _	(If yes, please answer question 13 and 14)
b. No _	(If no, you have finished the survey. Thank you for your participation)
13) Hov	v many cigarettes do you smoke <u>a week</u> ?
a	1 to 5
b	6 to 10
c	11 to 15
d	16 to 20
	more than 20
14) Hov	v often do you smoke in public (such as in the street or in front of buildings)?
a	Never
b	I rarely smoke in public
	I smoke in public most of the time I smoke
	Every time I smoke