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**Original Article**

# Nurses' Experience of Sexual Harassment at the Workplace and Traumatic Stress as Factors Attributing Professional Identity: A Cross-Sectional Study

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### What is already known on this topic?

- *Sexual harassment of nurses appears to be highly prevalent, which is an occupational health risk leading to serious consequences.*
- *Nurses who have experienced sexual harassment report psychological health concerns, including a higher risk of posttraumatic stress disorder (PTSD).*
- *Workplace violence was revealed to attenuate professional identity in healthcare personnel.*

### What does this study add on this topic?

- *Physical sexual harassment was the most frequently reported type of sexual harassment among nurses, and patients were the majority of the perpetrators in almost all types of sexual harassment significantly associated with higher levels of PTSD.*
- *Frequent sexual harassment was independently associated with attenuated professional identity among nurses; however, higher levels of PTSD were related to stronger professional identity.*
- *Preventive measures, including healthcare system policies that offer protection against sexual harassment and counseling services based on posttraumatic growth, are required for nurses to protect them from sexual harassment and to reinforce their professional identity.*

## ABSTRACT

**Objective:** Although workplace sexual harassment is known to affect nurses' psychological well-being, research on its relationship with professional identity is limited.

**Methods:** This study is a cross-sectional study designed to examine sexual harassment experienced by nurses, symptoms of posttraumatic stress disorder (PTSD), and their association with professional identity. Study data were obtained between April 25 and 30, 2019. The study was conducted with 115 nurses working in different hospitals who had experienced sexual harassment in their workplaces in the past year. The sample was recruited from an online nursing community in South Korea. Participants were asked about the type of sexual harassment, its frequency, and the perpetrators. PTSD symptoms and professional identity were measured using the Impact Event Scale-Revised and the modified version of Snizek-revised Hall's professional inventory.

**Results:** Physical sexual harassment (294 reported cases) was the most frequently reported type of sexual harassment among nurses. Patients were the majority of the perpetrators in almost all types of sexual harassment. In the logistic regression analysis, a more frequent experience of sexual harassment ($P < .05$) had a statistically significant effect on attenuated professional identity. Higher levels of PTSD due to sexual harassment were independently associated with strengthened professional identity ($P < .05$)

**Conclusion:** Nurses' frequent experiences of sexual harassment in the workplace are an occupational health risk that affects their professional identity. However, high levels of PTSD were significantly related to a strengthened professional identity among nurses with experiences of sexual harassment. It would be helpful to use the strategies to promote posttraumatic growth in caring sexually harassed nurses to reinforce their professional identity.

**Keywords:** Nurses, posttraumatic stress disorders, professional autonomy, sexual harassment

## Introduction

Workplace sexual harassment is an occupational health risk leading to serious consequences, such as involuntary quitting, substantial financial stress, and even death by suicide.[1,2] Owing to the increasing awareness of the prevalence and adverse effects of workplace harassment in the wake of the #MeToo movement, sexual harassment has been regarded as a public health concern and a workplace hazard. In particular, sexual harassment in the workplace has been reported to occur more frequently in places where women form the majority, including nursing workplaces.[3] A meta-analytic study revealed that the prevalence of sexual harassment among nurses during nursing care is 53.4%.[4] In related studies in South

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Korea, more than 15% of health workers experienced sexual harassment,[5] greater than the 8.1% among general female employees.[6] Sexual harassment against nurses appears to be highly prevalent since nursing jobs involve caring for intimate body areas of patients, physical and emotional proximity to patients, their families, or other staff, night shifts, and hospitals have a hierarchical structure of healthcare professionals.[7] Therefore, it is necessary to conduct a detailed investigation into nurses' experiences of sexual harassment.

Nurses who have experienced sexual harassment report psychological health concerns.[8] This results in physical and mental suffering that hinders them from working effectively, contributing to decreased quality of work, job dissatisfaction, and high turnover.[9] Furthermore, direct or indirect exposure to sexual harassment is associated with a higher risk of posttraumatic stress disorder (PTSD).[10] Sexual harassment can be mild, such as light sexual jokes, and can also be traumatizing for the target, particularly iif these "light" acts of harassment are repeated.[11] A study of hypothetical scenarios revealed that increased sexual harassment precipitated increased negative reactions, and each instance of sexual harassment was interpreted independently of earlier harassing behaviors.[12] Nevertheless, the majority of nurses' responses to sexual harassment are passive,[13] which may lead to PTSD. Thus, an in-depth exploration of sexual harassment, including both frequency and type, and associated symptoms of PTSD is required.



Professional identity refers to an individual's recognition of the role assigned to an occupation, which is affected by social value, internal acceptance, and the positive perception and evaluation of the occupation.[14] As nurses play professional roles as advocates for patients, they may have a devastating response to sexual harassment or be unable to deal with it appropriately, especially when it is by their patients. They could ignore sexual harassment by their patients even though it is a universal ethical issue relevant to human rights and violates the right to be treated with dignity. Facing these conflicting situations repeatedly, nurses may grow to believe that their professional position is inferior; this could result in an attenuated professional identity. A previous study found that workplace violence had worsened professional identities in healthcare personnel.[15] Furthermore, nurses are required to work in collaboration with other healthcare personnel,[16] and their roles in healthcare teams are becoming increasingly important. As team performance improves when each team member has a strong professional identity,[17] more attention needs to be paid to nurses' experiences of sexual harassment and their undermined professional identities. Nevertheless, few studies have been conducted on sexual harassment and its relationship with professional identity among nurses employed in hospitals.

This study aimed to examine sexual harassment experienced by nurses and the association of sexual harassment with PTSD in nurses, and their influence on nurses' professional identity. The research questions are:

1. What are the types and frequency of sexual harassment among nurses who have experienced sexual harassment?
2. What is the level of PTSD among nurses relative to the type of sexual harassment?
3. Who is the perpetrator of sexual harassment against the nurse?
4. What is the impact of sexual harassment and PTSD on the professional identity of nurses?

## Materials and Methods

### Study Design and Participants

This exploratory study adopted a descriptive and cross-sectional survey design to examine nurses' experiences of sexual harassment, its relation to levels of PTSD, and its impact on nurses' professional identity.

A convenience sample of 115 nurses was recruited from an online nurse community, Korea's largest nurse online community of approximately 330 000 Korean nurses and nursing students. Nurses who wanted to participate voluntarily were invited to the online survey via email. Nurses who had experienced sexual harassment at the workplace in the past year and were currently working in private clinics, local hospitals, and general hospitals in South Korea were included. Nurses who had experienced sexual harassment before the past year were excluded because the risk of mortality among individuals with stress-related disorders is most pronounced within the first year.[18] Based on Long's suggestion for regression models with binary outcomes of at least 10 cases per estimated parameter,[19] the minimum number of participants required for the study was 90, with the expectation that 9 predictors would be included in the regression model.

### Study Variables and Measures

Participants' demographics and responses to the study were collected via an online questionnaire using Google Forms. Demographic information included age, sex, education, marital status, clinical experience, and the type of hospital where they were employed.

### Experience of Sexual Harassment

Sexual harassment is defined as an unwelcome sexual advance, unwelcome request for sexual favors, or other unwelcome conduct of a sexual nature.[20] To investigate nurses' experiences of sexual harassment, a 15-item questionnaire previously developed by Oh[21] that has been validated by nursing experts was used. It includes 5 items each concerning visual, physical, and verbal harassment. Physical sexual harassment includes sexual imposition or assault based on physical contact. The visual type of sexual harassment includes actions that do not involve physical contact but create a visualized sexual environment. Verbal sexual harassment includes sexual comments. Each item is scored on a 6-point Likert scale ranging from 0 (never) to 5 (almost every day) to indicate the degree of frequency of experience. The total score of sexual harassment frequency was calculated from the sum of the 15 items, with a higher score indicating a frequent sexual harassment experience in total. Cronbach's alpha was .76 in the previous study.[21] Nurses were also asked to indicate the perpetrators for each item and allowed multiple answers for each.

### Posttraumatic Stress Disorder

Symptoms of PTSD were assessed using the Korean version of the Impact Event Scale-Revised (IES-R).[22] It consists of 22 items, including those related to intrusion, hyperarousal, and avoidance, resulting from experiencing sexual harassment at the workplace. Each item is rated on a 5-point scale ranging from 0 to 4, with a total score of 88. Higher scores indicate more severe posttraumatic stress levels. Scores equal to or greater than 22 were classified as high-level PTSD.[21] The Korean version of the IES-R was verified as a useful tool for assessing posttraumatic stress symptoms in Korean nurses.[23] In this study, the Cronbach's alpha of the IES-R was .96.

### Professional Identity

To evaluate the professional identity of nurses, Kim's modified version of the Snizek-revised Hall's professional inventory (SR-HPIS) was used.[24] The 17-item inventory included 4 items on autonomy, 3 on belief in public service, 6 on the sense of calling to the nursing career, and 4 on the use of the professional organization as a reference. Each item uses a 5-point Likert scale ranging from 1 to 5, indicating the degree of consistency in professional attitudes. The average score was calculated, with higher scores indicating higher levels of professional identity. Kim's modified version of the SR-HPIS has been verified for

content validity by 2 nursing experts.[25] The Cronbach's alpha of Kim's modified version of SR-HPIS was .89 previously[26] and .90 for this study. Professional identity was classified as high or low based on the mean study score.

### Ethical Considerations

This study was approved by the Institutional Review Board of Inha University (Approval no. 190228-1AR) on 28.02.2019. To recruit participants, a manager in charge of the online nurse community was contacted and requested that they disseminate the survey among community members. The recruitment notice email was sent to nurse members of the online community. Nurses who received emails and met the inclusion criteria were allowed access to the online survey based on their voluntary participation. Informed consent was obtained online before they started the online survey. The online survey was conducted from April 25 to 30, 2019. Participants who completed the survey were given a voucher for coffee.

### Statistical Analysis

All statistical analyses were performed using IBM SPSS Statistics for Windows (version 27.0; IBM SPSS Corp.; Armonk, NY, USA). All continuous variables were assessed for normality by checking for skewness (within ±2) and kurtosis (within ±10). Descriptive statistics were used to present means with SDs and percentages. A *t*-test was used to compare levels of PTSD associated with the experience of each type of sexual harassment. In addition, a logistic regression analysis was performed to identify the effect of the total score of sexual harassment frequency and PTSD on professional identity. In the logistic regression analysis, demographic variables whose *p*-values were significant at less than .05 in the univariate analysis were also included as adjusting factors.

### Results

About 115 nurses with a mean age of 30.9 years participated in the study, of which 107 were women (Table 1). Majority worked in local hospitals or general hospitals, and their average clinical experience was 6.77 years. Among the 115 nurses, 10 (6.8%) had completed graduate school and 41 (35.7%) were married. The average PTSD score was 43.4 out of 88, and 97 (84.3%) had PTSD scores over 22, indicating high levels of PTSD. The mean score for professional identity was 63.0 out of 85, and 57 (49.6%) had a score above average and were classified as having strong professional identity.

The participants reported 814 cases of sexual harassment using 15 items on the experience of sexual harassment questionnaire (Table 2). Physical sexual harassment (294 reported cases) was the most frequently reported type of sexual harassment among nurses. A total of 267 and 253 cases of verbal and visual sexual harassment, respectively, have been reported. Of the 115 nurses who experienced sexual harassment, 80 (69.6%) most frequently experienced "unwanted pinching or poking" (physical harassment). The second most frequent experience of physical sexual harassment was "passing by lewdly with unwanted physical contact," which was experienced by 76 nurses (66.1%), and the third one was "groping," affecting 52 nurses (45.2%). With regard to verbal harassment, 94 (81.7%) participants experienced "unwanted comments on clothes or appearance," the greatest among sexual harassment items. Fifty (50.4%) and 49 (42.6%) experienced "jokes of a sexual nature" and verbal remarks about private sexual life in public," respectively. Regarding details of visual harassment, 95 (82.6%) nurses most frequently experienced "being stared or leered at." Among the 115 nurses, 78 (67.8%) and 37 (32.2%) experienced "being lustfully stared at, whether at themselves or a part of their bodies," and were "shown obscene images in the workplace, including pictures and posters," respectively.

For 7 of the 15 items of sexual harassment, nurses who had experiences of sexual harassment were significantly more likely to have a higher risk of PTSD (Table 3). For visual sexual harassment, nurses who experienced sexual harassment of "staring or leering" ($P = .003$) and "lustful staring at you or a part of your body" ($P = .006$) were significantly more likely to have a higher risk of PTSD. For physical sexual harassment, nurses who experienced sexual harassment of "unwanted pinching or poking" ($P = .004$) and "groping" ($P = .040$) were significantly more likely to have a higher risk of PTSD. For verbal sexual harassment, nurses who experienced sexual harassment of "unwanted comments on clothes or appearance" ($P = .022$), "sexually explicit remarks directed toward you" ($P = .006$), and "verbal remarks of private sexual life in public" ($P = .004$) were significantly more likely to have a higher risk of PTSD.

Patients were the major perpetrators in all types of sexual harassment against nurses with 165 (46.1%), 164 (45.2%), and 122 (31.9%) cases for visual, physical, and verbal types of sexual harassment, respectively (Table 4). Physicians were the second greatest perpetrators of all types of sexual harassment against nurses in 110-118 (18.8%-31.3%) cases for the 3 types of sexual harassment. Regarding verbal sexual harassment, fellow nurses were perpetrators in 63 (16.4%) cases. Patients were the greatest perpetrators of "gestures of a sexual nature, including exposure of any private parts," "staring or leering," and "passing lewdly with unwanted physical contact," with 32 (58.2%), 62 (49.2%) and 46 (48.4%) cases, respectively. All kinds of sexual harassment significantly associated with higher levels of PTSD in nurses were mostly committed by patients, except for "unwanted comments on clothes or appearance."

In the logistic regression analysis to reveal the influence of sexual harassment and PTSD on professional identity (Table 5), total score of sexual harassment frequency had a significant negative effect on nurses' professional identity (OR = 0.94, $P = .026$). However, the total score of PTSD had a significant positive effect on nurses' professional

**Table 1.** General Characteristics of the Participants (N = 115)

| | | Mean ± SD or n (%) |
|---|---|---|
| Age (years) | | 30.9 ± 6.18 |
| Gender | Female | 107 (93.0) |
| | Male | 8 (7.0) |
| Clinical experience (years) | Mean ± SD | 6.77 ± 5.63 |
| | <1 year | 4 (2.7) |
| | 1-3 years | 32 (27.8) |
| | 3-10 years | 55 (47.8) |
| | >10 years | 24 (20.9) |
| Work place | Private clinics | 9 (7.8) |
| | Local hospitals | 50 (43.5) |
| | General hospitals | 56 (48.7) |
| Education | University graduate | 105 (91.3) |
| | Graduate school | 10 (6.8) |
| Monthly income (won) | <3000K | 62 (53.9) |
| | 3000K-5000K | 48 (41.7) |
| | >5000K | 5 (4.3) |
| Marriage | Single | 74 (64.3) |
| | Married | 41 (35.7) |
| Total score of sexual harassment frequency | Mean ± SD | 14.9 ± 10.00 |
| Total score of PTSD | Mean ± SD | 43.4 ± 19.59 |
| | Low risk ≤ 21 points | 18 (15.7) |
| | High risk ≥ 22 points | 97 (84.3) |
| Professional identity | Mean ± SD | 3.70 ± 0.63 |

PTSD, posttraumatic stress disorder.

**Table 2.** Types and Frequency of Sexual Harassment (N = 115)

| Types of Sexual Harassment | | n (%) Yes | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Almost Every Day | 1-2T /wk | 1-2T / mon | 1-2T /3mon | 1-2T /yr | (Subtotal) | No |
| Visual | Obscene images in the workplace including pictures and posters | 0 (0) | 1 (0.9) | 4 (3.5) | 6 (5.2) | 26 (22.6) | 37 (32.2) | 78 (67.8) |
| | Display of sexually offensive materials such as pictures or video clips of naked models | 1 (0.9) | 1 (0.9) | 3 (2.6) | 3 (2.6) | 16 (13.9) | 24 (20.9) | 91 (79.1) |
| | Show pornographic sites or web pages | 0 (0) | 0 (0) | 3 (2.6) | 1 (0.9) | 15 (13.0) | 19 (16.5) | 96 (83.5) |
| | Staring or leering | 10 (8.7) | 21 (18.3) | 22 (19.1) | 15 (13.0) | 27 (23.5) | 95 (82.6) | 20 (17.4) |
| | Lustful staring at you or a part of your body | 8 (7.0) | 14 (12.2) | 18 (15.7) | 12 (10.4) | 26 (22.6) | 78 (67.8) | 37 (32.2) |
| | (subtotal) | | | | | | 253 | |
| Physical | Gestures of a sexual nature, including exposure of any private parts | 0 (0) | 2 (1.7) | 7 (6.1) | 8 (7.0) | 29 (25.2) | 46 (40.0) | 69 (60.0) |
| | Unwanted pinching or poking | 2 (1.7) | 19 (16.5) | 13 (11.3) | 19 (16.5) | 27 (23.5) | 80 (69.6) | 35 (30.4) |
| | Passing lewdly with unwanted physical contact | 4 (3.5) | 14 (12.2) | 12 (10.4) | 16 (13.9) | 30 (26.1) | 76 (66.1) | 39 (33.9) |
| | Pushing against you or rubbing body | 0 (0) | 2 (1.7) | 4 (3.5) | 13 (11.3) | 21 (18.3) | 40 (34.8) | 75 (65.2) |
| | Groping | 0 (0) | 3 (2.6) | 7 (6.1) | 14 (12.2) | 28 (24.3) | 52 (45.2) | 63 (54.8) |
| | (subtotal) | | | | | | 294 | |
| Verbal | Unwanted comments on clothes or appearance | 5 (4.3) | 11 (9.6) | 25 (21.7) | 29 (25.2) | 24 (20.9) | 94 (81.7) | 21 (18.3) |
| | Sexually explicit remarks directed toward you | 1 (0.9) | 1 (0.9) | 9 (7.8) | 9 (7.8) | 20 (17.4) | 40 (34.8) | 75 (65.2) |
| | Jokes of a sexual nature | 1 (0.9) | 5 (4.3) | 10 (8.7) | 11 (9.6) | 31 (27.0) | 58 (50.4) | 57 (49.6) |
| | Verbal remarks of private sexual life in public | 1 (0.9) | 2 (1.7) | 7 (6.1) | 15 (13.0) | 24 (20.9) | 49 (42.6) | 66 (57.4) |
| | Persistent and unwanted verbal remarks about your body | 1 (0.9) | 3 (2.6) | 2 (1.7) | 9 (7.8) | 11 (9.6) | 26 (22.6) | 89 (77.4) |
| | (subtotal) | | | | | | 267 | |
| | Total | | | | | | 814 | |



**Table 3.** Sexual Harassment and the Risk of Posttraumatic Stress Disorder (N = 115)

| Types of Sexual Harassment | | | Risk of PTSD, n (%) | | | |
|---|---|---|---|---|---|---|
| | | | High Risk | Low Risk | $X^2$ | *P* |
| Visual | Obscene images in the workplace including pictures and posters | Yes | 33 (89.2) | 4 (10.8) | 0.968 | .416[a] |
| | | No | 64 (82.1) | 14 (17.9) | | |
| | Display of sexually offensive materials such as pictures or video clips of naked models | Yes | 22 (91.7) | 2 (8.3) | 1.231 | .356[a] |
| | | No | 75 (82.4) | 16 (17.6) | | |
| | Show pornographic sites or web pages | Yes | 18 (94.7) | 1 (5.3) | 1.861 | .299[a] |
| | | No | 79 (82.3) | 17 (17.7) | | |
| | Staring or leering | Yes | 85 (89.5) | 10 (10.5) | 10.871 | .003 |
| | | No | 12 (60.0) | 8 (40.0) | | |
| | Lustful staring at you or a part of your body | Yes | 71 (91.0) | 7 (9.0) | 8.189 | .006 |
| | | No | 26 (70.3) | 11 (29.7) | | |
| Physical | Gestures of a sexual nature, including exposure of any private parts | Yes | 38 (82.6) | 8 (17.4) | 0.176 | .794 |
| | | No | 59 (85.5) | 10 (14.5) | | |
| | Unwanted pinching or poking | Yes | 73 (91.3) | 7 (8.8) | 9.485 | .004 |
| | | No | 24 (68.8) | 11 (31.4) | | |
| | Passing lewdly with unwanted physical contact | Yes | 67 (88.2) | 9 (11.8) | 2.464 | .174 |
| | | No | 30 (76.9) | 9 (23.1) | | |
| | Pushing against you or rubbing body | Yes | 36 (90.0) | 4 (10.0) | 1.484 | .287[a] |
| | | No | 61 (81.3) | 14 (18.7) | | |
| | Groping | Yes | 48 (92.3) | 4 (7.7) | 4.555 | .040[a] |
| | | No | 49 (77.8) | 14 (22.2) | | |
| Verbal | Unwanted comments on clothes or appearance | Yes | 83 (88.3) | 11 (11.7) | 6.084 | .022 |
| | | No | 14 (66.7) | 7 (33.3) | | |
| | Sexually explicit remarks directed toward you | Yes | 39 (97.5) | 1 (2.5) | 8.036 | .006[a] |
| | | No | 58 (77.3) | 17 (22.7) | | |
| | Jokes of a sexual nature | Yes | 50 (86.2) | 8 (13.8) | 0.306 | .617 |
| | | No | 47 (82.5) | 10 (17.5) | | |
| | Verbal remarks of private sexual life in public | Yes | 47 (95.9) | 2 (4.1) | 8.658 | .004[a] |
| | | No | 50 (75.8) | 16 (24.2) | | |
| | Persistent and unwanted verbal remarks about your body | Yes | 25 (96.2) | 1 (3.8) | 3.547 | .070[a] |
| | | No | 72 (80.9) | 17 (19.1) | | |

PTSD, posttraumatic stress disorder.
[a]Fisher's exact test.

**Table 4.** Perpetrators According to Types of Sexual Harassment (multiple responses allowed)

| Types of Sexual Harassment | | Perpetrators, n (%) | | | |
|---|---|---|---|---|---|
| | | Patients | Physicians | Nurses | Other Personnel |
| Visual | Obscene images in the workplace, including pictures and posters | 32 (46.4) | 17 (24.6) | 8 (11.6) | 12 (17.4) |
| | Display of sexually offensive materials, such as pictures or video clips of naked models | 13 (40.6) | 6 (18.8) | 6 (18.8) | 7 (21.9) |
| | Showing pornographic sites or web pages | 11 (44.0) | 8 (32.0) | 4 (16.0) | 2 (8.0) |
| | Staring or leering | 62 (49.2) | 41 (32.5) | 8 (6.3) | 15 (11.9) |
| | Lustful staring at you or a part of your body | 47 (44.3) | 39 (36.8) | 7 (6.6) | 13 (12.3) |
| | (Subtotal) | 165 (46.1) | 111 (31.0) | 33 (9.2) | 49 (13.7) |
| Physical | Gestures of a sexual nature, including exposure of any private parts | 32 (58.2) | 13 (23.6) | 2 (3.6) | 8 (14.5) |
| | Unwanted pinching or poking | 39 (38.6) | 30 (29.7) | 11 (10.9) | 21 (13.6) |
| | Passing lewdly with unwanted physical contact | 46 (48.4) | 30 (31.6) | 6 (6.3) | 13 (13.7) |
| | Pushing against you or rubbing your body | 17 (36.2) | 20 (42.6) | 3 (6.4) | 7 (14.9) |
| | Groping | 30 (46.2) | 17 (26.2) | 5 (7.7) | 13 (20.0) |
| | (Subtotal) | 164 (45.2) | 110 (30.3) | 27 (7.4) | 62 (17.1) |
| Verbal | Unwanted comments on clothes or appearance | 45 (29.6) | 61 (40.1) | 24 (15.8) | 22 (14.5) |
| | Sexually explicit remarks directed toward you | 17 (34.0) | 15 (30.0) | 5 (10.0) | 13 (26.0) |
| | Jokes of a sexual nature | 27 (35.5) | 20 (26.3) | 11 (14.5) | 18 (23.7) |
| | Verbal remarks of private sexual life in public | 21 (31.3) | 16 (23.9) | 13 (19.4) | 17 (25.4) |
| | Persistent and unwanted verbal remarks about your body | 12 (31.6) | 8 (21.1) | 10 (26.3) | 8 (21.1) |
| | (Subtotal) | 122 (31.9) | 120 (31.3) | 63 (16.4) | 78 (20.4) |

identity (OR = 1.03, $P$ = .021). Age, clinical experience, education, and marital status were not significantly associated with nurses' professional identity in the logistic regression analysis.

## Discussion

This study investigated the types and frequencies of sexual harassment and its perpetrators as experienced by hospital nurses who had been sexually harassed. Associations between sexual harassment and levels of PTSD, and their relationship with nurses' professional identity, were also explored.

In this study, "unwanted pinching or poking" and "passing by lewdly with unwanted physical contact" were the most frequent types of physical sexual harassment. This is consistent with prior studies showing that nurses are most likely to experience physical sexual harassment that involves deliberately touching or grabbing any part of their bodies.[27,28] It was also found that it was significantly associated with higher levels of PTSD. As physical harassment has previously been suggested to be more humiliating than verbal harassment,[29] these findings imply that nurses' basic safety is not ensured in their workplaces. Therefore, preventive measures, including healthcare system policies with serious consequences, are urgently required to protect nurses, especially from physical sexual harassment.

The most frequently occurring types of visual sexual harassment were "staring or leering" and "lustful staring at you or a part of your body," which are similar to the findings of other studies.[30] These factors were also significantly associated with a high level of PTSD among nurses in the study. Although non-physical violence, including verbal and visual sexual harassment, can inflict considerable psychological harm,[31] it is often underrepresented or underestimated. Therefore, specific case-by-case guidelines and policies with serious consequences for verbal and visual sexual harassment in the workplace are needed.

On the other hand, "unwanted comments on clothes or appearance" was the most frequent form of verbal sexual harassment, while previous studies indicated that making sexual jokes or using sexual nicknames was commonly experienced among nurses in African regions.[27,28] Here, this may be due to Korean culture's tolerance toward the evaluation of others' appearances and items, including the passing of unwanted sexual and/or private comments. However, even private comments on one's appearance seemed to be perceived by nurses as sexually harassing remarks, as it was found that this was significantly associated with a high level of PTSD. Thus, it is necessary to have strong community norms by which such comments are taboo, and stringent policies by healthcare systems that postulate serious consequences for such comments by physicians and all healthcare personnel.

In this study, patients were the majority of the perpetrators in all types of sexual harassment as well as in 6 of the 7 types of sexual harassment that were significantly associated with higher levels of higher PTSD. This differs from previous studies that addressed patients' relatives, friends,[27] and physicians[28] as common perpetrators. Perpetrators of sexual harassment are generally those in higher positions of authority. Considering that patients usually have no choice but to trust

**Table 5.** Logistic Regression Analysis on Factors Influencing Professional Identity (N = 115)

| Variables | Professional Identity Greater Than Average | | | |
|---|---|---|---|---|
| | B | *P* | OR | 95% CI |
| Age | 0.13 | .101 | 1.14 | 0.98~1.32 |
| Clinical experience | –0.08 | .345 | 0.93 | 0.79~1.09 |
| Education - Graduate school | 0.44 | .591 | 1.55 | 0.32~7.56 |
| Marriage - Married | 0.25 | .601 | 1.28 | 0.50~3.27 |
| Total score of sexual harassment frequency | –0.06 | .026 | 0.95 | 0.90~0.99 |
| Total score of PTSD | 0.03 | .021 | 1.03 | 1.01~1.06 |

CI, confidence interval; OR, odds ratio; PTSD, posttraumatic stress disease.

healthcare providers in hospital settings, the fact that the nurses were harassed by the patients they were caring for seems to be a somewhat unique situation. Nurses may try to ignore it and avoid reporting it because they recognize themselves as helping their patients to recover until discharge. Bulut et al[32] have pointed out that most of the nurses had non-therapeutic approaches to patients who behaved sexually. As the consequences of sexual harassment are an additional burden for professionals,[33] counseling services are needed to help nurses deal with sexual harassment by patients appropriately.

Furthermore, the greater total score of sexual harassment frequency was significantly associated with attenuated professional identity in univariate analysis. It was also found that age, clinical experience, educational level, and marital status to be significantly related to professional identity in the univariate analysis, consistent with previous results.[34] In the logistic regression analysis, however, the negative association of frequent sexual harassment experiences with professional identity remained significant, although its OR was not that high at 0.94. Repeated experiences of sexual harassment in the workplace may reflect a working environment where the nursing profession is undervalued, which affects the attenuated professional identity of nurses. Moreover, nurses' professional identity and values can be damaged when they are frequently sexually harassed, especially by their patients.[35] It can be concluded that nurses' frequent experiences of sexual harassment, regardless of its type, undermine their professional identities.



Contrary to the expectations, the greater PTSD score was significantly related to a higher level of professional identity, and its positive relationship remained significant in the logistic regression analysis, although its OR was not high at 1.03. The participants were experienced nurses with an average clinical experience of 6.8 years. Since professional identity is established in 3 years of clinical experience,[36] the participants might have established a high professional identity even though they had greater PTSD. The literature on professional identity in association with sexual harassment or PTSD is scarce, but it is likely that higher levels of PTSD due to sexual harassment, mainly by patients, could reinforce nursing professional identity among experienced nurses rather than attenuate it. Another possible explanation is that nurses with a stronger professional identity are still working despite having experienced sexual harassment and having higher PTSD levels. This seems similar to posttraumatic growth in nurses, developing personal strength in the face of adversity in various settings.[37] A recent study addressed that nurses' posttraumatic growth could be facilitated by personal system, work-related system, event-related factors, and cognitive transformation.[38] Therefore, it would be helpful to use the strategies to promote posttraumatic growth in caring sexually harassed nurses.

### Strengths and Limitations

Because the occurrence of sexual harassment differs across social, cultural, and economic environments, the findings cannot be generalized. Second, sexual harassment experiences and symptoms of PTSD might have been underestimated in the study because only nurses currently employed in nursing roles were surveyed. It is necessary to investigate the experiences of sexual harassment among nurses who quit their jobs due to such harassment. Third, only 8 male nurses (7%) participated in the study. It was greater than 4.3% of the male nurses proportion in South Korea, which may imply that male nurses suffer from sexual harassment as well. As the experience of sexual harassment differs between working men and women,39 their experiences should be explored in further research. Finally, the study did not investigate subsequent actions taken by nurses after being sexually harassed. Further studies are needed to elucidate how they deal with it at both individual and organizational levels.

The significance of this study is twofold. First, it documents the current state of sexual harassment against nurses in the workplace following the #MeToo movement, thereby underscoring the necessity of proactive strategies to ensure their protection. Second, the study reveals a correlation between PTSD stemming from sexual harassment and a strengthened professional identity, which provides novel insights for developing support mechanisms for affected nurses.

### Conclusion

In conclusion, the most frequent sexual harassment against nurses working in Korean hospitals was "unwanted comments on clothes and appearance" and "staring or leering." For 7 of the 15 items of sexual harassment, nurses who had experiences of sexual harassment were significantly more likely to have a higher risk of PTSD. Patients were the majority of the perpetrators in all types of sexual harassment as well as in 6 of the 7 types of sexual harassment significantly associated with higher levels of PTSD. Frequent sexual harassment independently predicted attenuated professional identity among nurses; however, higher levels of PTSD were related to stronger professional identity. Therefore, preventive measures, including healthcare system policies that offer protection against sexual harassment, are needed. Counseling services based on posttraumatic growth could assist nurses in managing their experiences of sexual harassment and to reinforce their professional identity.

Based on these findings, the following measures are suggested in relation to workplace sexual harassment of nurses. As physical harassment, which is more humiliating than other types, was the most frequent, preventive measures, including healthcare system policies with serious consequences, are urgently required to protect nurses from physical sexual harassment. Moreover, special counseling services for nurses could assist them in adequately managing sexual harassment by patients. It would be helpful to use the strategies to promote posttraumatic growth in caring for sexually harassed nurses to reinforce their professional identity.

**Data Availability Statement:** The data that support the findings of this study are available on request from the corresponding author.

**Ethics Committee Approval:** Ethics committee approval was received for this study from the Institutional Review Board of Inha University (Approval no: 190228-1AR; Date: 28.02.2019).

**Informed Consent:** Written informed consent was obtained from the participants who agreed to take part in the study.

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