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# Perceived Discrimination and Workplace Violence among School Health Teachers: Relationship with School Organizational Climate

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**Purpose:** The purpose of this study was to identify the relationship of the school organizational climate with perceived discrimination and the workplace violence among school health teachers. **Methods:** The research design was a cross-sectional study. The subjects of the study were 350 school health teachers with more than one year of teaching experience. Data were collected online using a questionnaire. Research variables are general characteristics, organizational climate, perceived discrimination, and workplace violence. The relationship between organizational climate and perceived discrimination and the relationship between organizational climate and workplace violence were analyzed using regression analysis. **Results:** The score for organizational climate of health teachers was 3.10 out of 5 points, the score for perceived discrimination was 2.85 out of 5 points, and the experience rate of workplace violence was 16.9%. School organizational climate was related to both workplace violence and perceived discrimination. The subcomponents of organizational climate affecting perceived discrimination of health teachers were interrelationship and the level of compensation. The subcomponents of organizational climate affecting workplace violence of health teachers were interrelationship and autonomy. **Conclusion:** The improvement of the school's organizational climate can reduce the level of workplace violence and discrimination against health teachers. It is important to establish an appropriate evaluation system for health teachers and to recognize the role and expertise of health teachers. In addition, it is necessary for school administraters to actively support health teahcers and to create an organizational climate where they can be friendly and communicative.

**Key Words:** School; School nursing; Climate; Discrimination; Workplace violence

## INTRODUCTION

School health teachers have the pressure of the dual responsibilities of performing the roles of a nurse and a teacher at the same time [1], and they work in a complex work environment that involves interactions with various people including teachers and administrative staffs [2]. Health teachers perform professional duties as a healthcare provider at school, so it is difficult for them to receive assistance or support from general teachers who are their colleagues [3]. Furthermore, they have recently experienced stress and anxiety in the process of responding to the unprecedented pandemic situations due to the outbreak and spread of the novel coronavirus disease (COVID-19), and they are also experiencing psychological pressure and feeling a heavy burden of responsibility because a single health teacher is forced to deal with all the infection prevention and control duties alone without assistance in each school [4]. It has been reported that there has been an increase in confusion and conflicts regarding infection prevention and control duties, the operation of educational affairs, and related duties due to the increase of infection prevention and control duties related to COVID-19 in schools [5]. These findings suggest that it is very likely that health teachers are experiencing various difficulties such as discrimination and workplace violence at school.

There are few reports on workplace violence among school health teachers in Korea. Regarding foreign stud-

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ies, a study of school nurses in Virginia, the U.S. by Sharma et al. [2] reported that the frequency of the experience of workplace violence was higher in the non-Caucasian group, in the group of non-licensed practical nurses, and in the group not involved in the individual education plans of students. Subsequently, in a follow-up study [6], it was found that a lack of the support from school supervisors for school nurses in Virginia was related to the increase in workplace violence against school nurses. In addition, according to Peters et al. [7], a third of school nurses reported experiencing workplace violence sometimes or frequently, and a lack of understanding of the roles of school nurses and the scope of their roles among the parents and administrators was associated with increased aggression against school nurses. In other words, these study results suggest that factors such as race, educational level, the support of school administrators, and understanding of the roles of school nurses are significantly associated with workplace violence among school nurses.

Some previous studies reported the experience of perceived discrimination among school health teachers in Korea. A study of health teachers working in elementary schools revealed that health teachers are experiencing structural inequality compared to general teachers due to the standards and procedures of the appointment of head teacher [8]. In addition, it was found that health teachers experience discrimination compared to general teachers in that their performance through health duties other than classes is not properly recognized due to the performance-based pay system mainly based on class hours [9,10]. As reported by previous studies, health teachers experience discrimination in various situations, and perceived discrimination has been shown to reduce self-esteem and increase job stress among health teachers [11]. A study of general workers also reported that perceived discrimination had a negative impact on job satisfaction and organizational commitment regardless of the type of employment, and the presence of perceived discrimination was associated with a lower level of organizational commitment, especially among permanent employees [12]. As described above, although the levels of workplace violence and perceived discrimination among school health teachers have been revealed by previous studies, and negative consequences of them have also been reported, there is still a lack of studies on workplace violence and perceived discrimination among health teachers in Korea.

Workplace violence refers to negative behaviors that a victim experiences from one or more perpetrators with power in the organization [13], and it is also defined as a series of increasingly expanded, persistent, and negative incidents that damage a person's individual and professional reputation, and cause social exclusion and harassment [14]. Harassment itself is a type of discrimination behavior included in a considerable number of anti-discrimination laws of foreign countries, and perceived discrimination is an individual's perception that he or she is being treated unfairly or differently from others as a member of an organization [15]. Therefore, most studies conducted so far have studied workplace violence and perceived discrimination separately, but considering that workplace violence is a type of discrimination [16], it is considered meaningful to investigate workplace violence and perceived discrimination together.

In the past, workplace violence was generally regarded as a problem between the victim and the perpetrator, which is irrelevant to other members of the organization [17]. However, recently, discrimination has started to be regarded as an important problem that needs to be managed at the level of the entire organization [12], and the recognition that the workplace environment encourages workplace violence and discrimination is being gradually expanded [18]. If the strict management control system is imposed on experienced and professional organizational members who traditionally have exercised considerable autonomy in performing their duties, it can cause considerable conflicts and exasperation among organizational members, which are manifested as workplace violence and discrimination in workplaces [18]. Therefore, workplace violence and discrimination should not be viewed simply as individual problems any longer, and should be regarded as important factors to create and maintain a healthy and efficient organization [19,20].

The organizational climate is a concept that represents the characteristics of an organization. It is defined as the sum of the long-lasting characteristics of an organization that differentiates a organization from other organizations, are experienced by the members of the organization experience, and influence their behaviors [21]. Different organizations have different organizational climates depending on the characteristics of each organization [21]. Organizational climate perceived by organizational members is a concept similar to organizational culture. However, it is a concept that refers to a unique climate formed in the process of members' adjusting to the given climate of an organization, and it is also differentiated from organizational culture in that it has a large impact on the behaviors of members of the organization [22,23].

In a previous study conducted in Korea, higher levels of the understanding and support of school administrators, which can be regarded as part of organizational climate,

were associated with a higher level of job satisfaction among health teachers [24]. In addition, a study on organizational culture, which is a concept similar to organizational climate, found that organizational culture was positively correlated with job satisfaction among health teachers [25]. Consistent with the findings of previous studies on health teachers, a previous study of public kindergarten teachers reported that more positive perception of organizational climate was associated with higher professionalism of teachers, and this result suggests that the professionalism of teachers can be increased in the environmental conditions which allow teachers to exert their capacity sufficiently [26]. In other words, to reduce problems due to workplace violence and discrimination, it is required to emphasize more interest in the problems and changes in perception of the organizational system [27]. In this respect, it is considered a meaningful research attempt to elucidate the relationship of school organizational climate with perceived discrimination and workplace violence among health teachers.

Therefore, this study aimed to identify perceived discrimination and the level of workplace violence among school health teachers, and examine the relationship between these factors and school organizational climate. We would like to present basic data for creating a work environment for health teachers to apply themselves earnestly to their proper duties and establish practical guidelines for building a positive organizational climate.

## METHODS

### 1. Study Design

This study is a descriptive survey research to investigate perceived discrimination and workplace violence among school health teachers and explore relationships between these factors and school organizational climate.

### 2. Participants

The participants of this study were incumbent school health teachers with at least one year of teaching experience who fully understood the purpose of the study and voluntarily agreed to participate in this study. The sample size was calculated using G-power 3.1 software by positing 10 independent variables, a significance level of .05, and a power of .95 and by assuming the workplace violence experience rate of 25% reported in a previous study [2]. Considering the use of multiple regression analysis, the sample size was calculated by the following sample size formula presented by Peduzzi et al. (1996): N=10 k/p. In other words, the sample size was calculated using the probability (p) of the occurrence of the relevant event in the population and the number (k) of independent variables to be entered in logistic regression analysis. As a result, the minimum sample size was determined to be 400 persons (10*10/0.25), based on the workplace violence experience rate of 25% (the rate of people with the experience of one or more kinds of workplace violence behaviors at least once a week) [2] and 10 independent variables studied in this study. Additionally, the sample size for this study was calculated using G-power 3.1 software by positing 10 independent variables, a significance level of .05, a power of 80%, a medium effect size of 0.15, and multiple regress analysis to analyze factors affecting perceived discrimination, and the minimum sample size required for this study was determined to be 170 persons. However, the final sample size was determined to be 400 or more persons, based on the analysis of factors affecting the experience rate of workplace violence, and an online questionnaire survey was conducted. A total of 453 persons participated in the survey, and the data of a total of 350 persons were finally used for the analysis, excluding 103 copies with missing responses to major outcome variables or insincere responses

### 3. Measures

**1) General characteristics of participants**

General characteristics were examined by using a total of 8 items on age, educational level, total working period, career (working period) in the current school, school level, form of school establishment, employment status, and performance-based pay grade.

**2) Organizational climate**

Organizational climate was measured using a modified version of the organizational climate scale presented by Chang [30]. Chang [30] presented a modified and complemented version of the organization climate scale based on autonomy, compensation level, and interrelationship among members, which are the subcomponents of organizational climate presented by Campbell [28] and Olmstead & Christensen [29]. The scale presented by Chang [30] was used in this study after revising and complementing some items to make them more suitable for this study after receiving prior approval for the developer. The instrument used in this study is composed of a total of 23 items: 5 items on autonomy, 5 items on the organizational structure, 6 items on the compensation level, and 7 items on the

interrelationship among employees. Each item was measured on a 5-point Likert scale, and higher scores indicate a more positive organizational climate. The Cronbach's α value of the assessment tool was .87 in Chang [30] and .94 in this study.

**3) Perceived discrimination**

The level of perceived discrimination of the participants was assessed using a tool for non-regular workers developed by Yun [31] after obtaining approval from the developer. The tool used was composed of a total of 5 items on the following contents: wage discrimination, disrespectful and abusive behavior, discrimination in personnel management and performance evaluation, discrimination in welfare benefits, and job insecurity. Each item was measured on a 5-point Likert scale ranging from 1 point='Not at all' to 5 points='Very much.' Higher scores indicate higher levels of perceived discrimination. The Cronbach's α value was .88 in Yun [31] and .74 in this study.

**4) Workplace violence**

The experience of workplace violence was assessed using a Korean-translated, modified version of the Negative Acts Questionnaire-revised (NAQ-R) developed by Einarsen & Hoel [32]. The NAQ-R was composed of a total of 22 items about 22 kinds of behaviors of workplace violence. The Korean version was developed by Nam et al. [33], and this version was used in this study by revising and complementing some items in consideration of the characteristics of health teachers and the teaching job after receiving approval from the developer. The modified version used in this study was finally selected through content validity analysis by 2 professors in nursing science and 2 health teachers. Each of the 22 items about 22 kinds of negative behaviors was measured on a 5-point Likert scale ranging from 1 to 5 points (1 point='Never'; 2 points='Less than once a month'; 3 points='About once a month'; 4 points='About once a week'; 5 points='Almost every day'). Higher scores indicate more frequent experience of negative behaviors. The presence of experience of workplace violence was defined as the experience of two or more negative behaviors at least once a week or on a daily basis for the past 6 months. [33]. The Cronbach's α of the original instrument was .93, and Cronbach's α was .94 in this study.

## 4. Ethical Considerations and Data Collection

This study was conducted after obtaining approval from the IRB of the institution that the researcher belongs to (IRB NO. 1044396-202201-HR-007-01). Data was collected from April 11 to April 21, 2022 by the Naver online questionnaire survey method. The participants were health teachers residing in S city, I city, K province, and U city. To collect data by an online questionnaire survey, the researcher explained the purpose of the study to the Korean Teachers and Education Worker's Union (KTU) and the Health Teachers Association and obtained their consent and cooperation. Then, the heads of the regional branches of the KTU and the Health Teachers Association explained the purpose of this study to the health teachers in each region, and sent the webpage address of the Naver online questionnaire survey to health teachers who expressed their intention to participate in the survey so that they could access and respond to the online questionnaire. The questionnaire of this study included the statement that the survey of this study is conducted anonymously, participants can withdraw from the survey at any time if they want to, and the study results will not be used for purposes other than research. The questionnaire data were collected from only persons who voluntarily agreed to participate and provided informed consent. The respondents who participated in the questionnaire survey were given a small gift as a token of appreciation, and the data collected from a total of 350 participants were used in this study, excluding questionnaires with incomplete or missing responses to questions about workplace violence.

## 5. Statistical Analysis

The collected data was analyzed using the SPSS 26.0 program. The data on workplace violence, organizational climate, and the level of perceived discrimination were analyzed by calculating the mean and standard deviation. The analyses of differences in organizational climate and the degree of perceived discrimination according to general characteristics of the participants were performed using ANOVA and the Scheffé test. The relationship between organizational climate and perceived discrimination of the participants was analyzed using Pearson correlation coefficients. In addition, to clarify the relationship between organizational climate and perceived discrimination, multiple regression analysis was conducted by using perceived discrimination as the dependent variable and entering the subcomponents of organizational climate and general characteristics and that were found to be significantly related to perceived discrimination by univariate analysis as independent variables.

The presence or absence of the experience of workplace violence according to general characteristics was examined using $x^2$ test, and the relationship between organiza-

tional climate and workplace violence was analyzed using the t-test. To confirm the relationship between organizational climate and workplace violence, logistic regression analysis was conducted by entering organizational climate and general characteristics that were found to have a significant relationship with perceived discrimination by univariate analysis as independent variables. Regarding workplace violence used as the dependent variable, 'no experience of workplace violence' was used as 'the comparison variable' and 'the presence of the experience of workplace violence' was used as 'the reference variable' in the logistic regression analysis.

## RESULTS

### 1. General Characteristics, Organizational Climate, Perceived Discrimination, and Workplace Violence

In age, people aged less than 40 years made up 35.7% of a total of 350 participants, accounting for the largest proportion. For educational level, 72.3% were 4-year university graduates. Regarding the total working period, 32.3% of the participants worked as a school health teacher for less than 5 years, 19.4% for 5 to less than 9 years, 25.4% for 10 to less than 19 year, and 22.9% for 20 years. As for career in the current school, 24.0% was in the first year at the current school, 21.4% in the second year, 17.1% in the third year, 16.9% in the fourth year, and 20.6% in the fifth year.

Regarding the school level, 51.1% of the participants currently worked in elementary schools, 29.4% in middle schools, and 19.4% in high schools. As to the form of school establishment, public schools made up the largest proportion (80.6%). As for employment status, 79.7% of the participants were permanent employees. In terms of performance-based pay grade, health teachers with S grade, those with A grade, and those with B grade accounted for 25.7%, 45.1%, and 29.1%, respectively.

The score for organizational climate of the participants was 3.10±0.74 out of 5 points. The mean scores for each of the subcomponents of organizational climate were 3.44 ±0.87 points for interrelationship, 3.20±0.77 points for autonomy, 2.95±0.75 points for organization structure, and 2.73±0.92 points for compensation level. The score for perceived discrimination was 2.85 out of 5 points, and the rate of health teachers with the experience of workplace violence was 16.9%.

### 2. Factors affecting Perceived Discrimination

Table 1 shows the results of a comparison of the levels of perceived discrimination according to general characteristics. There was a significant difference in the level of perceived discrimination according to age, total working period, and performance-based pay grade, but there was no significant difference in the level of perceived discrimination according to educational level, carrer in the current school, school level, form of school establishment, number of students, and employment status. The level of perceived discrimination was higher in the age group below 40 years than in the age group aged 50 and over ($F=8.18$, $p<.001$). The level of perceived discrimination was higher in the group with less than 5 years of work experience than in the group with 20 years or more of work experience ($F=3.47$, $p=.017$). In terms of performance-based pay grade, the level of perceived discrimination was lower in the S-grade group and the A-grade group than in the B-grade group ($F=8.46$, $p<.001$). Among the subcomponents of organizational climate, interrelationship ($r=-.59$, $p<.001$), organizational structure ($r=-.52$, $p<.001$), compensation level ($r=-.57$, $p<.001$), and autonomy ($r=-.53$, $p<.001$) were found to have a significant negative correlation with perceived discrimination.

Table 2 shows the results of multiple regression analysis to identify factors affecting perceived discrimination. When the general characteristics found to be significantly related to organizational climate by univariate analysis (age, working period, and performance-based pay grade) were entered in the regression model, the regression model was found to be significant ($F=21.99$, $p<.001$), and the explanatory power of the model was 41.7%. In addition, among the subcomponents of organizational climate, interrelationship ($t=-3.14$, $p=.002$) and compensation level ($t=-3.42$, $p=.001$) were identified as significant influencing factors for perceived discrimination.

### 3. Factors affecting Workplace Violence

The characteristics of the experience of workplace violence are shown in Table 3. The rate of health teachers with the experience of workplace violence was relatively higher in all items related to job duties. The proportion of the participants with the experience of 'being exposed to an unmanageable workload' was largest (74 persons, 21.1%). In addition, 35 health teachers (10.0%) reported the experience of 'being ordered to do work below their level of competence,' and 30 health teachers (8.5%) had the experience of 'someone withholding information which affects your performance intentionally or responding uncooperatively.' Also, 17 health teachers (4.8%) had the experience of 'having their key areas of responsibility removed or replaced

**Table 1.** Differences in Perceived Discrimination by General Characteristics (*N*=350)

| Variables | Categories | n (%) | Perceived discrimination M±SD | F (*p*) Scheffé |
|---|---|---|---|---|
| Age (year) | <40 | 125 (35.7) | 3.02±0.81 | 8.18 |
| | 40~49 | 108 (30.9) | 2.91±0.88 | (<.001) |
| | ≥50 | 117 (33.4) | 2.60±0.79 | a>c |
| Education | Associate degree | 20 (5.7) | 2.95±0.73 | 0.40 |
| | Bachelor | 253 (72.3) | 2.82±0.86 | (.670) |
| | Master's degree | 77 (22.0) | 2.90±0.81 | |
| Total working period (year) | <5 | 113 (32.3) | 3.03±0.74 | 3.47 |
| | 5~9 | 68 (19.4) | 2.86±0.85 | (.017) |
| | 10~19 | 89 (25.4) | 2.77±0.94 | a>d |
| | ≥20 | 80 (22.9) | 2.66±0.81 | |
| Carrer in the current school | 1st year | 84 (24.0) | 2.99±0.90 | 1.18 |
| | 2nd year | 75 (21.4) | 2.73±0.68 | (.320) |
| | 3rd year | 60 (17.1) | 2.90±0.88 | |
| | 4th year | 59 (16.9) | 2.83±0.80 | |
| | 5th year | 72 (20.6) | 2.76±0.93 | |
| School level | Elementary school | 179 (51.1) | 2.86±0.87 | 0.94 |
| | Middle school | 103 (29.4) | 2.76±0.83 | (.392) |
| | High school | 68 (19.4) | 2.94±0.80 | |
| Form of school establishment | National | 28 (8.0) | 3.06±0.95 | 1.04 |
| | Public | 282 (80.6) | 2.82±0.83 | (.353) |
| | Private | 40 (11.4) | 2.88±0.85 | |
| Number of students (person) | <100 | 21 (6.0) | 2.58±0.77 | 0.81 |
| | 100~499 | 145 (41.4) | 2.86±0.81 | (.489) |
| | 500~999 | 146 (41.7) | 2.86±0.89 | |
| | ≥1,000 | 38 (10.9) | 2.92±0.81 | |
| Employment status | Temporary employee | 71 (20.3) | 2.84±0.77 | -0.01 |
| | Permanent employee | 279 (79.7) | 2.85±0.86 | (.919) |
| Performance-based salary grade | S | 90 (25.7) | 2.63±0.91 | 8.46 |
| | A | 158 (45.1) | 2.80±0.82 | (<.001) |
| | B | 102 (29.1) | 3.11±0.75 | a,b<c |
| Total | (1~5) | | 2.85±0.84 | |

with more trivial or unpleasant tasks,' and 15 health teachers (4.2%) reported the experience of 'being given tasks with unreasonable deadlines.' Moreover, 21 health teachers (6.0%) reported the experience of 'having their opinions ignored in the workplace', and 18 health teachers (5.1%) had the experience of 'being pressured not to claim something to which by right they are entitled (e.g. sick leave, holiday entitlement, travel expenses).'

Table 4 shows the differences in the experience of workplace violence according to general characteristics and organizational climate. There was no significant difference in the rate of health teachers with the experience of workplace violence according to educational level, total working period, school level, form of school establishment, number of students, and performance-based pay grade. However, age (the <40 age group: 26.4%; the 40~49 age group: 14.8%; the ≥50 age group: 8.5%), career in the current school (first year: 26.2%; second year: 12.0%; third year: 23.3%; fourth year: 6.8%; fifth year: 13.9%), and employment status (temporary employees: 8.5%; permanent employees: 19.0%) were significantly associated with workplace violence ($p<.05$).

With respect to the relationships between workplace violence and the subcomponents of organizational climate, there was a significant difference in the experience rate of workplace violence according to interrelationship (t=-9.88, $p<.001$), organizational structure (t=-8.56, $p<.001$), compensation level (t=-7.17, $p<.001$), and autonomy (t=-10.87,

**Table 2.** Influencing Factors on Perceived Discrimination (*N*=350)

| Variables | B | S.E | β | t | *p* |
|---|---|---|---|---|---|
| (Constant) | 4.99 | 0.19 | | 26.75 | < .001 |
| Organizational climate (Interrelationship) | -0.24 | 0.08 | -.25 | -3.14 | .002 |
| Organizational climate (Organizational structure) | -0.11 | 0.08 | -.10 | -1.32 | .189 |
| Organizational climate (Compensation level) | -0.21 | 0.06 | -.23 | -3.42 | .001 |
| Organizational climate (Autonomous) | -0.12 | 0.08 | -.11 | -1.41 | .159 |
| Age 40~49 years (< 40 years) | 0.12 | 0.11 | .07 | 1.10 | .272 |
| Age ≥ 50 years (< 40 years) | -0.02 | 0.13 | -.01 | -0.13 | .895 |
| Working period 5~9 years (< 5 years) | -0.08 | 0.11 | -.04 | -0.73 | .466 |
| Working period 10~19 years (< 5 years) | -0.16 | 0.12 | -.08 | -1.38 | .168 |
| Working period ≥ 20 years (< 5 years) | -0.18 | 0.14 | -.09 | -1.22 | .223 |
| Performance-based pay grade A (grade S) | -0.00 | 0.09 | -.00 | -0.03 | .979 |
| Performance-based pay grade B (grade S) | 0.11 | 0.11 | .06 | 1.05 | .294 |
| | | | $R^2$=0.42, F=21.99, $p$ < .001 | | |

$p$ < .001). Logistic regression analysis was performed to identify factors affecting workplace violence. As a result, interrelationship and autonomy among the subcomponents of organizational climate as well as the age of ≥ 50 and carrer in the current school among general characteristics were identified as influencing factors for workplace violence. As the score for interrelationship and the score for autonomy increased by 1 point, respectively, the likelihood of not experiencing workplace violence was increased by 2.63 times (95% CI=1.25~5.56) and 4.28 times (95% CI=1.88~9.77), respectively. In addition, among health teachers, the ≥ 50 age group was 3.18 times more likely to have no experience of workplace violence than the < 40 age group (95% CI=1.19~8.50). Also, as the length of carrer in the current school increased by 1 year, the likelihood of not experiencing workplace violence was increased by 1.44 times (95% CI=1.11~1.87).

## DISCUSSION

This study attempted to investigate the relationship of perceived organizational climate with perceived discrimination and workplace violence among school health teachers. The discussion below would be focused on the main results on the level of perceived discrimination, the level of workplace violence, the relationship between organizational climate and perceived discrimination, and the relationship between organizational climate and workplace violence among school health teachers.

First, the level of perceived discrimination of the participants was 2.85 out of 5 points. A previous study of regular health teachers in Korea reported that when the level of perceived discrimination was examined in the subdomains of perceived discrimination other than job insecurity among 5 subdomains, the level of perceived discrimination among regular health teachers was 13.6 points [11], which is converted into 3.25 out of 5 points. This is somewhat higher than the score for perceived discrimination in this study (3.10 points), which was obtained by excluding job security among the subdomains of perceived discrimination. This difference in the study results on perceived discrimination is thought to be due to the difference in the proportion of temporary employees in the participants. It has been reported that temporary employees tend to accept the discrimination that they experience as temporary employees to some extent in the first place rather than feeling disappointed by the long-term expectation or prospect of unfairness [12]. Thus, it is presumed that the level of perceived discrimination was found to be lower among temporary employees than among permanent employees because temporary employees have lower expectations about the school organization.

In this study, the level of perceived discrimination was 3 points or higher, which are scores higher than the normal level, in wage discrimination and in personnel management and performance evaluation among the subdomains of perceived discrimination. In this case, wage discrimination includes discrimination related to performance-based

**Table 3.** Experience of Workplace Violence † (*N*=350)

| Variables | Weekly or Daily WVE |
|---|---|
| | n (%) |
| Being exposed to an unmanageable workload | 74 (21.1) |
| Being ordered to do work below your level of competence | 35 (10.0) |
| Someone withholding information which affects your performance | 30 (8.5) |
| Having your opinions ignored | 21 (6.0) |
| Pressure not to claim something to which by right you are entitled (e.g. sick leave, holiday entitlement, travel expenses) | 18 (5.1) |
| Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks | 17 (4.8) |
| Being given tasks with unreasonable deadlines | 15 (4.2) |
| Excessive monitoring of your work | 15 (4.2) |
| Being humiliated or ridiculed in connection with your work | 12 (3.4) |
| Being ignored or excluded | 12 (3.4) |
| Having insulting or offensive remarks made about your person, attitudes or your private life | 10 (2.8) |
| Someone once ignored or reacted callously | 10 (2.8) |
| Being the subject of excessive teasing and sarcasm | 9 (2.5) |
| Being shouted at or being the target of spontaneous anger | 9 (2.5) |
| Persistent criticism of your errors or mistakes | 8 (2.2) |
| Spreading of gossip and rumours about you | 8 (2.2) |
| Having allegations made against you | 7 (2.0) |
| Repeated reminders of your errors or mistakes | 5 (1.4) |
| Threats of violence or physical abuse or actual abuse | 3 (0.9) |
| Intimidating behaviors such as finger-pointing, related invasion of personal space, shoving, blocking your way | 1 (0.2) |
| Hints or signals from others that you should quit your job | 1 (0.2) |
| Practical jokes carried out by people you don't get along with | 1 (0.2) |

WVE=workplace violence experiences; †Experienced at least 2 negative behaviors at least weekly or daily in the past 6 months.

pay, and personnel management and discrimination in performance evaluation include bonus points related to commendation and promotion and the appointment of teachers assigned to administrative duties. These study results are consistent with the findings of a previous study [11]. Health teachers perform educational activities such as health counseling and health education along with first aid and disease management mainly in the health room, but the performance-based pay grade system of schools only recognizes classes performed in classrooms as class hours [10]. Thus, health teachers are experiencing an unfair system because they are a minority group in schools and have no choice but to accept the standards of the performance-based pay grade system determined by the majority [34]. Although health teachers teach health classes, their class hours are relatively smaller than general teachers whose main duty is teaching classes, and since they do not perform several duties related to the evaluation standards of the performance-based pay grade, such as the role of the home-room teacher and the difficulty of a head teacher, they get a lower grade according to the evaluation standards even though they try to do the best in their proper duties and roles and achieve good outcomes [10]. In addition, since general teachers perceive health teachers as teachers who do relatively undemanding and easy duties, the importance of the work of health teachers is generally underrated, although they perform professional duties such as health education and first aid [35]. These facts are corroborated by the study finding that the level of perceived discrimination is increased among health teach-

**Table 4.** Differences in Experience of Workplace Violence by General Characteristics (*N*=350)

| Variables | Categories | Experience of workplace violence† | No experience of workplace violence | $x^2$ (*p*) |
|---|---|---|---|---|
| | | n (%) or M±SD | n (%)or M±SD | |
| Total | | 59 (16.9) | 291 (83.1) | |
| Age (year) | <40 | 33 (26.4) | 92 (73.6) | 14.21 (.001) |
| | 40~49 | 16 (14.8) | 92 (85.2) | |
| | ≥50 | 10 (8.5) | 107 (91.5) | |
| Education | Associate degree | 3 (15.0) | 17 (85.0) | 0.57 (.753) |
| | Bachelor | 45 (17.8) | 208 (82.2) | |
| | Master's degree, PhD | 11 (14.3) | 66 (85.7) | |
| Working period (year) | <5 | 28 (24.8) | 85 (75.2) | 7.50 (.057) |
| | 5~9 | 9 (13.2) | 59 (86.8) | |
| | 10~19 | 12 (13.5) | 77 (86.5) | |
| | ≥20 | 10 (12.5) | 70 (87.5) | |
| Career in the current school | 1st year | 22 (26.2) | 62 (73.8) | 13.00 (.011) |
| | 2nd year | 9 (12.0) | 66 (88.0) | |
| | 3rd year | 14 (23.3) | 46 (76.7) | |
| | 4th year | 4 (6.8) | 55 (93.2) | |
| | 5th year | 10 (13.9) | 62 (86.1) | |
| School level | Elementary school | 32 (17.9) | 147 (82.1) | 2.12 (.345) |
| | Middle school | 13 (12.6) | 90 (87.4) | |
| | High school | 14 (20.6) | 54 (79.4) | |
| Form of school establishment | National | 6 (21.4) | 22 (78.6) | 0.86 (.650) |
| | Public | 45 (16.0) | 237 (84.0) | |
| | Private | 8 (20.0) | 32 (80.0) | |
| Number of students (person) | <100 | 2 (9.5) | 19 (90.5) | 1.32 (.725) |
| | 100~499 | 25 (17.2) | 120 (82.8) | |
| | 500~999 | 24 (16.4) | 122 (83.6) | |
| | ≥1,000 | 8 (21.1) | 30 (78.9) | |
| Employment status | Temporary employee | 6 (8.5) | 65 (91.5) | 4.49 (.034) |
| | Permanent employee | 53 (19.0) | 226 (81.0) | |
| Performance-based salary grade | S | 12 (13.3) | 78 (86.7) | 1.83 (.401) |
| | A | 26 (16.5) | 132 (83.5) | |
| | B | 21 (20.6) | 81 (79.4) | |
| Organizational climate (0~5) | Interrelationship | 2.54±0.76 | 3.63±0.77 | -9.88 (<.001) |
| | Organizational structure | 2.25±0.68 | 3.09±0.68 | -8.56 (<.001) |
| | Compensation level | 1.99±0.74 | 2.88±0.89 | -7.17 (<.001) |
| | Autonomy | 2.34±0.69 | 3.38±0.66 | -10.87 (<.001) |
| Perceived discrimination | (0~5) | 3.54±0.80 | 2.71±0.78 | 7.45 (<.001) |

† Experienced at least 2 negative behaviors at least weekly or daily in the past 6 months.

ers when their unique duties with special characteristics are not properly evaluated compared to the duties of their colleagues [11]. To reduce the level of perceived discrimination among health teachers, it is necessary to change the standards of the performance-based pay grade evaluation. Duties such as treatment and counseling performed in the health room need to be recognized as educational activities and be reflected as class hours in performance evaluation [34]. In addition, it is necessary to establish new performance evaluation standards for non-subject teachers who perform their proper main duties other than the duties of the home-room teacher and classes.

In this study, younger age and a shorter length of working period were associated with a higher level of perceived discrimination. These results are somewhat in disagreement with a previous study that reported that there

**Table 5.** Influencing factors on 'Not Experiencing Workplace Violence' †

| Variables | Categories | B | Exp (B) | 95% CI | | *p* |
|---|---|---|---|---|---|---|
| | | | | Lower limit | Upper limit | |
| Organizational climate | Interrelationship | 0.97 | 2.63 | 1.25 | 5.56 | .011 |
| | Organizational structure | -0.00 | 1.00 | 0.46 | 2.09 | .998 |
| | Compensation level | -0.02 | 0.98 | 0.52 | 1.85 | .961 |
| | Autonomy | 1.45 | 4.28 | 1.88 | 9.77 | .001 |
| Age (year) | < 40 | - | - | 0.57 | 3.00 | .069 |
| | 40~49 | 0.27 | 1.30 | 1.19 | 8.50 | .533 |
| | ≥ 50 | 1.16 | 3.18 | | | .021 |
| Employment status | Permanent employee | -0.89 | 0.41 | 0.14 | 1.21 | .106 |
| Career in the current school | | 0.36 | 1.44 | 1.11 | 1.87 | .007 |
| Constant term | | -6.06 | 0.00 | - | - | < .001 |
| $x^2$ of the model (freedom), significance probability | | | | 119.46 (8), < .001 | | |
| $x^2$ (freedom), significance probability of the Hosmer-Lemeshow test | | | | 9.92 (8), .270 | | |

† Not experiencing workplace experience: not experienced less than 2 negative behaviors at least weekly or daily in the past 6 months, Experiencing workplace experience: experienced at least 2 negative behaviors at least weekly or daily in the past 6 months

was no significant differences in perceived discrimination according to general characteristics [11]. In this regard, there is a possibility that the level of perceived discrimination was found to be higher in health teachers with less work experience in this study due to the fact that they are likely to perceive more difficulty in the process of actually performing their duties in the workplace, so it is necessary to reexamine the relationship between perceived discrimination and career.

In this study, the level of perceived discrimination was higher in the group with a poor interrelationship and the group with a low level of compensation. In particular, the conflicts between a school administrator and a health teacher, an uncomfortable atmosphere in the working environment, disrespectful and abusive treatment of health teachers, and school administrators' inappropriate, intrusive interventions even in small details about the proper duties of health teachers were perceived as the elements of an undesirable organizational climate by the participants. A single health teacher works alone in a large school or health teachers are required to perform subsidiary duties such as the management of school facilities like water purifiers management in addition to the major roles of both a teacher and a healthcare professional [34]. Those situations lead to conflicts with the school administrator or colleagues, a reduction in job satisfaction as a teacher, and an increase in job stress among health teachers [34]. It was found that health teachers perform their professional duties as healthcare professionals, and perceive the intrusive interventions and interference of non-medical personnel as discriminatory behavior. Therefore, if clear guidelines on the professional duties of health teachers are presented, the unwarranted intrusion and interference of non-medical personnel would be reduced, which would lead to the improvement of the organizational climate. In addition, perceived discrimination against health teachers in schools can be decreased if a school administrator appropriately carries out the division of the duties of health teachers and clearly presents the limitations of their responsibilities related to their work from the perspective of the teacher teaching health-related subjects and of the healthcare professional performing first aid [34].

Second, the experience rate of workplace violence among health teachers was 16.9% in this study. This is a similar level to the workplace violence experience rates of 15 to 19% reported in previous studies of hospital nurses in Korea [36,37,38], but it is lower than 21.3% reported in a study of the experience of workplace violence among public hospitals' nurses [39]. Meanwhile, a study in the U.S. reported that 25.3% of school nurses in Virginia experienced workplace violence on a daily or weekly basis [2]. The level of workplace violence experienced by health teachers has been reported to be high level close to the level of workplace violence experienced by hospital nurses in clinical practice. The entire organization including the members of the school needs to pay attention to the problem of workplace violence among health teachers who work alone in the school health room, and it is necessary to make efforts to improve the organizational culture and practice efforts for it in order to actively respond to and resolve the prob-

lems of workplace violence promptly when they occur.

Regarding the items on the experience of workplace violence, the level of the experience of workplace violence was relatively higher especially in the following items related to job duties: 'Someone withholding information which affects your performance intentionally or responding uncooperatively', 'being ordered to do work below the level of my competence', and 'being exposed to an unmanageable workload.' These results are similar to the finding of a previous study that a high level of stress in health teachers was related to plenty of secondary duties such as the management of the school environment in addition to the heavy duties of a health teacher and the roles of the teacher and the healthcare professional [35]. As described above, an excessive workload and the imposition of secondary duties in addition to main duties on health teachers may cause conflicts between health teachers and the school administrators or general teachers, and obstruct teachers from exerting their maximum capacity [35]. For this reason, to help health teachers to earnestly apply themselves to their proper roles, it is primarily required to create a democratic organizational culture for promoting smooth communications and develop and implement guidelines and policies to support it.

In this study, a higher level of the experience of workplace violence was associated with younger age, a shorter length of career in the current school, and the employment status of permanent employees. In some previous studies of workplace violence among nurses, the 20~29 age group, the group with less than 5 years of work experience, and the group working in general hospitals or tertiary hospitals were found to experience more workplace violence behaviors [36,40]. As shown in previous studies, younger nurses and those with less work experience are more likely to experience workplace violence because they are likely to frequently have difficulty in performing their duties and make various mistakes until they adapt to an unfamiliar organization and a new organizational culture. In particular, unlike hospital nurses, health teachers are transferred to a different school every 4 or 5 years and thus have to work in a new workplace periodically, so there is a need to take measures to prevent workplace violence at the organizational level for new health teachers or those periodically transferred to new workplaces. When health teachers are transferred to new workplaces, the predecessor health teachers should inform the successor health teachers of professionalism and the roles of health teachers as well as definite guidelines on the division and scope of duties with a sense of responsibility and professional dignity regarding their duties, and help them actively so that the successor health teachers will not have difficulty in performing their duties.

In this study, in terms of the subdomains of organizational culture, as the scores for interrelationship and autonomy increased by 1 point, the likelihood of not experiencing workplace violence was increased by 2.63 and 4.28 times, respectively. These results suggest that if the autonomy of health teachers is respected, the organization will have a friendly atmosphere, there will be smooth communications among members, and health teachers will have less conflicts with school administrators and staffs, which will lead to the decrease of the experience of workplace violence among health teachers. Recently, health teachers not only provide healthcare services but also perform health education. Thus, as educators, they also perform the role of leading changes in the lifestyle habits or attitudes of students in addition to delivering knowledge and information. As a result, in most cases, they autonomously perform most duties including educational activities ranging from the selection of subjects of health education to the development of educational materials, and thus they perceive autonomy as an important factor in their job identity [34]. In particular, in the midst of the COVID-19 pandemic, the autonomy and professionalism of health teachers are more required, and if their autonomy is actually not recognized within the organization and if non-medical personnel such as the school administrator interfere with their duties and intervene even in small details, health teachers may experience workplace violence in such situations. Therefore, to prevent workplace violence, school administrators are required to clearly understand the roles of health teachers and appropriately divide and assign their duties in consideration of their roles [41]. Additionally, school managers need to provide active support for health teachers by creating an overall warm, friendly organizational atmosphere through considerate behaviors toward health teachers and treatment of them as equal persons so that health teachers can exert their maximum capacity and professionalism. Further, it is necessary to actively implement policies required to investigate workplace violence occurring in schools and improve the working environment that encourages workplace violence [7].

This study attempted to investigate the relationship of organizational climate with perceived discrimination and workplace violence. This study has the following limitations. First, there is a limitation in generalizing the study results because the participants were selected by convenience sampling through an online questionnaire survey among health teachers in a specific region. Second, the

region of the school location and school characteristics may affect the organizational climate of schools, so it is required to conduct further research with a representative sample of health teachers working in schools widely distributed across the country. Lastly, since questionnaire items were developed in a form that allows non-response, the online data collection process led to a high nonresponse rate. Although it has been reported that the rates of workplace violence actually occurring in the field of health and medical services tend to be underreported [42], no studies on the tendency of reports on the rate of workplace violence at school have been reported to date. Therefore, there is a need to conduct an investigation into the reasons for missing responses and tendencies of the reports on workplace violence and perceived discrimination in online questionnaire surveys.

## CONCLUSION

This study attempted to investigate the relationship of the school organizational climate with the level of perceived discrimination and the level of workplace violence among school health teachers. In this study, interrelationship and compensation level among the subcomponents of the organizational climate were found to be factors affecting perceived discrimination. In addition, interrelationship and autonomy were identified as factors influencing workplace violence. Based on the study results described above, the following suggestions are presented.

First, study results showed a high level of perceived discrimination in relation to personnel management and performance evaluation among health teachers. Therefore, there is a need to establish a system for appropriate performance evaluation on the duties of health teachers.

Second, among the subcomponents of the organizational climate, interrelationship was found to be a factor affecting perceived discrimination and workplace violence among health teachers. Therefore, school administrators' active support and administrative assistance for health teachers are required to create an organizational culture that promotes the creation of a warm and friendly atmosphere, facilitates the resolution of conflicts in a desirable way, and promotes smooth communications among members.

Third, the organizational climate that does not allow the autonomy of members was found to be a factor increasing workplace violence. Therefore, to prevent non-medical personnel' unwarranted or inappropriate interventions or inference with the work of health teachers, it is necessary to create a work environment that can increase the autonomy and professionalism of health teachers through the improvement of the school members' perception on the roles of health teachers and the reasonable division of the duties of teachers including health teachers.

Lastly, although there have been a number of studies on workplace violence among nurses, sufficient research has not been conducted in Korea to investigate workplace violence among health teachers who have qualifications as nurses and are in charge of the overall school health duties. Thus, there is a need to conduct further replication studies and periodic status survey studies on perceived discrimination and workplace violence among health teachers.

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