The Effect of Verbal and Non-verbal Violence Experienced at Clinical Training Institutions on Major Satisfaction of Dental Hygiene Students

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Abstract

Background/Objectives: This study investigated Department of Dental Hygiene students’ experiences of verbal and nonverbal violence during their clinical training, and the effects of these experiences on their training site satisfaction and major satisfaction.

Method/Statistical Analysis: The present study involved 80 students of the Departments of Dental Hygiene of the B, S, and D Colleges in Chungnam who had experience of on-site clinical training. The subjects were asked to answer a questionnaire that included questions about their demographic characteristics, their experience of verbal and nonverbal violence. Independent samples t-test was used to analyze differences in clinical training satisfaction and major satisfaction between experience of verbal and non-verbal violence at clinical training sites.

Findings: Regarding the effect of experiences of verbal and nonverbal violence on the clinical training satisfaction, the clinical training satisfaction score was 2.95 out of 5 among the students who had experienced verbal violence, while it was 3.88 among those who had not experienced verbal violence. In addition, the clinical training satisfaction score was 2.85 out of 5 among the students who had experienced nonverbal violence, while it was 3.68 among those who had not experienced nonverbal violence. Regarding the effect of the experience of verbal and nonverbal violence on the major satisfaction, the major satisfaction score was 3.58 out of 5 among the students who had experienced verbal violence, while it was 4.05 among those who had not experienced nonverbal violence. In addition, the major satisfaction score was 3.33 out of 5 among the students who had experienced nonverbal violence, while it was 4.04 among those who had not experienced nonverbal violence, indicating that the major satisfaction was higher in the students who had not experienced nonverbal violence, although the difference between the two groups was not significant.

Improvements/Applications: The results showed that a significantly high ratio of dental hygiene students had experienced violence, but that they had failed to react positively. Therefore, various efforts and countermeasures must be implemented to reduce the violence that may occur during clinical training.

Keywords: Clinical training, Dental hygiene, Major satisfaction, Non-verbal violence, Verbal violence.

Introduction

Violence in medical settings basically refers to violence occurring in a medical institution during the work time. It can include injury, assault, rape, and indecent assault, which are criminal offenses. Verbal abuse may be considered verbal violence in a broad sense. Violence in medical settings may be directed at patients or medical workers. In the case of violence directed...
at medical workers, the attacker may be a patient, a caregiver, or a fellow medical worker. Violence directed at a fellow medical worker includes violence between physicians, nurses, and medical technicians, between nurses, and between physicians. Therefore, violence in medical settings can take various forms[1].

The ratio of medical workers who have experienced violence in healthcare and medical settings has been increasing continuously over the last few years. A 2016 report about healthcare and medical workers revealed that 47.6% of workers in hospitals and medical institutions had experienced verbal abuse, assault, or sexual violence, with verbal abuse representing the highest rate (41.0%). The report also showed that in incidents of verbal abuse and assault, most of the attackers were patients, caregivers, physicians, or the workers’ superiors.

Dental hygienist is the most common of the dental occupations in dental institutions[2]. As dental hygienists’ work requires close interactions with patients, caregivers, dentists, and their superiors, they are the most exposed to violence in dental settings. Experiences of violence in medical institutions have been known to cause post-traumatic stress disorder or emotional instability, with symptoms of avoidance, hyperarousal, sleep disorder, emotional paralysis, and dissociation, eventually resulting in an increase in reassignment or turnover[3,4].

Students undergoing on-site training at dental institutions may also be subject to the violence described above. Healthcare and medical educational institutions provide students with on-site clinical training at actual medical institutions to help them develop relevant practical capabilities. The Departments of Dental Hygiene of four-year-course colleges that foster dental hygienists also let them participate in on-site clinical training programs for about one year to learn the actual tasks of dental hygienists and the work performed at dental institutions. In those dental institutions, violence may take place between dentists, dental hygienists, and nurse aids, as well as between patients or caregivers and the dental institution workers. Participating students who experience verbal or nonverbal violence feel anger, sadness, discomfort, and frustration[5,6]. Moreover, these experiences may reduce their training site satisfaction and even their department satisfaction, causing them to discontinue their college life or to change majors.

This study investigated Department of Dental Hygiene students’ experiences of verbal and nonverbal violence during their clinical training, and the effects of these experiences on their training site satisfaction and major satisfaction.

Method

The present study involved 80 students (juniors and seniors) of the Departments of Dental Hygiene of the B, S, and D Colleges in Chungnam who had experience of on-site clinical training. [Table 1] shows the subjects’ demographic characteristics. Their average age was 21.08 years. There were 69 female students (97.2%) and only 2 male students (2.8%). At the time of their clinical training, 39 (54.9%) of the respondents were sophomores and 32 (45.1%) were juniors or higher.

<table>
<thead>
<tr>
<th>Demographic characteristics of study subject</th>
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</thead>
<tbody>
<tr>
<td>Age</td>
<td>21.08±1.32*</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female Students</td>
<td>69</td>
<td>97.2</td>
</tr>
<tr>
<td>Male Students</td>
<td></td>
<td>2.8</td>
</tr>
<tr>
<td>Grade at the time of clinical training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sophomores</td>
<td>39</td>
<td>54.9</td>
</tr>
<tr>
<td>Juniors or Higher</td>
<td>32</td>
<td>45.1</td>
</tr>
</tbody>
</table>

* Mean and standard deviation

The subjects were asked to answer a questionnaire that included questions about their demographic characteristics (gender, age, and grade), their experience of verbal and nonverbal violence, the size of the hospital where their training was provided, the degree of verbal and nonverbal violence experienced, the attackers in the incidents of verbal and nonverbal violence, their clinical training satisfaction, and their major satisfaction. The subjects were asked open-type questions to allow them to describe their experiences of verbal and nonverbal violence. Data were analyzed using SPSS (Windows version 19, SPSS INC) program. Independent samples t-test was used to analyze differences in clinical training satisfaction and major satisfaction between experience of verbal and non-verbal violence at clinical training sites and the significance level was set at 0.05.

Result

As shown in [Table 2], 33 subjects (46.5%) had experienced verbal violence. With regard to the size of the hospital where the training was provided, 13 subjects (39.4%) had experienced verbal violence in university hospitals, 10 (30.3%) in dental hospitals, and 14 (42.4%)
in dental clinics, indicating that verbal violence had been experienced in dental clinics the most. In verbal violence incidents, the attackers had been dentists for 9 subjects (27.3%), dental hygienists for 23 subjects (69.7%), and patients or caregivers for 9 subjects (27.3%), indicating that in most verbal violence incidents, the attackers were the trainees’ superiors.

Table 2. Subjects’ experiences of verbal violence

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Experiences of verbal violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>33</td>
<td>46.5</td>
</tr>
<tr>
<td>No</td>
<td>38</td>
<td>53.5</td>
</tr>
<tr>
<td>The size of the training hospital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University hospital</td>
<td>13</td>
<td>39.4</td>
</tr>
<tr>
<td>Dental hospital</td>
<td>10</td>
<td>30.3</td>
</tr>
<tr>
<td>Dental clinics</td>
<td>14</td>
<td>42.4</td>
</tr>
<tr>
<td>Attackers of verbal violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dentist</td>
<td>9</td>
<td>27.3</td>
</tr>
<tr>
<td>Dental hygienists</td>
<td>23</td>
<td>69.7</td>
</tr>
<tr>
<td>Patients of caregivers</td>
<td>9</td>
<td>27.3</td>
</tr>
</tbody>
</table>

As shown in [Table 3], 22 (31.0%) of the subjects had experienced nonverbal violence. With regard to the size of the hospital where the training was provided, 4 subjects (18.2%) had experienced nonverbal violence in university hospitals, 6 (27.3%) in dental hospitals, and 13 (59.1%) in dental clinics, indicating that just like verbal violence, nonverbal violence had been experienced in dental clinics the most. In nonverbal violence incidents, the attackers had been dentists for 4 subjects (18.2%), dental hygienists for 15 subjects (68.2%), and patients or caregivers for 4 subjects (18.1%), indicating that in most nonverbal violence incidents, the attackers were the trainees’ superiors.

Table 3. Subjects’ experiences of nonverbal violence

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiences of non-verbal violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>22</td>
<td>31.0</td>
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<tr>
<td>No</td>
<td>49</td>
<td>69.0</td>
</tr>
<tr>
<td>The size of the training hospital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University hospital</td>
<td>4</td>
<td>18.2</td>
</tr>
<tr>
<td>Dental hospital</td>
<td>6</td>
<td>27.3</td>
</tr>
<tr>
<td>Dental clinics</td>
<td>13</td>
<td>59.1</td>
</tr>
<tr>
<td>Attackers of non-verbal violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dentist</td>
<td>4</td>
<td>18.2</td>
</tr>
<tr>
<td>Dental hygienists</td>
<td>15</td>
<td>68.2</td>
</tr>
<tr>
<td>Patients of caregivers</td>
<td>4</td>
<td>18.1</td>
</tr>
</tbody>
</table>

With regard to the effect of experiences of verbal and nonverbal violence on the clinical training satisfaction, [Table 4] shows that the clinical training satisfaction score was 2.95 out of 5 among the students who had experienced verbal violence, while it was 3.88 among those who had not experienced verbal violence, indicating that the training satisfaction was significantly lower in the students who had experienced verbal violence (p = 0.007). In addition, the clinical training satisfaction score was 2.85 out of 5 among the students who had experienced nonverbal violence, while it was 3.68 among those who had not experienced nonverbal violence, indicating that the training satisfaction was lower in the students who had experienced nonverbal violence, although the difference between the two groups was not significant (p = 0.089). With regard to the effect of the experience of verbal and nonverbal violence on the major satisfaction, [Table 4] shows that the major satisfaction score was 3.58 out of 5 among the students who had experienced verbal violence, while it was 4.05 among those who had not experienced verbal violence, indicating that the major satisfaction was lower in the students who had experienced nonverbal violence, although the difference between the two groups was not significant (p = 0.079).

Table 4. Experiences of Violence on Clinical Training Satisfaction and Major Satisfaction

<table>
<thead>
<tr>
<th></th>
<th>Clinical training satisfaction</th>
<th>Major satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M±SD</td>
<td>p*</td>
</tr>
<tr>
<td>Experiences of Verbal Violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2.95±1.33</td>
<td>0.007</td>
</tr>
<tr>
<td>No</td>
<td>3.88±0.78</td>
<td></td>
</tr>
<tr>
<td>Experiences of non-verbal violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2.85±1.14</td>
<td>0.026</td>
</tr>
<tr>
<td>No</td>
<td>3.68±1.09</td>
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</tr>
</tbody>
</table>

*p-value was calculated by independent samples t-test

Discussion

The present study was designed to investigate the verbal and nonverbal violence experienced by Department of Dental Hygiene students during their on-
site clinical training, and the effects of the experience of violence on the students’ clinical training satisfaction and major satisfaction, in order to consider the violence experienced by students at dental institutions during their training and to offer them the necessary support. Most Department of Dental Hygiene students prepare themselves in their college to make sure they are equipped with the essential skills before undergoing on-site training at dental institutions. However, because students who are new to clinical settings are less experienced and lack the communication skills and empathy needed, they are less capable of forming relationships with dentists, dental hygienists, and patients. In addition, while students are continuously exposed to new environments as they frequently move between departments for training, they have little time to adapt. Therefore, students are particularly vulnerable to violence at clinical sites[7].

The present study on the verbal and nonverbal violence experienced by Department of Dental Hygiene students showed that 46.5% of the students had experienced verbal violence during their clinical training and 31.0% had experienced nonverbal violence. The attackers in verbal violence incidents had most frequently been dental hygienists (69.7%), followed by dentists (27.3%) and others (27.3%). The attackers in nonverbal violence incidents followed the same prevalence order: dental hygienists (68.2%), dentists (18.2%), and others (18.1%). It is likely that dental hygienists were the most frequent attackers in both verbal and nonverbal incidents because they provide direct instructions and teachings to Department of Dental Hygiene students in dental institutions. The results of the present study also revealed that experiences of verbal and nonverbal violence had a significant effect on the clinical training satisfaction and the major satisfaction. The clinical training satisfaction and major satisfaction of the students who had experienced verbal or nonverbal violence were significantly lower than those of the students who had not experienced violence. These results are similar to those of previous studies that showed that the various types of violence experienced by nursing students at clinical training sites cause the students pain and may affect their attitudes toward the nursing profession if they have chosen[3-6]. Trainees exposed to violence may be negatively affected in their career identity due to the sense of isolation, stress, and negative impression of the organizations they may develop[8].

Students participating in clinical training undergo on-site training as learning students. As their on-site roles are not as clear as those of the actual dental hygienists, their self-esteem and morale may be easily lowered by verbal violence. When facing violence, students show immediate emotional reactions in the following order: anger, shock, impression, sadness, anxiety, shame, helplessness, doubt of self-worth, desire to quit, and sense of loss. This indirectly reveals that students lack stress control skills and have difficulties communicating and expressing emotions. The negative emotions caused by the violence they experience may have a negative effect on their college curriculum, resulting in maladaptation to the dental hygienist profession. Therefore, from a mental health perspective, the effects of violence on individuals should never be underestimated. In particular, additional support needs to be provided to help prepare students for difficult situations and teach them to manage them[9]. Keely argued that having sufficient knowledge and skills to protect oneself from violence may minimize the damage caused by violence at hospitals[10]. This suggests that education to prevent violence is necessary. However, the online safety education provided to students focuses on the physical environment of clinical settings. Therefore, the regular curriculum also needs to include strategies to prevent and deal with violence in human relationships.

The orientation provided to the students before their participation in training must include information to understand the violence that can occur at clinical training sites and to identify the types of violence and how to report incidents. Students must be assured that they can receive ex-post supports such as counseling and reporting, and that incidents can be handled appropriately without causing them prejudice. In addition, the college training managers must evaluate the on-site training environments and communicate closely with the people in charge of the training programs provided at the institutions.

**Conclusion**

The present study investigated the verbal and nonverbal violence experienced by department of dental hygiene students during their on-site clinical training, and the effects of experiences of violence on the students’ clinical training satisfaction and major satisfaction. The results showed that a significantly high ratio of dental hygiene students had experienced violence, but that they had failed to react positively. Therefore, various efforts...
and countermeasures must be implemented to reduce the violence that may occur during clinical training.

**Ethical Clearance:** Not required

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**Conflict of Interest:** Nil

**References**


