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Research Article

Understanding how organizational environments affect food intake among employees in South Korea*

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ABSTRACT

Purpose: Previous studies have highlighted that the nutritional behaviors among South Korean workers are far from ideal. This study examined the organizational influences affecting the eating practices of office workers in South Korea. **Methods:** We conducted in-depth interviews with 22 office workers at 12 companies in South Korea. The interviewer inquired about the employees' daily routines on food and beverage intake. The various factors that influence their food choices in their work environments were also explored. The interviews were transcribed and then analyzed using a content analysis. **Results:** A framework analysis revealed 7 key recurring themes, and these were grouped under three levels: team-, company-, and corporate group-levels. First, team dinners are core social events for all the workers and they tend to include high-caloric food and alcoholic beverages. The frequency of team meals and the food associated with them depend on various team characteristics such as gender composition, the nature of a team's work and the team leaders' emphasis on group meals. Second, the company's policies and practices regarding budget allocation for team meals and subsidies for cafeteria meals affect the workers' food intake practices. In addition, the physical environment of the worksite cafeterias can influence the choices of foods. Third, various corporate group policies that were not designed to target food intake had additional positive effects on the workers' eating behaviors. **Conclusion:** This study provides important insights into the broader organizational influences on the food consumption of employees in their workplace. These insights can be used to design and implement more effective intervention strategies for improving the nutritional behaviors of office workers.

KEY WORDS: organizations, food environment, workplace, diet, qualitative research

Introduction

Workplace programs targeting healthy eating behaviors among workers can be efficient and effective in lowering the burden of chronic diseases [1,2]. The majority of adult women and men are in the labor force, and they spend more than 7 hours of each weekday at the workplace and make various food choices within the company boundaries. Previous intervention studies have shown that worksite nutrition interventions can be effective in increasing fruit and vegetable consumption [3]; decreasing fat, sodium, and cholesterol intake [4,5]; and increasing the key psychosocial factors of healthy eating choices [6].

Nutritional programs targeting employees at worksite settings can be considered especially relevant in South Korea, because the working hours of South Korean employees are longer than most countries in the world [7]. Previous studies conducted in South Korea have attempted to understand workers' food intake habits, such as breakfast skipping [8], salt intake [9], and the perceived level of stress and its association with dietary attitude [10,11]. These studies have highlighted that the nutritional behaviors among Korean workers are far less than ideal.

Factors associated with eating behaviors have been examined extensively in previous research [12]. According to the Social Ecological Model (SEM), individual health

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behaviors are the result of various interactions among personal, organizational, and social factors [13]. Using an SEM framework, previous intervention studies focused not only on individual factors but also on environmental factors to modify individuals' eating behaviors. In worksites, environmental strategies include altering the availability of [un]healthy food items [14], manipulating pricing [15], changing the nutrient contents of the menu [16], and providing nutritional information on the menu [17].

Early studies recognized the joint influence of physical and social environmental factors on occupational health [18]. However, previous nutrition interventions mainly targeted the physical environment of the workplace, and there were few studies that specifically examined and tried to modify the organizational and social workplace environment. Furthermore, there have not been enough attempts to understand the organizational and socio-cultural influences on workers' nutrition behaviors at worksite settings, which should be considered when planning an effective intervention.

From previous studies on South Korean workers, it is known that their food intake practices are suboptimal, yet the more fundamental reasons why workers eat the way that they do has not extensively explored. Therefore, this study was conducted to understand the organizational social and policy environments of the workplace that are related to worker's eating behaviors. Our main research question for this manuscript was as follows: What are the employers' organizational environments related to office workers' food choices?

Methods

General study design and theoretical framework

Detailed information on the study methods, procedures and interview guide can be found in elsewhere [19]. In brief, in-depth interviews with 22 office workers were conducted in a metropolitan area of South Korea. Using the SEM as a guiding framework [20], we prepared the interview guide, paying special attention to the organizational environments of the workplace. The SEM emphasizes the interrelatedness among personal- and organizational-level influences on human behaviors [21].

Table 1. Key information of study participants

Interview #	Gender (Man/Woman)	Age	Company	Job roles
1	M	36	IT	Technician
2	M	52	Credit card	General administration
3	W	39	Credit card	General administration
4	W	30	Insurance	In-house attorney
5	W	32	Insurance	Contract reviewer
6	M	39	IT	Technician/ programmer
7	M	39	IT	Technician/ programmer
8	W	33	Outsourcing on-line education	Customer service representative at call center
9	W	30	Engineering	Engineer
10	M	37	Heavy industry	General administration
11	M	33	Material industry	Sales
12	W	34	Credit card	IT technician
13	W	29	Hotel	Sales planning for duty-free shops
14	M	29	Security solution	Researcher
15	M	35	Electronics	Production planning for the semi-conductor division
16	M	32	Electronics	Researcher*
17	W	27	Broadcasting company for the corporate group	Producer for company broadcast
18	M	43	Heavy industry	General manager of the legal team*
19	W	38	Food catering	Sales
20	M	41	IT	Technician/ programmer
21	M	47	Insurance	General administration (Department head)*
22	M	45	Insurance	General administration (Deputy department head)*

* Additionally recruited through a snowball sampling method.
IT: information technology

During the interviews, various individual, familial, and environmental (both institutional and societal) factors were emerged and extensively discussed. In the previous article, we presented the social and cultural influences of eating behaviors among this population, such as economic hardships in general society, which magnify competitiveness among workers and companies. For this manuscript, we focused on how organizational factors affect eating behaviors among office workers. The interview guide is presented in the previous article [19].

Recruitment and interview process

A total of 22 interviews with full-time workers from 12 companies that are part of one corporate group in South Korea were conducted between January and June 2014. This group has a wide variety of businesses in their affiliated companies, and the detailed information about the participants' age, gender, and job roles can be also found in Table 1. The participants' ages ranged from 27 to 52 years (median 35.5 years). Participants' job roles also varied from professionals (i.e., researcher, programmer, and in-house attorney) to more general positions, such as customer service representative at a call center and general administrator.

To recruit participants, a flyer was posted on the Web bulletin board. The flyer explains the aim of the research and the interview process, along with the compensation (10 USD gift certificate to local stores and a pedometer). If the participants were interested, a nutrition counseling session was offered with registered dietitians from the research team. Among 40 people applied for the interviews, 20 workers were contacted based on their job grade, age, and gender to maximize the variability. Among these contacted volunteers, 2 of them could not participate in the scheduled interviews. In addition to these 18 initial volunteers, a snowball sampling method [21] was employed to recruit 4 more volunteers with higher job grades (in their 40's) and with flexible working hours, who were under-represented among the initial contacted volunteers. All interviews took approximately 50 ~ 60 minutes to complete, and written consent forms were collected from all participants. The study protocol was approved by the institutional review board of Kangbuk Samsung Hospital (KBC 2013-01-142).

All the data collection and analysis were performed by the lead author, who has graduate-level qualitative research training and has performed various qualitative studies, including her doctoral dissertation research. The interview guide had open-ended questions that explore participants' overall eating practices during the weekdays and weekends. Questions regarding perceived environments at worksites were asked and probing was used to get more detailed information on eating out (i.e., how often, where, with whom and whether alcohol is involved and so one) and presence of policies which help or hinder healthy eating behaviors.

Most of the interviews took place during lunch hours or right after work near the participants' office, such as workplace cafeterias, conference rooms, and coffee shops near the office buildings. Upon the participants' approval, the interviews were digitally recorded and transcribed. Hand-written field notes were also used during the interviews. The interviewer reviewed the transcripts for accuracy once the interviews were transcribed verbatim.

Analysis

The theoretical framework (SEM) and preselected constructs from the theoretical model guided the development of a codebook, used to code the text-based data [22,23]. The developed codebook included personal, organizational (team, company, and group), and socio-cultural factors that the participants used to characterize and interpret the connections between their job roles and food choices. Under these pre-defined domains, themes were identified while reading the transcripts. In vivo codes were also added when it is thought to be meaningful to retain informant language and expressions and to classify emergent themes. Guided by the codebook, two authors (SP and ES) coded the data. A text-based data analysis package was used for data management and analysis (version 6.0, ATLAS.ti, Scientific Software Development, Berlin, Germany, 2015). Verbatim extracts from the one-on-one interviews are used in the manuscript to present the findings.

Once coding the data, the data were summarized in a matrix for each theme using Microsoft Excel for Mac 2011 (Redmond, WA). This framework matrix used in the content analysis helps to identify commonalities and differences in the qualitative data, leading to descriptive and explanatory conclusions clustered around themes [24]. We compared data across the cases and within the individual cases to refine the emerging themes.

To increase the credibility of the findings, a peer debriefing and member checking were employed while preliminary data analysis was in progress [21,25]. Research team decided when to stop recruiting new participants given all the team members agreed that the data were saturated.

Results

Team-level factors: Team characteristics and team meals

Theme 1: Inevitable group meals- 'Hoe-sik' and gender composition

During the interviews, the most frequently mentioned events related to food intake were team dinners, called '*hoe-sik*' in Korean. The direct translation is 'dine together', and these group meals typically happen after work in the evening for various purposes. The interviews revealed that the most common purposes include celebrating achievements as a team or as a member, such as meeting the sales quota for sales teams and for promotions of team members. The interviewees mentioned that when the teams have new additions or when someone is leaving the team or the company, they also have *hoe-siks*. Team leaders can also suggest occasional *hoe-siks* for teambuilding purposes.

The reason these *hoe-siks* were most frequently mentioned during the interviews is because there is a lot of food and alcoholic beverages involved at these events. As mentioned earlier, *hoe-siks* are inevitable for all workers. Most of the *hoe-siks* take place at barbecue restaurants because "*they are relatively cheap*," and "*the layout of the barbecue places are optimal for team dinners, where they can arrange many tables together in a sectioned room.*" The most popular combination of menu items is grilled "*sam-gyup-sal*" (pork belly) and "*so-ju*" (clear liquor, made of rice) or "*so-mac*" (mixture of *so-ju* and beer).

During the *hoe-siks*, most of the participants said that it is easy to eat more calories than their regular dinners due to the high-caloric meat dishes and alcoholic beverages. In addition, until very recently, there were at least two rounds, or sometimes three rounds, of *hoe-siks*, meaning people may go to two or three different restaurants during one night. Among the participants, the frequency of team meals varied from 2 ~ 3 times per week to 3 ~ 4 times per year.

When we asked the interviewees to explain their *hoe-sik* experiences, we heard much about their team's gender composition and its relation to the frequency of *hoe-siks* and the quantity of alcohol. The two quotes below explain opposite situations: one with a female-dominant team and one with a male-dominant team. When the majority of team members are women, they do not have *hoe-siks* that often, and drinking sessions are not that long. On the contrary, when male workers are predominant, they have more frequent *hoe-siks* that involve more alcohol consumption.

> *"In my team…about 70% of our team members are women. So except for the year-end party or during a large-scale reshuffling of the employees, we do not have regular hoe-siks."* [Interview #5]
>
> *"Hoe-siks…we never had hoe-siks where drinks are not involved. That's because the majority of team members are men…among ten team members, only two are women, including me."* [Interview #9]

Theme 2: Nature of the work and team culture

In addition to the gender composition of the team, the nature of the work that the team performs also affects their *hoe-sik* culture. One female worker, who is the representative at a call center of a web-based outsourcing education company, explained that they have a different *hoe-sik* culture compared to typical companies. Because of rotating work schedules (workers rotate four different schedules: 8 am ~ 5 pm, 9 ~ 6, 10 ~ 7, and 11 ~ 8), it is hard for the entire team to gather together at one time for group dinners. She also said that drinking can be optional, and there are no mandatory *hoe-siks* where people feel pressured to drink.

> *"We do not have hoe-siks that often because of different work schedules. If we do have hoe-siks, we form teams based on the schedule and members' preferences. If a group of people want to have drinks, they go for a drink, and if the other group wants something else, they do something else."* [Interview #8]

Many participants mentioned that workers on sales teams have more frequent *hoe-siks* than others, and they are well known for "*excessive drinking*." One male worker in an IT service team used to work for a smaller company, where the IT service workers were part of the sales team. He also emphasized that he felt pressured to drink more when

having dinners with sales people.

"I do IT service, but back then in my previous work, IT service was in the sales department because it was a small company. So we ate and drank with the sales people…they drank so much and could hold so much alcohol." [Interview #20]

A young male interviewee who is a sales person explained the reason for more frequent group meals.

"There are official hoe-siks of course…but there are semi-official ones. There are many occasions where other teams call us to have dinner together. That could be an R&D team or a manufacturing team from the plants…or other sales teams. Then we would join them because we have a very intimate relationship." [Interview #11]

Because of the nature of the work that the sales team does, they work very closely with other teams, such as development and manufacturing teams. He explained further that having '*intimate relationships'* with other teams at the company or their customer companies helps him to succeed in selling products. Specifically, important information on products or about the market is given by other teams and customers at *hoe-siks* over dinner and alcoholic beverages, and participating in *hoe-siks* is critical to his job. Another male worker in an accounting department worked closely with financial institutes, and he also mentioned that he had some lunches and many dinners with people from local banks for business purpose.

"I worked closely with banks, and the work was much smoother and easier if we became familiar to each other. So it's not like I am hungry or I want to eat something special…it's more like I eat because I have an appointment with people from the banks." [Interview #10]

Theme 3: Team leaders' mindsets toward lunches and team dinners

Many interviewees, especially younger workers, said that *"not many people love to go to official hoe-siks- the less hoe-siks, the better,"* because at *hoe-siks,* they feel pressured to drink alcohol, and it is not enjoyable to be at dinners where you are obliged to attend. Many interviews confirmed that the *hoe-sik* culture is changing as more workers, especially younger ones, prefer to have their own lives after work, instead of spending extra hours with colleagues for dinners and drinks. However, when team leaders are more prone to emphasize team lunches and dinners for the sake of teambuilding, it is more likely that the team members will consume more high-caloric food and alcohol. Two quotes below showed two different stories on *hoe-siks* depending on team leaders.

"My team head doesn't pressure people to drink or to have group dinners that frequently. So when we have a hoe-sik, we literally eat food and leave. That's it." [Interview #17]

"It [the hoe-sik] depends on the team leader. Some people think eating together is very important and some do not. My current boss thinks that we should understand each other's lives outside of work…by sharing food. He thinks that we should have hoe-siks at least once a month." [Interview #13]

Company-level factors: Company policies and practices

Theme 4: Financial support for meals

Amount of budget allocated to team meals

The most frequently mentioned company-level factor were their policies and practices regarding the amount of the budget allocated to *hoe-siks*. When interviewees explained their eating practices, many of them mentioned that they started to consume more meat and "*hoe"* [raw fish, the same as *sashimi*] once they joined the company. Good-quality meat and *hoe* dishes are relatively expensive in South Korea, and workers have more opportunities to eat those dishes as corporate expenses.

"Yes, we drink a lot, and we eat a lot of expensive food. When we were in college, we lived like beggars because we were poor. But here, we can eat expensive foods if we want to…with the firm money." [Interview #11]

Another worker also said that he eats as much as he wants during *hoe-siks* because the company does not limit the budget for team dinners.

However, during the interviews, we learned that it depends on the business performance of the company.

One senior worker, who was a team leader, mentioned that when he was a junior team member, the firm's business was expanding at a fast rate, and the firm allocated a lot of money to team dinners. However, with much slower growth in his business sector currently, his firm does not allocate as much of their budget to team gatherings. Therefore, he said, "*Nowadays, I go home sober after hoe-siks. That never happened when I was young.*" When the interviewer asked him the biggest reason for this change, he gave a firm answer: *no budget for expensive meals*.

Amount of subsidies on meals eaten at worksite cafeterias

In addition to *hoe-siks*, meals eaten at worksite cafeterias can be influenced by the amount of subsidies. For example, we found that companies with high revenues invest more into worksite cafeterias for their employees' welfare. The menus are more diverse, with better flavors and more healthy options served in a better environment, which leads to a higher level of satisfaction among employees. However, this could have positive and negative consequences depending on the employees. Some interviewees said that they could eat a good breakfast at the cafeteria. They were satisfied with the menu selection and the meal prices, which are subsidized by the company. On the other hand, a few interviewees noted that they think they gained weight since they started their current job because of the cafeteria meals. The food options are good and inexpensive, or sometimes completely free for the employees, which encourages the employees to eat more than they would in different circumstances.

> *"When I was in graduate school before joining this firm, I ate much less than I do now. But here, the food is good and it is all free. We pay nothing. [Interviewer: Other employees from different firms said that they pay half and the company pays half. It's different?]. In firms with higher revenue, workers pay less. And we don't pay for the food here. So I eat three full meals per day here. That's a lot more food than before…when I was a student."* [Interview #16]

Theme 5: Physical food environment

One final factor is the availability of healthy options at worksite cafeterias. From the interviews, we were aware of the wide range of physical food environments at the companies. There were cafeterias with more than 10 menus available with various low-sodium and low-calorie options. On the other hand, there were interviewees who work at branch offices where no cafeterias are available in the office buildings. In these cases, employees often go to nearby office cafeterias, if there are any, or eat at local restaurants.

All worksite cafeterias where the interviewees eat meals offer breakfast, lunch and dinner and are prepared by on-site dietitians. As mentioned earlier, the variety of menu items and the number of healthy options vary from cafeteria to cafeteria. Therefore, we understood that the physical food environment, and mostly the environment of the worksite cafeteria, was influential on the workers' diets. One female worker said that she does not skip breakfast because there are many take-out options at the cafeteria in the basement of her office building. One male worker who was recently relocated to a different branch office complained that the previous cafeteria at the headquarters had many healthy options, such as fresh fruits and salad, brown rice, and low-sodium soups, which were not available at the current cafeteria.

Corporate-level factors: Corporate group policies

Theme 6: Penalty for using the corporate card for team dinner after 9 pm

All of the interviewees work for one large corporate group. The most common theme that emerged from the interviews was the banning of using the corporate card on official *hoe-siks* after 9 pm. This relatively new policy started two years ago, when the executives of the group reported a few serious accidents related to over-drinking at the *hoe-siks*. This policy forces official team dinners to end before 9 pm. Not all of the interviewees said that they were dismissed before 9 pm at every *hoe-sik*; however, a consensus that *hoe-siks* are supposed to be over by 9 pm started to build among all team members. These relatively shorter *hoe-siks* mean less eating and less drinking.

> *"We used to have mandatory hoe-siks until very recently, where you are forced to stay late and drink… even until 1 ~ 2 am. About two years ago, there were a few big accidents...which leads to this new policy. It's called 119 - one type of alcohol, only one round, and finish before 9 pm"* [Interview #13]

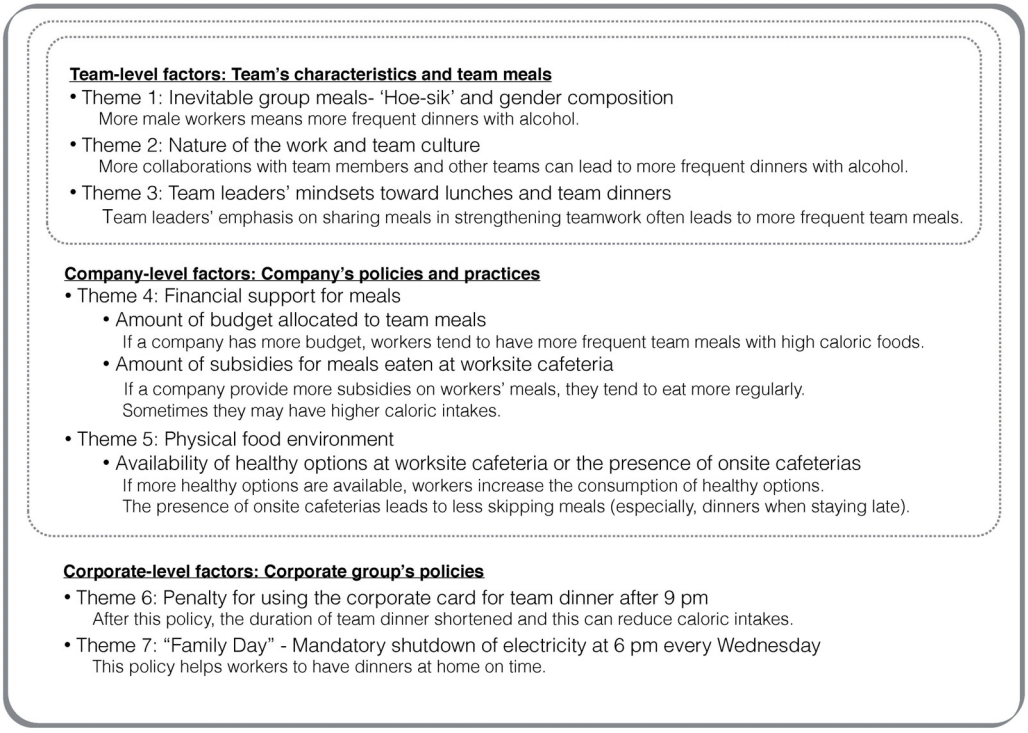

Fig. 1. Framework for organizational influences on food intake among office workers at one corporate group in South Korea.

Theme 7: "Family Day" – Mandatory shutdown of electricity at 6 pm every Wednesday

Among the interviewees, there was another group policy mentioned that affects employees' eating practices. Because many workers stay late at work in South Korea, there are other groups and companies that have adopted policies enforcing the end of a workday such that the company turns the electricity off at 6 pm. One young female worker explained that due to this policy she could eat dinner at home relatively early in the evening.

> *"All the lights are off, the computers are off at 6 o'clock on every Wednesday. It's called 'family day.' It's the group's minimum consideration for the employees' welfare, I think. I go home early and can have dinner at home on Wednesdays. Otherwise, I would skip dinner because there is so much work left and I want to go home early…so I end up skipping dinner."* [Interview #5]

She also added that on the days that she skips dinner, she usually makes do with snacks or fast food for dinner late at night. Therefore, she stressed the healthy dinner that she could have at home if she leaves work on time. Fig. 1 shows the summary of key findings from the interviews.

Discussion

The present study provides a different layer of information about workers' eating practices by examining organizational influences within work environments. The most frequently mentioned influence was the culture of dining together as a team. There were many interviewees that mentioned eating occasions where workers are obliged to attend as team members. We paid special attention to these team meals (primarily dinners) because the participants described the meals as highly caloric, with many meats and alcohols involved. Moreover, many participants perceived these team dinners as a likely reason for their weight gain after joining the company. The frequency of team dinners varied depending on gender and the job role, which ranged from 2 ~ 3 times per week to 3 ~ 4 times per year. However, to our knowledge, there have not been previous studies that specifically address these aspects of organizational culture that are closely related to workers' food intake.

A study conducted in Korea showed that approximately 80% of study participants reported that they regularly drink, and the drinking frequency was associated with high body mass index [10]. Moreover, many previous studies from

various countries have shown that the frequency of eating out is associated with a higher intake of energy and sodium [26], a higher total fat and saturated fat intake [27] and a higher prevalence of overweight and obesity [28]. Because these studies did not examine the specific effect of team meals at work with regard to eating behavior and nutrient intake, it is necessary to further study this association using quantitative data.

We observed that there are some team characteristics that affect the frequency of drinking and the amount of alcohol consumed at team dinners (Theme 1 ~ 2). Male-dominant teams tend to consume more alcohol compared to female-dominant teams. In addition, the culture of team dinners may vary with the characteristics of team roles and the traits of team members. One study conducted in Norway highlighted different coping strategies for healthy eating and physical activity among male workers in three different occupations [29]. This study found that the distribution of different types of meals throughout the day was related to the type of work. The focus of these studies is not the same; however, it is clear that the work environment is crucial in understanding eating behaviors among workers. In addition, women and men may react differently in the same work situations [30]. Therefore, in future research, it would be interesting to examine the differential effect of these social eating occasions on the amount of alcohol or other nutrients consumed depending on gender and job characteristics.

In addition, it would be meaningful to compare how people perceive the influences of social dining in different cultural context. For instance, sales representatives in many countries have meetings with clients over meals. Banquets and dinners may be important parts of corporate and educational settings. Given the different cultural context, how people perceive these social dining occasions and how these events affect people's food choices are worth exploring.

The importance of team dining in terms of workers' eating practices can be explained by the concept of the social facilitation of eating. Herman explained that people tend to eat more in groups than when alone [31], and this social facilitation is linked to time eating. That is, when people are eating in larger groups, they tend to eat longer, and longer meals can translate into larger meals [32,33]. Modeling mechanisms are another explanation for how social influences affect eating. People control their food intake by modeling the amount of food other people eat [34]. Using these concepts, we can further reflect that team dinners that are held until late at night can be critical occasions for workers that facilitate overeating.

Previous studies conducted in Western countries have focused on social support at the worksite in the areas of health promotion and healthy eating [35]. Intervention and cross-sectional studies have emphasized the support of management and changing social norms at the worksite as key elements in implementing successful worksite health promotion interventions [36-38]. In addition, previous studies emphasized that programs should simultaneously address individual, environmental, and cultural factors affecting health to be more effective [39]. The current study confirms that organizational environment is important in shaping workers' eating behaviors. In addition, our results show that elements of the organizational environment can vary by different cultural and geographical regions.

The interviews revealed that sharing meals at work means more than eating together. As interviewees explained that these dinners are part of their work, especially for sales person, the cultural function of group meals at work settings should be more emphasized in some cultures. Moreover, we believe that the emphasis on group meals as a means of strengthening teamwork at companies is rooted in core cultural values in Korea. Sharing meals is a gesture of friendship and shows affection to one another. In this cultural setting, improving knowledge and the perception of healthy eating among workers may not be the most effective strategy.

In this study, the physical food environment at the worksite was often mentioned by the interviewees. For example, we learned that when healthy options are available at on-site cafeterias, workers notice them and sometimes try those options (Theme 5). This means that higher investments in healthier environments at worksites can translate into healthier behaviors among workers. This result is corroborated by previous studies that showed the association between the worksite food environment and workers' eating behaviors [40,41].

On the other hand, more financial investment may not necessarily mean healthier employees. One male worker said that he tends to eat more with 100% subsidies from the company for cafeteria meals, and other interviewees mentioned that they would eat as much as they want with an unlimited corporate budget during team dinners.

Therefore, workers' health may be more effectively improved by providing a healthy physical environment with appropriate messages and an attempt to change social norms regarding healthy eating. Companies can consider allocating more of their budget toward promoting physical activity instead of subsidizing cafeteria meals or team dinners.

The study results revealed that company policies that did not directly target healthy eating could result in better food intake among workers. The group policy "119" was introduced to prevent alcohol-related accidents at the company; however, it started to change the culture of *hoe-siks*. The policy made the team dinner end earlier than before, which corresponds to less alcohol and less food intake. This change was welcomed by most of the young participants of this study, who tend to appreciate work-life balance more than the older generations.

In addition, enabling workers to leave the office at 6 pm once a week is a unique policy in South Korea, where working hours tend to be very long. Many large companies in South Korea introduced this policy to improve the quality of life of employees, which has had a spillover effect on workers' food intake. Workers said that they have dinner at home on this day with their families. Because many nutritionists emphasize the higher nutritional quality of home meals versus meals prepared outside of home [42], it is essential to widen the perspective and look for various non-conventional factors that can improve workers' food intake.

Despite this study's unique contribution to understanding the organizational influences affecting workers' food intake, the study has some limitations. First, we interviewed employees from one corporate group, and the results may not be generalizable to all office workers in South Korea. However, we recruited office workers from 12 affiliated companies within the group, with various sectors (e.g., finance, heavy industry, IT, and the hotel industry), and we strived to achieve maximum diversity by including various age groups, job positions, and work characteristics. Moreover, we conducted unofficial interviews with workers from other groups and companies, and we concluded that our main results are not substantially different from workers at other companies. Second, we tried to minimize the selection bias by recruiting non-volunteers through snowball sampling. However, we found that the interviews were relatively shorter for non-volunteers. Therefore, the results should be interpreted with the caveat that the majority of the study participants were interested in discussing their food intake habits with researchers. Third, with the primary focus of the current analysis on the effect of organizational factors on eating habits and words limitation, we did not include other individual and familial factors in this manuscript. Individual and familial factors are emphasized by the SEM and have been found in previous studies to be crucial in shaping personal food choices [43]. Current study participants also frequently mentioned these factors and we will introduce in separate follow-up publications. Lastly, the interviews were conducted in 2014. The company and corporate policies and program may have changed since then, and it would be meaningful to follow-up on these interviewees and examine how the organizational policy changes have impacted their personal food choices.

In conclusion, we found that there are many organizational influences at the worksite that are closely related to workers' food intake. The study results confirmed known factors that have been presented in previous studies conducted in other cultures, such as the importance of availability of healthy options at office cafeterias, and also adds a new Korean perspective. By identifying more relevant factors in specific cultural and geographical regions, we can implement more effective intervention strategies that will resonate more effectively with the target populations.

Summary

This is the first qualitative study conducted in an Asian country that aimed to understand office workers' daily lives and the reasons underlying their dietary choices. Interviews with twenty-two office workers at 12 companies revealed 7 key recurring themes, grouped under three levels: team-, company-, and corporate group-level. Employees stressed that the frequency of team meals and the food associated with them affect their eating behaviors, which depend on various team characteristics such as gender composition, nature of team's work and team leaders' emphasis on group meals. In addition, the company's policies and practices regarding budget allocation for team meals and subsidies for cafeteria meals affect the workers' food intake practices. The physical environment of the worksite cafeterias can influence food choices. Lastly, various corporate group policies that were not designed

to target food intake had additional positive effects on the workers' eating behaviors. This study provides important insights on employees' health promotion strategies, that can be used to design and implement more effective interventions for improving the nutritional behaviors of office workers.

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