A MODEL OF LEGITIMACY AND FAIRNESS IN WORKPLACE HEALTH PROMOTION

By

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ABSTRACT

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As workplace health promotion is becoming more widely implemented, concerns about employer control over employee privacy are also growing. At the same time, concerns for fairness is also expanding as disparities between healthy and unhealthy employees are increasing. To provide implications for the successful implementation of workplace health promotion, the current study examined the role of perceived legitimacy and fairness. Specifically, among different dimensions of fairness, it focused on interactional justice, which is a communication aspect of organizational justice. Using a college student sample, the current study examined how the severity of employer control and message characteristics including informativeness and social sensitivity impact the perceptions of legitimacy and fairness of health interventions. It then examined the effects of legitimacy and fairness perceptions on the compliance intentions and organizational attractions of potential job candidates. By examining these antecedents and consequences of perceived legitimacy and fairness, the data in the current study lead to the development of a model that highlighted the importance of communication for the implementation of workplace health promotion.

DEDICATION

Wood (1998) tells a Native American legend that explains why there is a rabbit in the moon:

Rabbit has always dreamed of riding upon the moon. He jumps on the top of the highest hill, but try as he might, he cannot reach the moon. Then he asks birds both large and small to carry him, but they laugh him off. Finally Crane notices how hard Rabbit has tried to reach his dream and offers to fly him there. During a long and terrifying flight, Rabbit holds on tight to Crane's legs, so tight that Rabbit's paws become bloody and Crane's legs have stretched. They finally reach the moon and see sparkling stars and glowing planets – the scene which is even more marvelous than what Rabbit has dreamed. When Rabbit pats Crane on the head in gratitude, Crane's forehead becomes stained. To this day, Crane proudly walks on his stretched legs and wears a red headdress. And Rabbit rides across the night sky.

This dissertation is dedicated to the Crane who took the Rabbit to the moon with his great wings.

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INTRODUCTION

With the rising costs of employee health matters, workplace health promotion has become an important issue in organizations. In the United States, the economic costs of smoking is estimated to be \$193 billion per year (Adhikari, Kahende, Malarcher, Pechacek, & Tong, 2008), while the costs of obesity add up to \$147 billion annually (Finkelstein, Trogdon, Cohen, & Dietz, 2009). A large proportion of costs is lost in the workplace, in medical costs, absenteeism, presenteeism (i.e., attending work while ill; Johns, 2010), and decreased productivity. These direct and indirect costs of poor employee health have doubled during the last decade (Claxton et al., 2011; Finkelstein et al., 2009). To cope with the soaring costs, a majority of organizations in the United States are currently implementing workplace health policies and programs. As of 2000, 96% organizations in the United States had policies regulating employee smoking behavior (Emmons et al., 2000). According to a national survey (Claxton et al., 2011), 65% of small firms (three to 199 employees) and 90% of large firms (200 or more employees) in the United States are currently offering at least one health programs in their workplaces. Among the diverse areas of health interventions, smoking cessation policies and weight control programs are the most widely implemented (National Business Group on Health, 2007).

As the implementation of workplace health promotion becomes more widespread, employees concerns are also growing. Employees are concerned about employers' control over their privacy (Park, Dalsey, et al., 2011). Several lawsuits caused by firing smoking and overweight employees amplified these concerns (Deschenaux, 2010; Wieland, 2005). Concerns for legitimacy is growing as employers' control is getting increasingly personal (Goetzel &

Ozminkowski, 2000). Concerns for fairness is also expanding as disparities between healthy and unhealthy employees are increasing (Schmidt, Voigt, & Wikler, 2010). Without addressing these concerns, organizations' effort to build a healthy workforce and a healthy work environment may not be successful.

To provide theoretical and practical implications for the successful implementation of workplace health promotion, the current examined the role of perceived legitimacy and fairness. Specifically, it examined how the severity of employer control and message characteristics including informativeness and social sensitivity impact the perceptions of legitimacy and fairness of health interventions. It then examined the effects of legitimacy and fairness perceptions on the compliance intentions and organizational attractions of potential job candidates. By examining these antecedents and consequences of perceived legitimacy and fairness, the current study aimed to develop a comprehensive model that highlights the importance of communication in the implementation of workplace health promotion. This model may help organizations to attract the most qualified applicants, secure compliance from the prospective members, and ultimately, achieve a sustained competitive advantage.

LITERATURE REVIEW

Workplace Health Promotion

Workplace health promotion transcends the traditional realm of occupational health and safety. Traditional occupational health and safety focus exclusively on protection from physical, chemical, biological and ergonomic hazards. According to the World Health Organization constitution, however, health is not merely the absence of injury or disease. It is "a state of complete physical, social, and mental well-being" (World Health Organization, 2006a). Based on this comprehensive definition of health, a healthy workplace can be described as "one in which workers and managers collaborate to use a continual improvement process to protect and promote the health, safety and well-being of all workers and the sustainability of the workplace" (Burton, 2010, p. 15). Accordingly, workplace health promotion can be defined as collective effort of organizational members to improve the health and well-being of workers, the working environment, and the work organization (De Greef & Van den Broek, 2004).

To promote health in the workplace, organizations are implementing a variety of programs that aim to increase health awareness, create a supportive environment, and change health behavior. Currently offered workplace health promotion programs cover diverse areas such as smoking cessation, weight control, fitness programs, personal health coaching, classes in nutrition or healthy living, health risk awareness, hypertension control, stress management, and even employee spiritual health. The type of programs includes various interventions such as information sessions on preventative health practices and lifestyles, regular on-site health screenings, scheduling services for dental care, annual physicals and vision exams, and company-based smoking cessation support groups, to name just a few examples. While some

organizations provide health promotion programs based on voluntary participation, many organizations started to integrate health promotion into their personnel policy not only for legal compliance but also for competitive advantage and higher performance (De Greef & Van den Broek, 2004).

When successfully implemented, workplace health promotion may create benefits for both employees and employers. For individual employees, workplace health promotion leads to higher health awareness, better health, and greater job satisfaction (De Greef & Van den Broek, 2004). Increased awareness of health risks helps employees to adopt healthier lifestyles such as smoking cessation, greater fitness, and healthy nutrition (Chapman, 2001). Changes in lifestyles reduce behavioral risk factors such as smoking, alcohol use, and sedentary lifestyle, and thus enhance health indicators such as blood pressure and cholesterol level (Harris & Fries, 2001). As a consequence of improved health status, employees may become more motivated, feel more satisfied with their job, and experience improved well-being (Lowe, Schellenberg, & Shannon, 2003).

For employers, workplace health promotion produces positive economic effects by reducing an enormous amount of direct and indirect costs associated with poor employee health. According to the Kaiser Family Foundation and Health Research & Educational Trust report (Claxton et al., 2011), average annual health insurance premiums have increased by 113% during the last decade. In 2011, average employer contribution for health insurance premiums was \$4,508 for single coverage and \$10,944 for family coverage. The indirect costs are also substantial. In the United States, the productivity losses associated with personal and family health problems cost employers \$225.8 billion annually (\$1,685 per employee) (Stewart, Ricci,

Chee, & Morganstein, 2003). Absenteeism of unhealthy workers alone costs U.S. employers \$153 billion annually (\$1,142 per employee) (Witters & Agrawal, 2011).

Workplace health promotion can significantly reduce those direct and indirect costs. In the case of Johnson & Johnson, for example, an analyses of long-term effectiveness reported substantial reduction in medical care expenditure (\$224.66 per employee per year), while increasing only \$10.85 annual company expenditures per employee (Ozminkowski et al., 2002). A meta-analysis of 56 studies (Chapman, 2005) showed that workplace health promotion reduces health cost by 26.1%, sick leave absenteeism by 26.8%, and workers' compensation costs and disability management claims cost by 32.0%. Another meta-analysis of 36 studies (Kuoppala, Lamminpää, & Husman, 2008) showed that workplace health promotion increases work ability by 38% and mental well-being by 39%. The reduced health-related costs and increased productivity convert to substantial return-on-investment. Meta-analyses estimated the costbenefit ratio to range from 1:3.50 (Aldana, 2001) to 1:5.93 (Chapman, 2005). Subjective measures of perceived effectiveness corroborate the cost-benefit analyses. For improving employee health, 65% of small organizations and 74% of large organizations perceived positive effects. For reducing health care costs, 52% of small organizations and 69% of large organizations perceived positive effects (Claxton et al., 2011).

Recognizing the advantages of maintaining a healthy workforce and a healthy work environment, an increasing number of organizations across the United States and the world are adopting workplace health promotion programs. Currently in the United States, a majority of employers are providing workplace health promotion programs. A nation-wide survey by the Kaiser Family Foundation and Health Research & Educational Trust (Claxton et al., 2011) reported that 67% of employers were providing at least one workplace health promotion program

as of 2011. Large organizations with 200 or more employees were more likely to offer workplace health promotion programs (90%) than small organizations with 3 to 199 employees (65%). Most commonly offered health promotion programs were awareness programs including webbased resources for healthy living (48%) and wellness newsletters (43%), smoking cessation programs (32%), gym membership discounts or on-site exercise facilities (30%), and personal health coaching (27%), weight loss programs (29%), classes in nutrition/healthy living (29%), and others (16%).

The implementation of workplace health promotion is now a global trend. For example, the European Union has been employing a wide range of workplace health promotion strategies since the Luxembourg Declaration on Workplace Health Promotion in 1997 (De Greef & Van den Broek, 2004). In Asian countries, governments took the initiative in the adoption of workplace health promotion, as observed in the case of the Total Health Promotion plan in Japan beginning in 1988 (Muto & Yamauchi, 2001) and the Employee Health Promotion Movement in Korea in 1994 (S. Y. Park, Chae, & Jang, 2008). Supported by these government initiatives, an increasing number of organizations across the world are adopting various approaches to promote employee health and well-being (Pelletier, 2005).

Smoking in the Workplace

Of the many health issues affecting organizations, smoking is one of the major culprits of increased health-related costs. Smoking is the leading cause of preventable illness and premature deaths, increasing the risk for heart disease, stroke, emphysema, and many types of cancers. In the United States, according to the Centers for Disease Control and Prevention (Adhikari et al., 2008), smoking is responsible for about one in five deaths annually, which is 443,000 deaths per year. The smoking-related economic costs are estimated to be more than \$193 billion per year,

including \$96 billion in medical cost and \$97 billion in lost productivity. Although the smoking rate has declined over the last forty years, as of 2010, 19.3% of adults in the United States still continue to smoke. As the rate of decline is slowing down, the adult smoking rate is expected to remain 17% by 2020 (King, Dube, Kaufmann, Shaw, & Pechacek, 2011). The growing concern for smoking is not limited in the United States. Smoking is a more prevalent issue in East Asian countries, where smoking is more common. In Korea, for example, 41% of male adults in Korea still continue to smoke (Ministry for Health and Welfare, 2007). The annual social cost caused by smoking was estimated to be 6.4 billion U.S. dollars (Ji, 2003).

Due to its prevalence and detrimental impact on health, smoking imposes a substantial amount of costs on employers. A large proportion of costs are caused by absenteeism and presenteeism. Smoking employees tend to have more sick days, which imposes burdens on organizations. On average, while nonsmokers miss 4.4 days from work due to health conditions, former smokers miss 4.9 days and current smokers miss 6.7 days per year, which respectively cause \$173 and \$655 wage losses (Bunn, Stave, Downs, Alvir, & Dirani, 2006). Although sick workers may present at work, their productivity may be reduced. While nonsmokers lose 42.8 hours due to presenteeism, former smokers lose 56.0 hours and current smokers lose 76.5 hours, which respectively cause \$451 and \$1,153 wage losses, respectively (Bunn et al., 2006). Subjective assessments of productivity also report the lower performance of smoking employees: although smoking employees may argue that their performance is not compromised, peer workers and supervisors tend to evaluate the productivity of smokers significantly lower than that of non-smokers or former smokers (Halpern, Shikiar, Rentz, & Khan, 2001).

To deal with the smoking-related health costs and productivity losses, many organizations are implementing smoking cessation policies and programs. Organizations adopt

anti-smoking policies not only to comply with laws and regulations such as smoking bans in all general public places in 27 U.S. states (Americans Nonsmokers' Rights Foundation, 2012) but also to limit employees' tobacco consumption and reinforce the organizations' health emphasis. In the United States, most organizations are currently implementing workplace smoking policies. A study of 114 organizations across 16 states (Emmons et al., 2000) reported that 96% had policies regulating employee smoking behavior: 24% had a total smoking ban, 54% allowed smoking only in designated areas, and 18% allowed smoking anywhere except designated nonsmoking areas. Across the world, an increasing number of organizations are adopting strict smoking policies. For example, Samsung Electronics Inc., which is one of the largest employers in Korea, completely banned smoking in the work premises and prohibited bringing any cigarettes and lighters to the worksite. The company replaced all previously designated smoking areas with work-out areas (Lee, 2009).

Another reason to implement workplace smoking policies is to reduce environmental tobacco smoking (i.e., second-hand smoking). Smoking is a relevant health issue even for nonsmokers because of exposure to second-hand smoking may impose threats to their health (Osinubi & Slade, 2002). A review of tobacco issues at workplaces (Osinubi, Barbeau, Williams, & Sorensen, 2005) reported increasing trends of intolerance of smoking in public places and growing concerns about second-hand smoking. According to a survey of 20,000 employees in over 100 organizations in the United States (B. Thompson, Emmons, Abrams, Ockene, & Feng, 1995), more than half of the employees reported that they were bothered by second-hand smoking. About 35% of employees were bothered on a regular basis, which made their working condition unsafe and uncomfortable. This increased sensitivity to second-hand smoke exposure may lead more organizations to implement workplace smoking policies.

Workplace smoking policies generally show positive initial effects in restricting cigarette consumption and motivating employees to quit. A nationwide survey in the United States (Farkas, Gilpin, Distefan, & Pierce, 1999) reported that workplace smoking restrictions were associated with 14% higher rates of cessation attempts, 21% higher rates of successful cessation for at least six months, and 53% higher rates of light smoking instead of heavy smoking (consuming 15 or more cigarettes per day), which was significantly more effective than partial bans such as allowing smoking at designated areas. Another national sample study (Ham et al., 2011) showed that workplace smoking restrictions were associated with 24% lower rates of being a current daily smoker and 18% higher intention to quit within six months.

A workplace non-smoking policy is especially effective for reducing exposure to secondhand smoking. Hopkins et al. (2001) reported that smoking bans and restrictions can effectively reduce second-hand smoking exposure in a wide range of workplace settings. Between six months and 12 months after implementation of smoking restrictions, the exposure to secondhand smoking decreased by an average of 72% (Hopkins et al., 2001). According to the U.S. Surgeon General's Report, a workplace smoking policy is the only effective way to prevent second-hand smoke exposure in the workplace, as the exposure of nonsmokers to second-hand smoke cannot be controlled sufficiently merely by air cleaning or ventilation (U.S. Department of Health and Human Services, 2006).

In addition to smoking restriction policies, many organizations are implementing a wide variety of programs to encourage employees to quit smoking. Smoking cessation is one of the most commonly offered workplace health promotion programs (Claxton et al., 2011). The commonly offered programs include increasing awareness via newsletters, providing individual counseling, smoking cessation classes, acupuncture or hypnosis, forming internal self-help

groups, inviting external psychiatrists, reimbursing employees for the cost of smoking replacements (e.g., nicotine gums and patches), and encouraging employees to participate in local or community treatment program (Cahill, Moher, & Lancaster, 2007). By combining multiple approaches, organizations may provide comprehensive smoking cessation initiatives. For example, Novartis Pharmaceuticals Corporation and Johnson & Johnson Health Care Systems Inc. provide employees with free access to smoking cessation medication and nicotinereplacement products. The Dow Chemical Company creatively encourages employees by providing quit packs containing educational information, nicotine replacement products, a stress ball, and even cold turkey sandwiches to employees who are committed to quitting (National Business Group on Health, 2009).

To encourage participation in smoking cessation programs, many organizations offer incentives. Incentives are an element of workplace health promotion used in an attempt to reinforce behavior change with extrinsic motivations (Sofian, McAfee, Doctor, & Carson, 1994). Incentives are especially effective in encouraging participation among employees (Linnan, Sorensen, Colditz, Klar, & Emmons, 2001). Low participation rates have been identified as a primary factor that limits the success of workplace health promotion. On average, only 23% of smoking employees participate in a given workplace intervention (Glasgow, McCaul, & Fisher, 1993). To address this issue, an increasing number of organizations are incorporating financial or symbolic incentives into workplace health promotion. The financial incentives include cash payments, gift certificates, lottery tickets for a prize draw, and discounted health insurance premiums. For example, General Electric rewards up to \$750 to quit and stay off cigarettes. The incentives are commensurate with time and effort: \$100 for completion of a smoking-cessation program, \$250 for quitting within 6 months after program enrollment, and \$400 for abstinence

for an additional 6 months (Volpp et al., 2009). IBM offers health insurance premium discounts to smoking employees who agreed to participate in cessation programs (Graham, Cobb, Raymond, Sill, & Young, 2007).

Despite the various efforts to reduce smoking at workplaces, the effectiveness of those programs is not conclusive (Niaura & Abrams, 2002). Some studies suggested the positive results of smoking intervention at work. For example, Harris and Fries (2001) estimated the success rates of group smoking cessation programs to be 20–60% during the six to18 month periods. However, as De Greef and Van den Broek (2004) suggested, several methodological issues may limit the validity of the effectiveness evaluations. One methodological issue is that the implementation of smoking cessation programs is often confounded with other employee health programs. Organizations often initiate a comprehensive health promotion package and smoking cessation programs are included as a part of it. Another issue is that it is difficult to establish a causal relationship. In some cases, the causality may be reversed (Gunderson, 2002). For instance, if smoking cessation programs may show a positive correlation with productivity, it may mean that organizations that are already productive are more likely to afford health initiatives. Additionally, the health benefits of smoking cessation programs are difficult to measure or quantify. The effectiveness studies are often based on a narrow measure of productivity outcome such as health care costs and absenteeism (Dugdill & Springett, 2001; Lowe, 2003). Finally, in most studies, the period of observation is often too short to examine the long-term benefits of workplace smoking cessation programs (De Greef & Van den Broek, 2004; Dugdill & Springett, 2001). The long-term observations draw a pessimistic view of the sustainable health behavior change. In a meta-analysis of recent 19 controlled interventions (Smedslund, Fisher, Boles, & Lichtenstein, 2004), the initial effectiveness of workplace smoking

cessation interventions decreased over time and was found to be almost non-existent beyond 12 months.

Obesity in the Workplace

Another major health issue that is plaguing workplace is obesity. The detrimental health effects of obesity are compounded with its prevalence. Obesity is a leading cause of coronary heart diseases, type 2 diabetes, certain forms of cancer (e.g., endometrial, breast, prostate, and colon), hypertension, stroke, gallstones, osteoarthritis, sleep apnea, and gynecological problems (e.g., menstrual irregularity, amenorrhea, and infertility), as well as depression and various other physical, psychological, and social morbidities (National Institute of Health, 1998). Currently, a majority of adults in the United States are overweight or obese. In 2007-2008, 68.3% were overweight (Body Mass Index; $BMI \ge 25$). Among them, 33.9% were obese ($BMI \ge 30$) and 5.7% were extremely obese ($BMI \ge 40$) (Flegal, Carroll, Ogden, & Curtin, 2010). The prevalence of obesity is not limited in the United States. In 2008, 1.5 billion adults worldwide were overweight and 500 million of them were obese (World Health Organization, 2011).

The prevalence of obesity imposes substantial economic costs. According to National Institute of Health (1998), obesity is a major contributor to preventable death. It is responsible for about 325,000 premature deaths in the United States (Allison, Fontaine, Manson, Stevens, & VanItallie, 1999). During the decade from 1998 to 2008, the medical cost related to obesity has increased from \$78.5 billion to \$147 billion (Finkelstein et al., 2009). According to Finkelstein, Fiebelkorn, and Wang (2003), obesity-related expenditures accounted for 9.1 percent of total annual U.S. medical expenditures. Those excessive health costs are comparable to those of smoking (D. Thompson, Edelsberg, Colditz, Bird, & Oster, 1999). The growing concern for obesity-related costs is also a worldwide issue. Globally, at least 2.8 million premature deaths are attributable to obesity (World Health Organization, 2011). These grim statistics are expected to increase as prevalence of obesity has dramatically increased over the last decades. Since 1980, the obesity rate has doubled among adults and tripled among children and adolescents (Ogden et al., 2006). By 2015, the number of obese adults worldwide will reach 2.3 billion and more than 700 million of them will be obese (World Health Organization, 2011).

In organizational settings, obesity causes a substantial amount of direct and indirect costs. Direct costs include diagnosis and treatment of obesity-related illness (e.g., doctor visits, medications, hospitalizations, and nursing home stays) and are reflected in increased health medical expenditure. The medical expenditure increases sharply as the level of obesity increases. Compared to a healthy weight employee, an overweight employee costs \$148 additional medical expenditure, a grade I obese (30.0–34.9 BMI) employee costs \$475, a grade II obese (35.0–39.9 BMI) employee costs \$824, and a grade III obese (BMI \geq 40) employee costs \$1269 (Finkelstein, DiBonaventura, Burgess, & Hale, 2010). As of 2002, the average costs of obesity at an organization with 1,000 employees are estimated to be \$285,000 per year (Finkelstein et al., 2010). The total medical expenditure attributable to obesity among full-time U.S. employees adds up to \$30 billion (Finkelstein et al., 2010). This medical spending has increased sharply over the past three decades and is further expected to grow in the near future (Finkelstein et al., 2009). Although a large proportion of medical expenditure may be initially covered by insurance companies, these costs are eventually passed along to employers in the form of higher premiums. During the last decade, while employer contributions for family coverage increased by 108%, worker contributions increased by 131%. During the same period, workers' earnings increased only by 34% (Claxton et al., 2011).

To employers, the indirect costs related to obesity in forms of lost wages and productivity may be more substantial than the direct medical costs (Wolf & Colditz, 1998). For example, extremely obese employees (BMI \geq 40) are twelve times more likely to have sick leave than healthy weight employees. Compared to healthy weight employees, extremely obese employees cost twice more compensation claims, six times more medical claims, ten times more indemnity claims (Ø stbye, Dement, & Krause, 2007). The total productivity loss attributable to obesity in the United States is estimated to be \$13 billon for absenteeism and \$30 billion for presenteeism (Finkelstein et al., 2010; Ricci & Chee, 2005).

To minimize the direct and indirect costs related to obesity, organizations are actively implementing workplace weight control programs. In the battle with obesity, workplace is an important ground as workplaces provide access to 65% of the adult population and substantial proportion of daily calories are consumed and burned in these settings (Katz et al., 2005). The currently implemented weight control programs include both physical activity interventions and nutrition interventions. Physical activity interventions include on-site exercise facilities, group exercise, supervised training sessions, and home-based exercise prescription. Organizations may also offer discounts for fitness facilities and sponsor sports activities. Nutrition interventions include nutrition education, specific dietary prescription, and cafeteria menu planning. Some organizations are banning soft drinks in vending machines and substituting sugary or salt heavy snacks with health conscious snacks. Other types of interventions include health-risk assessment, wellness counseling, group support, self-help resources, financial incentives, and weight loss competitions (Katz et al., 2005). Currently, those weight control interventions are widely implemented in the workplace. A survey of 450 large employers (National Business Group on Health, 2007) reported that weight control programs are implemented in 74% of responding

organizations, which makes them the third most prevalent workplace health promotion program, next to health risk appraisals and smoking cessation.

Despite the widespread effort to implement weight control programs in the workplace, the long-term effect of workplace weight control programs is not definitive. Considerable evidence is available that workplace health promotion is effective in short-term weight management. Workplace weight control programs can lead to weight loss of one to two pounds per week (Harris & Fries, 2001). On average, these programs show a reduced BMI by 1-2% with a reduction of body fat of 10-15% and cholesterol level by 5-9%. A recent review of 11 randomized controlled trials (Benedict & Arterburn, 2008) suggested that participants lost 2-14 pounds on average, while employees not involved in the intervention programs either lost an average of one and one half pounds, or gained an average of one pound. Nevertheless, it should be noted that these studies examined only short-term effects of programs (six months or less). The usual pattern of weight loss is quick at first, and the point of greatest loss occurs after six months, followed by gradual weight regain for two years (Jeffery et al., 2000). Therefore, although studies have shown short-term efficacy, the long-term effect of weight maintenance is still inconclusive.

To summarize, smoking and obesity are the major health issues plaguing workplaces. To deal with the enormous direct and indirect costs associated with smoking and obesity, many organizations are implementing a variety of workplace health promotion policies and programs. Although the long-term effects of these interventions are inconclusive, studies generally reported positive short-term return-on-investment, which may be promising to employers who desire to add more to the bottom line by increasing productivity and decreasing health-related costs. Before jumping in head first, however, employers may need to consider the potential side effects

of workplace health promotion. Especially after several lawsuit cases, concerns have arisen regarding employer control over employee privacy.

Employer Control in Workplace Health Promotion

To reduce health risk factors such as smoking and obesity and to improve the bottom line, employers may engage in controlling employees' health behavior. Smoking cessation programs and policies may control the place (e.g., limiting smoking to designated areas, prohibiting smoking at home) and time (e.g., limiting smoking to during break or lunch time, forbidding smoking on and off the job) for smoking (Fielding, 1990). Similarly, employers may regulate employees' food consumption (e.g., introducing health conscious cafeteria menu planning, banning soft drinks in vending machines) and physical activity (e.g., prescribing home-based exercise, supervising training sessions on on-site exercise facilities) (Katz et al., 2005).

Although those measures of control may be necessary to encourage employees to change their health-related behavior, they may raise concerns about employer control. When appropriately implemented, employees may appreciate employers' intervention as a genuine care and feel being treated like family (Hunnicutt, 2001). However, as workplace health promotion is heavily focused at the individual employee level and getting increasingly personal (Goetzel & Ozminkowski, 2000; Harris & Fries, 2001), employers' control may be perceived as an infringement of employee and privacy autonomy. This concern is especially relevant as the participation is largely involuntary in most workplaces (Roman & Blum, 1987). As programs get more involved with employees' privacy, the caring, big-brother-like organization may turn into an "Orwellian version of a big brother," who disciplines and punishes employees for unhealthy behaviors previously thought as private (Klautke & Park, 2011, p. 2).

Employees in general are highly concerned about the potential privacy infringement issues. Park et al. (2011) conducted in-depth interviews with employees who experienced the process of implementing a smoke-free policy (i.e., firing smokers or keeping and hiring nonsmokers only). They found that while some employees positively evaluated for the healthfocused values and outcomes of the policy, many employees reported their concerns about the negative implications of the policy. Despite beneficial outcomes of the policy, employees interpreted the policy as an intrusion upon private life. Some of the comments were "What about me drinking on the beach? Not fair, violated personal rights," "[I was] a little weary because of the privacy issue; [my] primary concern [was] privacy issue," "[It] crossed boundary between work and not work; more intrusive; main objection is the privacy" (p. 44). Employees also expressed concerns about privacy violations that may be the first step on a slippery slope: "What is going to be next, what else?; "[People were] concerned about what is the next step, weight?" (p. 44).

Another concern of employees is the severity of punishment associated with noncompliance. To control employees' health behavior, employers may use a stick and carrot strategy. Employers' punishment or negative reinforcement may be the "stick" for implementing workplace health promotion. When properly used, an adequate level of punishment or negative reinforcement may be effective for changing employees' health behavior, although not as effective as intrinsic motivators such as self-determination and self-competence (Curry, Wagner, & Grothaus, 1990). However, when used excessively, it may result in negative outcomes such as decreased job satisfaction, organizational identification, and commitment, as well as increased turnover intentions. For example, when the Tribune Company instituted a monthly surcharge of \$100 for smoking employees or employees with smoking dependents, the company faced strong

objections. The company eventually had to reverse course and refund the surcharge to employees (Wojcik, 2008).

In extreme cases, the objections may evolve into a lawsuit. In 2005, Scotts-Miracle-Gro Company located in Massachusetts implemented a policy prohibiting all employees from smoking both on and off the job. Any employees failing random urine nicotine tests would be fired. Next year, the test for an employee named Scott Rodrigues found to be positive and he was terminated on his 30th birthday. Rodrigues promptly filed a lawsuit against the company, alleging that the company's policy violated his privacy rights. He demanded a permanent injunction prohibiting the company from enforcing its non-smoking policy. His attorney claimed that "this case challenges the right of an employer to control employees' personal lives and activities by prohibiting legal private conduct the employer finds to be dangerous, distasteful or disagreeable"(Cavanaugh, 2008, p. 56). In 2009, the case was dismissed by a federal judge (Saltzman, 2009).

In the same year, Weyco Inc. (now a Meritain Health Company), a health benefits administrator based in Michigan, fired four workers for smoking at their homes (Costello, 2005). Employees at Weyco were subject to not only random urine tests but also searches of personal belongings if company officials suspect cigarettes have been brought to the workplace (Armour, 2005). A former employee at Weyco, Anita Epolito, decided to quit her job after 14 years' service before getting fired for smoking. She mentioned "You feel like you have no rights. You're all alone. It's the most helpless feeling you can imagine. I never, ever from day one conceded to go with his policy because I knew that it had nothing to do with smoking. It had to do with my privacy in my own home" (J. W. Peters, 2005). Another former employee, Cara Stiffler protested that "People shouldn't have to be forced to do something that they don't believe

in as long as it's not going to hurt somebody" (Snow, 2005). One of the fired workers, Christine Ramon, filed a lawsuit against the company (Wieland, 2005).

The lawsuit cases are not limited to smoking restrictions. In 2010, two former waitresses filed discrimination lawsuits against Hooters in Roseville, Michigan, claiming that they were fired because of their weight. One of the plaintiffs, Cassandra Smith, who was 5 foot 8 inches and 132 pounds, was advised "to join a gym in order to improve herself and her ability to fit into the extra small-sized uniform" (Koppel, 2010). Smith had to sign 30-day weight probation as a condition of retaining her employment. She was not terminated, but decided to quit because her weight probation status was disclosed to co-workers and created "an intensely humiliating, deeply offensive, untenable employment environment" (Deschenaux, 2010). Another plaintiff, Leanne Convery, who was 4 foot 11 inches and 115 pounds, was fired after 30-day weight probation (Deschenaux, 2010).

Although it did not receive media attention, another lawsuit case was filed earlier in 2002. Steven Pasanski, a former store manager of Continental Rental in Michigan sued the company, claiming that he was fired do to his morbid obesity. He weighed 360 pounds at the time of discharge. The company claimed that Pasanski sweated excessively and slept on the job, despite the fact that he was selected as the manager of the year for the whole chain. In 2005, Pasanski was awarded \$284,000 in a wrongful discharge case (Harmon, 2005).

These lawsuit cases may be somewhat extreme, but they amplified the rising concerns about employer control over employee privacy. While employers have latitude in imposing penalties or punishment for non-compliance, employee privacy is often unprotected by the laws. In the cases of Scotts-Miracle-Gro Company and Weyco, Inc., neither Massachusetts nor Michigan had employment laws preventing employers from firing employees for smoking at

their own time. In the cases of Hooters and Continental Rental, the plaintiffs were fortunate because Michigan is currently the only state that prohibits weight discrimination. No federal employment laws prevent weight discrimination, although morbid obesity may be protected with Americans with Disabilities Act (Alexander Hamilton Institute, 2008).

Another measure to control employees' health behavior is the "carrot" strategy. Incentives may be a critical element of workplace health promotion if it attempts to reinforce behavior change with extrinsic motivations (Sofian et al., 1994). Incentives may contribute to improving employee health by increasing 1) motivations to change health behaviors, 2) actions to change behaviors, and 3) maintenance of an effort to change health behaviors (Leeks, Hopkins, & Soler, 2010). Incentives are especially effective in increasing participation (Linnan et al., 2001). Low participation rates have been identified as a primary factor limiting the success of workplace health promotion. On average, for example, only 23% of smoking employees voluntarily participate in a given workplace intervention (Glasgow et al., 1993).

To increase participation and compliance, an increasing number of organizations are incorporating diverse financial incentive programs into their health promotion. Currently, most large insurance companies are offering discounted health premiums for non-smoking employees (Sofian et al., 1994). As of 2004, 26% of U.S. large employers offer financial incentives to employees who participate in weight control programs or achieve a healthy BMI level (National Business Group on Health, 2007). The financial incentives include cash payments, gift certificates, lottery tickets for a prize draw, and discounted health insurance premium. For example, General Electric rewarded employees up to \$750 for quitting and staying off cigarettes (Volpp et al., 2009). Specifically, the financial incentives were \$100 for completion of a smoking-cessation program, \$250 for quitting within 6 months after program enrollment, and

\$400 for abstinence for an additional 6 months. IBM offered a health insurance premium discount for smoking employees who agreed to participate in a cessation program (Graham et al., 2007). IBM also offered \$150 cash incentives for employers who engaged in at least 20 minutes of physical activity, three days per week (Herman et al., 2006). CFI Westgate Resorts offered a luxury vacation for the winners of the company-wide weight-loss competition (Wharton School of the University of Pennsylvania, 2008).

The role of financial incentives in workplace health promotion is expected to expand in the near future, especially in a form of health plan premiums. Under the 1996 Health Insurance Portability and Accountability Act (HIPAA), a group health plan may not discriminate among employees on the basis of health factors by varying their premiums. In other words, employers cannot penalize smoking or obese employees by charging higher premiums. However, HIPAA does not prevent insurers from offering reimbursements through financial incentives. That is, employers can reward healthy employees by discounting their premiums. For example, if the total cost of the health premium for an individual was \$5,000 and the employer paid 70% of the total premium, all employees would have annual premiums of \$1,500 (30% of \$5,000). With differential premiums, employees who met the health goal would have premiums of \$1,000 per year (20% of \$5,000), whereas employees who did neither would still have premiums of \$1,500 per year. The recently signed Patient Protection and Affordable Care Act (PPACA) allows greater differential in health plan premiums. The reimbursement level is increased to 30% of the cost of employee-only coverage under the plan or up to 50% with government approval. This provision is expected to accelerate the trend of integrating financial incentives into health plan premiums.

Considering that employers can practically impose a health insurance surcharge on "highrisk" employees (e.g., smoking or obese employees), financial incentives for healthy employees may become financial disincentives or punishment for unhealthy employees. This may be the case especially if organizations recoup the incentive-related costs by increasing individual employee contributions (Schmidt et al., 2010). For healthy employees, the incentives may cover the premium increase. For unhealthy employees, however, the ineligibility for the incentives may increase their financial burden. In this regard, financial incentives for workplace health promotion may be "sticks dressed up as carrots" (Schmidt et al., 2010). Several health insurance companies already started to charge higher health insurance premiums on high-risk employees. For example, Indiana University Health (formerly known as Clarian Health), initiated employee medical insurance plans that mandated all employees to report all potential health risks. For each bi-weekly pay period, smoking employees should pay additional \$5 and obese employees should pay additional \$10. Employees with high blood pressure, high blood glucose levels, and high levels of low-density lipoprotein cholesterol should pay additional \$5 for each condition. If employees had problems on all five health measures, the bi-weekly insurance premium surcharge would be \$30, which adds up to \$780 per year (Sammer, 2007).

To sum up, although employers may have genuine concerns about employee health, employees are generally concerned about employers' control over their privacy. By using both the stick (i.e., punishment or negative reinforcement) and carrot (i.e., financial incentives) strategies, employers may control employees' health behavior that previously was thought to be private. An adequate level of employers control may be necessary to promote healthy behavior more effectively. If used excessively, however, such control may create negative responses that may evolve into lawsuits in extreme cases. For the successful implementation of workplace

health promotion, therefore, the employer's control needs to be based upon mutual understanding and agreement between employers and employees.

Perceived Legitimacy of Workplace Health Promotion

To avoid negative impacts of workplace health promotion, the employer's control on employees' health behavior needs to be perceived as legitimate by all members of the organizations. Legitimacy refers to "the belief that social arrangements, institutions, authorities and their decisions and rules are appropriate, proper, and just" (Tyler, 2006, p. 376). If people believe that the decisions and rules are created in a manner that is consistent with their internalized norms or values, they feel obligated to defer to the decisions made by leaders. Therefore, when authorities and institutions have legitimacy, people voluntarily follow their rules and decisions not because of the fear of punishment or anticipation of reward but because of the feelings of obligation and responsibility (Tyler, 2006).

Power based on legitimacy is different from power based on coercion or reward. French and Raven (1959) defined five types of power in terms of social influence. Reward power is based on the individuals' perception that the agent (i.e., the source of power) has the ability to mediate rewards for them. Coercive power is based on the individuals' perception that the agent has the ability to mediate punishment for them. Legitimate power is based on the individuals' perception that the agent has a legitimate right to prescribe behavior for them. Referent power is based on the individuals' identification with the agent. Expert power is based on the individuals'

All five types of power may be relevant to the context of workplace health promotion. For example, organizations may exert reward power by incorporating financial incentives into their health interventions. Organizations may use coercive power by punishing employees with

unhealthy habits or conditions. Organizations may assert legitimate power by appealing to employees' internalized norms or role expectations and creating a sense of obligation to comply with health interventions. Organizations may have more referent power to change employees' health behavior if employees are more attracted to the organizations. Finally, organizations may gain expert power if health interventions are developed and administered by trained professionals.

Among these types of power, legitimate power may be most difficult to gain and exert. While reward power and coercive power largely depends on the agent's ability to administer the promised reward or threatened punishment, legitimate power depends on both the agent's ability to induce influence and the individuals' internalized value of what should or ought to be done (French & Raven, 1959). Accordingly, legitimate power involves some code or standard that is accepted by the individuals and should be asserted within the boundaries where the agent has a right to prescribe behavior for the individuals (French & Raven, 1959). If the attempted use of influence is consistent with this code or standard, the individuals may perceive the influence as more legitimizing, feel an obligation to accept the influence, and be more attracted toward the agent. Conversely, if the attempted influence falls outside of the accepted boundaries, the individuals may perceive the influence as coercion, become resistant against the influence, and be less attracted toward the agent (French & Raven, 1959; Raven & French, 1958). For example, if a company attempts to regulate employees' health behavior by a threat of dismissal, it may lose its legitimacy and face challenges from employees. Similarly, if a company induces health behavior change solely by promising financial incentives, the incentives may be seen as a bribe, which denotes an illegitimate reward. Therefore, in order to be perceived as legitimate, power should be exerted with a consideration of the individuals' internalized values, instead of relying simply on sanctions or incentives (Weber, 1978).

Legitimacy is important to the success of organizations. First, legitimate organizations may influence the behaviors of their members more effectively (Keyes, Hysom, & Lupo, 2000). An organization is perceived as legitimate when their means and ends are consistent with social norms, values, and expectations (Dowling & Pfeffer, 1975). As those normative and moral beliefs are internalized by organizational members, legitimate organizations may gain voluntary compliance from its members. In contrast, if organizations seek to influence organizational members through coercion or incentives, their members will not simply accept the decision and follow the rule. The organizations may face significant challenges from their members (Tyler, 2006). Second, legitimate organizations may be more efficient than organizations relying on coercive or reward power. It may be costly for organizations to create a surveillance system that monitors employees and punish violators. Similarly, it may be expensive for organizations to provide incentives for desired behavior. Legitimacy in organizations may provide members with the motivation to engage in self-regulation and thus saves a substantial amount of organizational resources. This may increase the effectiveness of the organizations especially during periods of scarcity, crisis, and conflict (Tyler, 2006). Third, legitimate organizations may be more effective in enhancing employee well-being and business outcomes. When employees believe that their organizations are legitimate, they experience a higher level of emotional, psychological, and social well-being: employees may feel more satisfied with their work, evaluate their work more positively, and see their work as meaningful. Those positive emotions may lead to higher productivity and greater employee retention, which enhance the bottom line of organizations (Keyes et al., 2000). Therefore, legitimacy may enhance the overall performance of organizations (Tyler, 2006).

As legitimacy is important for their success, organizations strive to gain legitimacy. According to Perrow (1970), organizations' strategies to gain legitimacy are threefold. First, organizations can make their goals, methods, and outcomes of their operation consistent with normative or moral beliefs. For example, when setting goals for workplace health promotion, employers may prioritize improving employee health over improving bottom line. When implementing policies and programs, employers may encourage voluntary participation instead of punishing for noncompliance. Second, communication strategies may be used to change the norms and values of employees to make them consistent with their current practices. For example, employers may convince employees that smoking should not be protected as a personal right because it violates other people's right to stay away from smoke. Finally, again through communication, organizations may identify themselves with symbols and values of more legitimate organizations. For example, small organizations may adopt health policies and programs to show that they care about their employee health, just like other large and reputable companies (e.g., Fortune 500 companies) do. Perrow (1970) suggested that as changing norms and values may be difficult, most organizations may adapt to normative and moral constraints or identify their goals, methods, and outcomes with more legitimate social institutions or practices. In this regard, legitimacy is a constraint that regulates the behavior of organizations (Dowling & Pfeffer, 1975). Organizations can be effective to the extent that they are perceived as acting in accordance with existing norms and values of socially appropriate behavior (Tyler, 2006; Zelditch, 2006).

If their decisions and rules violate normative or moral beliefs, organizations may lose legitimacy. Ashforth and Gibbs (1990) suggested a typology of failures in organizational legitimation. First, a *clumsy* organization relies on unethical, awkward, or insensitive means. In

the context of workplace health promotion, intimidating, coercing and firing employees may not be legitimate methods of implementation. The excessive use of "sticks" may produce a boomerang effect such as lawsuits. Second, a *nervous* organization acts in a dogmatic, intolerant, or evasive manner. Unhealthy habits such as smoking and unhealthy conditions such as obesity are hard to change in a short period of time. Employees may try hard, but they may fail to attain the strict health standard set by employers. For example, one of the plaintiffs in the Michigan Hooters case, Leanne Convery, managed to lose 15 pounds after a crash diet, but was fired for not showing "significant improvement" (Deschenaux, 2010). Third, an overacting organization overstates its legitimacy in a self-aggrandizing or inflammatory manner. If organizations grossly exaggerate the benefits of health promotion programs and their investment for employees, employees may doubt the genuineness of the intention or perceive communication as condescending. For example, when Whole Foods offered healthy employees additional discounts on groceries purchased, Margaret Wittenberg, the global vice president of quality standards stated "...we're trying to have it very achievable for people. Every small step is huge and really makes an impact on one's health. Along with this program, we have a tremendous amount of educational opportunities for our team members." This incentive program, however, drew skepticism from many employees and experts who considered it a discriminatory policy (Brownstein, 2010).

For the successful implementation of workplace health promotion, legitimacy may be an important consideration. Even if the employees believe that a healthy lifestyle is in their own best interest, without a sense of legitimacy, they may not voluntarily follow the policies and programs. They may reluctantly follow or pretend to follow the rules and decisions merely due to their fear of punishment or expectation of reward. Those extrinsic motivators are usually less

effective and more costly to organizations (Tyler, 2006) than intrinsic motivators (Curry et al., 1990). In addition, because health-related behaviors extend in time and space outside of the direct field of vision of supervisors, coercive power or reward power may not be sufficient in ensuring compliance. Employee may continue unhealthy habits outside of the workplace. In extreme cases, employees may lie about their health behavior, like 39 suspended workers at a Whirlpool factory in Evansville, Indiana, who allegedly lied about their smoking habits (Pinto, 2008). More importantly, the lack of perceived legitimacy may result in negative consequences such as decreased job satisfaction, organizational identification, and commitment, as well as increased turnover.

Employees become concerned about workplace health promotion if they do not believe in its legitimacy. Park et al.'s (2011) in-depth interviews reported employees' negative perceptions of legitimacy. Some of the comments were "[It] doesn't feel it is the right thing, legal. In their home, [people] should be able to do it [smoking]; is it legal?" and "Employer has no right outside work; I don't think I need to be directed outside of work" (p. 44). Some employees expressed emotional responses associated with their negative perceptions of legitimacy. Their responses were "[I was] angry [and] felt like he [employer] was abusing his power" and "[I was] upset because company started stepping on toes" (p. 44). An interviewee stated that before a non-smoking policy was introduced, "everyone loved the company and had the feeling of all for one" but "the company turned into dictatorship since" (p. 45). Another interviewee commented that the company took "a first step in disillusionment" (p. 45). These responses indicated that employer control may lead to negative consequences such as decreased organizational commitment and job satisfaction.
To recapitulate, legitimacy is an important factor for the successful implementation of workplace health promotion. When health policies and programs are designed and communicated consistently with the internalized values and norms of organizational members, employees may voluntary follow the rules and employers may save expenditure associated with the stick and carrot approach. Furthermore, organizations may enjoy higher employee satisfaction and productivity. On the other hand, when employees are skeptical about the legitimacy of organizations, it may be detrimental to organizational identification and commitment.

Fairness Issues of Workplace Health Promotion

Besides the legitimacy concerns discussed previously, fairness may be another issue in workplace health promotion. Fairness is a universal human consideration (Lind & Tyler, 1988). Research has suggested three models regarding why people are concerned about fairness. First, an instrumental model suggested (Thibaut & Walker, 1975) that fairness provides people a sense of control over the process and decision. This sense of control assures people that they will not be exploited and their self-interest will be protected. Second, a relational model (Lind & Tyler, 1988) suggested that fair treatment reaffirms people's sense of self-worth and value to organizations. Unfair treatment, in contrast, signals the inferior social status in organizations. Third, a moral virtues model (Folger, 1998) suggested that fairness considerations are fundamental moral beliefs about what is right and what should be done. Unfair treatment unto others creates negative transgression experiences involving strong emotional responses. These three models are associated with universal human psychological needs: the instrumental motive reflects the need for control, the relational motive corresponds to the needs for self-esteem and belonging, and the virtue motive relates to the need for morality, respectively (Cropanzano, Rupp,

Mohler, & Schminke, 2001). As people are universally attentive to fairness, fairness may become a ubiquitous consideration in organizational settings (Lind, Kulik, Ambrose, & de Vera Park, 1993)

Fairness is a central consideration in organizational settings because the perceptions and implications of unfairness can significantly impact organizational members' attitudes and behavior (Lind et al., 1993). A meta-analysis of 190 studies (Cohen-Charash & Spector, 2001) showed that fairness is a strong predictor of work performance and organizational citizenship behavior. The perception of fairness also increases job satisfaction, pay satisfaction, organizational commitment, and trust in the organization, management, and supervisor, while decreasing withdrawal behavior such as absenteeism, tardiness, and turnover. In contrast, the perception of unfair treatment leads to negative emotion and employee retaliation ranging from minor resistance behaviors such as taking an extended coffee or lunch break and gossiping about supervisors to serious misconduct such as theft, sabotage, and workplace aggression (Skarlicki & Folger, 1997). Therefore, fairness is linked to overall organizational effectiveness of organizations.

The importance of fairness considerations in the workplace has drawn major research attention from various disciplines during the last two decades. In the study of organizational communication and behavior, the terms *fairness* and *justice* are often used interchangeably (Cohen-Charash & Spector, 2001). Organizational justice is viewed as a multidimensional construct consisting of three distinct components. Initial research in organizational justice focused on *distributive justice* which refers to the fairness of outcomes organizational members receive from an exchange context (Adams, 1963, 1965). Soon, however, it was discovered that the distribution of reward alone is not sufficient to completely describe, explain and predict

people's perception of organizational justice (Cropanzano & Randall, 1993). Subsequently, the focus of research shifted to *procedural justice*, which refers to the fairness of the formal policies or procedures that are used to determine outcomes (Lind & Tyler, 1988; Thibaut & Walker, 1975). More recently, a communication aspect of organizational justice, namely, *interactional justice*, emerged as a separate dimension (Bies & Moag, 1986). Interactional justice refers to the fairness of interpersonal treatment and communication by management to employees (Bies, 2001). These three types of justice constitute a basis for drawing inferences about the fairness of the organization as a whole. This overall perception of justice in organizations is labeled *systemic justice* (Beugré & Baron, 2001; Sheppard, Lewicki, & Minton, 1992).

Distributive justice

Distributive justice is an important consideration as the distribution of outcomes is an integral part in the operation of organizations. In order to be perceived fairly, the distribution of rewards and burdens should be consistent with the norms of allocation. The equity norm rules to allocate outcomes proportionally to individual inputs (Adams, 1965). The equality norm of allocation dictates to distribute the same outcome for all individuals (Leventhal, 1976). The need-based norm prescribes to allocate outcomes proportionate to individual need. People follow different rules of allocation for different contexts, personal motives, and relationships (Deutsch, 1975). Similarly, organizations may use different resource distribution strategies for different organizational contexts, goals, and culture (Mannix, Neale, & Northcraft, 1995).

Distributive justice may be an especially relevant issue for integrating financial incentives into workplace health promotion. Organizations may choose different resource distribution strategies to use financial incentives. Financial incentives for workplace health promotion can be categorized into two types: participation incentives and attainment incentives

(Schmidt et al., 2010). Participation incentives offer a health insurance premium discount or other reimbursement simply for participating in health promotion programs. For participation incentives, a premium discount or rebate is offered to all similarly situated employees. For example, IBM Corporation offered a \$150 cash reward to all employees who simply participated in physical activity programs (Herman et al., 2006). In this respect, participation incentives are more concerned with the equality or need-based principle. On the other hand, attainment incentives provide incentives or reimbursements only for meeting targets such as a particular BMI level. For example, a non-profit hospital system, Baptist Health South Florida offered a cash incentive up to \$500 per year for employees who reach and maintain their goal weight. The hospital also offers an additional \$500 discount to employees' children who reach and maintain their goal weight (Heinen & Darling, 2009). As attainment incentives are merit-based, they are more relevant to the equity principle.

While attainment incentives may reflect the equity principle of distributive justice, they may create fairness issues in organizations. Attainment incentives may be more equitable for low-risk employees, who are practically subsidizing the higher medical costs of high-risk employees (Schmidt et al., 2010). Accordingly, low-risk employees may perceive attainment incentives or differential health plan premiums as fairer than participative incentives or equal employee contributions for health insurance. On the other hand, attainment incentives may place an unfair burden on high-risk employees. High-risk employees may strive to attain the health standard stipulated by employers, but many of them may fail to change their chronic conditions. Most diets, for example, fail to result in long-lasting weight reduction. This may create a double disadvantage for high-risk employees who are excluded from incentives or reimbursements and at the same time spend more on health care expenses for their health conditions. This may also

impose heavier burden on employees with low income or education, who have higher rates of unhealthy habits. Therefore, high-risk employees may perceive attainment incentives or differential health plan premiums as unfair.

The distributive justice issue for attainment incentives may be a source of conflict between low-risk employees and high-risk employees. A conflict was observed when Whole Foods implemented *Team Member Healthy Discount Incentive Program*, offering healthy employees additional employee discounts on groceries (Brownstein, 2010). While low-risk employees received a 30% discount, employees with health risk factors (i.e., smoking, obesity, high cholesterol level and blood pressure) received only a 20% discount. Many people considered it as a discriminatory policy and experts also expressed concerns that the policy may benefit already healthy employees instead of improving employees' health uniformly (Brownstein, 2010). High-risk employees may not be motivated by this policy as they find the health standards are difficult to meet

Procedural justice

Procedural justice may be a more important consideration as people's reactions to outcomes and distributive justice evaluations are heavily influenced by the perceived fairness of procedures (Van den Bos, Vermunt, & Wilke, 1997). People evaluate the fairness of processes leading to outcomes separately from the fairness of outcome distributions. A large amount of organizational justice research demonstrated the distinctiveness of the two constructs and their antecedents and outcomes (Cohen-Charash & Spector, 2001; Lind & Tyler, 1988). Furthermore, studies showed that the perception of procedural justice may be more important to peoples' evaluations of outcome fairness than the actual outcomes (Lind, Greenberg, Scott, & Welchans, 2000; Lind & Tyler, 1988; Tyler & Lind, 1992). If people experience fair procedures, their

subsequent reactions to outcomes tend to be more favorable. Specifically, fair procedures have been found to yield stronger effects on mitigating the negative effects of unfavorable outcomes than influencing reactions to favorable outcomes. This relationship in which fair procedures positively influence individuals' outcome judgments has been labeled the *fair process effect* or *voice effect* (Folger, Rosenfield, Grove, & Corkran, 1979; Greenberg & Folger, 1983).

One way to increase the perceived procedural justice of workplace health promotion is to allow employees to voice their opinions during the decision making process. If employees can voice their opinions, the procedures are more likely to be perceived as fair, even when the employees cannot control the actual distribution of outcomes (Thibaut & Walker, 1975). This is reflected in Leventhal's (1980) representativeness rule of procedural justice: procedures are perceived to be fair when the opinions of all organizational members affected by the decision are taken into account. This perception of procedural justice makes employees more willing to accept the decision of organizations (Lind et al., 1993). Therefore, to increase the perceived fairness of workplace health promotion, organizations need to incorporate the opinions of employees into their decision making process.

Participative decision making is an organizational process to encourage employees to voice their opinions. Participative decision making refers to "a mode of organizational operations in which decisions as to activities are arrived at by the very persons who are to execute those decisions" (Lowin, 1968, p. 69). It is contrasted with the conventional hierarchical mode of operation in which the decision is made exclusively by management. In a participative decision making process, employees have an opportunity to share their perspectives and voice their opinions. Management should respect their suggestions and be willing to address their concerns. The frequent and constructive interactions motivate employees and management for further

suggestions and discussions. With these interactions, employees may better understand the goals of organization and become more motivated. At the same time, organizations may benefit from the heightened employee commitment and involvement (Lowin, 1968). As a consequence, participative decision making helps organizations to perform at a higher level (Lawler, 1986; Miller & Monge, 1986; Seibold & Shea, 2001).

Furthermore, participative decision making increases the perception of fairness in organizations (Greenberg & Folger, 1983). Specifically, it promotes a sense of organizational justice in three ways (Hunton, Hall, & Price, 1998). First, participative decision making provides employees with opportunities to voice their concerns, opinions, and suggestions, which increase the perception of procedural justice (Lind & Tyler, 1988). When employees are involved in the decision making process and share responsibilities, they are more likely to perceive that the procedures are fair. Second, participative decision making provides employees with a higher sense of self-efficacy (Lind, Kanfer, & Earley, 1990). This leads employees to perceive that the task-related procedures are fair and that they have a higher probability of producing a favorable outcome. Third, the solicitation of employee participation provides employees with a feeling that they are being treated with dignity and respect (Tyler & Lind, 1992). This may be linked to another dimension of organizational justice: interactional justice.

For these reasons, the involvement and empowerment of employees are important for the successful implementation of workplace health promotion. Participative decision making is essential to the successful implementation of workplace health promotion (O'Donnell, 1994; Zoller, 2004). It is an effective tool for the improvement of physical and psychosocial working conditions and have a positive effect on employees' health and well-being (Aust & Ducki, 2004). Programs that disregard the needs and concerns of employees and exclude them from the

decision making process are unlikely to be successful (Noblet & Rodwell, 2010). Therefore, the opinions of employees should be incorporated in the all stages (i.e., design, development and implementation processes) of workplace health promotion. The World Health Organization (1984) also declared that the active involvement and participation of all constituents of organizations is a main principle of health promotion. The Luxembourg Declaration on Workplace Health Promotion in the European Union also declared that this principle is the number one factor to the development of healthy organizations (De Greef & Van den Broek, 2004).

However, employee participation in the decision making process is still limited. Not many organizations are currently incorporating participative decision making into workplace health promotion. A review of 139 workplace health promotion cases (Harden, Peersman, Oliver, Mauthner, & Oakley, 1999) reported that only 21% of programs were developed in response to employees' need or views and only 14% of programs involved employee participation in the planning and implementation of the intervention. Moreover, the degree of employee participation may be limited by practical reasons (O'Donnell, 1994). First, the degree of employee participation may fall within the range of employee involvement in other comparable decision processes in that organization. If the existing organizational decision making process does not allow a high level of employee involvement, employee participation in designing health interventions may also be limited. Second, the extent of employee participation may not exceed their level of knowledge and skills. Especially, designing specific curriculums and protocols may require some level of clinical expertise. Finally, the range of employee participation may be limited by the components of the program. For example, determining the budget may not be delegated to employees. Therefore, for the successful implementation of workplace health

promotion, employee involvement in decision making needs to be expanded within the boundary of practical and reasonable constraints.

A good example of demonstrating the effectiveness of employee participation is *health* circles (Gesundheitszirkel) in Germany (Aust & Ducki, 2004). Health circles were designed in the 1980s to facilitate health promotion in the workplace with a strong emphasis on employee involvement. Health circles are discussion groups made up of six to eight employees, supervisors, work council members, and health experts. Moderated by a trained facilitator, the members meet on a regular basis (usually monthly) during a specified period of time (usually 6 months). The meetings are held during paid working time. The members identify work-related health issues, develop proposals for improvement, and discuss strategies for implementation. A review of 11 studies (Aust & Ducki, 2004) examining 81 health circles in 30 companies reported that around 66% of 66% of suggestions were actually implemented within a year. Most studies reported improvement in physical and psychological working conditions, positive changes in self-reported health and decrease in sickness absence. Moreover, participation in health circles enhanced communication, information exchange, and relationships with colleagues and supervisors. These positive effects of employee involvement made health circles widespread in Germany. In 2006, 1,960 health circles were operating in 605 companies (Pelster, 2008). The system is being adopted by other European countries such as Denmark and extended to teleworkers (Konradt, 2000).

Interactional justice

Besides distributive and procedural justice, interactional justice may be another important consideration for implementing workplace health promotion. Although interactional justice is basically about the fairness of communication processes (Bies & Moag, 1986), it has not yet

received attention in the field of communication research: only a handful of studies so far have examined this dimension so far. Interactional justice, however, has important implications as all decision making processes necessarily involve some form of communication (Bies & Moag, 1986). As Lind and Tyler (1988) noted, one of the most influential factors in creating the perception of fairness is the indication that the management is trustworthy and that employees are being treated with dignity, courtesy, respect, and sensitivity. Another important factor is the indication that management provides employees with adequate and sufficient information about procedures and outcomes. The former factor relates to interpersonal dimension and the latter factor relates to the informational dimension of interactional justice (Greenberg, 1993a).

Although interactional justice is often conceptualized as an independent dimension of organizational justice, the distinction between interactional justice and procedural justice is still under debate. While the distinction between procedural and distributive justice has received extensive support (Brockner & Wiesenfeld, 1996; Dulebohn, Conlon, Sarinopoulos, Davison, & McNamara, 2009; Greenberg, 1986; McFarlin & Sweeney, 1992), less agreement exists about the distinction between procedural justice and interactional justice. Bies and Moag (1986) first conceptualized interactional justice as a separate dimension of organizational justice, suggesting that people may perceive the fairness of communication independently from the fairness of procedures or outcomes. Greenberg (1993) conceptualized that interpersonal justice reflects the social aspects of distributive justice and informational justice reflects the social aspects of procedural justice. Other researchers, however, viewed the communication process merely as a component of procedural justice (Lind & Tyler, 1988) or interpersonal context of procedural justice (Tyler & Bies, 1990).

The initial disagreement has been resolved by more recent studies supporting the distinction between interactional justice and procedural justice. For example, a meta-analysis of 190 studies (Cohen-Charash & Spector, 2001) showed that although distributive, procedural, and interactional justice were highly correlated (r = .45 to .62) yet distinct dimensions. The three dimensions were related to different antecedents and consequences. For example, leader-member exchange quality was more strongly correlated with interactional justice (r = .67) than with distributive justice (r = .27) or procedural justice (r = .37). In contrast, turnover intentions were more strongly correlated with distributive (r = .40) and procedural justice (r = .40) than with interactional justice (r = .24).

Colquitt (2001) conducted confirmatory factor analyses and found that a four-factor model of distributive, procedural, interpersonal, and informational justice yielded a significantly better fit than a two-factor solution (distributive justice and procedural justice subsuming interactional justice) or a three-factor solution (distributive justice, procedural justice, and interactional justice subsuming interpersonal and interactional justice). The four dimensions demonstrated predictive validity on different outcomes: distributive justice was related to outcome satisfaction; procedural justice was related to rule compliance and commitment; interpersonal justice was related to leader evaluation and helping behavior; and informational justice was related to collective esteem.

Another meta-analysis of 183 studies (Colquitt, Conlon, Wesson, Porter, & Ng, 2001) reported that interpersonal and informational justice showed different patterns of correlations with output variables. For example, evaluation of organizations was more strongly associated with informational justice (r = .47) than with interpersonal justice (r = .23). Outcome satisfaction was also more strongly associated with informational justice (r = .30) than with interpersonal justice (r = .19). Performance was moderately associated with informational justice (r = .13), but barely with interpersonal justice (r = .03). Judging from these three studies, the two-factor model of interactional justice seems to be valid: interpersonal justice and informational justice are separate dimensions.

More recently, Roch and Shanock (2006) suggested a five-factor model of distributive, procedural, interactional, interpersonal, and informational justice. Instead of separating interactional justice into interpersonal and informational dimensions, they conceptualized interactional justice as a separate dimension that transcends formal decision making contexts. This model was based on an updated conceptualization of interactional justice (Bies, 2001), which reflects how employees perceive interpersonal treatment they receive in their everyday encounters. However, Roch and Shanock's (2006) five-factor model seems to have a face validity issue. The items for measuring interactional, interpersonal, and informational justice were not mutually exclusive. Furthermore, the five-factor model did not substantially enhance the fit indices. While the four-factor model already yielded an acceptable fit, the increase may not be worth compromising the parsimony of the model.

As an independent dimension of organizational justice, enhancing the perception of interactional justice may be important for the successful implementation of workplace health promotion. To increase informational justice perceptions, information regarding the decisions needs to be sufficient and clear. In Park et al.'s (2011) interview study, employees in general perceived that information regarding the reason of policy enforcement was clear. Some of the comments were "[Communication of the reason] couldn't have been clearer...," and "Whether people were listening, [the employer] was very clear" (p. 45). However, when asked to provide

any recommendations for the policy, employees still asked for more information. "Have all information available..." and "Huge blow, more communication" (p. 45).

To increase interactional justice perceptions, the message of communication needs to be honest, polite, and without prejudice. In the case of Weyco Inc., however, these interpersonal considerations of communication were lacking. Some comments of the owner of the company, Howard Weyers, were "I pay the bills around here. So, I'm going to set the expectations. What's important? This job? And this is a very nice place to work. Or the use of tobacco? Make a decision," "I set the policy and I'm not going to bend from the policy. I am intolerable and intolerant," (Snow, 2005) and "You work for me, this is what I expect. You don't like it? Go someplace else" (Peters, 2005). His direct communication style without any social sensitivity may have been effective in showing his firm attitude toward the policy, but it may have created resentment among employees and eventually prompted the lawsuit. Another study (Zoller, 2003, 2004) reported that if employers communicated in a dominant manner emphasizing individual discipline through hard work, self-control, and self-denial, instead of showing interpersonal considerations, employees were discouraged from voluntary participation in workplace health programs.

The importance of interactional justice in the workplace health promotion context was demonstrated in a field experiment. Using a sample of 732 clerical workers, Greenberg (1994) examined the effect of interactional justice on employees' acceptance of a workplace smoking ban. Participants watched a videotaped presentation in which the president of the company announcing a new policy banning smoking on work premises. Informational justice was manipulated by the amount of information provided about the rationale for the smoking ban. In the high-information condition, the hazard of smoking was presented in a great detail with visual

aids. In the low-information condition, only a cursory explanation was presented. Interpersonal justice was manipulated by the extent of social sensitivity shown over the personal impact of the smoking ban. In the high-sensitivity condition, a great deal of concern was expressed toward smoking employees. In the low-sensitivity condition, less personal concern was expressed. Beside the two dimensions of interactional justice, the effect of smoking status was examined. The dependent variables were the acceptance of the policy and the perception of procedural justice. The findings showed that both informational and interpersonal justice predicted greater acceptance and procedural justice perceptions. The interaction effect of informational justice and interpersonal justice was not significant. Individual employees' smoking status was a significant predictor for acceptance but not for procedural justice perceptions.

Greenberg's (1994) experiment showed that the thoroughness of information and the social sensitivity of the message are linked to the increased acceptance and perceived fairness of workplace health policies. However, the study had several methodological problems. One of the problems was the lack of construct validity. For example, acceptance was initially conceptualized to reflect three different components of attitudes: cognitive, affective, and behavioral. The cognitive component was the perception of fairness; the affective component was commitment toward the job; and the behavioral component was turnover intentions and compliance. Those components were highly intercorrelated (r = .66 to .93), and thus was collapsed into a single index of acceptance. Then the question becomes whether this composite variable can still be labeled *acceptance*. It is possible that perceived fairness is an antecedent of acceptance, while affective commitment and turnover intentions may be consequences of acceptance. Another problem was the lack of face validity. For instance, the items measuring perceived fairness were (a) "believe it is fair for the company to impose a smoking ban," (b)

"find the smoking ban acceptable," (c) "believe the company did the right thing by imposing a smoking ban," and (d) "support the company's smoking ban." (p. 292). Those items, however, seem to be a mixture of fairness, acceptance, and legitimacy perceptions. Finally, the distinction between heavy and light smokers was done by a median split. This approach was not consistent with the conventional criterion of heavy smokers (20 or more cigarettes per day). More importantly, the median split may cause loss of information, underestimates the magnitude of bivariate relationships, and lowers statistical power in some cases (Cohen, 1983). In other cases, it may increase the probability of type I errors and create spurious statistical significance (Maxwell & Delaney, 1993).

In sum, fairness or organizational justice is a central concern in organizational settings. All dimensions of organizational justice are important considerations for the successful implementation of workplace health promotion. The issues of distributive justice may emerge as organizations integrate financial incentives into health insurance premiums. Procedural justice perceptions may be enhanced by incorporating employees' voice into the decision making process. Interactional justice may be especially important as all decision making processes necessarily involve communication. Greenberg's (1994) study demonstrated the importance of this dimension, but the methodological problems call for further investigations.

Outcomes of Workplace Health Promotion

Topics discussed so far (i.e., legitimacy of employer control and perceived fairness) were the potential antecedents of the successful implementation of workplace health promotion. The next topic to be discussed is the outcomes of workplace health promotion. Workplace health promotion causes a wide range of effects at both individual and organizational levels (Anderson, Serxner, & Gold, 2001). At the individual level, besides the intended purpose of improving

employee health, workplace health promotion may cause a host of cognitive, emotional, and behavioral effects including compliance, motivation, self-esteem, self-efficacy, job satisfaction, work effort, and turnover intentions, to name a few. At the organizational level, in addition to the direct effect of reducing health care costs, workplace health promotion may cause diverse organizational outcomes regarding recruitment, retention, morale, and reputation (Anderson et al., 2001). The current study examines both levels of outcomes: compliance intentions as an individual level outcome and organizational attraction as an organizational level outcome.

Compliance intentions

As workplace health promotion is essentially a health intervention in organizational settings, compliance is a central concern for implementation. In clinical settings, compliance is defined as "the extent to which a person's behavior coincides with medical or health advice" (Haynes, Taylor, & Sackett, 1979, pp. 1-2). Similarly, compliance with workplace health promotion may be defined as the extent to which employees change their health behavior (e.g., quitting smoking, following diets, or changing lifestyle) in accordance with the organization's health policies and programs. Without employees' compliance with the rules and decisions, organizations cannot achieve their goals of improving employee health and the company's bottom line. Unfortunately, however, noncompliance is widespread in all types of health interventions, resulting in a substantial loss of valuable resources and creating a potential health hazard (M. H. Burgoon & Burgoon, 1990).

Legitimacy is an important consideration for gaining compliance because it is difficult to ensure compliance solely by coercive or reward power (Tyler, 1990). Employers may threaten employees with harsh punishments or provide financial incentives to entice compliance. These stick and carrot strategies, however, may not be very effective for changing employees' behavior

(Tyler, 2004). A meta-analysis of 14 studies on anti-marijuana policies (Paternoster, 1987) reported that the average effect size (r^2) of perceived threat of punishment was less than .03. This small effect may have been overestimated because in most studies, the perceived threat of formal sanctions was confounded with the threat of informal social sanctions. An analysis of anti-drug policies (MacCoun, 1993) also reported that the threat of punishment was not effective. Harsh punishment reduced the perceived certainty of punishment because authorities may become more reluctant to impose the punishment and defendants may become more aggressive in fighting the charges. As the perceived certainty of punishment has stronger effects for prevention, harsh punishment may actually undermine the effect of policies (MacCoun, 1993). Considering the weak effects of coercive power of legal authorities for regulating illegal behavior (i.e., marijuana or drug use), it can be easily inferred that coercive power of corporations regulating legal behavior (e.g., smoking and unhealthy eating) would be barely effective.

Similarly, the use of reward power may be also ineffective in gaining compliance. Curry et al. (1990) reported that while intrinsic motivation such as health concerns and self-control was positively associated with abstinence from smoking, extrinsic motivation including financial reward was negatively associated with abstinence. Extrinsic motivation was found to be detrimental to smoking cessation. Another study on smoking cessation programs (Harackiewicz, Sansone, Blair, Epstein, & Manderlink, 1987) reported that while the effect of intrinsic motivation persisted longer, the initial effect of extrinsic motivation was diminished quickly over time. Therefore, the use of financial reward may be neither effective nor reliable measure for changing employees' health behavior.

As coercive power and reward power are not effective, employers should go beyond the stick and carrot strategies to ensure compliance. Increasing the perception of legitimacy may be one solution for gaining compliance. In order to function effectively, organizations need support and cooperation from its members. Such voluntary compliance cannot be attained without the legitimacy of the organization. As Tyler (2004, 2006) suggested, legitimacy becomes a salient issue when organizations make decisions or create rules. People's compliance will depend on the perception whether those decisions and rules are consistent with their internalized norms and values. When people believe that the decisions and rules are appropriate, proper, and just, they will authorize the organization to determine their own behavior within reasonable boundaries. Therefore, legitimacy facilitates the organization with the ability to ensure compliance and to encourage rule-following (Sunshine & Tyler, 2003).

Increasing the perception of fairness may be another solution to ensure voluntary compliance from employees. The judgment of fairness is central to organizational members' evaluations of the organization and its decisions (Tyler, 2004, 2006). The perceived legitimacy of the organization involves its members' assessments of the manner in which the organization exercise their power. When people believe that the decision making process in organizations is fair, which is consistent with their internalized moral value of fairness, they feel obligated to follow the directions of the organizations. In other words, the perceived fairness of an organization is an indicator of whether the organization's decisions and rules are legitimate (Tyler & Lind, 1992). Therefore, perceived fairness may be a key antecedent of perceived legitimacy (Sunshine & Tyler, 2003).

In determining perceived legitimacy, the perception of procedural justice is more important than the perception of distributive justice or the favorability of actual outcomes (Tyler,

1997). The importance of procedural justice has been demonstrated in the literature on the fair process effect: when people believe the outcomes are delivered through fair procedures, they are more willing to accept negative outcomes (Greenberg & Folger, 1983; Van den Bos et al., 1997). Their loyalty and commitment to the organizations may not be compromised by the negative outcomes (Tyler, Casper, & Fisher, 1989). This effect of procedural justice mitigating the negative effects of unfavorable outcomes is a ubiquitous phenomenon in organizational settings (Lind et al., 1993; Lind & Tyler, 1988),

Nevertheless, the perception of procedural justice alone may not be sufficient to ensure compliance. The effect of procedural justice on employees' compliance with the rules and decisions of organizations is relatively weak. A meta-analysis by Cohen-Charash and Spector (2001) reported that the effect size of procedural justice on compliance was relatively weak ($r^2 = .02$). It was contrasted with the strong effect of procedural justice on work performance ($r^2 = .20$). Another study (Kim & Mauborgne, 1993) reported a substantial correlation between procedural justice and compliance. This particular study, however, may have limited external validity because the sample was subsidiary top managers of multinational corporations. Moreover, the effect of procedural justice was moderated by a subsidiary's industry type: the effect was stronger in global industries than in multidomestic industries. It is possible that the behavior of top managers of multinational corporations in global industries may be different from a majority of workers.

To further increase compliance, interactional justice may complement procedural justice. Communication is an important consideration for increasing compliance in health interventions (M. H. Burgoon & Burgoon, 1990). Vivian and Wilcox (2000) suggested that in order to gain compliance in health settings, it is necessary to consider both the content and relational

dimensions of communication. The content dimension of communication is about whether information given to patients is clear, explicit, comprehensive, and easily understandable. The relational dimension of communication is about showing caring, empathy, trust, and honesty. The quality of communication content and relationships with health care professionals is linked to higher patient satisfaction, which in turn leads to greater patient compliance (J. K. Burgoon et al., 1987).

When extended to organizational settings, the content and relational dimensions of communication correspond with the informational and interpersonal dimensions of interactional justice, respectively. Employees' perception of informational justice may be increased when organizations provide clear and sufficient information regarding workplace health policies and programs. Similarly, employee's perception of interpersonal justice may be increased when organizations treat employees with respect and express genuine concerns. Therefore, employers may need to carefully plan and implement communication efforts to ensure compliance from employees.

A high level of perceived legitimacy and fairness may increase compliance intentions from the prospective members of organizations. The prospective members' intention to comply with the health policies and programs may be an immediate predictor of their actual compliance after joining the organization (Fishbein & Ajzen, 1975). Securing compliance from the prospective members may be as important as gaining compliance form the current members of organizations for the sustainable success of workplace health promotion. If the prospective members join the organization but do not comply with the health policies and programs, the effort of the existing members would be discouraged. In addition, the new members may face repercussions for noncompliance, which may negatively impact new employee retention.

Moreover, if the prospective members do not wish to comply with the health policies and programs, they may perceive the organization as less attractive and eventually, they may choose not to join the organization. This may be linked to another potential outcome of workplace health promotion: organizational attraction.

Organizational attraction

In addition to changing employees' health behavior, workplace health promotion may impact the recruitment and reputation of organizations (Anderson et al., 2001). These organizational outcomes may be especially relevant to organizational attraction. Organizational attraction refers to a job seeker's assessment and pursuit of an organization as a potential place to work (Highhouse, Lievens, & Sinar, 2003). It consists of three components: general attractiveness, intention to pursue, and prestige. General attractiveness is a cognitive dimension, which individuals' assessment of an organization as a good place to work. Intention to pursue is a behavioral dimension, which reflects the behavioral intention to be a member of the organization. Prestige reflects social status of the organization such as reputation and popularity (Highhouse et al., 2003).

As all organizations wish to attract the most qualified job applicants, organizational attraction is an important consideration. Recruiting competent job candidates is essential for organizations to function effectively (Barber, 1998). It provides greater latitude for human resource management and yields a sustained competitive advantage for organizations (Lado & Wilson, 2012). As the industry is becoming more globalized, competitive, and sophisticated, recruiting a high quantity and quality of job candidates is becoming more important.

The career decisions of job applicants may be influenced by how workplace health promotion is implemented. In their initial job search process, job applicants are likely to learn

about the organization's policies and programs, as many companies announce their health policies and programs on company brochures or websites. In their interview process, a job applicant may learn more about the company's health policies and programs, especially if these policies and programs are associated with hiring decisions (e.g., giving hiring priority to nonsmokers) (Fielding, 1990). In the negotiation process after receiving a job offer, job applicants may receive an extensive amount of information regarding health incentives such as premium discounts for non-smoking, health-weighted employees. Throughout this process of anticipatory socialization, the prospective members of organizations may learn how the policies and programs are communicated to employees.

A high level of perceived legitimacy and fairness of workplace health promotion may make organizations more attractive places to work for the prospective members of organizations. The information job applicants receive during the anticipatory socialization phase may serve as a signal or cue of working conditions in the organization and creates an impression of what it would be like to be a member of that organization (Spence, 1973). The literature on personorganization fit suggests that people are attracted to organizations whose norms and values are congruent with their own (Chatman, 1991). As legitimacy and fairness are universal human considerations (Lind & Tyler, 1988), job applicants would be more attracted to organizations if the organizational policies and human considerations programs are perceived as legitimate and fair.

Empirical studies have demonstrated that organizational policies and procedures promoting legitimacy and fairness perceptions increase organizational attraction. For example, organizations adopting diversity promoting policies are perceived as more positively by job applicants (Williams & Bauer, 1994). Although the effect was stronger for racial and gender

minority members, majority group members (i.e., white males) also evaluated the diversity promoting organizations more positively. It was because the policy communicated the organizations' values of facilitating equal access to employment and advancement for all employees, which was consistent with the job applicants' moral value of fairness. Another study (Turban & Greening, 1997) reported that organizations engaging in corporate social responsibility initiatives are perceived more favorably by job applicants. The organizations' social policies and programs may attract potential applicants by signaling the moral values of the organizations and increasing the organizations' social legitimacy and prestige (Garriga & Melé, 2004). In the same vein, promoting legitimacy and fairness perceptions of workplace health promotion may increase the positive reputations of organizations and attract more qualified job applicants.

To summarize, in order to attain sustainable success, workplace health promotion should positively impact the prospective members, along with the current members. In their anticipatory socialization process, job applicants may be exposed to information and messages regarding workplace health policies and programs, and gauge the legitimacy and fairness of the health interventions. This perception of legitimacy and fairness may influence their intention to comply with the policies and programs, as well as their attraction toward the organizations.

HYPOTHESES AND RESEARCH QUESTIONS

The current study investigated how fictional employers' control and communication messages influence prospective organizational members' legitimacy and fairness perceptions, which in turn affect the outcomes of workplace health promotion. The model was developed based on the basic input-process-outcome framework (Guzzo & Shea, 1992; Littlepage, Schmidt, Whisler, & Frost, 1995).

The inputs may be derived from both the organizational and individual levels. The organizational level inputs include various factors that may determine the operation of workplace health promotion such as organizational structure, culture, resources, support, reward allocation, and decision making process. Among these factors, the current study examined the effects of employer control and messages that an organization might use to communicate its workplace health policy to the prospective members of the organization. The individual level inputs encompass diverse factors such as member characteristics, goals, attitudes, and beliefs. Among them, the current study examined the potential effects of individual participants' concern to be healthy.

The process is the link or mediator between inputs and outputs (Ilgen, Hollenbeck, Johnson, & Jundt, 2005) encompassing various affective, behavioral, and cognitive factors. The current study focused on examining the cognitive procedure of how organizational members process the given information and messages regarding workplace health promotion and how they form their judgment. Specifically, the study examined the perceptions of legitimacy and fairness, which are the important dimensions of cognitive appraisal that lead to emotional experiences

(Smith & Ellsworth, 1985). This study also explored the role of affective factors (i.e., emotion) in this process.

The output is the result of the process. Workplace health promotion may cause a multitude of individual level and organizational level outcomes (Anderson et al., 2001). The current study examined the compliance intentions and organizational attraction of prospective members of organizations at their anticipatory socialization phase. Based on this framework, the current study examined two of the most commonly implemented areas of workplace health promotion: smoking cessation and weight control programs (Claxton et al., 2011).

Employer Control and Perceived Legitimacy

A high level of employer control may undermine the perceived legitimacy of interventions. Organizations' health-related guidelines and regulations can be perceived as legitimate up to a certain point. A reasonable level of employer control may be perceived reasonable and necessary for encouraging employees to change their health behavior. On the other hand, as observed in lawsuits resulting from severe smoking and weight control policies, an excessive amount of employer control may result in significant repercussions. If employers' interventions are perceived as intrusion into employees' privacy, which is one of the major concerns of employees (Park, Dalsey, et al., 2011), workplace health promotion may not be perceived as legitimate.

Empirical studies have demonstrated a negative relationship between the severity of employer control and the perceived legitimacy of workplace health promotion. Klautke and Park (2011) examined the three areas of workplace health promotion: anti-smoking programs, employee fitness programs, and health-risk-appraisals. The results showed that a high-level of employer control (e.g., firing smokers who fail to quit, charging higher out-of-pocket health

insurance contributions for employees who fail to meet fitness goals, and imposing fines to employees who have high cholesterol levels) was less likely to perceived as legitimate than a moderate-level of employer control (e.g., imposing mandatory pre-employment nicotine testing, mandatory meeting with an assigned fitness coach, and mandating employees for physical checkups), which in turn was less likely to be perceived as legitimate than a low-level of employer control (e.g., limiting smoking to designated areas, eliminating junk-food snacks from vending machines, and encouraging employees to sign up for complementary physical check-ups). The findings were consistent across the three domains of workplace health promotion. Another study (Park, Klautke, et al., 2011) on smoking cessation and fitness programs reported consistent findings from different populations (i.e., college students and working adults) in different countries (i.e., Korea), implying the generalizability of the findings. Therefore, the following hypothesis was formulated:

H1: The severity of employer control will be negatively associated with perceived legitimacy.

Health Orientations and Perceived Legitimacy

Individual employees' health-related orientations may influence the perception of legitimacy. Individual prospective employees have different attitudes toward healthy life style. This individual difference may affect the legitimacy perceptions of possible health interventions in respective areas. For example, non-smokers or former smokers who consider smoking as a serious threat to their health may welcome strict smoking regulations. Smokers who are highly aware of the risks and are interested in quitting may find the restrictions to be valuable extrinsic motivators to quit (Sofian et al., 1994). Likewise, if employees are concerned about maintaining

a well-balanced diet and being in good shape, they may perceive employer control as helpful reinforcement.

Although employees' current health condition (e.g., smoking status, BMI) may influence their perception of workplace health promotion to some extent, it may not be the sole determinant. Early studies (e.g., Rosenstock & Stergachis, 1986) suggested a simplistic view: non-smokers and ex-smokers welcome smoking prohibitions policies, while current smokers disapprove the restrictions. Recent studies, however, suggested that the relationship may be more complex. For example, smokers may positively evaluate smoking restrictions when organizations implement the policies in a supportive, non-threating manner (Park et al., 2010). Nonsmokers, who are not directly affected by anti-smoking policies, may also show positive reactions toward organizational support for smokers (Park, Dalsey, Kang, Hong, & Lee, 2012), while showing negative reactions toward overly restrictive policies aimed at employer control (Dalsey & Park, 2009). Therefore, besides employees' current health conditions, a multitude of organizational and individual factors may influence their responses toward workplace health policies and programs.

In evaluating the legitimacy of workplace health promotion, individual employees' attitude toward health may be more important than their actual health conditions. Empirical studies reported that individual employees' health orientations influence the perception of legitimacy, while their health conditions (e.g., smoking status) did not. Park, Klautke, et al. (2011) reported that individual employees' health orientations were associated with higher perceived legitimacy, while their current risk factors such as smoking status were not. Klautke and Park (2011) also reported that individual employees' anti-smoking orientation was

associated with higher perceived legitimacy across the three levels (i.e., low, moderate, and high) of employer control.

The two studies, however, reported some discrepancies. Klautke and Park (2011) reported that the effects of health orientations may be domain-specific. For anti-smoking interventions, individual employees' anti-smoking orientation was the only significant predictor of perceived legitimacy, while other health-related orientations such as fitness orientation, nutrition consciousness, and wellness awareness were not significant. In other words, the perceived legitimacy was influenced only by a directly relevant health orientation. Similarly, for workplace fitness programs, individual employees' nutrition consciousness was the only significant predictor, whereas other types of health orientations were not significant. In this case, however, the effect was in the opposite direction. Employees who were more concerned about healthy nutrition evaluated employer control more *negatively* than employees who were less concerned about healthy nutrition. One speculation is that employees with low nutrition consciousness may have perceived the strict policy as an opportunity to change their health behavior, while employees with high nutrition consciousness may have perceived the strict policy as an intrusion of privacy. Other moderating traits that were not measured in these studies might also explain such outcomes, including authoritarianism, cultural differences in communication, and fear of negative evaluation.

While Klautke and Park (2011) reported the domain specificity of health orientations, Park et al.'s (2011) replication in Korea reported somewhat different results. Park et al. (2011) showed that both anti-smoking orientation and nutrition consciousness influenced the perception of legitimacy. The effects were found for both anti-smoking and fitness programs. Additionally, contrary to Klautke and Park's (2011) findings, nutrition conscious employees evaluated

employer control more *positively* than employees who were not concerned about healthy nutrition. The discrepancy in findings may result from cultural differences. The holistic cognition of East Asian cultures (Masuda & Nisbett, 2001; Nisbett, Peng, Choi, & Norenzayan, 2001) may have lead the Korean employees to perceive the legitimacy of employer control in a broader context, considering that employer control in one health domain may lead employer control in other health domains. Nonetheless, this interpretation remains a speculation as the number of studies is limited. Before examining potential cultural differences, further investigation is necessary to scrutinize the effect of individual employees' health orientations. Hence, the following research question was raised:

RQ1: Do individual health orientations influence perceived legitimacy?

Communication Messages and Perceived Fairness

The perceived fairness of workplace health promotion may be influenced by how employers communicate policies and programs. Specifically, employees' perceptions of fairness may be influenced by the informativeness and social sensitivity of the message, which reflect the two dimensions of interactional justice: informational justice and interpersonal justice (Bies & Moag, 1986).

Informational justice may be achieved when employers provide employees with sufficient, truthful, and relevant information about procedures and outcomes in an appropriate manner. The criteria for determining informational justice may be derived from the Gricean maxims of conversation (Grice, 1975). The maxim of quantity relates to expectations regarding the reasonable amount of information. The maxim of quality relates to expectations regarding the truthfulness of information. The maxim of relation relates to expectations regarding the relevance of information. The maxim of manner relates to expectations regarding the clarity,

brevity, and orderliness of presentation. All these four maxims may be relevant to informational justice. If employers provide employees with sufficient information about why health interventions are necessary, who will be affected by the interventions, how the interventions will be implemented, and what the consequences will be, workplace health promotion may be more likely to be perceived as fair. At the same time, information needs to be truthful, relevant, and clear to promote the perception of fairness.

Interpersonal justice may be achieved when employers communicate with employees in a socially sensitive way. The criteria for determining interpersonal justice include empathy, trust, politeness, and honesty (Bies & Moag, 1986). In the context of workplace health promotion, employees in general are highly concerned about the negative consequences such as intrusion into privacy and punishment for noncompliance (Park, Dalsey, et al., 2011). If employers express their genuine care about employee health and build a sense of trust through candid but polite communication rather than punitive policing of employee transgressions, workplace health promotion may be more likely to be perceived as fair.

In addition, to achieve interpersonal justice, the communication messages should not show any prejudice. The implementation of workplace health promotion may potentially create an organizational culture of stigmatizing employees with health risk factors (Wang, 1992; Zoller, 2003). For example, employees with health risk factors (e.g., smokers and obese employees) may be blamed as the culprits of high medical costs and low productivity. They may also be blamed for not trying hard enough to change their health behaviors, regardless of their actual level of effort. A common misperception in health promotion is that such stigmatization of unhealthy practices may motivate high-risk employees to change their health behaviors and thus is justifiable. However, stigmatization actually demotivates the efforts of high-risk employees

because negative incentivizing may result in discouragement and disempowerment for a condition that may be hard to change (Puhl & Heuer, 2010). High-risk employees may perceive stigmatization as discrimination or unfair treatment, and this demoralization may eventually threaten their physical and psychological health. Even low-risk employees may not welcome the promotion of unfair treatment and disparities in their workplace and may perceive management which adopts stigmatizing employee policies as negative unhelpful management. Put together, if the communication messages regarding workplace health promotion are empathic, trustworthy, polite, honest, and without prejudice, the policies and programs may be more likely to be perceived as fair.

H2: The informativeness of the message will be positively associated with perceived fairness.

H3: The social sensitivity of the message will be positively associated with perceived fairness.

Perceived Legitimacy and Fairness

Legitimacy and fairness are closely linked. Legitimacy and fairness may be conceptually distinct to some extent (Daniels & Sabin, 1997). A legitimate authority may act unfairly, such as a public school teacher revealing racial prejudice towards students. Conversely, an illegitimate authority may deliver fair decisions, such as a gang leader equally distributing their stolen money. In most cases, however, the two constructs are closely related. People perceive authorities who exercise their authority fairly as more legitimate (Tyler, 2006). Accordingly, the perception of fairness becomes a key antecedent of the perception of legitimacy (Sunshine & Tyler, 2003), as reflected in Tyler's (2006) definition of legitimacy which incorporates the concept of fairness or justice: "the belief that social arrangements, institutions, authorities and their decisions and rules

are appropriate, proper, and *just*" (p. 376). In the context of workplace health promotion, the perceived fairness of communication messages may increase the perceived legitimacy of interventions; whereas unfair health mandates may undermine the perceived legitimacy of an intervention and result in refusal to comply and resentment against the employer.

If authorities do not act fairly, they may eventually lose their legitimacy. For example, the teacher revealing racial prejudice may cause the students to question the legitimacy of their teacher and eventually be sanctioned for unfair treatment, and eventually lose his or her job. In the long run, therefore, authorities cannot be legitimate without fairness. As Daniels and Sabin (1997) suggested, people may "reasonably accept something as a legitimate authority only if it abides by a procedure that we consider generally fair" (p. 306). In the context of workplace health promotion, if the messages of employers lack informational justice (e.g., withholding or manipulating information) or interpersonal justice (e.g., blaming unhealthy employees), workplace health promotion will be less likely to be perceived as legitimate. Therefore, a positive correlation between perceived legitimacy and perceived fairness is expected.

H4: Perceived fairness will be positively associated with perceived legitimacy.

Emotional Response

The perceptions of legitimacy and fairness may be linked to emotional experiences (Smith & Ellsworth, 1985). As for fairness, Homans (1974) suggested the impact of distributive justice on emotional responses: fair treatment leads to positive emotions, whereas unfair treatment leads to negative emotions. Specifically, those who under-rewarded may feel anger and those who over-rewarded may feel guilt. Hegtvedt and Killian (1999) extended this argument to procedural justice: fair procedure enhances positive emotions, whereas unfair procedure increases negative emotions including anger and guilt. A meta-analysis (Cohen-Charash &

Spector, 2001) also showed that distributive justice and procedural justice are significantly correlated with negative emotions, weighted mean r = .27 and .32, respectively. More recently, neuroimaging evidences suggested that unfairness evokes greater activation in emotional areas of the brain, including the anterior cingulate cortex, anterior insula, and dorsolateral prefrontal cortex (Dulebohn et al., 2009). As for interactional justice, Chebat and Slusarczyk's (2005) path analysis showed substantial direct effects between interactional justice and positive emotion and between interactional justice and negative emotion. The standardized path coefficients were .34 and .47, respectively.

As for legitimacy, Roseman, Spindel, and Jose (1990) reported that the perception of legitimacy is associated with negative emotions including unfriendliness, anger, and regret, but not with shame. A study examining conflict situations in organizational settings (Johnson, Ford, & Kaufman, 2000) showed that perceived illegitimacy triggers negative emotions such as anger and resentment and increases the likelihood of expressing these emotions.

The current study explored if these relationships perceived legitimacy and fairness and emotional responses are also found in the context of workplace health promotion.

RQ2: Do perceived legitimacy and perceived fairness lead to emotional responses? **Compliance Intentions**

The prospective members of organizations may be more willing to comply with workplace health policies and programs when they perceive those interventions as legitimate. When organizations make decisions and communicate in a way that is consistent with the internalized values and norms of organizational members, employees may view the organizations as legitimate authorities (Tyler, 2006). When organizations have legitimacy, the members voluntarily follow their rules and decisions due to the feelings of obligation and responsibility

(Sunshine & Tyler, 2003). When organizations lack legitimacy, they should rely solely on coercive or reward power, which may fail to bring in sustainable long-term effects on employee behavior (Tyler, 2004).

The effect of legitimacy may not be limited to the current members of organizations, but it also extends to the prospective members of organizations. The congruence of values between job applicants and organizations instills a sense of legitimacy (Tyler, 2006), which may impact a wide range of organizational outcomes at various stages of assimilation processes. At the anticipatory socialization phase, people may be attracted to organizational entry, the pre-entry value congruence may predict newcomers' adjustment and assimilation into the new organization (Meglino & Ravlin, 1998). After the entry stage, the pre-entry value congruence may be linked to compliance (O'Reilly & Chatman, 1986). When the prospective members of organizations believe that workplace health policies and programs are consistent with their internal values, they may perceive interventions as more legitimate, and consequently, be more willing to comply.

Similarly, prospective members of organizations may be more willing to comply with workplace health policies and programs when they believe the communication processes regarding the interventions are fair. When organizations exercise their authority fairly, their rules and decisions are more likely to be accepted by the members (Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Tyler, 2006). The literature on the fair process effect demonstrated that when outcomes are delivered through fair procedures, people are more willing to accept negative outcomes (Greenberg & Folger, 1983). Similar to this fair process

effect, a high level of informational and interpersonal justice may mitigate people's reactions to negative outcomes (Greenberg, 1993b, 1994). The issue of fairness may be especially relevant to the workplace health promotion context, as the primary concerns of employees are negative consequences associated with employer control and punishment for noncompliance (Park, Dalsey, et al., 2011). Therefore, the following hypotheses were formulated:

H5: Perceived legitimacy will be positively associated with intention for voluntary compliance.

H6: Perceived fairness will be positively associated with intention for voluntary compliance.

The voluntary compliance of employees needs to be distinguished from involuntary compliance (McEwen & Maiman, 1986). Employees may voluntarily comply when workplace health promotion is perceived as legitimate and fair, but they may involuntarily comply when the severity of employer control is high. Employers may use diverse strategies to gain compliance in different situations (Cody, Woelfel, & Jordan, 1983; Marwell & Schmitt, 1967). While promoting legitimacy and fairness may be a way of gaining voluntary compliance, using coercive power (e.g., threat of punishment) may be a way of gaining involuntary compliance (Kochan, Schmidt, & DeCotiis, 1975).

In the short run, such coercive power may increase the overall compliance of employees. Even if a threat of punishment may undermine legitimacy and fairness, a severe punishment may leave employees little choice but to follow the rules and decisions of organizations. However, relying on such coercive power may be ineffective and fail to sustain its effect over time (Curry et al., 1990; Tyler, 2004). Considering that employees' participation in the workplace health promotion is largely involuntary (Roman & Blum, 1987), investigating the difference between voluntary and involuntary compliance may have important implications. Therefore, the following research question was raised:

RQ3: How is involuntary compliance different from voluntary compliance in relation with employer control, perceived legitimacy, and perceived fairness?

Organizational Attraction

The perception of legitimacy may influence the attraction of organizations. People are attracted to organizations with norms and values that are consistent with their own (Chatman, 1991). During the anticipatory socialization processes, the prospective members of organizations may be exposed to a considerable amount of information and communication messages regarding workplace health policies and programs. The information and messages may signal the norms and values of the organizations (Garriga & Melé, 2004), and create an impression of what it would be like to be a member of that organization (Spence, 1973). Based on this impression, the prospective members may judge the congruence between the values of organizations and their own. When they are consistent, the organizations will be perceived as more attractive and prestigious places to work.

In a similar vein, the perception of fairness may influence the prospective members' assessment and pursuit of organizations. Studies have shown that fairness is an important antecedent of organizational attraction. Ravlin and Meglino (1987) reported that fairness, concern for others, honesty, and achievement are the most salient work values for individuals. Judge and Bretz (1992) examined these four values in the recruitment context and found that all values except honesty were significant predictors of organizational attraction. These predictors were more important for the career decisions of job applicants than salary and promotion opportunities. Therefore, it was expected that perceived fairness would be positively associated
with organizational attraction. Additionally, concern for others may be linked to the interpersonal dimension of interactional justice. In the context of workplace health promotion, job applicants may be more attracted to organizations where workplace health policies and programs are communicated in a fair manner.

H7: Perceived legitimacy will be positively associated with organizational attraction.

H8: Perceived fairness will be positively associated with organizational attraction.

Health Intervention Domains

The current study examined two of the most commonly implemented areas of workplace health promotion: smoking cessation and weight control programs (Claxton et al., 2011). The results from the two experiments were compared to explore any potential differences. Consistent findings across the two experiments may indicate the generalizability of the model across different domains of health intervention. Dissimilar findings from the two experiments may suggest the need for further investigations. Therefore, the findings from smoking cessation and weight control programs were compared.

RQ4: Are the effects of employer control and communication messages different across the intervention types?

RQ5: Are the effects of legitimacy and fairness different across the intervention types?

Proposed Model

Based on the proposed hypotheses and research questions, a conceptual model of legitimacy and fairness in workplace health promotion was proposed. The model draws upon the basic input-process-outcome framework (Guzzo & Shea, 1992; Littlepage et al., 1995). From the employers' side, the input variables include how they exert control over employees' health behavior and how they communicate the policy to employees. From the employees' side, the input variables include their preexisting attitudes toward healthy life style. The process variables include how employees perceive the legitimacy and fairness of the policy after their exposure to the message. The output variables include whether employees are motivated to comply with the policy and attracted to the organization implementing the policy.

Figure 1. Conceptual model of legitimacy and fairness in workplace health promotion



Process

Output



* The plus and minus signs denote positive and negative correlations, respectively.

STUDY OVERVIEW

The proposed hypotheses and research questions were examined in two experiments. Experiment 1 examined the model (as shown in Figure 1) for smoking cessation and Experiment 2 examined the model for weight control. Both studies used the same experimental procedures with only exception of making experimental materials to be about either smoking cessation or weight control. The same experimental procedures were used to examine if the hypothesized links among the variables showed similar patterns of association across different intervention types.

Participants

For each experiment, participants were approximately 200 undergraduate students enrolled in a large Midwestern university. The participants of the two studies were recruited from different participant pools and were not allowed to participate in both experiments.

Design and Procedure

Each study employed a 2 (severity of employer control) \times 2 (informativeness of the message) \times 2 (social sensitivity of the message) between-subject factorial design. Participants were invited to a research study of workplace health policy. Upon their agreement with the consent form, participants were asked to report their health-related orientations. After reading a brief introduction of a hypothetical company recruiting college graduates, participants were randomly assigned to one of the eight experimental conditions, which are vignettes describing the workplace health policy. Next, participants were asked to answer for the manipulation check items, report their perceptions of legitimacy and fairness, and indicate their willingness to comply with the health policy. Then, participants were asked to indicate their attraction toward

the organization. At the completion of the experiment, participants were debriefed and received a 0.25 hour of research credit for participation.

Manipulation

Severity of employer control. The manipulation for the severity of employer control was derived from previous studies (Park et al., 2012, 2010). The high severity condition involved mandatory participation and punishment for noncompliance. The punishment included both financial penalties and disadvantages for promotion. The low severity condition involved voluntary participation, without any punishment for noncompliance. Previous studies (Park et al., 2012, 2010) reported a moderate effect size (r = .33) for the manipulation.

Informativeness of the message. The manipulation of informativeness was developed based on Greenberg's (1994) experiment. The informativeness of the message was operationalized in terms of whether participants received a sufficient rationale for the implementation of the health policy. The high informativeness condition clearly delivered a substantial amount of detailed information about the negative health and financial impacts of smoking or obesity, supported by statistics from reputable sources. The low informativeness condition presented only most cursory information about the reason for implementing the health policy. Greenberg (1994) reported a strong effect size (r = .62) for the manipulation.

Social sensitivity of the message. The manipulation of social sensitivity was also developed based on Greenberg's (1994) experiment. The social sensitivity of the message was operationalized in terms of whether the message delivered social sensitivity toward the employees affected by the health policy. The high sensitivity condition expressed genuine concerns about employee health in a polite manner. The low sensitivity condition emphasized business interests over concern for employees and stigmatizes employees with health risk factors.

The manipulation of social sensitivity in Greenberg's (1994) study was successful and the effect size was substantial (r = .64). However, the manipulation was confounded with other factors such as the length of the message and the emphasis on the distributive justice of the policy. The current study addressed these issues by controlling for these extraneous factors.

Manipulation Check

To ensure the successful manipulations of three independent variables (i.e., severity of employer control, informativeness, and social sensitivity), participants were asked to answer the manipulation check items after reading the vignettes describing a hypothetical company and its health policy.

A six-item scale was adopted from a previous study (Park et al., 2012) to measure if participants perceived one type of employer control as more severe than the other. The previous study reported reasonable reliability and construct validity. For the manipulation check of informativeness, a four-item scale was developed instead of using Greenberg's (1994) one-item scale. It measured whether the amount of information provided in the message was sufficient. Similarly, for the manipulation of social sensitivity, a four-item scale was developed to replace Greenberg's (1994) one-item scale, to assess whether the message showed politeness, empathy, and respect toward employees who are affected by the health policy.

Measurement

All measurement items used a 5-point Likert style response format (1 = strongly disagree, 5 = strongly agree). The appendix shows all the measurement items.

Individual health conditions. After reporting basic demographic information (e.g., gender, age, academic status, and work experience), participants were asked to report smoking status by identifying themselves as non-smokers, current smokers, ex-smokers, or occasional

smokers. Current smokers were asked to report the amount of cigarettes they consume per week and if they were currently trying to quit smoking. For weight conditions, participants were asked to report their weight and height. Participants' BMIs were calculated by dividing body weight in kilograms by the square of height in meters. The World Health Organization's category (World Health Organization, 2006b) was used to classify underweight (BMIs less than 18.5), normal weight (BMIs between 18.5 and 25), overweight (BMIs between 25 and 30), and obesity (BMIs over 30). In addition to the calculated BMIs, participants' self-identified weight category was asked. Participants then were asked if they were concerned for their weight, using a scale of zero to ten, and if they were currently on a diet.

Individual health status. To measure participants' self-reported physical health, a fiveitem scale was adopted from the Multidimensional Health Questionnaire (MHQ) by Snell and Johnson (1997).

Individual health orientations. A 15-item scale was adopted from previous studies. The scale measured the three dimensions of personal health orientations. For *attitude toward smoking*, which assessed overall tendency to be unfavorable about smoking, a five-item scale was derived from the Attitudes toward Smoking Scale (ATS-18) (Etter, Humair, Bergman, & Perneger, 2000). For *nutrition consciousness*, which measured participants' views of the importance of healthy nutrition, a five-item scale was adopted from Aydinoğlu and Krishna (2011) and Klautke and Park (2011). For *motivation for healthiness*, which assessed participants' motivation to pursue positive physical health, a 5- item scale was adopted from Snell and Johnson (1997).

Fairness. The perception of fairness was measured by a 10-item scale. Based on the fourfactor model of organizational justice (Colquitt, 2001; Colquitt et al., 2001), informational justice

and interpersonal justice were considered as the independent dimensions of interactional justice. The items were derived Colquitt's (2001) organizational justice scale.

Legitimacy. The perception of legitimacy was measured by a 12-item scale. Following Sunshine and Tyler's (2003) definition, legitimacy was conceptualized as perceived obligation to obey the decisions of organizations and trust in the organizations. Therefore, the scale consisted of two dimensions: employees' sense of obligation to follow the health policy (six-item) and trust in the organizations' decision to implement the health policy (six-item).

Emotion. A modified version of the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) was used to measure emotion. This self-report measure consisted of 20 emotion descriptors based on two factors: positive affect (e.g., interested, excited, inspired, attentive, and active) and negative affect (e.g., distressed, upset, guilty, scared, and nervous).

Compliance intentions. A 10-item scale was developed to measure participants' intention to comply with the organization's health policy if they are hired as employees. The scale consisted of two dimensions: voluntary compliance and involuntary compliance. Each dimension was measured by five items.

Organizational attraction. A 15-item scale is adopted from Highhouse et al.'s (2003) measurement. The scale consisted of three dimensions: general attractiveness, intention to purse, and prestige.

Data Screening

Before conducting the analysis, the data were screened for 1) outliers, 2) normality, 3) missing observations, and 4) multicollinearity. First, to inspect outliers, Mahalanobis distance statistics were calculated. If a case significantly exceeded the critical value (p < .001) for the

Mahalanobis distance, it was considered as an outlier and excluded from the analysis. Second, to examine normality, skewness and kurtosis indices and standard errors were examined. If the distribution showed extreme skewness or kurtosis, the variable was excluded from the analysis. Third, missing observations were estimated based on the expectation-maximization algorithm, which consists of regression-based imputation and maximum likelihood estimation (Peters & Enders, 2002). Finally, to test multicollinearity, variance inflation factor (VIF) statistics were examined. A threat of multicollinearity was assumed if the VIF index was higher than 10 (Kline, 2005).

Data Analysis

To analyze the hypothesized relationships, an initial path model was drawn upon the proposed model. The path model included the paths for the manipulation checks which mediated the relationship between the manipulations and the criterion variables (Billings & Wroten, 1978). The manipulations were dummy-coded dichotomous variables (0 = low condition; 1 = high condition). The criterion variables were the perceptions of legitimacy and fairness, which in turn became the predictors of the output variables. The overall model was recursive and over-identified. Residuals were correlated only with one variable (i.e., neither other variables nor other residuals).

The path model was tested using Amos version 18 (Arbuckle, 2009). As recommended by Kline (2005) and Garver and Mentzer (1999), multiple model fit indexes were reported including the model chi-square (χ^2) with degrees of freedom, comparative fit index (CFI), root mean squared approximation of error (RMSEA), and standardized root mean squared residual (SRMR). The paths were evaluated in terms of statistical significance and standardized path coefficients (i.e., standardized beta weights) which represent the direct effect of variables. The

goodness of model fit was assessed criteria recommended by Hu and Bentler (1999). A good model reported 1) a non-significant χ^2 statistic at p = .05, 2) CFI larger than .95, 3) RMSEA smaller than .05, and 4) SRMR smaller than .06. An acceptable model reported 1) a χ^2 statistic which is significant but approaching to p = .05, considering its sensitivity to the sample size (Kline, 2005), 2) CFI larger than .90, 3) RMSEA smaller than .10, and 4) SRMR smaller than .10.

After testing the initial model to examine the hypothesized relationships, the model was revised to improve the fit. Included in the revised model was the manipulation checks which assessed the degree of induction from the message to the psychological state of participants (Hunter & Gerbing, 1982). The manipulation check variables were the self-reported perceptions of manipulated variables: perceived severity, perceived informativeness, and perceived social sensitivity. To improve the model fit, paths were added where necessary to improve model fit as suggested by modification indices (MI). The modification of the hypothesized model was considered only when modification indices were larger than 5.0 (Jöreskog, 1993). After achieving a good fit, the research questions were examined by incrementally adding variables.

The added variables were first examined if they had significant direct effects on other endogenous variables. If the path coefficients were not significant, the variables were excluded from the model. After including the variables with significant paths, the model fit was reassessed. The chi-square difference statistic (χ^2_D) was calculated to test the statistical significance of improvement or decrement of model fit. If the decrement of fit was significant, the variables were excluded from the model. With this procedure, the final model was constructed to best fit the data. From the final model, the direct and indirect effects were assessed. To test the significance of indirect (i.e., mediated) effects, bootstrapping technique was employed with a sampling size of 2,000 (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002).

EXPERIMENT 1

Experiment 1 tested the proposed model in the context of workplace smoking cessation policy.

Method

Participants

Demographics. A total of 201 participants completed the experiment. After excluding one extreme outlier, the final sample size became 200. Among participants, 35.5% were males and 64.5% were females. Participants' average age was 20.7. Participants were mostly Euro-Americans (73.5%), followed by Asians (14.0%) and African Americans (5.5%). Non-U.S. citizens consisted 14.5% of all participants.

Academic and work experience. Of participants, 12.0% were freshmen, 22.5% were sophomores, 29.5% were juniors, and 36.0% were seniors. A large proportion of participants were majoring in communication (48.0%), business (19.0%), social science (7.0%), and education (6.0%). Most participants had job experience as full-time (29.0%) or part-time (65.0%) workers, while only 6.0% did not have any previous work experience. About one-third (34.5%) of participants had internship experiences. A majority of participants were currently employed as full-time (12.0%) or part-time (49.5%) workers. About half of participants were searching for full-time (15.0%) or part-time (31.0%) jobs. Participants planned to work in diverse industry areas including management/business/finance (17.5%), sales/retailing/marketing (16.0%), and journalism/media/advertisement (15.5%).

Smoking status. Most participants reported themselves as non-smokers (63.0%), while 7.0% as ex-smokers, 6.0% as current smokers, and 18.5% as occasional/social smokers. Some

participants (5.5%) reported that they once tried smoking but never smoked again. The selfreported smoking status showed a significant gender difference, χ^2 (4, N = 200) = 17.11, p = .002, Cramer's V = .29. Compared to females, males were less likely to be non-smokers (72.1% vs. 46.5%) and more likely to be previous (4.7% vs. 11.3%), current (3.1% vs. 11.3%), or occasional smokers (14.0% vs. 26.8%). Among current smokers, 73.7% were smoking less than five cigarettes per day, while none of them smoked more than a pack (20 cigarettes) per day. Less than half (42.1%) participants were trying to quit smoking.

Weight condition. Participants' weight condition was measured in two ways: BMI calculation based on self-reported height and weight and the self-reported weight category (underweight, normal, overweight, and obese). The calculated BMIs showed that 9.5% of participants were underweight, 65.0% were normal weight, 19.5% were overweight, and 4.5% were obese. The participants' self-reported weight category did not perfectly match the weight category based on BMI calculation, r(195) = .47, p < .001. Especially, only three participants reported themselves as obese, while nine participants actually fell into this category based on BMI calculations. For the subsequent analyses, the BMI-based weight category was used. Compared to females, males were more likely to be overweight (12.4% vs. 32.4%) or obese (3.1% vs. 7.0%), χ^2 (3, N = 197) = 16.89, p = .001, Cramer's V = .29. Participants were moderately concerned about their weight. On a scale of zero to ten, participants' self-reported concern for weight was 5.54 on average (SD = 2.80). Females (M = 5.99, SD = 2.59) were more concerned about their weight than were males (M = 4.71, SD = 2.98), t (198) = 3.17, p = .002, r = .22. Of participants, 23% were currently on a diet, showing no significant gender differences, χ^2 (1, N = $200) = 0.67, p = .48, \phi = .06.$

Health status and orientations. Five-point Likert-type scales were used to measure participants' self-reported health status and orientations. Participants reported themselves as moderately healthy (M = 3.40, SD = 0.86), without significant gender differences, t (198) = 0.96, p = .34, r = .07. Participants reported a highly negative attitude toward smoking (M = 4.50, SD = 0.70). The negative attitude was more pronounced among females (M = 4.59, SD = 0.67) than males (M = 4.32, SD = 0.71), t (198) = 2.62, p = .01, r = .18. Participants were moderately conscious about nutrition (M = 3.46, SD = 0.80), showing no significant differences, t (198) = 1.57, p = .12, r = .11. Participants were generally motivated for health (M = 3.84, SD = 0.84), without significant gender differences, t (198) = 1.66, p = .10, r = .12.

Construct validity and reliability

Manipulation check. A three-factor model of perceived severity (three-item), perceived informativeness (four-item), and perceived social sensitivity (three-item) yielded a good fit, χ^2 (32) = 53.93, p < .01, CFI = .98, RMSEA = .06, and SRMR = .06. The reliabilities for each dimension were $\alpha = .73$, $\alpha = .89$, and $\alpha = .85$, respectively.

Perceived legitimacy and fairness. A single-factor model of fifteen items did not show a good fit, χ^2 (90) = 260.38, p < .001, CFI = .90, RMSEA = .10, and SRMR = .06. A two-factor model of perceived legitimacy (eight items) and perceived fairness (seven items) yielded a significantly better fit, χ^2 (89) = 160.39, p < .001, CFI = .96, RMSEA = .06, and SRMR = .05. Therefore, perceived legitimacy and perceived fairness were treated as separate dimensions. The correlation between perceived legitimacy and perceived fairness was significant, r = .75, p < .001. The reliabilities was $\alpha = .89$ for both perceived legitimacy and perceived fairness.

Emotion. A two-factor model of six-item positive emotion and six-item negative emotion yielded a good fit, χ^2 (53) = 112.44, p < .001, CFI = .97, RMSEA = .08, and SRMR = .04.The

reliabilities for each factor were $\alpha = .92$ and $\alpha = .94$, respectively. The correlation between the two factors was r(198) = .16, p = .02.

Organizational attraction. A second-order factor model of organizational attraction was tested with three sub-dimensions: general attractiveness (four-item), intention to pursue (three-item), and prestige (five-item). The model yielded an acceptable fit, χ^2 (51) = 143.54, *p* < .001, CFI = .95, RMSEA = .10, and SRMR = .04. The reliabilities for each factor were α = .87, α = .80, and α = .92, respectively. The factor loadings were extremely high: .90 for general attractiveness, .99 for intention to pursue, and .84 for prestige. Accordingly, the three dimensions were merged into one dimension for the subsequent analyses.

Compliance intentions. A two-factor model of three-item voluntary compliance and four-item involuntary compliance yielded an acceptable fit, χ^2 (8) = 27.54, *p* = .001, CFI = .97, RMSEA = .11, and SRMR = .04. The reliabilities for each factor were α = .86 and α = .91, respectively. The correlation between the two factors was *r* (198) = -.70, *p* < .001.

Health status. A one-factor model of five items yielded a good fit, χ^2 (5) = 11.45, p = .04, CFI = .99, RMSEA = .08, and SRMR = .04. The reliability was α = .86.

Health orientations. A three-factor model of health orientations yielded an acceptable fit, χ^2 (41) = 64.13, p = .01, CFI = .98, RMSEA = .05, and SRMR = .05. The three factors were attitude toward smoking (three items), nutrition consciousness (four items), and motivation for healthiness (four items). The reliabilities for each factor were α = .86, α = .73, and α = .93, respectively. The correlations between attitude toward smoking and nutrition consciousness was r = .23, between nutrition consciousness and motivation for healthiness was .64, and between motivation for healthiness and attitude toward smoking was .24, indicating no significant threats of multicollinearity.

Preparation for analysis

First, to inspect outliers, the Mahalanobis distance statistics were calculated. One case which significantly exceeded the critical value (p < .001) for the Mahalanobis distance was considered as an outlier and excluded from the analysis. After excluding one extreme outlier, the final sample size became 200.

Next, the data were screened for normality. Extreme positive skewness was detected for negative emotion (M = 1.88, SD = 0.90, skewness = 0.73, standard error of skewness = .17): on a scale of one to five, 50% of participants reported one for all the items of negative emotion. Attitude toward smoking displayed extreme negative skewness (M = 4.50, SD = 0.70, skewness = .1.98, standard error of skewness = .1.7): 35% participants reported five for all the items of attitude toward smoking. Accordingly, these two variables were excluded from the analysis.

The data were subsequently screened for missing observations. No more than 2% of data contained missing observations. Missing observations were estimated based on the expectation-maximization algorithm. Finally, multicollinearity was checked. The VIF statistics ranged from 1.15 to 3.54, indicating no serious threats of multicollinearity.

Results

Table 1 shows zero-order correlations among main variables, excluding individual variables (e.g., demographics, work experience, health status, and health orientations).

		1	2	3	4	5	6	7	8	9	10	11	12
1.	Severity	1	.00	02	.39*	04	09	11	10	01	05	02	.07
2.	Informativeness		1	02	.04	.25*	02	.19*	.16*	.05	.02	05	03
3.	Social Sensitivity			1	12	.02	.00	01	04	03	01	08	03
4.	Perceived Severity				.73	.01	08	14	11	05	05	.07	.11
5.	Perceived informativeness					.89	.50*	.66*	.66*	.30*	.52*	.38*	41*
6.	Perceived Sensitivity						.85	.65*	.60*	.37*	.51*	.32*	27*
7.	Perceived Fairness							.89	.75*	.44*	.60*	.41*	36*
8.	Perceived Legitimacy								.89	.53*	.67*	.55*	47*
9.	Positive Emotion									.92	.59*	.38*	25*
10	. Organizational Attraction										.94	.56*	35*
11	. Voluntary Compliance											.86	62*
12	. Involuntary Compliance												.91
	М	.50	.50	.50	3.45	3.59	3.54	3.59	3.50	3.06	3.49	3.94	2.37
	SD	.50	.50	.50	0.75	0.80	0.77	0.65	0.62	0.95	0.71	0.80	0.98

Table 1. Zero-order correlation matrix of variables (smoking cessation)

* *p* < .05

Note: Manipulations (i.e., severity, informativeness, and social sensitivity) were dummy-coded (0 = low; 1 = high). The diagonal of the matrix indicates reliabilities.

Test of initial model

The initial model tested the proposed conceptual model. The initial model included the hypothesized links between the variables. To examine RQ1 (effects of individual health orientations), the model also included nutrition consciousness and motivation for healthiness as exogenous variables, while excluding attitude for smoking for extreme skewness. The model yielded an acceptable fit, χ^2 (16) = 42.65, *p* < .001, CFI = .94, RMSEA = .09, and SRMR = .06. Figure 2 presents the initial model with standardized path coefficients. Non-significant covariances among exogenous variables were omitted from the path diagram.





Note: Severity, informativeness, and social sensitivity denote severity of employer control, informativeness of the message, and social sensitivity of the message, respectively (0 = low; 1 = high).

Voluntary compliance and org. attraction denote intention for voluntary compliance and organizational attraction, respectively.

The path coefficients indicated that with an exception of informativeness, the manipulations or individual health orientations did not have direct impacts on the perceptions of legitimacy or fairness. However, it would be premature to conclude that the input level predictors (i.e., the severity of employer control, informativeness and social sensitivity of the message, individual health orientations) had only limited impacts on the process level or output level variables.

One reason for this is that the manipulation checks were not included in the conceptual model. Manipulation checks examine whether the manipulation had the intended effects with intended strength (Pedhazur & Schelkin, 1991). In the current model, the manipulation checks are psychological states (i.e., perceived severity of employer control, perceived informativeness of the message, and perceived social sensitivity of the message) that mediate the message and the criterion variables (i.e., perceived legitimacy and perceived fairness). Including manipulation checks as mediators is especially relevant to the current study because the experiment aimed to examine not only the impact of the message itself but also an explanatory mechanism between the message and the perceptions of participants (O'Keefe, 2003). The message itself can vary greatly in different organizational contexts. For example, to deliver a socially sensitive message, an organization may take many different approaches such as using inclusive pronouns, incorporating courteous remarks, or showing warm concern. For the current study, the more important question was how organizational members interpret the message and form perceptions of the message and consequently, determine their attitude toward the organization. Therefore, the revised model included the paths for the manipulation checks to examine if the manipulations of the message successfully induced changes in the psychological states of participants.

Another reason is that the model fit was not good enough to interpret the causal paths of the path model. Although the goodness-of-fit indices of the initial model fell into a region of acceptable fit (Hu & Bentler, 1999; Kline, 2005), the model fit had room for improvement. Therefore, a revised model was suggested.

Revised model

The revised model included the paths for manipulation checks. The model tested the hypothesized links among the variables, excluding the research question variables (i.e., individual health orientations) which were not significant in the initial model. The model with manipulation checks (Figure 3) showed a poor fit, χ^2 (31) = 153.32, *p* < .001, CFI = .82, RMSEA = .14, and SRMR = .12. Discussed below are the results of manipulation checks and the modifications suggested to improve the model.

Figure 3. Revised model with manipulation checks (smoking cessation)



Manipulation check. The path coefficient between severity and perceived severity was significant, $\beta = .39$, p < .001, indicating that the manipulation of the severity of employer control was successful. The path coefficient between informativeness and perceived informativeness was significant, $\beta = .25$, p < .001, indicating that the manipulation of the informativeness of the

message was successful, despite its moderate effect size. The path coefficient between social sensitivity and perceived social sensitivity was not significant, $\beta = .004$, p = .95, indicating the manipulation of the social sensitivity of the message was not successful.

Input variables. Modification indices suggested a direct path between perceived informativeness and perceived social sensitivity (MI = 53.00). This implied that the perceptions of informativeness and sensitivity were substantially associated. Therefore, in the revised model, the path between perceived informativeness and perceived social sensitivity was included.

Input to process variables. Hypothesis 1 predicted that the severity of employer control would be negatively associated with perceived legitimacy. The direct effect of perceived severity on perceived legitimacy was not significant, $\beta = -.005$, p = .92. Nevertheless, it was possible that perceived severity indirectly affected perceived legitimacy, via the mediation of perceived fairness. Thus, in the revised model, the path between perceived severity and perceived fairness was examined.

Modification indices indicated direct paths between perceived informativeness and perceived legitimacy (MI = 13.31) and perceived social sensitivity and perceived legitimacy (MI = 5.91). Those modification indices suggested that perceived informativeness and perceived social sensitivity, which were originally hypothesized to influence perceived fairness (H2 and H3), also influenced perceived legitimacy. Accordingly, these paths were added and tested in the revised model.

Process variables. The zero-order correlation between perceived legitimacy and fairness was significant and substantial, r(198) = .75, p < .001. To examine the directionality of the path, alternative models were tested. A path from perceived fairness to perceived legitimacy yielded a significantly better model fit than a path in the opposite direction, $\chi^2_D(1) = 119.34$, p < .001. A

bidirectional path yielded a significantly better model fit than the unidirectional path, $\chi^2_D(1) = 31.32$, p < .001. Nevertheless, the bidirectional path was not considered due to the multiple issues associated with analyzing non-recursive models (Kline, 2005).

Process to output variables. The path coefficient between perceived fairness and voluntary compliance was not significant, $\beta = -.01$, p = .91, which was not consistent with H6 (positive relationship between perceived fairness and intention for voluntary compliance). Nevertheless, the substantial standardized indirect effect ($\beta = .38$, p < .001) showed that the effect of perceived fairness on organizational attraction was mediated by another variable, that is, perceived fairness.

Output variables. Modification indices suggested a path between voluntary compliance and organizational attraction (MI = 20.83), implying that those two output variables are significantly correlated. As these dependent variables were related to all the variables preceding them in the assumed causal sequence, the directionality between the two variables did not matter.

Model revision. To improve the model fit, five paths were added as suggested by modification indices. Figure 4 presents the revised model. The added paths were presented in dashed lines. The significance of each path was tested and any non-significant paths were eliminated from the model. The revised model produced a good fit, χ^2 (29) = 37.30, *p* = .14, CFI = .99, RMSEA = .04, and SRMR = .05. The improvement from the initial model was significant, $\chi^2_D(1) = 5.34$, *p* = .02. Modification indices suggested that no further modifications were necessary.





Revised model including research question variables

To examine the research questions, variables were incrementally added to the previous model. If the path coefficients were not statistically significant, the variables were excluded from the model. If the path coefficients were significant, the model fit was reassessed. In the chi-square difference statistic (χ^2_D) indicated a significant decrement of model fit, the variables were excluded from the model. Figure 5 shows a path diagram incorporating the research question variables.



Figure 5. *Revised model with research question variables (smoking cessation)*

RQ2: Emotional responses. To examine the effect of emotion, positive emotion was added to the model as an endogenous variable. Negative emotion was excluded due to its extreme skewness. Positive emotion was associated with perceived legitimacy, $\beta = .53$, p < .001, but not significantly with perceived fairness, $\beta = .10$, p = .28. Positive emotion had a significant effect on organizational attraction, $\beta = .28$, p < .001. The effect of positive emotion on voluntary compliance was not significant but approached significance, $\beta = .12$, p = .07. The path coefficients suggested that perceived legitimacy had both direct (H7) and indirect effects. Perceived legitimacy aroused positive emotion, which in turn increased organizational attraction. The model including positive emotion reported yielded a good fit, χ^2 (37) = 47.75, p = .11, CFI = .99, RMSEA = .04, and SRMR = .05. The decrement of fit from the previous model was not statistically significant, χ^2_D (8) = 10.45, p = .23.

RQ3: Voluntary vs. involuntary compliance intentions. To explore the potential difference between voluntary and involuntary compliance intentions, the latter was added to the model as an output variable. Involuntary compliance was associated with perceived legitimacy, $\beta = -.29$, p = .01, but not with perceived fairness, $\beta = -.03$, p = .79. Involuntary compliance had a strong negative association with voluntary compliance, $\beta = 52$, p < .001. Although RQ3 explored potential differences between voluntary compliance and involuntary compliance, the correlation between the two variables was substantial and the patterns of association with other variables were not meaningfully different. Adding involuntary compliance added unnecessary complexity to the model and resulted in a significant decrement of the model fit, $\chi^2_D(17) = 28.88$, p = .04. Therefore, involuntary compliance was excluded from the model.

RQ1: Individual health orientations. To examine the effects of individual health orientations, nutrition conscientiousness and motivation for healthiness were added to the model as exogenous variables. Attitude toward smoking was excluded because of its extreme skewness. Neither of the two variables reported any significant direct effect on other endogenous variables. Nutrition consciousness was not significantly linked to perceived legitimacy, $\beta = .01$, p = .88, perceived fairness, $\beta = .01$, p = .81, or positive emotion, $\beta = -.04$, p = .53. Similarly, motivation for healthiness was not significantly linked to perceived legitimacy, $\beta = .07$, p = .17, perceived fairness, $\beta = .07$, p = .19, or positive emotion, $\beta = .13$, p = .06. Accordingly, these two variables were excluded from the model. Additionally, the effect of individual health status was explored. It did not have any significant direct effects on perceived legitimacy, $\beta = .07$, p = .11, perceived fairness, $\beta = .04$, p = .39, or positive emotion, $\beta = .01$, p = .94.

Final model

The final model was proposed as presented in Figure 6. For a better graphical representation, the locations of variables were rearranged in the path diagram. The final model yielded a good fit, χ^2 (41) = 53.10, *p* = .10, CFI = .99, RMSEA = .04, and SRMR = .05.





Table 2 reports the standardized estimates of direct effects, indirect effects, and total effects of variables included in the final model. To determine the significance of indirect effects, bootstrapping techniques were employed to acquire p-values associated with bias corrected estimates (Cheung, 2007; Shrout & Bolger, 2002). Provided below is the summary of the results.

Predictor	Effect	Criterion									
		3	4	5	6	7	8	9	10		
1. Informativeness	Direct Indirect	.25 0	0 .12	0 0	0 .16	0 .16	0 .09	0 .09	0 .12		
	Total	.25	.12	0	.16	.16	.09	.09	.12		
2. Severity	Direct Indirect	0 0	0 0	.39 0	0 04	0 02	0 01	0 01	0 02		
	Total	0	0	.39	04	02	01	01	02		
3. Perceived Informativeness	Direct Indirect	0 0	.50 0	0 0	.46 .21	.28 .39	0 .35	0 .37	0 .48		
	Total	0	.50	0	.66	.67	.35	.37	.48		
4. Perceived Sensitivity	Direct Indirect	0 0	0 0	0 0	.42 0	.16 .19	0 .19	0 .19	0 .27		
	Total	0	0	0	.42	.35	.19	.19	.27		
5. Perceived Severity	Direct Indirect	0 0	0 0	0 0	11 0	0 05	0 03	0 03	0 05		
•	Total	0	0	0	11	05	03	03	05		
6. Perceived Fairness	Direct Indirect	0	0	0	0	.46	0	0	.21		
	Total	0	0	0	0	.46	.24	.25	.45		
7. Perceived Legitimacy	Direct Indirect	0 0	0 0	0 0	0 0	0 0	.53 0	.55 0	.23 .28		
	Total	0	0	0	0	0	.53	.55	.52		
8. Positive emotion	Direct Indirect	0 0	0 0	0 0	0 0	0 0	0 0	0 0	.28 .00		
	Total	0	0	0	0	0	0	0	.28		
9. Voluntary	Direct	0	0	0	0	0	0	0	.25		
compliance	Indirect Total	0	0	0	0	0	0	0	0		
	10101	0	0	0	0	0	0	0	.25		
10. Organizational attraction		0	0	0	0	0	0	0	0		

Table 2. Standardized direct effects, indirect effects, and total effects (smoking cessation)

* *Note*: All effects were statistically significant (p < .05, bias-corrected percentile method)

H1: The manipulation of the severity of employer control successfully induced perceived severity. However, perceived severity was not associated with perceived legitimacy, but with perceived fairness. Therefore, the data were not consistent with the hypothesis.

H2: The informativeness of the message successfully manipulated the perception of message informativeness, which in turn was positively associated with perceived fairness. This indirect effect was significant, $\beta = .16$, p = .003.

H3: The manipulation of social sensitivity failed. Accordingly, the data were not consistent with the hypothesis. Nevertheless, perceived social sensitivity was positively associated with perceived fairness, $\beta = .42$, p < .001.

H4: The perceptions of fairness and legitimacy were associated, $\beta = .46$, p < .001. The causal path indicated that perceived fairness was the predictor of perceived legitimacy.

H5: Perceived legitimacy was a strong predictor of voluntary compliance intentions, $\beta = .55$, p < .001. Therefore, the data were consistent with the hypothesis.

H6: Perceived fairness was not directly associated with voluntary compliance intentions. Thus, the data were inconsistent with the hypothesis. Nevertheless, the indirect relationship mediated by perceived legitimacy was significant, $\beta = .25$, p < .001.

H7: Perceived legitimacy was a predictor of organizational attraction, $\beta = .23$, p = .004.

H8: Perceived fairness was a predictor of organizational attraction, $\beta = .21$. p = .003.

RQ2: Perceived legitimacy elicited positive emotion ($\beta = .53$, p < .001), which in turn increased organizational attraction ($\beta = .23$, p < .001), while perceived fairness was not linked to positive emotion.

Tests for *RQ1* and *RQ3* were not included in the final model because the causal paths were not significant or the decrement to the model fit was substantial.

EXPERIMENT 2

Experiment 2 tested the proposed model in the context of workplace weight control policy.

Method

Participants

Demographics. A total of 217 participants completed the experiment. After excluding three extreme outliers, the final sample size became 214. Among participants, 27.6% were males and 72.4% were females. Participants' average age was 21.2. Participants consisted of Caucasian Americans (70.6%), Asians (12.6%), and African Americans (8.9%). Non-U.S. citizens accounted for 8.4% of all participants.

Academic and work experience. More than half of participants (59.8%) were seniors, while 2.8% were freshmen, 7.0% were sophomores, and 26.6% were juniors. A large proportion of participants were majoring in communication (56.1%), followed by business (10.3%), and education (10.3%). Most participants had job experience as full-time (29.9%) or part-time (65.9%) workers. Only 4.3% did not have any previous work experience. Of the participants, 42.5% had internship experiences. A majority of participants were currently employed as full-time (18.3%) or part-time (51.2%) workers. Less than half of participants were searching for full-time (21.5%) or part-time (20.6%) jobs. Participants were planning to pursue their career in the sales/retailing/marketing (19.7%), journalism/media/advertisement (13.6%), education/publishing (10.3), and management/business/finance (9.4%) industries.

Smoking status. More than half of participants reported themselves as non-smokers (56.1%), while 8.9% as ex-smokers, 6.1% as current smokers, and 25.7% as occasional/social

smokers. The rest (3.3%) reported that they tried smoking once or only a few times but never smoked again. The self-reported smoking status was significantly different across genders, χ^2 (4, N = 214) = 14.03, p = .01, Cramer's V = .26. Compared to females, males were less likely to be non-smokers (63.2% vs. 37.3%) and more likely to be previous (7.1% vs. 11.6%), current (5.2% vs. 8.5%), or occasional smokers (20.6% vs. 39.0%). Among current smokers, 60.0% were smoking less than five cigarettes per day, while only one participant (0.5%) smoked more than a pack (20 cigarettes) per day. Among current smokers, 30% were trying to quit smoking at the time of survey.

Weight condition. The calculated BMIs showed that 6.1% of participants were underweight, 70.3% were normal weight, 17.0% were overweight, and 6.6% were obese. The participants' self-reported weight category did not perfectly match the weight category based on BMI calculation, r(210) = .56, p < .001. Especially, only one participant reported himself or herself as obese, whereas fourteen participants actually fell into this category based on BMI calculations. Therefore, the BMI-based weight category was used for the subsequent analyses. Compared to females, males were more likely to be overweight (11.7% vs. 31.0%) and less likely to be underweight (8.4% vs. 0%), χ^2 (3, N = 212) = 14.82, p = .001, Cramer's V = .27. On a scale of zero to ten, the mean of participants' self-reported concern for weight was 5.99 (SD =2.82). Females (M = 6.47, SD = 2.46) were more concerned about their weight than were males (M = 4.75, SD = 3.30), t (78.17) = 3.53, p = .001, r = .37. Of participants, 24.4% were currently on a diet, showing no significant gender differences, χ^2 (1, N = 213) = 2.22, p = .14, $\phi = .10$.

Health status and orientations. Participants reported themselves as moderately healthy (M = 3.31, SD = 0.79). Males (M = 3.60, SD = 0.74) were more likely to regard themselves as healthy than females (M = 3.21, SD = 0.78), t (211) = 3.35, p = .001, r = .22. Participants in

general had a highly negative attitude toward smoking (M = 4.50, SD = 0.61), which was more pronounced among females (M = 4.58, SD = 0.54) than males (M = 4.29, SD = 0.54), t (82.32) = 2.75, p = .002, r = .29. Participants reported a moderate level of nutrition consciousness (M =2.94, SD = 0.64). Males (M = 3.13, SD = 0.60) were more nutrition conscious than females (M =2.87, SD = 0.65), t (212) = 2.63, p = .01, r = .18. Participants in general reported a relatively high level of motivation for healthiness (M = 3.68, SD = 0.78). Males (M = 3.90, SD = 0.74) reported higher motivation for healthiness than females (M = 3.59, SD = 0.78), t (212) = 2.61, p = .01, r = .18.

Construct validity and reliability

Most of measurement items of Experiment 2 were the same as those of Experiment 1, but a few items were excluded from the scales to achieve a high level of reliability and construct validity. The excluded items are presented in the Appendix IV.

Manipulation check. A three-factor model of perceived severity (three-item), perceived informativeness (four-item), and perceived social sensitivity (three-item) yielded an acceptable fit, χ^2 (32) = 95.18, *p* < .001, CFI = .95, RMSEA = .09, and SRMR = .07. The reliabilities for each dimension were α = .81, α = .86, and α = .87, respectively.

Perceived legitimacy and fairness. A single-factor model of fourteen items did yielded a good fit, χ^2 (77) = 276.94, p < .001, CFI = .88, RMSEA = .11, and SRMR = .06. A two-factor model of perceived legitimacy (eight items) and perceived fairness (six items) yielded a significantly better fit, χ^2 (76) = 159.92, p < .001, CFI = .95, RMSEA = .07, and SRMR = .05. Therefore, perceived legitimacy and perceived fairness were treated as separate dimensions. The correlation between perceived legitimacy and perceived fairness was significant, r = .76, p < .001. The reliabilities was $\alpha = .88$ for perceived legitimacy and $\alpha = .89$ for perceived fairness.

Emotion. A two-factor model of six-item positive emotion and four-item negative emotion yieldedan acceptable fit, χ^2 (34) = 104.08, p < .001, CFI = .94, RMSEA = .10, and SRMR = .08. The reliabilities for each factor were α = .91 and α = .77, respectively. The correlation between the two factors was r (212) = .19, p = .01.

Organizational attraction. A second-order factor model of organizational attraction was tested with three sub-dimensions: general attractiveness (four-item), intention to pursue (three-item), and prestige (five-item). The model yielded an acceptable fit, χ^2 (51) = 148.70, p < .001, CFI = .96, RMSEA = .10, and SRMR = .04. The reliabilities for each factor were $\alpha = .87$, $\alpha = .80$, and $\alpha = .92$, respectively. The factor loadings were extremely high: .94 for general attractiveness, .99 for intention to pursue, and .85 for prestige. Consequently, the three dimensions were merged into one dimension for the subsequent analyses.

Compliance intentions. A two-factor model of three-item voluntary compliance and three-item involuntary compliance yielded an acceptable fit, χ^2 (8) = 27.54, *p* = .001, CFI = .97, RMSEA = .11, and SRMR = .03. The reliabilities for each factor were α = .78 and α = .77, respectively. The correlation between the two factors was *r* (212) = -.36, *p* < .001.

Health status. A one-factor model of four items yielded a good fit, $\chi^2(5) = 11.45$, p = .04, CFI = .99, RMSEA = .08, and SRMR = .04. The reliability was $\alpha = .86$.

Health orientations. A three-factor model of health orientations yielded a good fit, χ^2 (41) = 74.96, p = .001, CFI = .97, RMSEA = .06, and SRMR = .05. The three factors were attitude toward smoking (three items), nutrition consciousness (four items), and motivation for healthiness (four items). The reliabilities for each factor were $\alpha = .83$, $\alpha = .73$, and $\alpha = .91$, respectively. The correlations between factors ranged from r = -.49 to r = .50, showing no significant threats of multicollinearity.

Preparation for analysis

First, to inspect outliers, the Mahalanobis distance statistics were calculated. One case which significantly exceeded the critical value (p < .001) for the Mahalanobis distance was considered as an outlier and excluded from the analysis. After excluding three extreme outliers, the final sample size became 214.

Next, the data were screened for normality. Extreme skewness was detected for attitude toward smoking (M = 4.50, SD = 0.61, skewness = -1.23, standard error of skewness = .17). On a scale of one to five, 48% of participants reported five for all the items of attitude toward smoking. Accordingly, it was excluded from the analysis. Unlike Experiment 1, the data from Experiment 2 did not show an extreme positive skewness of negative emotion (M = 2.00, SD = 0.83, skewness = 0.36, standard error of skewness = .17).

The data were subsequently screened for missing observations. Less than 2% of data contained missing observations. Missing observations were estimated based on the expectation-maximization algorithm. Finally, multicollinearity was checked. The VIF statistics ranged from 1.07 to 3.43, indicating no serious threats of multicollinearity.

1	2	3	4	5	6	7	8	9	10	11	12	13
1	04	02	.33*	02	21*	19*	11	11	.07	18*	03	.14*
	1	07	07	.14*	.05	.10	02	.12	02	06	10	.05
		1	02	02	.12	.02	.08	.02	.02	.04	.03	01
			.81	05	45*	37*	36*	23*	.10	40*	21*	.24*
				.86	.35*	.60*	.45*	.35*	.01	.41*	.39*	16*
					.87	.76*	.58*	.48*	08	.67*	.39*	25*
						.89	.76*	.57*	.01	.74*	.51*	18*
							.88	.62*	.09	.67*	.50*	24*
								.91	.19*	.59*	.36*	27*
									.77	04	12	.35*
										.91	.54*	31*
											.78	38*
												.77
.51	.49	.50	3.54	3.16	2.99	3.08	2.99	2.75	2.00	2.95	3.60	2.63
.50	.50	.50	0.80	0.77	0.83	0.72	0.69	0.95	0.83	0.78	0.65	0.82
	1 1 .51 .50	1 2 104 1 .51 .49 .50 .50	1 2 3 1 04 02 1 07 1 .1 .07 1 .51 .49 .50 .50 .50 .50	1 2 3 4 1 04 02 .33* 1 07 07 1 07 1 02 .51 .49 .50 3.54 .50 .50 .50 0.80	1 2 3 4 5 1 04 02 .33* 02 1 07 07 .14* 1 02 .02 .02 .81 05 .86 .51 .49 .50 3.54 3.16 .50 .50 .50 0.80 0.77	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

Table 3. Zero-order correlation matrix of variables (weight control)

* *p* < .05

Note: Manipulations (i.e., severity, informativeness, and social sensitivity) were dummy-coded (0 = low; 1 = high). The diagonal of the matrix indicates reliabilities.

Results

Table 3 shows zero-order correlations among main variables, excluding individual variables (e.g., demographics, work experience, health status, and health orientations).

Test of initial model

The initial model showed an acceptable fit, χ^2 (16) = 56.60, p < .001, CFI = .93, RMSEA = .11, and SRMR = .08. The data from Experiment 2 showed a worse fit with the initial model than did the data from Experiment 1, $\chi^2_D(1) = 13.95$, p = .001. Figure 7 presents the initial model with standardized path coefficients





In the initial model, none of the manipulations or individual health orientations were significant. Additionally, the model fit was not good enough to examine causal paths. Accordingly, a revised model was suggested.

Revised model

The revised model included the paths for manipulation checks. The model first examined the hypothesized links and later included the research question variables. Figure 8 presents the initial model with standardized path coefficients. The model with manipulation checks showed a poor fit, χ^2 (31) = 146.58, *p* < .001, CFI = .86, RMSEA = .13, and SRMR = .14. However, the data from Experiment 2 showed a better fit with the model than did the data from Experiment 1, $\chi^2_D(1) = 6.74$, *p* = .001.

Figure 8. Revised model with manipulation checks (weight control)



Manipulation check. The path between severity and perceived severity was significant, $\beta = .33$, p < .001, indicating that the manipulation of the severity of control was successful. The path between informativeness and perceived informativeness was significant, $\beta = .14$, p = .04, indicating that the manipulation of the informativeness of the message was successful, although the effect size was smaller than that of Experiment 1.The path between social sensitivity and perceived social sensitivity was not significant, $\beta = .12$, p = .07. Therefore, the manipulation of the social sensitivity of the message was not successful.

Input variables. Modification indices suggested a direct path between perceived severity and perceived social sensitivity (MI = 26.803). Modification indices also suggested a direct path between perceived informativeness and perceived social sensitivity (MI = 27.61), implying that both perceived severity and perceived informativeness impacted perceived social sensitivity of the message. Accordingly, these paths were included in the revised model.

Input to process variables. Unlike Experiment 1, the direct effect of perceived severity on perceived legitimacy was significant, $\beta = -.09$, p = .05. However, this path was only tentative, as the model did not yet produce a good fit and the p-value was on the borderline of statistical significance.

Process variables. To test the directionality between perceived legitimacy and fairness, alternative models were tested. A path from perceived fairness to perceived legitimacy yielded a significantly better model fit than a path in the opposite direction, $\chi^2_D(1) = 84.72$, p < .001, which was consistent with Experiment 1.

Process to output variables. Contrary to Experiment 1, the effect of fairness on voluntary compliance was significant and substantial, $\beta = .29$, p < .001, which was consistent with H6 (positive relationship between perceived fairness and intention for voluntary compliance).

Output variables. Consistent with Experiment 1, modification indices suggested a path between voluntary compliance and organizational attraction (MI = 13.49).

Model Revision. To improve the model fit, additional paths were included in the revised model as suggested by the modification indices. The added paths were presented in dashed lines in Figure 9. Any non-significant paths were deleted. The model yielded a good fit, χ^2 (28) = 49.66, p = .10, CFI = .97, RMSEA = .06, and SRMR = .05. The improvement from the initial model was significant, $\chi^2_D(1) = 6.94$, p = .01.

Figure 9. Revised model with improved fit (weight control)



To test the directionality between perceived severity and perceived social sensitivity, alternative models were examined. A path from perceived severity to perceived social sensitivity yielded a significantly better model fit than a model with a path in the opposite direction, χ^2_D (1) = 12.24, *p* < .001. Similarly, a path from perceived informativeness to perceived social sensitivity yielded a significantly better model fit than a model with a path in the opposite direction, χ^2_D (1) = 12.24, *p* < .001. Similarly, a path from perceived informativeness to perceived social sensitivity yielded a significantly better model fit than a model with a path in the opposite direction, χ^2_D (1) = 4.92, *p* = .03. The path coefficients for these added paths were substantial, β = .44, *p* < .001 and β = .34, *p* < .001, respectively.

Including additional paths caused some changes in the statistical significance of the existing paths. In the revised model, the path from the manipulation of social sensitivity to perceived social sensitivity became significant, $\beta = .12$, p = .05, suggesting that the manipulation of message social sensitivity was successful, despite the relatively small effect size. On the other hand, in the revised model, the path from perceived severity to perceived legitimacy fell short of significance, $\beta = .09$, p = .07. The rest of paths in the previous model remained significant.
Revised model including research question variables

To examine research questions, variables were incrementally added to the previous model and the model fit was reassessed. The paths added from the previous model were presented in dashed lines. Figure 10 presents a path diagram including positive emotion and involuntary compliance.





RQ2: Emotional responses. Positive emotion and negative emotion were added as endogenous variables. The model reported yielded a slightly poorer fit, χ^2 (37) = 65.05, *p* = .003, CFI = .97, RMSEA = .06, and SRMR = .05, but the decrement of fit was not statistically significant, χ^2_D (9) = 15.39, *p* = .08. Positive emotion was associated both with perceived legitimacy, β = .43, *p* < .001, and with perceived fairness, β = .24, *p* = .003. Positive emotion had a significant direct effect on organizational attraction, $\beta = .23$, p = .04, but not on voluntary compliance intentions, $\beta = .06$, p = .40. Adding these paths made the direct path from legitimacy to organizational attraction non-significant, $\beta = 10$, p = .14, suggesting that the effect of legitimacy on organizational attraction was mediated by other variables. Negative emotion did not have any significant direct relationships with perceived legitimacy, $\beta = .20$, p = .05, perceived fairness, $\beta = ..15$, p = .16, or any other variables except positive emotion. Therefore, it was excluded from the model

RQ3: Voluntary vs. involuntary compliance intentions. Involuntary compliance was added to the model as an endogenous variable. It was significantly associated only with voluntary compliance, $\beta = -.37$, p < .001. Including this variable resulted in a significant decrement of the model fit, $\chi^2_D(1) = 10.53$, p = .001. Therefore, involuntary compliance intention was excluded from the model.

RQ1: Individual health orientations. To examine the effects of individual health orientations, nutrition conscientiousness and motivation for healthiness were added to the model as exogenous variables. Neither of these variables showed any significant direct effects on other endogenous variables. For nutrition consciousness, its direct effects were $\beta = .03$, p = .62 on perceived legitimacy, $\beta = .04$, p = .39 on perceived fairness, and $\beta = .004$, p = .95 on positive emotion. For motivation for healthiness, its direct effects were $\beta = .02$, p = .69 on perceived legitimacy, $\beta = .07$, p = .11 on perceived fairness, and $\beta = .05$, p = .53 on positive emotion. Additionally, the effects of individual health status and BMI were explored. Individual health status did not have any significant direct effects on perceived legitimacy, $\beta = .06$, p = .20, perceived fairness, $\beta = .003$, p = .94, or positive emotion, $\beta = .07$, p = .31. BMIs also did not

have any significant direct effects on perceived legitimacy, $\beta = -.05$, p = .23, perceived fairness, $\beta = -.01$, p = .82, or positive emotion, $\beta = .07$, p = .18.

Final model

The final model yielded a good model fit, χ^2 (36) = 61.19, *p* = .005, CFI = .97, RMSEA = .06, and SRMR = .05. In the path diagram (Figure 11), the locations of variables were rearranged for a better graphical representation. Table 4 presents the standardized direct effects, indirect effects, and total effects, which were all statistically significant. Provided below is the summary of the results.





H1: The severity of employer control successfully induced the perception of severity. However, perceived severity was associated with perceived fairness, instead of perceived legitimacy. Therefore, the data were not consistent with the hypothesis. Nonetheless, the severity of manipulation of employer control showed a significant mediated effect on perceived legitimacy, $\beta = -.08$, p = .001.

Predictor		Effect	Criterion							
			4	5	6	7	8	9	10	11
1.	Social	Direct	0	0	.12	0	0	0	0	0
	Sensitivity	Indirect	0	0	0	.07	.06	.04	.04	.05
		Total	0	0	.12	.07	.06	.04	.04	.05
2.	Informativeness	Direct	.14	0	0	0	0	0	0	0
		Indirect	0	0	.05	.08	.06	.05	.04	.06
3.	Severity	Total	.22	0	.05	.08	.06	.05	.04	.06
		Direct	0	.33	0	0	0	0	0	0
		Indirect	0	0	14	11	08	06	06	08
		Total	0	.33	14	11	08	06	06	08
4.	Perceived informativeness	Direct	0	0	.34	.39	0	0	0	0
		Indirect	0	0	0	.20	.45	.34	.30	.44
		Total	0	0	.34	.59	.45	.34	.30	.44
5.	Perceived Severity	Direct	0	0	44	08	0	0	0	0
		Indirect	0	0	0	26	26	19	17	25
		Total	0	0	44	34	26	19	17	25
6.	Perceived	Direct	0	0	0	.59	0	0	0	0
	Sensitivity	Indirect	0	0	0	0	.45	.34	.30	.44
		Total	0	0	0	.59	.45	.34	.30	.44
7.	Perceived Fairness	Direct	0	0	0	0	.76	.24	.31	.51
		Indirect	0	0	0	0	0	.33	.20	.23
		Total	0	0	0	0	.76	.57	.51	.74
8.	Perceived Legitimacy	Direct	0	0	0	0	0	.43	.26	0
		Indirect	0	0	0	0	0	0	0	.15
		Total	0	0	0	0	0	.43	.26	.15
9.	Positive emotion	Direct	0	0	0	0	0	0	0	.23
		Indirect	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	.23
10	Voluntary	Direct	0	0	0	0	0	0	0	.20
	compliance	Indirect	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	.20
11	. Organizational attraction		0	0	0	0	0	0	0	0

Table 4. Standardized direct effects, indirect effects, and total effects (weight control)

* *Note*: All effects were statistically significant (p < .05, bias-corrected percentile method)

H2: The informativeness of the message successfully manipulated the perception of message informativeness, which in turn was associated with perceived fairness. The indirect effect of message informativeness on perceived fairness was significant, $\beta = .08$, p = .04.

H3: The social sensitivity of the message successfully induced the perception of message social sensitivity, which in turn led to higher perceived fairness. The indirect effect of message social sensitivity on perceived fairness was significant, $\beta = .07$, p = .03.

H4: Perceived fairness was a strong predictor of perceived legitimacy, $\beta = .76$, p < .001. Thus, the data were consistent with the hypothesis.

H5: Perceived legitimacy was a significant predictor of voluntary compliance intentions, $\beta = .26, p = .01$. Therefore, the data were consistent with the hypothesis.

H6: Perceived fairness had a significant direct effect on voluntary compliance intentions, $\beta = .31, p = .002$. Therefore, unlike Experiment 1, the data were consistent with the hypothesis.

H7: Perceived legitimacy did not have a direct effect on organizational attraction. Therefore, unlike Experiment 1, the data were not consistent with the hypothesis. However, perceived legitimacy had a significant indirect effect ($\beta = .15$, p = .002) on organizational attractions via the mediation of positive emotion.

H8: Consistent with Experiment 1, perceived fairness was a predictor of organizational attraction, but the effect size was more pronounced, $\beta = .51$, p < .001.

RQ2: Perceived legitimacy elicited positive emotion. $\beta = .43$, p < .001. At the same time, perceived fairness elicited positive emotion, $\beta = .24$, p = .003. Positive emotion was associated with organizational attraction, $\beta = .23$, p < .001.

Tests for *RQ1* and *RQ3* were not included in the final model because the causal paths were not significant or the decrement of the model fit was substantial.

Comparison between smoking cessation and weight control policies

To examine the research questions 4 and 5, the final models from Experiment 1 (smoking cessation policy) and Experiment 2 (weight control policy) were compared. The data from the two experiments generally corroborated, yielding relatively similar final models. Across the two models, for example, perceived severity was related only to perceived fairness. Perceived fairness was an important intervening variable between the input variables and perceived legitimacy. Positive emotion was associated with organizational attraction, but not with voluntary compliance intentions. Yet, some paths showed notable differences.

RQ4 explored the effects of employer control and communication messages across different types of workplace health interventions. As for the manipulation, the severity of employer control produced relatively constant effects on perceived severity across different intervention types: $\beta = .39$, p < .001 for the smoking cessation policy and $\beta = .33$, p < .001 for the weight control policy, indicating that dismissing employees for noncompliance was perceived as a severe policy regardless of intervention types. In contrast, the informativeness and social sensitivity of the message created different effects across intervention types. In Experiment 1, only the manipulation of informativeness ($\beta = .25$, p < .001) was successful. In Experiment 2, manipulations of both informativeness ($\beta = .14$, p = .04) and social sensitivity (β = .12, p = .03) were successful, but the effect sizes were relatively weak.

As for relationships among the manipulation check variables, in both experiments, perceived social sensitivity was influenced by perceived information. The two predictors of interactional justice were substantially correlated, $\beta = .50$, p < .001 in Experiment 1 and $\beta = .34$, p < .001 in Experiment 2. Additionally in Experiment 2, perceived social sensitivity was influenced also by perceived severity, $\beta = .44$, p < .001. In other words, participants perceived a message describing a harsh policy for overweight or obese workers as socially insensitive.

As for the effects on perceived fairness, in both experiments, all three predictors (i.e., perceived severity, perceived informativeness, and perceived social sensitivity) had significant direct effects. As for perceived legitimacy, however, these predictors showed different patterns of association. In Experiment 1, perceived informativeness and perceived social sensitivity were linked to perceived legitimacy, $\beta = 28$, p < .001 and $\beta = .16$, p = .004, respectively. In Experiment 2, none of the three predictors were directly linked to perceived legitimacy. The relationship was fully mediated by perceived fairness.

In both experiments, compared to perceived severity, perceived informativeness and social sensitivity showed stronger effects on perceived legitimacy and fairness. In Experiment 1, the total effects of perceived informativeness were $\beta = .66$, p < .001 on perceived fairness and $\beta = .66$, p < .001 on perceived legitimacy, while the total effects of perceived social sensitivity were $\beta = .42$, p < .001 and $\beta = .35$, p < .001, respectively. In contrast, the total effects of perceived severity were only $\beta = ..11$, p = .03 and $\beta = ..05$, p = .02, respectively. In Experiment 2, the total effects of perceived informativeness were $\beta = .59 \ p < .001$ on perceived fairness and $\beta = ..45$, p < .001 on perceived legitimacy. The total effects of perceived social sensitivity were the same as those of perceived informativeness. By contrast, the total effects of perceived severity were $\beta = ..34$, p = .002 and $\beta = ..26$, p = .002, respectively.

RQ5 explored the effects of legitimacy and fairness across the different types of workplace health interventions. In both experiments, perceived fairness was a strong predictor of perceived legitimacy. However, the relationship was more pronounced in Experiment 2 ($\beta = .76$, p < .001) than in Experiment 1 ($\beta = .46$, p < .001). As for the effects on emotional responses, in

both experiments, perceived legitimacy was a predictor of positive emotion, $\beta = .53$, p < .001. Additionally in Experiment 2, perceived fairness was also a predictor of positive emotion, $\beta = .24$, p = .003. In both experiments,

As for the effects on output variables, in both studies, perceived fairness was linked to organizational attraction, while perceived legitimacy was linked to voluntary compliance intentions. However, the patterns of association also showed some differences. In Experiment 1, perceived legitimacy was also linked to organizational attraction, $\beta = .23$, p = .004. In Experiment 2, perceived fairness was also linked to voluntary compliance intentions, $\beta = .31$, p < .001.

In addition to the different patterns of association, the strength of association also varied. Perceived legitimacy was more important for the smoking cessation policy, while perceived fairness was more important for the weight control policy. In Experiment 1, the total effects of perceived legitimacy were $\beta = .55$, p < .001 on voluntary compliance intentions and $\beta = .55$, p< .001 on organizational attraction, while the total effects of perceived fairness were $\beta = .25$, p< .001 and $\beta = .45$, p = .002, respectively. In Experiment 2, the total effects of perceived fairness were $\beta = .51$, p < .001 on voluntary compliance intentions and $\beta = .74$, p < .001 on organizational attraction, while the total effects of perceived legitimacy were $\beta = .25$, p = .01 and $\beta = 15$, p = .002, respectively.

DISCUSSIONS

Summary of Model

The current study examined how individuals responded to a workplace health policy in their anticipatory socialization phase of organizational assimilation. The current study proposed a model of workplace health promotion, focusing on the role of legitimacy and fairness perceptions. The model developed in the current study highlighted the importance of communication for the successful implementation of workplace health policies. Relying on coercive power (i.e., severity of employer control) negatively impacted the perceptions of legitimacy and fairness, and subsequently, individuals' willingness to comply with the policy and their attraction toward the organization. In contrast, communicating why the healthy policy needs to be implemented (i.e., informativeness) and delivering caring messages for individuals (i.e., social sensitivity) created a sense that the organization is providing sufficient information and treating individuals with dignity – in other words, interactional justice. This perception of fairness in communication led to the perception of legitimacy, which was the individuals' evaluation of whether the organization implementing the policy is trustworthy and thus has legitimate power to influence individuals' health behavior. If the health policy is perceived as fair and legitimate, individuals became more willing to comply with the policy and feel more attracted to the organization. In addition, the perceptions of interactional justice and legitimacy may elicit positive emotion, which in turn makes individuals even more attracted to the organization. These two outcomes - the increased attraction toward the organization and the heightened willingness to comply with the policy– may be crucial for organizations to attract the

most qualified job applicants, to secure future compliance, and ultimately, to achieve a sustained competitive advantage.

Similarity to Communication Model

The model proposed in the current study is similar to the basic model of communication processes (Berlo, 1960; Schramm, 1954). In the context of workplace health promotion, the sender is the organization that promotes the workplace health policy. When encoding the message, the organization may choose to include more or less information regarding the policy or show more or less interpersonal considerations, depending on the sender's characteristics such as organizational culture and structure. For example, a corporate culture of caring for the workers may be reflected in more socially sensitive messages, while an authoritative organizational culture may be reflected in less socially sensitive messages.

The encoded message is subsequently delivered through a communication channel. The organization may use diverse channels such as email, newsletter, brochure, bulletin board, and group meetings to deliver the message to the receivers, that is, the employees. When the receivers decode the message, individuals' understanding and interpretation of the message may be influenced by their knowledge, value, and attitude. In the current study, individual characteristics such as health orientations, health status, or BMIs did not report any significant effects. However, there may be myriads of other factors that impact the decoding process. The meaning constructed at the receivers' end may create the perceptions of legitimacy and fairness.

The communication process described above produces the effects including voluntary compliance intentions and organization attraction. These effects may eventually feed back into the organizations. For example, if employees express their concerns about the health policy, the

organization may modify its communication strategy. This reciprocal transaction was not within the scope of the current study and thus needs to be examined in the future studies.

In this regard, promoting a workplace health policy may be considered as a process of communication between the organization and its members.

Effects of Employer Control, Message Informativeness, and Social Sensitivity

To maximize the effectiveness of workplace health promotion, organizations need good strategies. The current study examined two types of strategies: the so-called stick strategy and communication strategy. When used adequately, the stick strategy may be an extrinsic motivator to change employees' health behavior. When used excessively, however, it may lead to negative consequences such as reluctance to comply with the policy and decreased attraction toward the organization (Curry et al., 1990). The findings of the current study suggested that a threat of punishment was not an effective way to communicate a workplace health policy. The message indicating that non-complying employees would be disciplined and even dismissed negatively impacted the perceptions of legitimacy and fairness, and eventually, voluntary compliance intentions and attraction toward the organization.

This result implied that the excessive use of coercive power led to the decrease in referent power (French & Raven, 1959; Raven & French, 1958): when individuals perceive the organization's influence as coercion, they became more resistant against the influence and less attracted toward the organization. The result is also consistent with Ashforth and Gibbs's (1990) typology of failures in organizational legitimation. An organization exerting excessively coercive power is a *clumsy* organization relying on insensitive means and *nervous* organization acting in a dogmatic and intolerant manner, which will eventually lose its legitimacy.

An inclusive communication strategy may be a more important consideration for the successful implementation of workplace health promotion allowing the employees to feel that their needs are the locus of such policies rather than the elimination of social peril in the organization. The findings of the current study indicated that providing employees with adequate and sufficient information in a socially sensitive manner led individuals to perceive the health policy as more legitimate and fair. This heightened senses of legitimacy and fairness in turn led to a higher level of voluntary compliance intentions and organizational attraction. It is notable that the effect sizes of perceived informativeness and perceived social sensitivity were substantially stronger than those of perceived severity. In other words, the effects of the message perceptions prevailed over those of severity perceptions. Therefore, it was possible that even if a health policy was perceived as severe, as long as the message communicating the policy was perceived as informative and socially sensitive, the policy was still perceived as legitimate and fair.

This result was consistent with the central tenets of the fair process effect (Greenberg & Folger, 1983). A workplace health policy may not always be welcomed by organizational members, as their behavior is being controlled to a small or large extent. However, if the healthy policy is communicated adequately, the organizational members may be more willing to accept the potential negative outcomes (Greenberg, 1993b, 1994). As the term fair process effect is about procedural justice in organizational contexts, the effect of interactional justice mitigating individuals' reactions to negative outcomes may be labeled *fair interaction* or *fair communication effect*.

Manipulation of Severity and Message

To examine the effects of employer control, message informativeness, and social sensitivity, the current study manipulated the experimental conditions using a vignette describing an organizational health policy. The manipulations generally yielded statistically significant mediated effects on the process and output variables. However, the manipulation checks reported moderate to weak effects. Particularly in the case of the smoking cessation policy, the manipulation of message social sensitivity did not yield any direct effects on perceived social sensitivity. Participants reported a relatively high level of perceived social sensitivity across the high and low conditions of social sensitivity. The relatively small effect size was problematic as it attenuated the correlation between the variables of interest (Pedhazur & Schelkin, 1991).

The moderate to weak effect size implied that the tone of the message might be not strong enough. In the low condition of social sensitivity, the message put business interest before concern for employees and blamed employees with high risk factors. However, this message might not be strong enough to show the lack of politeness and interpersonal considerations. Anecdotal evidences show that in actual organizational contexts, the message may be more direct and personal, as observed in several lawsuit cases (Deschenaux, 2010; Snow, 2005). Additionally, in actual organizational contexts, high-risk employees may be constantly exposed to such messages.

The moderate to weak effect size of manipulations also suggested that other factors might contribute to the perceptions of severity, informativeness, and social sensitivity. For instance, individuals' prior knowledge about the negative health effects of smoking and obesity may influence the perception of informativeness. Individuals' personality traits such as authoritarianism may affect how they perceive the severity of employer control. In the same vein,

it is possible that the manipulation of social sensitivity has failed because of the participants' attitude toward smoking. In the low social sensitivity conditions, smokers were blamed as the culprits of high medical costs and low productivity. As most participants in the current study reported a high level of negative attitude toward smoking, they might have agreed with this accusation. Considering the overall effect size of manipulations, future studies are needed to examine the potential moderators of how individuals perceive the message regarding employer control.

Although the manipulation checks reported small direct effect sizes, the manipulation of employer control and the message produced statistically significant indirect effects on the output variables including voluntary compliance intentions and organizational attraction. This finding suggested that for the successful implementation of workplace health promotion, practitioners need to develop an intervention plan that relies less on the stick strategy and focuses more on delivering informative and caring messages to employees.

To examine the proposed conceptual model at the operational level, the current study included the paths for manipulation checks during the model revision. Including the paths for manipulation checks was advantageous in several ways. First, the paths for manipulation checks made the model more comprehensive. The inclusion of these paths enabled examination of not only the direct impact of the message characteristics but also an explanatory mechanism between the message and the perceptions of participants (O'Keefe, 2003). In the current study, the latter was of more interest than the former, as the message itself may vary greatly. Second, the added paths enabled examination of whether manipulation had its intended effects with the intended strength (Pedhazur & Schelkin, 1991). Third, the additional paths also enabled examination of whether the manipulations had any unintended effects (Pedhazur & Schelkin, 1991). In the

current study, the path models from both experiments showed that the perceptions of informativeness and social sensitivity were highly correlated, although they were manipulated independently. The direction of the path indicated that perceived informativeness was a predictor of perceived social sensitivity, suggesting that participants perceived the message as more caring and respectful if it delivered adequate and sufficient information about why the health policy needs to be implemented. This finding may emphasize the importance of fulfilling employees' right to know when communicating a workplace health policy to employees.

Legitimacy and Fairness

Legitimacy and fairness are ubiquitous concerns in organizational settings (Lind et al., 1993; Lind & Tyler, 1988; Tyler & Lind, 1992). The findings of the current study suggested that the context of workplace health promotion is no exception. The perceptions of legitimacy and fairness played a central role in the proposed model as the mediators between the input variables and the output variable. These perceptions reflected the cognitive processes of how individuals process the given message and form their judgment about the policy. The overall effect sizes of perceived legitimacy and fairness on the output variables were substantial. In the case of the weight control policy, for instance, the total effect of perceived fairness explained more than half of the variances of organizational attraction ($r^2 = .55$). In addition, the cognitive appraisal of legitimacy and fairness led to emotional experiences, which was consistent with Smith and Ellsworth's (1985) experiment.

As for legitimacy, the data showed the significant impacts of message informativeness and social sensitivity on perceived legitimacy. However, the hypothesized negative relationship between the severity of employer control and perceived legitimacy was found to be indirect. In both experiments, the two variables were mediated by perceived fairness. This mediated

relationship may explain the small effect size of severity on the perception of legitimacy (η^2 = .004) found in the previous study (Park et al., 2012).

The indirect effect of perceived severity on perceived legitimacy was more pronounced for the weight control policy than for the smoking cessation policy. One possible reason for this discrepancy is that controlling over employees' smoking behavior is supported by laws and regulations such as smoking bans in public places, while controlling over employees' weight is a relatively new phenomenon and is not yet supported by legal authorities. Accordingly, implementing a harsh policy for weight control may be perceived as less legitimizing. Another reason is that controlling employees' smoking behavior may be perceived as more justifiable because second-hand smoking imposes health threats to non-smokers. As suggested by Park et al. (2012), non-smokers and ex-smokers may even show an appreciation for the organization taking a legitimate charge to reduce second-hand smoke. By contrast, the second-hand effect of obesity is less obvious than the second-hand effect of smoke, although it may impose long term financial costs to the organization providing health care for the complications of obesity. Therefore, a severe policy such as terminating obese employees may be perceived as less legitimate.

As for fairness, the data showed substantial direct effects for perceived informativeness and social sensitivity on perceived fairness. In addition to these hypothesized relationships, perceived severity was also associated with perceived fairness, which in turn was linked to perceived legitimacy. This suggested that the threat of punishment first decreased the perceived fairness in communication, before undermining the legitimacy of the policy subsequently.

The path model of the current study showed that perceived fairness was a strong predictor of perceived legitimacy, suggesting that interactional justice may be an important legitimizing factor for organizations implementing workplace health promotion. When an organization

delivers informative and caring messages, its members may become more likely to trust the organization and feel obliged to reciprocate. This result was consistent with Sunshine and Tyler's (2003) claim that perceived fairness is a key antecedent of perceived legitimacy. The findings of the current study suggested that this claim may be applicable not only to distributive or procedural justice but also to interactional justice.

However, the directionality of the path may not always be generalizable into other organizational contexts. The current study examined participants' evaluation of a hypothetical organization, without any history of interactions between the organization and the potential members of the organization. In actual organizational settings, employees may have an existing sense of trust or obligation toward the organization, which may make them to perceive a communication message from the organization as more informative and respectful. Therefore, future studies are needed to further elucidate the directionality of influence between perceived fairness and perceived legitimacy in different organizational contexts.

The perceptions of legitimacy and fairness had significant impacts on individuals' intention to comply with the policy and attraction toward the organization, confirming their importance for the successful implementation of workplace health promotion. However, the strength of association was different across health intervention types. The effects of perceived legitimacy were more pronounced for the smoking cessation policy, while the effects of perceived fairness were more pronounced for the weight control policy.

One of the possible reasons for this discrepancy is that a smoking cessation policy may impact only a fraction of employees. In the current study, only six percent of the participants identified themselves as current smokers. Non-smokers and ex-smokers, who constituted the vast majority of the organization, may be more interested in the organization's legitimate control over

smokers to protect themselves from second hand smoking, rather than fair treatment for smoking employees. On the other hand, employers' control over weight may be a more sensitive issue to a larger number of employees, and thus, the concerns of fairness may be more widespread. Another reason is that a smoking cessation policy is supported by legal authorities and there is a consensus about controlling smoking behavior in the workplace. Therefore, compared to a weight control policy, the concerns of fairness may be less pronounced for a smoking cessation policy.

Emotion

The findings of the current study suggested that positive emotion was not directly associated with perceived severity. Instead, the relationship was mediated by the perceptions of legitimacy and fairness, implying that a severe policy itself may not necessarily lead to the decrease of positive emotion, when then communication of the health policy is perceived as fair and legitimate.

The directionality of the path between the cognitive processes (i.e., perceptions of legitimacy and fairness) and the emotional response is of theoretical interest. Zajonc (1980) argued that affective reactions (i.e., emotional responses) precede cognitive processing of information, pointing out that affective reactions are the very first and universal reactions to stimuli even for lower forms of organisms. As affective reactions such as fear are important for the survival of any species, humans also have evolutionary continuity with other species. Lazarus (1982) contradicted this view, arguing that cognitive processing precedes affective reactions. He suggested that emotion is aroused only after a certain amount of cognitive appraisal processes. Cognitive activity does not necessarily require time to analyze environments to contemplate alternatives. In a survival-related situation, for instance, cognitive schemata developed by neural

inheritance and experience may instantly elicit emotion (e.g., fear) and allow quick decisions (e.g., fight or flight). He also proposed that some types of emotion may depend more on cognitive activity. For example, while fear is a more immediate and survival-related emotional response, anxiety involves symbolic threats of ambiguous future events.

The findings of the current study supports Lazarus (1982)'s view that cognitive processing precedes emotional responses. The findings are also consistent with Park et al.'s (2011) study to some extent. In their in-depth interview, employees expressed strong negative emotions such as anger, unpleasant surprise, fear, and shock, caused by illegitimate infringement of privacy. However, these emotional responses were aroused not merely by the severity of policies but also by the lack of legitimacy.

Of the two output variables, positive emotion was associated exclusively with organizational attraction, instead of voluntary compliance intentions. This finding implied that making individuals feel good about the workplace health policy may beneficial for attracting them to the organization, but not necessarily for encouraging their compliance. This suggested that organizational attraction was more likely to involve emotional factors such as the liking of the company, while compliance intentions were more likely to be determined by cognitive processes.

Individual Differences

The data from the current study did not report significant impacts of individual variables including their health orientations, health status, and BMIs on the perceptions of legitimacy and fairness or emotional responses of the participants. This finding was inconsistent with Klautke and Park's (2011) survey that reported a significant moderation of personal health-related orientations on legitimacy perceptions. This discrepancy might have caused by the use of

different experimental design or different measurements. Future studies are needed to elucidate this discrepancy.

It should be noted that in the current study, the examination of potential individual differences was somewhat limited. First, participants' current smoking status was not tested in the model because only a dozen out of approximately 200 participants for each experiment identified themselves as current smokers. A larger number of participants may be necessary to examine the effects of individuals' smoking status. Second, attitude toward smoking was excluded from the analysis because of its extreme skewness. Participants' negative attitude toward smoking may not be surprising as individuals are becoming increasingly intolerant of smoking at the workplace (Osinubi et al., 2005). Third, individuals' BMI information included in the model might not be accurate. Some participants might dishonestly report their height and weight. Studies have consistently shown the participants' tendency of under-reporting for weight and over-reporting for height (DeAndrea, Tong, Liang, Levine, & Walther, 2012; Gorber, Tremblay, Moher, & Gorber, 2007; Nawaz, Chan, Abdulrahman, Larson, & Katz, 2001)

Limitations and Future Studies

The most pronounced limitation of the current study is that it examined a college student sample evaluating a hypothetical message from a hypothetical organization, instead of examining an actual health intervention situation. The use of vignettes might contribute the relatively small effect size of manipulations. Investigating employees who are actually influenced by health policies might increase the effect size of the manipulation. For example, Greenberg (1994) examined how clerical employees responded to a video message from the chief executive and reported stronger effect sizes than those of the current study. Nevertheless, examining actual health intervention situations may create difficulties in controlling extraneous factors such as

individual employees' rank and tenure, organizational structure and culture, and types of the industry.

Additionally, the current study examined a hypothetical situation and measured participants' intentions for compliance as a proxy of their actual compliance. Although behavioral intention is an immediate antecedent of actual behavior (Fishbein & Ajzen, 1975), the correlation between behavioral intentions and behavior is not perfect and moderated by other factors such as perceived behavioral control. A meta-analysis (Armitage & Conner, 2001) reported that the average weighted correlation between behavioral intention and actual behavior was .47. A consistent result was found in organizational settings. For example, a meta-analysis of the relationship between behavioral intentions and employee behavior (Steel & Ovalle, 1984) reported an average weighted correlation of .50 between behavioral intentions and employee turnover. Therefore, measuring participants' intentions for compliance may have a limited predictive value for the actual compliance.

Finally, college students' cognitive processing and emotional responses regarding workplace health policies may be different from those of working adults. Although a large proportion of undergraduate students in the current data set had job experiences, they may have only limited experience with workplace health policies. Moreover, their actual responses to the workplace health interventions may be different from what they currently expect to be.

In spite of these drawbacks, investigating a college student sample was advantageous in several regards. First, college students are relatively homogeneous in terms of their education level and prior work experiences, which may help control the influence of extraneous variables. Second, while college students may seriously consider their potential workplaces, they are still less concerned with an immediate need for employment. It is less likely that their personal values

and health orientations are overshadowed by the desperation that may be found among long-term unemployed job seekers. College students may still be able to consider whether their personal values and health orientations are compatible with the values or norms of the organizations (Klautke & Park, 2011). Third, college students may be the population of interest for organizations. For example, to recruit new or recent college graduates, many organizations exert diverse efforts such as participating in career fairs.

Another major limitation of the current study relates to the path analysis. First, not all the paths presented in the final models were hypothesized *a priori* causal paths. Instead, after testing the initial model, the current study explored the model which best fits the data. This *a posteriori* approach enables to infer the causal links between the variables and achieve a good model fit. . However, in order to scrutinize the hypothesized relationships, a replication is necessary. Especially in structural equation modeling, the replication of the model across independent samples is crucial, as single studies cannot assure that logical assumptions and statistical requirements are satisfied (Kline, 2005).

Additionally, the model proposed in the current study may have a large number of equivalent models that have yield identical fit. There may also be a number of non-equivalent models that have better fit. These issues are ubiquitous concerns in structural equation modeling (Kline, 2005). Therefore, the final models proposed in the current study may not the uniquely valid models for the data.

Therefore, future studies are needed to further examine the model proposed in the current study and its equivalents. At the same time, future studies need to examine different population, especially working adults. Although the participants of the current study were recruited from different pools, all of them were enrolled in the same university and shared similar demographic

characteristics. Therefore, it would be crucial to examine whether the findings of the current study can be generalized into different populations and organizational contexts.

CONCLUSION

To conclude, the model developed in the current study highlighted the importance of communication for the successful implementation of workplace health promotion. Especially, the perceptions of legitimacy and fairness played central roles in the process of communicating a workplace health policy to the prospective organizational members in their anticipatory socialization phase. The findings of the current study urge communication researchers to pay more attention to the communication aspect of organizational justice, that is, interactional justice. The findings of the current study also urge workplace health promotion practitioners to develop more comprehensive communication strategies that create a sense of fairness and legitimacy, instead of relying on the use of coercive power.

APPENDICES

APPENDICES

Appendix I. Research Participant Information and Consent Form

You are being asked to participate in a research study of workplace health policy. Researchers are required to provide a consent form to inform you about the study, to convey that participation is voluntary, to explain risks and benefits of participation, and to empower you to make an informed decision. You should feel free to ask the researchers any questions you may have. Study Title: Workplace Policy Study

Researcher and Title: Hee Sun Park (Associate Professor), Austin Lee (Doctoral Student) Department and Institution: Department of Communication, Michigan State University Address and Contact Information: Austin Lee (Phone: 517-353-0887; office: 443 CAS; email: austiny@msu.edu)

PURPOSE OF RESEARCH:

Work is an important part of our lives. Among the many factors that are related to our work lives, this study focuses on how people see themselves in various aspects and what they think about their work environments. In this study, we are interested in finding out your view on yourself, a current job, and workplace policy.

WHAT YOU WILL DO:

If you choose to participate in this study, you will be given a description of a hypothetical company. You will be asked to read the description and report your evaluations of the company anonymously. You must be 18 years or older to participate in this study.

POTENTIAL BENEFITS:

While this study is not expected to yield any immediate direct to the individual participants, the knowledge generated from this project will add to the body of Communication research findings and is hoped to increase the understanding of communication processes in general.

POTENTIAL RISKS:

There are no foreseeable risks associated with participation in this study.

PRIVACY AND CONFIDENTIALITY:

The data for this project are being collected anonymously. Neither the researchers nor anyone else will be able to link data to you. Information about you will be kept confidential to the maximum extent allowable by law unless there is a danger to yourself or others. The data file will be securely stored in a password protected computer in a locked office. Only the two researchers, up to four research assistants who have completed human subjects training, and the Institutional Review Board will have access to the data. The results of this study may be published or presented at professional meetings, but the identities of all research participants will remain anonymous.

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW:

Participation in this research project is completely voluntary. You have the right to say no. You may change your mind at any time and withdraw. You may choose not to answer specific questions or to stop participating at any time. Whether you choose to participate or not will have no effect on your grade or evaluation.

COSTS AND COMPENSATION FOR BEING IN THE STUDY:

Procedures being performed for research purposes only will be provided free of charge by the researcher. You will not receive money or any other form of compensation for participating in this study. If your instructor agreed to provide you with credit for your participation, you will

earn 0.25 hour of credit in your course. Your instructor will be informed of your research participation and s/he will see that you receive credit in your course. If you do not wish to participate in research studies to earn your credit, please consult your instructor or coordinator for information on an alternative assignment to receive the same amount of credit.

CONTACT INFORMATION FOR QUESTIONS AND CONCERNS

Researcher contact information

If you have any questions about this study, such as scientific issues, how to do any part of it, please contact Austin Lee (Phone: 517-353-0887; office: 443 CAS; email: austiny@msu.edu) IRB contact information

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 207 Olds Hall, MSU, East Lansing, MI 48824.

DOCUMENTATION OF INFORMED CONSENT

By selecting "I agree" below, you are indicating that you voluntarily agree to participate in this research study.

I Agree

Appendix II. Manipulation (Smoking Cessation)

Company Introduction

CJ Inc.

We are a nationally renowned company based in Chicago, Illinois. Since 1990, we have been manufacturing world class array of products and distributing them all across the United States. We believe in listening to the market place and leading the industry by creating innovative ways of infusing technology into business. As we further expand our business in Michigan, we are currently seeking for individuals with all levels of education and experience.

Positions & Salary: Many part and full time positions are open in such diverse areas as manufacturing, sales/marketing, administration/finance, and engineering/information technology, as well as customer service. Salary and an extensive benefits package are competitive and commensurate with experience and qualifications.

Thank you for your interest in our company.

Employer Control

High condition

Since January 2006, we at CJ Inc. have been implementing a mandatory non-smoking policy for employees on and off the job. This mandatory policy extends to all new hires. Once hired, new employees will have a year to quit smoking. To ensure employees' compliance, mandatory nicotine tests will be administered after the one-year time frame. New employees as well as existing employees who fail their test will be charged penalties up to \$50 out of their weekly paychecks and required to buy their own health insurance. In addition, they will not be considered for promotion.

Low condition

Since January 2006, we at CJ Inc. have been implementing a voluntary non-smoking policy for employees on and off the job. This voluntary policy extends to all new hires. As an employee of CJ Inc., your participation is optional, but we do hope that employees will selfselect themselves to participate. Therefore, it is important that all applicants are aware of this optional policy which is overseen by the HR department.

Informativeness

High condition

As you know, smoking is hazardous to your health. What you may not know is that it is also very hazardous to the health of your nonsmoking coworkers and to the financial health of the company. Medical researchers have clearly linked smoking to such serious, often deadly ailments as cardiovascular disease, lung cancer, strokes, and emphysema. In fact, smoking is one of the most prevalent causes of premature death among Americans. According to the Centers for Disease Control and Prevention, smoking is responsible for about 438,000 deaths and 8.6 million patients with a serious illness annually.

Smoking is also harmful for those who live and work around smokers. Such secondary or environmental smoke is a great concern. Nonsmokers exposed to environmental smoke often suffer the same diseases as smokers themselves. In fact, regular exposures to environmental smoke cause the same amount of physical harm as smoking a half pack of cigarettes a day. Each year as many as 5,000 nonsmokers die from lung cancer caused by exposure to environmental smoke.

We here at CJ Inc. think that all of these are good reasons for you to stop smoking. But there's more behind our smoking ban than just the health risks. There are also several important statistics about the effects of smoking on the job that cannot be ignored. For example, did you know that compared to non- smokers, smokers are 50% more likely to be hospitalized and also 50% more likely to take off sick days? Smokers also cause twice as many job-related accidents. In the United States, the economic cost of smoking adds up to \$167 billion per year. In our company, our insurance company estimated that last year alone, we lost over \$300,000 due to

increased insurance expenses. We lost about the same amount from smoking-related productivity losses.

Low condition

As you know, smoking is hazardous to your health; it leads to many serious, often deadly, diseases. Not only is smoking dangerous to those who smoke but also to those exposed to smoke from others' cigarettes. In addition to the health effects, we must consider the costs of smoking to our company. Between increased insurance expenses and workplace dangers, smoking costs us all a great deal.

Social Sensitivity

High condition

Here at CJ Inc., we understand that quitting smoking can be a difficult process. We realize that this policy will be very hard on those of you who smoke. Smoking is an addiction, and it's very tough to stop. But we have your long-term interest at heart in implementing this policy. Please understand that we don't want you to suffer. Our goal is to keep you both happy and healthy while working here with us.

Low condition

Here at CJ Inc., we understand that quitting smoking can be a difficult process, but it's in the best interest of our business to implement the smoking ban. Business must come first. Smokers are the culprits of high medical costs and low productivity, so they must try hard to change their health behaviors. Our goal is to improve our bottom line by minimizing the smoking-related costs for the company.

Appendix III. Manipulation (Weight Control)

Company Introduction

CJ Inc.

We are a nationally renowned company based in Chicago, Illinois. Since 1990, we have been manufacturing world class array of products and distributing them all across the United States. We believe in listening to the market place and leading the industry by creating innovative ways of infusing technology into business. As we further expand our business in Michigan, we are currently seeking for individuals with all levels of education and experience.

Positions & Salary: Many part and full time positions are open in such diverse areas as manufacturing, sales/marketing, administration/finance, and engineering/information technology, as well as customer service. Salary and an extensive benefits package are competitive and commensurate with experience and qualifications.

Thank you for your interest in our company.

Employer Control

High condition

Since January 2006, we at CJ Inc. have been implementing a mandatory weight control policy for overweight and obese employees. This mandatory policy extends to all new hires. Once hired, new employees will have a year to reach healthy weight goals set by the company. To ensure employees' compliance, a mandatory weight measurement will be administered after the one-year time frame. New employees as well as existing employees who fail to meet the weight goal will be charged penalties up to \$50 out of their weekly paychecks and required to buy their own health insurance. In addition, they will not be considered for promotion. *Low condition*

Since January 2006, we at CJ Inc. have been implementing a voluntary weight control policy for overweight and obese. This voluntary policy extends to all new hires. As an employee of CJ Inc., your participation is optional, but we do hope that employees will self-select themselves to participate. Therefore, it is important that all applicants are aware of this optional policy which is overseen by the HR department.

Informativeness

High condition

As you know, excessive weight is hazardous to your health. What you may not know is that it is also very hazardous to the financial health of the company. Medical researchers have clearly linked obesity to such serious, often deadly ailments as coronary heart diseases, diabetes, hypertension, stroke, breast cancer, prostate cancer, and colon cancer. In fact, obesity is one of the most prevalent causes of premature death among Americans. According to the National Institute of Health, obesity is responsible for about 325,000 deaths and millions of patients with a serious illness annually.

The health effects of obesity should be taken seriously because it is such a widespread problem. Currently, a majority of Americans are overweight or obese. About two-thirds of American adults are overweight and more than one third are obese. In the past thirty years, obesity rates doubled for adults and tripled for children. If these trends continue, by the time today's children reach adulthood, obesity will be the norm and healthy weight the exception.

We here at CJ Inc. think that all of these are good reasons for you to get fit and have healthy life. But there's more behind our weight control policy than just the health risks. For example, did you know that compared to healthy weight employees, extremely obese employees cost twice more compensation claims and are twelve times more likely to take off sick days? In the United States, the economic cost of obesity adds up to \$147 billion per year. In our company, our insurance company estimated that last year alone, we lost over \$300,000 due to increased insurance expenses. We lost about the same amount from obesity-related productivity losses.
Low condition

As you know, excessive weight is hazardous to your health; it leads to many serious, often deadly, diseases. The health effects of obesity should be taken seriously because it is a widespread problem. In addition to the health effects, we must consider the costs of obesity to our company. Between increased insurance expenses and productivity losses, obesity costs us all a great deal.

Social Sensitivity

High condition

Here at CJ Inc., we understand that diet and workout can be difficult processes. We realize that this policy will be very hard on those of you who are overweight or obese. Obesity is a chronic health condition, and it's very tough to change. But we have your long-term interest at heart in implementing this policy. Please understand that we don't want you to suffer. Our goal is to keep you both happy and healthy while working here with us.

Low condition

Here at CJ Inc., we understand that diet and workout can be difficult processes, but it's in the best interest of our business to implement the weight control policy. Business must come first. Overweight and obese employees are the culprits of high medical costs and low productivity, so they must try hard to change their health behaviors. Our goal is to improve our bottom line by minimizing the obesity-related costs for the company.

Appendix IV. Measurement Items

Note: * denotes items used in the analysis

[†] denotes items excluded from Experiment 2

(R) denotes reverse-coded items

Individual Health Orientations

Attitude toward Smoking

Adopted from the Attitudes towards Smoking Scale (ATS-18) (Etter et al., 2000)

- 1. Smoking is extremely dangerous to my health.*
- 2. Smoking can ruin my health.*
- 3. Cigarette smoke leaves an unpleasant smell.
- 4. Smoking bothers other people a great deal.*
- 5. Second-hand smoke is dangerous to people.

Nutrition Consciousness

Adopted from Aydinoğlu and Krishna (2011); Klautke and Park (2011)

- 6. I maintain a well-balanced diet.*
- 7. I eat several servings of fruits and/or vegetables almost every day.*
- 8. I read the nutrition labels on packaged foods for nutritional content.*
- 9. I try to make sure for the food that I eat to have high nutritional value.
- 10. I often eat fast-food. (R)*

Motivation for Healthiness

Adopted from Snell and Johnson (1997)

- 11. I'm very motivated to be physically healthy.*
- 12. I'm strongly motivated to devote time and effort to my physical health.*

- 13. I have a strong desire to keep myself physically healthy.
- 14. It's really important to me that I keep myself in proper physical health.*
- 15. I strive to keep myself in tip-top physical shape.*

Manipulation Check

Perceived Severity of Employer Control

Adopted from Park et al. (2012)

- 1. I believe the health policy at CJ Inc. is severe.
- 2. I believe the health policy at CJ Inc. has serious negative consequences for employees.
- 3. I believe the health policy at CJ Inc. is strictly enforced.*
- I believe the health policy is detrimental to smokers' (overweight people's) employment at CJ Inc.*
- 5. I believe the health policy has significant consequences for smokers' (overweight people's) employment at CJ Inc.*

Perceived Informativeness

Adopted from Greenberg (1994)

- 6. The company explained why they should enforce the health policy in a detailed manner.
- 7. The message provided sufficient rationale for the health policy.*
- 8. The amount of information provided is sufficient.*
- 9. The information regarding the health policy was thorough.*
- 10. The amount of information I received was not sufficient. (R)*

Perceived Social Sensitivity

Adopted from Greenberg (1994)

11. The message about the health policy was polite.*

- 12. The message communicated the information in a polite manner.*
- 13. The message showed empathy toward the employees affected by the health policy.*
- 14. The message showed respect toward the employees affected by the health policy.

Perceived Fairness

Informational justice

Adopted from Colquitt (2000)

- 1. The company explained the health policy thoroughly.
- 2. The explanations regarding the health policy were reasonable.*
- 3. The company seems to communicate details in a timely manner. **
- 4. The company tailors its communications to individuals' specific needs.*
- 5. The company communicated the health policy in a candid manner.*

Interpersonal justice

Adopted from Colquitt (2000); Sunshine & Tyler (2003)

When communicating the health policy,

- 6. The company treats people in a polite manner.
- 7. The company treats people with respect.*
- 8. The company refrains from improper remarks or comments.
- 9. The company takes account of people's needs and concerns.*
- 10. The company sincerely tries to help people with their health problems.*

Perceived Legitimacy

Adopted from Sunshine & Tyler (2003)

Obligation

1. Employees should follow the health recommendations from the company.

- 2. It is best for employees if they follow the recommendations of the health policy.*
- 3. Disobeying the health policy is seldom justified.*
- 4. It would be difficult for employees to ignore the health policy and keep self-respect.
- 5. The health policy does not protect employees' interests. (R)
- The health policy represents the value of management, rather than the value of employees.
 (R)*

Trust

- 7. CJ Inc. cares about the health and well-being of every employee.*
- 8. The company can be trusted to make decisions that are right for employees' health.
- 9. Employees' health is well protected by the company's health policy.*
- 10. The health policy encourages employees to feel good about their workplace.*
- 11. I agree with many of the values that define what the company's health policy stands for.*
- 12. I trust the management at CJ Inc. to make decisions that are good for every employee.*

Emotion

Adopted from the PANAS scale (Watson et al., 1988)

- 1. Enthusiastic*
- 2. Interested*
- 3. Determined
- 4. Excited
- 5. Inspired*
- 6. Alert
- 7. Active*
- 8. Strong

- 9. Proud*
- 10. Attentive*
- 11. Scared
- 12. Afraid*
- 13. Upset
- 14. Distressed*†
- 15. Jittery*
- 16. Nervous*†
- 17. Ashamed
- 18. Guilty*
- 19. Irritable
- 20. Hostile*

Compliance Intentions

Suppose you are hired as an employee of CJ Inc.

Voluntary compliance

- 1. I will voluntarily follow the company's health policy.
- 2. I am willing to comply with the company's health policy.
- 3. I am willing to maintain a healthy life style.*
- I will gladly change my health behavior, following the health recommendations of the company.*
- 5. I will keep up with the health policy from my own free will.*

Involuntary compliance

6. I will be following the health policy, but only because of the threat of punishment.

- 7. I will be reluctantly complying with company's health policy.*
- 8. I will be listening to the company's health recommendations only half-heartedly.**
- 9. I will change my health behavior, but only to avoid punishment.*
- 10. If there is no penalty, I will not comply with the company's health policy*

Organizational Attraction

Adopted from Highhouse et al. (2003)

General attractiveness

- 1. For me, this company would be a good place to work.*
- 2. This company is attractive to me as a place for employment.*
- 3. I am interested in learning more about this company.*
- 4. A job at this company is very appealing to me.
- 5. I would not be interested in this company except as a last resort. $(R)^*$

Intention to pursue

- 6. I would accept a job offer from this company.*
- 7. I would make this company one of my first choices as an employer.*
- 8. If this company invited me for a job interview, I would go.*
- 9. I would exert a great deal of effort to work for this company.
- 10. I would recommend this company to a friend looking for a job.

Prestige

- 11. Employees are probably proud to say they work at this company.*
- 12. This is a reputable company to work for.*
- 13. I would find this company a prestigious place to work.*
- 14. There are probably many who would like to work at this company.*

15. This company probably has a reputation as being an excellent employer.*

Demographics

Please answer the following questions about yourself.

- 1. Your age: _____
- 2. Your gender: ____ Male ____ Female
- 3. Your citizenship

U.S. citizen

____ International (permanent resident)

- ____ International (non-permanent resident)
- 4. Your race (check one):
 - ____ Caucasian ____ Hispanic
 - _____ African American _____ Pacific Islander
 - _____Native American _____Mixed (please specify) ______
 - _____ Asian American _____ Other (please specify) ______
- 5. Please indicate your current academic status:
 - _____ Freshman
 - _____ Sophomore
 - _____ Junior
 - _____ Senior
- 6. Your major: _____
- 7. Have you had an internship before? ____ Yes ____ No
- 8. Have you ever been employed? ____ Yes (Full-time) ____ Yes (Part-time) ____ No
- 9. Are you currently employed? ____ Yes (Full-time) ____ Yes (Part-time) ____ No

10. Are you currently looking for a job? ____ Yes (Full-time) ____ Yes (Part-time) ____ No

11. How would you describe your future job?

	Administration/Support		Management/Business/Finance
	Agriculture/Horticulture		Manufacture/Production Operation
	Architecture/Construction		Public Service/Military
	Art/Design/Fashion		Sales/Retailing/Marketing
	Education/Publishing		Science/Engineering/Computer
	Food/Hospitality Service		Social Service
	Journalism/Media/Advertisement		Sports/Entertainment
	Legal/Law Enforcement		Transportation/Travel
	other (please specify)		
12. Which of the following best describes you?			
a.	I have never smoked a cigarette		
b. I smoked cigarettes for a while, but not any more (i.e., I quitted smoking)			
с.	I currently smoke cigarettes		
d. I don't consider myself as a smoker because I smoke only once in a while			
e.	other (please explain)		
13. Do you currently smoke cigarettes?			YesNo
14. If you smoke, are you currently trying to quit smoking?			YesNo
15. If you smoke, have you ever tried quitting?			YesNo
16. If you smoke, how many cigarettes do you smoke in a week? pack(s) per week			
17. Your height ft in (or cm)			
18. Your weightlbsoz (orkg)			

- 19. Do you consider you are _____ underweight _____ normal weight _____ overweight
- 20. Are you currently on a diet? ____ Yes ____ No
- 21. On a scale of 0 to 10, how much are you concerned about your current weight?

Health Status

Adopted from the Multidimensional Health Questionnaire (Snell & Johnson, 1997)

The items listed below refer to people's health. Please read each item carefully and decide to what extent it is characteristic of you. Give each item a rating of how much it applies to you by using the following scale:

- A = Not at all characteristic of me.
- B = Slightly characteristic of me.
- C = Somewhat characteristic of me.
- D = Moderately characteristic of me.
- E = Very characteristic of me.
- 1. I am in good physical health.*
- 2. My body is in good physical shape.*
- 3. I am a well-exercised person.*
- 4. My body needs a lot of work in be in excellent physical shape. (R)*
- 5. My physical health is in need of attention. $(R)^*$

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