The effect of anger management levels and communication skills of Emergency Department staff on being exposed to violence

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ABSTRACT

Aim To determine the effect of anger management levels and communication skills of emergency department staff on their frequency of being exposed to violence.

Methods This cross-sectional study was conducted in the Training and Research Hospital, Istanbul, Turkey between 11 April and 15 October 2013 by using a questionnaire including descriptive features, anger management scale, and communication skills scale applied to 283 health personnel working in children and adult emergency department clinics.

Results Statistically significant differences were found between the health workers’ ages and their anger control levels, marital status and anger-in and anger control levels, working position and anger-in levels, and between anger-in, anger-out and anger control levels based on their level of education. Statistically significant differences were also found between age and communication levels based on the personnel’s working position. Statistically significant difference between the anger-in subscale of health personnel based on their state of being exposed to violence was found (78.4% of the health workers had been exposed to violence).

Conclusion In the in-service programs of institutions, there should be trainings conducted about anger management and effective communication techniques so that the health personnel can be aware of their own feelings and express anger in a suitable way

Key words: anger management, communication, patients
**INTRODUCTION**

Anger, which has an important place among feelings, is generally related to familial, work-related, health related and legal problems. Anger is a negative mood state which varies in terms of intensity and continuity and associated with a sense of emotional elevation and being exposed to a wrong behavior (1). Anger is also related to an emotional reaction to restrictions, strains and intense stressors within the working environment (2).

It is obvious that human health is under the physical and psychological effect of many-sided stresses which are related to working life. One of the most important sources of stress caused by working life is the relationships among people (3).

It has been reported that a stressful working environment, not asking for ideas within the organizational process, absence of common goals and presence of rivalry among organizations cause nurses to become more inclined to conflict and to experience intense feelings of anger (2).

Within the hospital environment, nurses frequently come across verbal anger expressions from patients and generally perceive these as a threat and thus, they experience anger either directly, by getting angry with the patient and reflecting this anger in their behaviors, or indirectly by getting away from the patient (4). Deterioration in nurses’ health will cause loss of workforce, economic loss for the organization and the country, an increase in accidents and risk for the healthcare workers or patients for whom they are offering service. Thus, it is very important to determine the risks which are caused by the working conditions of health workers and to eliminate these risks or to try to minimize them. It is important to develop nurses’ skills to deal with the feelings of anger and to channel the energy felt directly anger and to use this energy to increase the quality of care (5,6).

Hospital environment causes healthcare workers to violate boundaries and privacy. During the critical period caused by illness, the patient needs to belong to and connect to a person. Thus, it is very important that the patient can reach and trust his/her doctor, nurse and other workers (7). Most of the time, patients and their relatives are in fear and anxiety since they do not know what to do. Because they think that their condition is more urgent than others’ and because the necessity of triage is not adopted by the society, they have an expectation of immediate treatment. This situation often causes conflict between the emergency department staff and relatives of the patient (8).

Communication skills have an important place in nursing services. While providing service to patients and healthy people, nurses should expect to understand these people and to be understood by them. Healthy communication skills will help nurses to develop their interpersonal relationships and this will in turn cause an increase in the satisfaction of the people that they are providing service for. Thus, health professionals should have effective communication skills in order to perform this important mission (9).

Deterioration of the health workers’ physical and psychological health will cause loss of workforce, a decrease in care, treatment and efficiency, economic loss for the organization and the country and risk for the people or patients for whom they are offering service. Thus, the risks which are caused by the working conditions of health workers should be determined and eliminated. While the studies done in this field have so far been oriented towards the reason of increasing violence regarding emergency staff, this study aims to determine the effect of anger management levels and communication skills of emergency department staff on their frequency of exposure to violence.

**EXAMINEES AND METHODS**

This cross sectional study was conducted in the Training and Research Hospital Provincial Directorate of Health, Istanbul, Turkey, in the period between 11 April and 15 October 2013.

The research group of the study consisted of 238 health personnel working at the Pediatric and Adult Emergency Clinics of the Training and Research Hospital. All the personnel working in these units were voluntarily included in the study: 107 nurses, 113 doctors and 63 other health personnel (laboratory technicians, radiology technicians, emergency technicians).

**Data collection**

The data was collected through a question form of descriptive characteristics, trait anger and anger management inventory and communication skills questionnaire.
The question form which was prepared by the researchers contained 19 questions: the individual and occupational descriptive characteristics of the health personnel, their exposure to violence in the emergency service and their anger, communication and behavior styles.

**Trait Anger and Anger Expression Inventory**

Trait Anger and Anger Expression Inventory is a self evaluation inventory that measures anger and anger expression. It was developed by Spielberger in 1983 (10) and its validity and reliability for Turkey were made by Özer in 1994 (11). The inventory has two main subscales, S1-Anger and Anger-Style, respectively. The inventory has a total of 34 items. The items do not measure the absence of anger, but they measure the presence of anger. Scoring of the scale is as follows: “Almost never” (1), “Sometimes” (2), “Often” (3) and “Almost always” (4). In the S1 scale, total score was obtained by adding up the scale interval scores of each item. The first 10 questions of the inventory included the items measured trait anger, 24 remaining items were about anger expression; 8 of these items are related to anger-out expression (be reflected out of anger), while 8 items are related to anger-in (be reflected in himself/herself of anger) expression and 8 items are related to anger-control. Alpha reliability coefficient of the inventory of 0.77 was used.

**Communication Skills Inventory**

Communication skills inventory is a 5-point Likert scale inventory developed by Ersanli and Balci in 1998 was used, in order to evaluate the communication skills level of individuals (12). Cronbach Alpha coefficient which was measured to determine the internal consistency of the inventory was 72. The scale was scored as always 5, never 1. The scale has a total of 45 items and the highest possible score was 225, while the lowest possible score was 45. Alpha reliability coefficient of the scale of 0.82 was used.

The health personnel individually completed the question form, trait anger and anger management inventory and communication skills inventory and they filled in the forms by themselves.

**Data analysis**

Descriptive analysis was used for the comparison of quantitative data, Student t Test was used for the comparison of normally distributed parameters, One-way Anova test was used for intergroup comparisons, and Tukey HSD test was used for the determination of groups which caused difference. Pearson Correlation analysis was used for the evaluation of inter-parameter relationships.

**Ethical principles of the study**

The study was approved by the Ondokuz Mayis University Ethics Committee and the permission was taken also from Istanbul Provincial Directorate of Health and the Training and Research Hospital. Only health personnel who accepted to participate voluntarily were included in the study.

**RESULTS**

**Descriptive characteristics of the participants**

The participants’ age varied between 19-50 years, with a mean age of the participants being 29.23±5.94 years; 44.5% (n=126) of the participants were males, and 55.5% (n=157) were females. Participants (n=107) were nurses, 39.9% (n=113) were doctors, 9.9% (n=28) were emergency medicine technicians and 12.3 % (n=35) were technicians (radiology or laboratory).

With regard to marital status, 56.2% (n=159) of the health personnel were single, and 43.8 % (n=124) were married. High school graduates had 16.3% (n=46) of the personnel, 19.8% (n=56) had two-year degree, 45.2% (n=128) were doctors, while 18.7% (n=53) were postgraduates. While 25.1% (n=71) of the participants had children, 74.9% (n=212) did not have children. The time spent in the occupation ranged between 0.10 and 26 years, with the mean of 6.26±5.21 years, and the time spent in the emergency department was between 0.10 and 26 years, with the mean of 4.43±3.99 years; 38.9% (n=110) of the health personnel were willing to work at the emergency department while 61.1 % were unwilling.

**Violence related features**

Large majority of the participants, 78.4% (n=222) had been exposed to violence within the time they worked in the emergency department: 64.9
% (n=144) had been exposed to verbal violence, and 9.5 % (n=21) had been exposed to physical violence, 22.5 % (n=50) had been exposed to both verbal and physical violence, 2.3% (n=5) had been exposed to all verbal, physical and sexual violence and 0.9 % (n=2) had been exposed to both verbal and sexual violence.

Nine percent of the participants (n=20) had been exposed to violence by patients, 48.2% (n=107) by patients’ relatives, 34.2% (n=76) by both patients and patients’ relatives, and 8.3% (n=19) had been exposed to violence by the hospital administration (mobbing).

Eleven percent (n=31) of the health personnel stated that they got angry frequently, and 42.4% (n=120) stated that they had a training for anger and anger management (Table 1).

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number (%) of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being late in treating a patient because of having too many patients</td>
<td>92 (41.44)</td>
</tr>
<tr>
<td>Patients forcing the personnel to see a doctor although their situation is not urgent</td>
<td>49 (22.07)</td>
</tr>
<tr>
<td>Not letting in relatives to the intervention room</td>
<td>44 (19.81)</td>
</tr>
<tr>
<td>Referring a patient to another hospital</td>
<td>25 (11.26)</td>
</tr>
<tr>
<td>Patient relatives’ reactions to the intervention</td>
<td>12 (5.40)</td>
</tr>
</tbody>
</table>

**Anger related features**

Statistically significant differences were found between the anger-in levels of the health personnel regarding their levels of education (p<0.01). The participants who had graduate degree had a higher level of anger-in comparing to others. Statistically significant differences were also found between the anger-out level of the health personnel regarding their level of education (p<0.05). The participants who had undergraduate degree had a higher level of anger-out. Statistically significant differences were found between the anger control level of the health personnel regarding their level of education (p<0.01). The participants who had graduate degree had a higher level of anger control comparing to others. Statistically significant differences were not found between the trait anger level of the health personnel regarding their level of education (p>0.05) (Table 2).

**Communication related features**

Statistically significant difference was found between the health personnel’s mean age and their mental communication skills and mental communication levels (p=0.009), their behavioral communication skills and behavioral communication levels (p=0.045), and between their general communication skills and general communication levels (p=0.02) (it found increasing by the age). Difference was not found between the health personnel’s age and their emotional communication skills (p=0.081) (Table 3).

**The relationship between the participants’ anger levels and their communication skills**

No statistically significant relationship was found between the general communication scores and anger-out of the health personnel regarding their levels of education, while statistically significant relationship was found between health personnel trait anger, anger-in scores, and anger control scores (p=0.000, p=0.000 and p=0.000, respectively). It was found that as their general communication skills increased, health personnel trait anger, anger-in and anger-out levels decreased while their anger control levels increased (Table 4).

<table>
<thead>
<tr>
<th>Trait anger / anger style</th>
<th>Scores of anger control subscales</th>
<th>General communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trait anger</td>
<td>Mean 17.98 SD 4.12</td>
<td>R p =0.324</td>
</tr>
<tr>
<td>Anger-in</td>
<td>Mean 15.45 SD 3.30</td>
<td>R p =0.301</td>
</tr>
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<td>Anger-out</td>
<td>Mean 14.37 SD 3.22</td>
<td>R p =0.036</td>
</tr>
<tr>
<td>Anger control</td>
<td>Mean 21.29 SD 4.81</td>
<td>R p =0.466</td>
</tr>
</tbody>
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SD, standard deviation; R, Pearson Correlation Coefficient

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**Table 1. Reasons for the participants’ exposure to violence (n=222)**

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</table>

**Table 2. Evaluation of the trait anger and anger style inventory scores of the health personnel by their levels of education**

<table>
<thead>
<tr>
<th>Inventory score (Mean±SD)</th>
<th>Trait anger level (n=107)</th>
<th>Two-year degree (n=113)</th>
<th>Undergraduate (n=28)</th>
<th>Graduate (n=35)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trait anger</td>
<td>17.67±3.93 18.28±4.67</td>
<td>18.09±3.79 17.64±4.49</td>
<td>0.802</td>
<td></td>
</tr>
<tr>
<td>Anger-in</td>
<td>14.63±2.88 14.52±3.27</td>
<td>15.70±3.04 16.51±3.89</td>
<td>0.003</td>
<td></td>
</tr>
<tr>
<td>Anger-out</td>
<td>13.56±2.67 14.45±3.49</td>
<td>14.88±3.30 13.77±3.03</td>
<td>0.046</td>
<td></td>
</tr>
<tr>
<td>Anger control</td>
<td>19.48±4.42 21.28±4.51</td>
<td>21.06±4.13 23.39±6.13</td>
<td>0.001</td>
<td></td>
</tr>
</tbody>
</table>

**Table 3. Relationship between the age of the health personnel and scores from communication skills scale**

<table>
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<tr>
<th>Communication skill</th>
<th>Scores of communication subscale</th>
<th>Age Mean SD R p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental communication</td>
<td>54.07 5.17 0.155 0.009</td>
<td></td>
</tr>
<tr>
<td>Behavioral communication</td>
<td>56.43 5.70 0.119 0.045</td>
<td></td>
</tr>
<tr>
<td>Emotional communication</td>
<td>50.89 5.50 0.104 0.081</td>
<td></td>
</tr>
<tr>
<td>General communication</td>
<td>161.48 14.09 0.138 0.020</td>
<td></td>
</tr>
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</table>

SD, standard deviation; R, Pearson Correlation Coefficient

**Table 4. Relationship between the health personnel’s anger control scale scores and their general communication skills scores**

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SD, standard deviation; R, Pearson Correlation Coefficient
DISCUSSION

In this study, 64.9% of the participants were found to have been exposed to verbal violence while 9.5% to physical violence, 22.5% to both verbal and physical violence and the rest of examinees had been exposed to all verbal, physical and sexual violence. Similar results were shown by Crilly et all. stating that 61% nurses were sworn at, 10% pushed, 3% of each hit or kicked (18).

There are many reports about recorded violence among health workers at emergency departments (13-17). Behnam et al. found out that 75% of the health workers have been exposed to verbal violence and 21% to physical violence (13). Kowalenko et al. reported 48.1% of women and 51.9% of men among emergency physicians had been exposed to workplace violence, most commonly to verbal violence (74.9%) (14). Wu et al. found out that 11% of the health workers had been exposed to physical violence, 26% to verbal violence and 1% to sexual violence (15). Canbaz et al. (2008) found 59.6% of the health care workers had been exposed to verbal violence while 19.6% had been exposed to physical violence (16). There is a lot of stress and workload in the emergency service. At the same time, emergency service is also a very stressful place with lots of anxiety for patients and their relatives. Thus, emergency department attending physicians who have high anger management and communication problems may have tendency to violence in this environment. It has been found that 30-89% of health workers exposed to violence by patients, 9-82% to patient’s relatives (14,19,20). The findings of this study are in parallel with the findings of In Kitaneh and Hamdan’ study showing that 20.8% and 59.6% health professionals were exposed to physical and non-physical violence, respectively (21). All this data show that even though the type and kind of violence to health workers vary, violence that can be caused by patients or patient relatives seems to have become a part of working life.

There are many studies describing the reasons of health workers exposed to violence such as misunderstandings, medical reasons, patients and their relatives did not like the treatment, too waiting for too long, patient deaths, insufficient number of personnel, and late treatment of patients (10,15,19,20,22). The findings of the study are similar to those studies.

As the education level of the participants increased, the mean of anger management and the mean of anger-in among health personnel increased. In Balkaya’s study with 756 healthcare workers which aimed to develop multi-dimensional anger inventory, it was found that high school graduates were more inclined to experience more anger problems in their interpersonal relationships when compared with primary education or university graduates (24). The findings of the study are in concordance with the findings of this study.

According to the results of this study, behavioral control increases with age. This study found a statistically significant positive relationship between the participants’ age and their general communication skills and it was determined that as healthcare workers aged, their general communication skills level increased. This situation can be explained by the fact that as health workers get older, they will have a better knowledge from their experience and information and that they can more easily turn these into theoretical application. In this study, as the health workers get older, mental and behavioral communication skills increase while emotional communication skills decrease. Kaya et al. did not find a relationship between 41-45 year old nurses and communication skills although their communication skills scores were the highest (25).

In conclusion, in the in-service programs of institutions, training should be conducted about anger management and effective communication techniques so that the health personnel can be aware of their own feelings and express anger in a suitable way, and the reasons of
violence and aggressiveness toward the health personnel should be researched and solutions should be developed. Similar studies should be made more extensively within the country.

REFERENCES


FUNDING

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TRANSPARENCY DECLARATION

Competing interest: none to declare