Attitude and Performance of Nurses in Oral Care in Intensive Care Unit Patients

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Abstract

Introduction: Prevention of respiratory tract infections in intensive care units is an important aspect of patient safety and oral care as nursing intervention plays an important role in reducing the risk of infection so the present study was aimed to determine attitude and performance of nurses in oral care in intensive care unit patients. Materials and Methods A descriptive study in which 105 nurses working in special educational-therapeutic centers affiliated to Urmia University of Medical Sciences were selected by available sampling method. For data collection a part of relo et al. questionnaire was used. Data analysis was performed using descriptive statistics and Chi-square test. Results showed that the majority of nurses (87.5% and 72.8%), respectively had moderate attitude and performance about their oral care, but based on chi-square tests there is no significant relationship between attitude and performance of the staff. The majority of nurses (85.3%) are not using protocol and the standard tool for the assessment of oral healthcare. Conclusion Education of basic concepts of health care is necessary in order to enhance employee attitude and performance and improve the patient’s status in intensive care units and should be taken into consideration by the authorities’ and directors of nursing.

Keywords: Attitude, Performance, Nurses, Oral Care, Intensive care unit.

Introduction

Oral care is an important care aspect in intensive care unit [1]. Patients in these units of ten due to loss of consciousness, difficulty in swallowing, establishing an artificial airway and mechanical ventilation are suffered poor oral health. Studies show that poor oral care can lead to increased dental plaque, accumulation of secretions and gram-negative bacteria in the or pharynx and resulting respiratory tract infection in the way in to lungs [2, 3].

Ventilator associated pneumonia, is one of the most dangerous and most common respiratory infections [4]. This infection is the cause of 20-70% of deaths [5] a third of all no socomial infections in ICU [6]. Evidences suggest that 10 to 20 percent of patients who receive mechanical ventilation for more than 48 hours are infected to VAP; this is 21 times of infection rate in other patients [2, 4]. Studies show that, doing oral care correctly is related to reducing incidence of ventilator pneumonia [7]. So as Pruitt et al [8] in their study showed that oral care is an important part of preventive measures on the incidence of no socomial pneumonia and can reduce its incidence up to 45% [8]. Oral care in intensive care units usually due to dire state of patient and because nursing staff focus on other needs is neglected and enjoys a lower priority [4, 8, 9]. Reports indicate that in most countries over the past 120 years the content of oral care has not changed, oral care and nursing education for students are considered in significant and do not perform appropriately [9, 10, 11, 12, 13].
Study in 2011 showed that 77% of nurses of intensive care unit in Kerman, deemed oral care insignificant and announced that oral care does nothing to improve the patient [13]. While most of the patients due to incidence of diseases and multiple remedial measures infected with disorders in oral health [4, 8, 9].

Failure to provide proper oral care and assessment can encounter intensive care unit patients with a serious illness and can lead to increased complications and length of hospitalization, increased costs of care and mortality [14]. Studies show that many factors causing nurses to neglect oral care in hospitalized patients including environment, resources available, time restrictions, consider oral care less important, lack of knowledge in the field of assessment and oral care, fear of teasing patients, consider oral care unpleasant, lack of standardized care protocols and nurses’ attitudes compared to care and the quality of care [15, 16, 17, 18].

Although oral care is revealed in studies in intensive care units, its importance see ms still not understood by nurses or is not perform properly [19, 20, 21]. The beliefs, attitudes and performances of nurses in order to care for and prevent complications are very important and should be reviewed and strengthened [16, 17].

So we are to conduct the present study, due to the lack of studies in the field of oral care in intensive care units’ and critical role of care nurses, in order to determine attitudes and performance of nurses in the case of oral care in intensive care units of hospitals affiliated to Urmia University of Medical Sciences. It is expected that research results can help other studies about oral care and can promote a wariness of nurse’s and health officials about the problem, and planning to prevent oral problems and appropriate interventions to reduce the complications.

Despite numerous studies in the area of medical sciences in clinical [22, 23] and service fields [24, 25] very little researches have been done in this area.

Materials and Methods

The research is descriptive. Study population includes nurses employed in intensive care units affiliated to Urmia University of Medical Sciences. Samples were 105 nurses in four educational- therapeutic hospitals, Urmia, 2011 having a background of at least one year in hospital, had willingness to participate and cooperate in the study were enrolled through available sampling method.

A questionnaire was used to collect data. The questionnaire had three parts: first part was considered to demographic information. Second part includes 14 questions about attitudes of nurses and third part includes 16 questions about nurses’ performance in oral care that was derived from Rello et al. [10] questionnaire. The score range in second part was 14-70 and in third part was 16-80 that were distributed based on scores in three areas: poor, average and good, the higher the scores, the better the nurses’ attitudes and performance in oral care. To survey validity of the questionnaire, after translating the questionnaire by researchers, the content validity was used and the reliability (r=0.85) was determined by test-retest. Cronbach's alpha was used to confirm internal consistency of the questionnaire (0.76-0.85) indifferent sections.

In order to comply with ethical standards, questionnaires after receiving information about the study and the consent of the samples were completed by the patients without name and with a self-report form. For data analysis software SPSS16 software was used. Data analysis was performed by using descriptive and chi-square tests.

Results

The findings of the study showed that all the samples were married (67.7%), expert (97.1%) and circulating nurses (80%). Most samples (40%) were ICU nurses of Imam Khomeini Hospital and conventional (59%).

Most cases were in the age group [20-30] years and the experience was 2-5 years. The findings showed that the majority of nurses' attitudes (87.6%) and performance (72.3%) were in the average level of oral care (Table2). But according to the chi-square test the relationship between attitude and performance was not significant (P>0.05) (Tables 1 and 2).
Table 1: Distribution of samples according to demographic characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Percentage</th>
<th>Number</th>
<th>Percentage</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
<td>67.6</td>
<td>71</td>
<td>Single</td>
<td>31.4</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>Nurse Technician</td>
<td>97.1</td>
</tr>
<tr>
<td></td>
<td>1.9</td>
<td>2</td>
<td>MA</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>18.1</td>
<td>19</td>
<td>Pact</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>18.1</td>
<td>19</td>
<td>Test-Official</td>
<td>16.2</td>
</tr>
<tr>
<td></td>
<td>80</td>
<td>84</td>
<td>Rotation shift</td>
<td>28.8</td>
</tr>
<tr>
<td></td>
<td>71.5</td>
<td>75</td>
<td>More than 10</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>33.3</td>
<td>35</td>
<td>Motahari</td>
<td>18.2</td>
</tr>
<tr>
<td></td>
<td>10.5</td>
<td>11</td>
<td>Seyyed-al-shohada</td>
<td>49.5</td>
</tr>
<tr>
<td></td>
<td>41</td>
<td>43</td>
<td>20-30 years</td>
<td>9.5</td>
</tr>
<tr>
<td></td>
<td>40.9</td>
<td>43</td>
<td>1-5 years</td>
<td>32.3</td>
</tr>
<tr>
<td></td>
<td>22.8</td>
<td>24</td>
<td>More than 10 years</td>
<td>100</td>
</tr>
<tr>
<td>Background</td>
<td>60</td>
<td>63</td>
<td>Yes</td>
<td>40</td>
</tr>
</tbody>
</table>

Table 2: Distribution of attitude and performance of samples in oral care in intensive care units

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total</th>
<th>Average</th>
<th>Poor</th>
<th>Percentage</th>
<th>Number</th>
<th>Percentage</th>
<th>Number</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>100</td>
<td>105</td>
<td>10.4</td>
<td>11</td>
<td>87.6</td>
<td>92</td>
<td>1.9</td>
<td>2</td>
</tr>
<tr>
<td>Performance</td>
<td>100</td>
<td>105</td>
<td>24.7</td>
<td>26</td>
<td>72.3</td>
<td>76</td>
<td>2.8</td>
<td>3</td>
</tr>
</tbody>
</table>

The results of the study showed that of the main reasons of lack of oral care in intensive care unit patients in attitude area are including ancillary duty, hard work, unpleasant oral care, lack of information on standards and lack of adequate training). (Figure 1)

Although the majority of nurses stated that oral care routine is done in their departments and has a high priority in mechanically ventilated patients, but (31.4%) washed mouth at least every 8 hours and only (14.3%) has mentioned specific list for oral care, most devices used in oral care were pence and

Figure1: The relative frequency of oral care barriers in terms of nurses
Chi-square test results between nursing experience in ICU (P=0.001), work shift (P=0.002), over time hours and the number of beds (P<0.001), training course duration (P=0.009) and attitude of nurses in oral care patients revealed a significant correlation. Also between work shift (P=0.043), over time hours (P=0.042) and training course experience (P=0.000) with performance level of nurses in oral care patients revealed a significant correlation. However, Chi-square tests between marital status, educational level and employment status with attitudes and performance of nurses in oral care patients showed no significant relationship.

Discussion

The findings showed that the majority of nurses' attitudes and performance in relation to oral care is in a moderate level. This finding is consistent with the results of Jones et al.[15] with 87%, study of Rello et al.[10] with 88% and study of Kearns et al.[2] with 100%, nurses expressed oral care has a high priority[2,10,15].

The majority of nurses stated that (95.4% and 81%), respectively oral care in ICU patients (especially patients undergoing mechanical ventilation) has a high priority and is effective in improving the patient's condition, which is consistent with Rello et al. study[10] which may indicate that nurses have sufficient knowledge in the field of oral care, but what is certain is that just having knowledge is not conducive to good performance but attitudes should change and foundation of beliefs should be deep and scientific to make proper performance [26].

Results of the study indicate that the majority of nurses (83.7%) considered oral care the responsibility of ancillary and (31.4%) perform oral washing every 8 hours that is consistent with Jones et al. study[15]. (85.3%) of the nurses announced that they did not use any special instrument or checklist for oral care. Sole et al. reported that half of the intensive care units in Europe do not have any protocol for oral care of patients with artificial air way[27]. However, other studies showed that establishing a care tool or protocol based on evidences can help improve quality of oral care [15, 28,29].

In the present study 41.6% of nurses stated that oral care is an unpleasant task and 33.6% were considered it's clean up a hard work. In Rello et al. study also a third of nurses described oral care as unpleasant tandal most two-third difficult[10].73.3% used pence and gas and 48.1% chlorhexidine solution in oral washing and caring. Other studies[15, 27] also showed that most of the nurses in ICU use pence and gas, mostly brush to clean the oral cavity [15, 6]. However, other studies have shown that pence and gas is not effective in withdrawal of oral plaque. Because dental plaques are not soluble in water and applying mechanical methods such as (brush) are more effective than other methods of plaque removal and oral mucosa and prevention of pneumonia[30, 31]. More than half of the nurses stated the need for training and getting more information about oral care standards that is consistent with Rello et al. study results[10]. One of the reasons for these requirements is probably unfamiliarity of care nurses from care procedures and protocols and standard tools to oral assess. [32] Potter Perry believes that continuing
education programs help nurses be updated with skills, knowledge and nursing theories [33].

According to results of the present study there is a significant relationship between nursing experience in ICU and attitudes of nurses in oral care. This means that the more work experience, the attitude of staff is better. Age and previous experience affects people’s admissibility, interests, learning and performance [33]. Also results reveal that there is a significant correlation between work shift, over time hours and training course experience with attitude and performance level of nurses in oral care that is consistent with [13,31] study[13,31] . However, findings showed no significant relationship between attitude and performance of nurses.

Conclusion

Moderate knowledge and performance of samples showed that despite the importance of oral care in providing patient comfort and preventing complications (such as pneumonia) likewise the care is neglected or is performing without the use of a standardized protocol or approved instructions, because nurses' knowledge of oral care in ICU is not updated and probably there is not adequate over sight in units’ management systems in care implementation. Therefore, it is essential to implement education programs for managers and nurses and strengthens management systems in these units.

Acknowledgment

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