

Nurses' Perceptions & Practices towards Delirium in the Intensive Care Units

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Abstract: Intensive care units are known to be the treatment area reserved for patients who require state-of-the-art care by health care professionals to treat life-threatening illnesses and diseases. This vulnerable population is at high risk for developing delirium, which has been shown to be one of the most common complications of ICU hospitalization, affecting 60% to 80% of patients. To date, several studies have demonstrated that delirium is associated with increased mortality as well as increased hospital length of stay and costs.

Aim: Assess the nurses' practices and perceptions toward Delirium in the Intensive Care Unit at King Fahd Hospital University of Dammam.

Research Design: A descriptive design was used to conduct the current study.

Setting: The study was conducted at King Fahad Hospital of University, in Intensive Care Units, Medical Intensive Care Unit, Surgical Intensive Care Unit & Coronary Care Unit.

Population: registered nurses.

Research Tool: Tool used to collect the data was questionnaire, divided to three parts.

Result: Study showed that no respondents ranked delirium assessment as the most important item to assess delirium and they ranked it as fourth priority out of five items. In addition, more than half of the studied nurses 70.6% revealed the only tool used in ICUs to assess the patients for delirium was the sedation protocol and they reported the unavailability of other reliable, specific, and validated delirium tools mentioned in the questionnaire such as. This could be a leading cause of low frequency of delirium assessment among the studied sample as a three quarter of the studied nurses. 75% was never assessed delirium, while 12% rarely assessed the patients for delirium.

Conclusion: It can be concluded that delirium is a problem that requires active interventions in the part of care givers, more than half of the sample found the delirium is an underdiagnosed problem.

Date of Submission: 22-02-2018

Date of acceptance: 08-03-2018

I. Introduction

Intensive care units (ICUs) are known to be the treatment area reserved for patients who require state-of-the-art care by health care professionals to treat life-threatening illnesses and diseases. This vulnerable population is at high risk for developing delirium, which has been shown to be one of the most common complications of ICU hospitalization, affecting 60% to 80% of patients. [1-4] To date, several studies have demonstrated that delirium is associated with increased mortality as well as increased hospital length of stay and costs. [5-7] In addition, the presence of delirium has important prognostic implications; in mechanically ventilated patients it is associated with a 2.5-fold increase in short-term mortality, a 3.2-fold increase in 6-month mortality and it is also a source of distress for patients and their caregivers. Critical care nurses are in the frontline position to detect and monitor for risk factors that contribute to the development of delirium in the ICU. Recognition of predisposing risk factors and the elimination of precipitating risk factors for delirium can prevent the devastating short-term and long term consequences for the critically ill patient. Despite the high occurrence of delirium in the ICU, researchers have shown it is consistently overlooked and often undiagnosed by health care professionals. [8-9]

Delirium is a serious condition that affects critically ill adult patients in the intensive care unit (ICU). The American Association of Critical Care Nurses (AACN) defines delirium as an acute change in consciousness accompanied by inattention and either a change in cognition or perceptual disturbances. [1] Delirium is present in as many as 60-80% of mechanically ventilated patients and 20-50% of nonmechanically ventilated patients. [10] Delirium presents as a change in patient's baseline mental status that can fluctuate in severity.

Characteristics of delirium include disturbances in vision, speech, orientation, perception, and memory. [11] ICU delirium is independently associated with higher patient mortality, prolonged ICU stay, and greater health care costs. [6] The risk for mortality while in the hospital is more than doubled in patients who develop delirium. In addition, patients who experience ICU delirium are at greater risk for cognitive impairment after discharge. [12] Several risk factors have been identified to increase the risk and severity of delirium; of these are advanced age, prolonged ICU stays, in addition to sedative and narcotic use. [13-17] Delirium is a multifactorial problem for ICU patients and requires an interdisciplinary approach for assessment, and management. [18] The prevalence of delirium in medical and surgical ICU varies from 20-80% depending on the severity of illness. Greater incidence of delirium of up to 87% was reported to occur in ICU patients receiving mechanical ventilation. Despite high prevalence of delirium, it is often under-recognized in 66-84 % of critically ill patients and may be difficult to assess due to severity of illness, frequent use of sedation and analgesia, lack of verbal communication, and lack of an easy to use screening tool which may lead to difficulty in diagnosis. [6-19] Numerous national and international surveys have highlighted the importance of recognizing delirium in the ICU. Most of these studies show disconnection between the perceived importance of delirium and steps taken to improve diagnosis and treatment. Delirium was found among approximately one quarter (23.69%) of the totally admitted critically ill patients (N = 650) during the first 36-48 hours of their stay in the ICU. [20] Given the fluctuating nature of delirium symptoms, the bedside nurse is the ICU caregiver who is best suited to screen for delirium. [6] As indicated by Sona, nurses caring for ICU patients do not recognize delirium in up to two thirds of cases. Whereas many barriers to the recognition of delirium have been hypothesized, and patients' related factors contributing to under recognition have not been directly examined. As well, baseline assessment of ICU patients for delirium is often limited. That is why there is a need for interdisciplinary approach to assess, and manage delirium. [21] Critical care nurses should assume a leading position in the ICU regarding delirium monitoring. They are the best suited members of the ICU team to successfully implement this essential component of patient management. Through assessment and management of delirium, reduction of morbidity and mortality in critically ill patients can be achieved. [18] To this end this study will be conducted to assess the nurses' practices and perceptions toward delirium in ICUs.

II. Significance Of The Study

A study to explore the current practices and perceptions of nurses in delirium screening will help to identify areas of potential change to improve the quality of care in critical care in the Saudi Arabia, Alkobar. This study was aimed at identifying nurses' perceptions and practices towards the delirium in ICUs. The significance of this research will be to increase the understanding of nurse's involvement in early identification of delirium. Implications for practice are discussed and directions for further research in this area are recommended.

aim of this study:

To assess the nurses' perceptions and practices toward delirium in the ICU.

III. Subject And Method

Research Design:

A descriptive design was used to conduct the current study.

Setting of the study:

The study was conducted at King Fahad Hospital of University, in Intensive Care Units, Medical Intensive Care Unit, Surgical Intensive Care Unit & Coronary Care Unit.

Population:

Registered nurses.

Sample:

Reregistered nurses who were currently working a minimum of six months.

Research Tool:

Questionnaire was developed based on the review of relevant literature by the researchers and it consists of 3 sections:

1-Socio demographic data such as gender, age, years of experience, attended staff development courses, working hours.

2- Sedation and delirium assessment practices.

3- Current opinions about delirium and delirium assessment, including identification of potential barriers to delirium assessment.

IV. Result Of The Study

The survey included a sample of 55 nurses aged between 21 and 57 years old. The studied nurses have responded to self-administered questionnaire focused on Nurses' Perceptions and Practices towards Delirium in the Intensive Care Unit (ICU). The questionnaire was of 17 questions which concerned: 1st Part based on socio-demographic data collection including age, highest degree, years and hours of work, time of most commonly worked shift, ICU type and nursing position, and a 2nd Part based on perceptions and practices towards Delirium and sedation in the ICU.

Figure (1): Percentage Distribution of the studied Group as regards to Their Age, (N= 55).

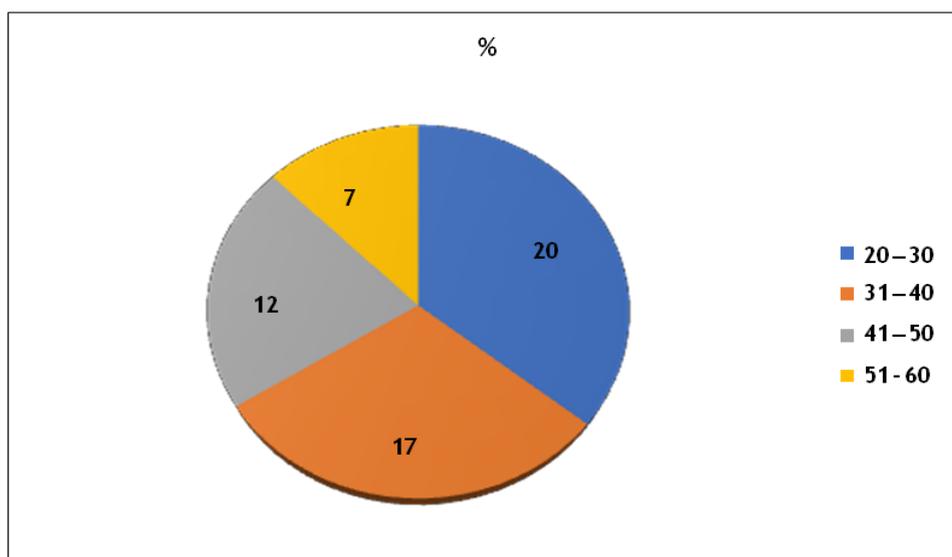


Figure 1 reveals that 20 % of the studied sample was in the age groups ranged from 20 to 30 years old, 17% was aged between 31 and 40 years old, 12% was aged between 41 to 50 years old and the lease % was between 51 and 60 years old.

Figure (2): Percentage Distribution of the studied Group as regards to Their Qualifications (N=55).

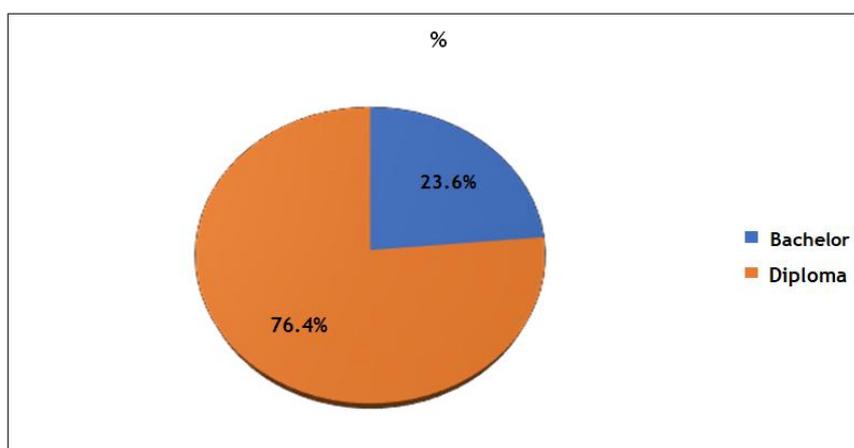


Fig. 2 indicates that about three quarters of the sample (76.4%) had bachelor degree.

Figure (3): Percentage Distribution of the studied Group as regards to Their Years of Experience (N=55).

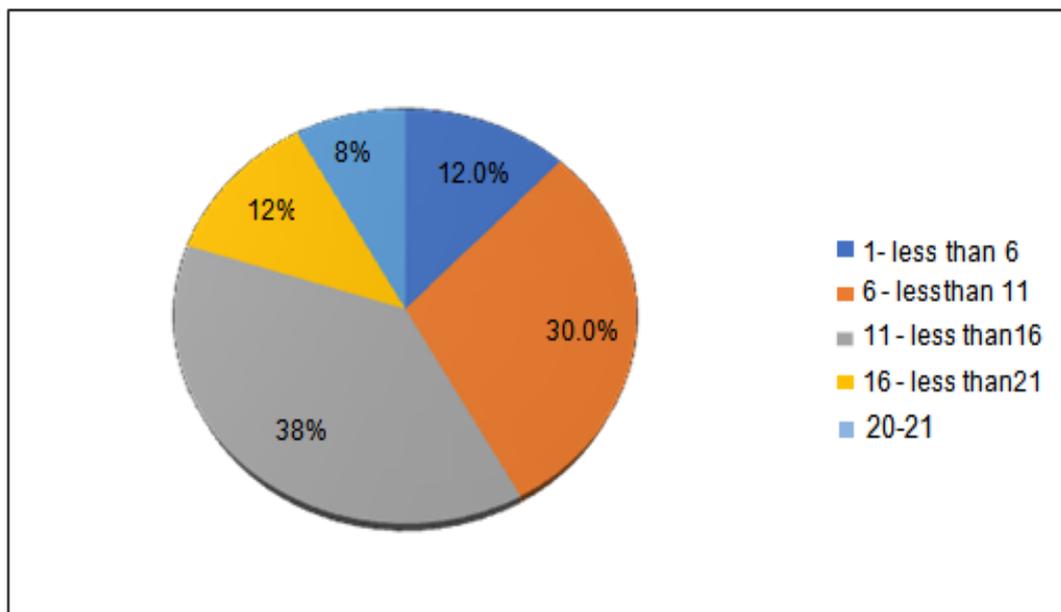


Fig. 3 shows percentage distribution of the studied sample as regards to years of experience. It clarifies that (38%) of the studied nurses had 11 -16 years of experience in working with critically ill patients, while (8%) had 21 – 20 years' experience.

Figure (4): Percentage Distribution of the studied Group as regards to Their Working Areas

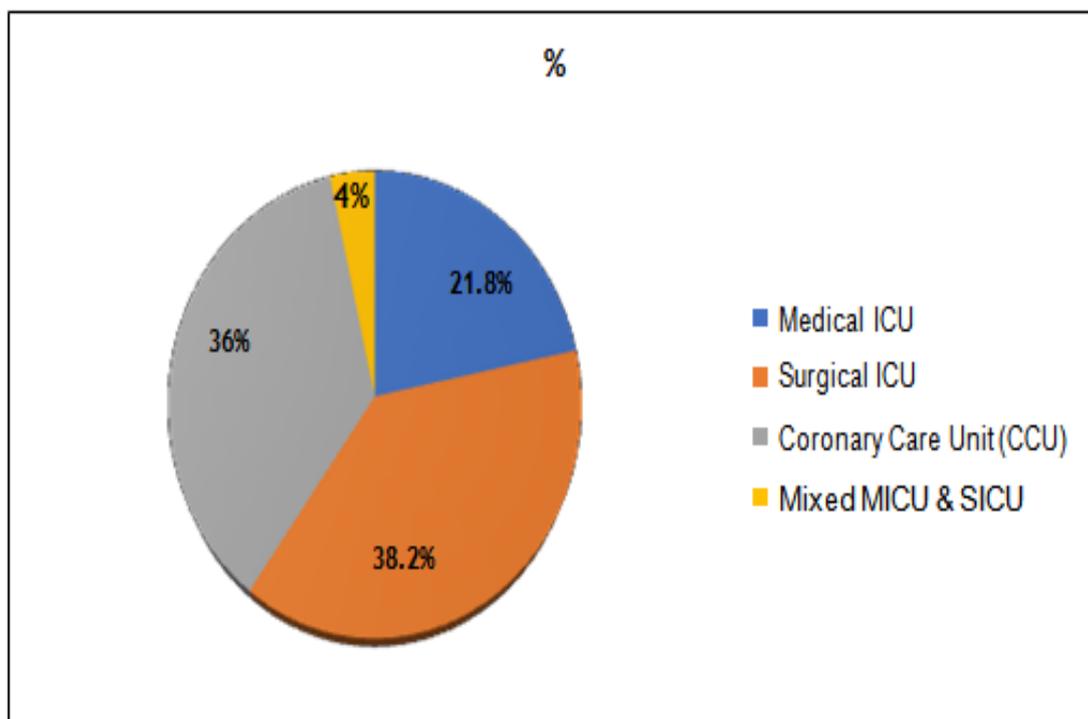


Fig. 4 reveals that 38.2% of the studied sample worked in surgical ICU and 36% was worked in coronary care unit.

Figure (5): Percentage Distribution of the studied Group as regards to nurses' positions

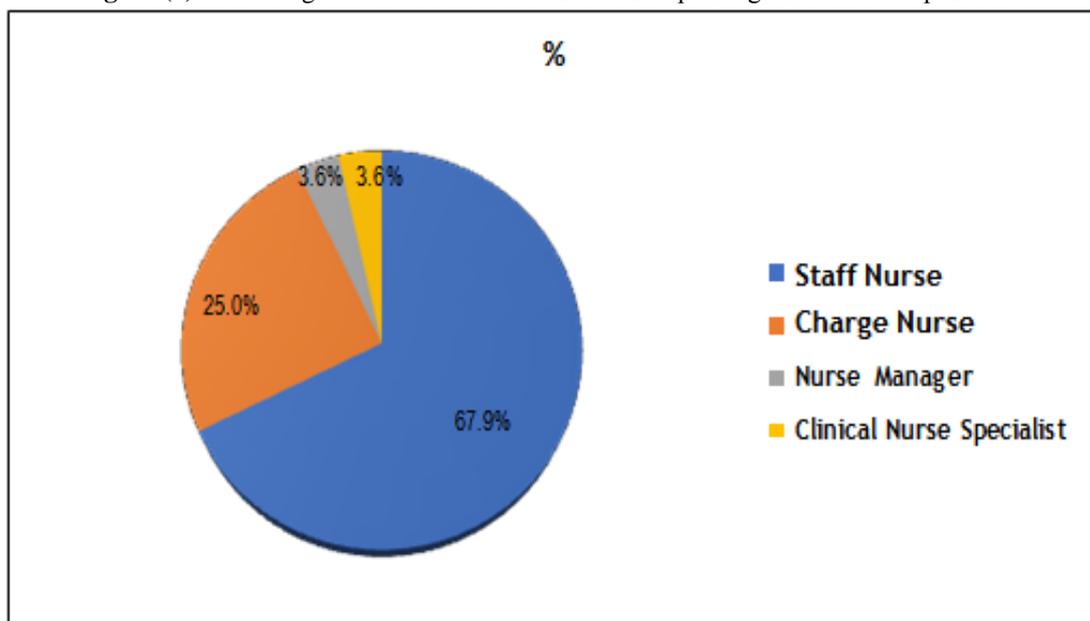


Fig. 5 shows percentage distribution of the studied sample as regards to their working positions. It clarifies that (67.9%) of the studied nurses had a position of clinical nurse specialist, 25% was clinical nurse specialists and equal percentages were charge nurse and nurse manger.

Figure (6): Nurses' Rank of Conditions that Routinely Evaluated among critically ill patients. (Deemed most important for nurses to routinely evaluate in patients during an average shift)

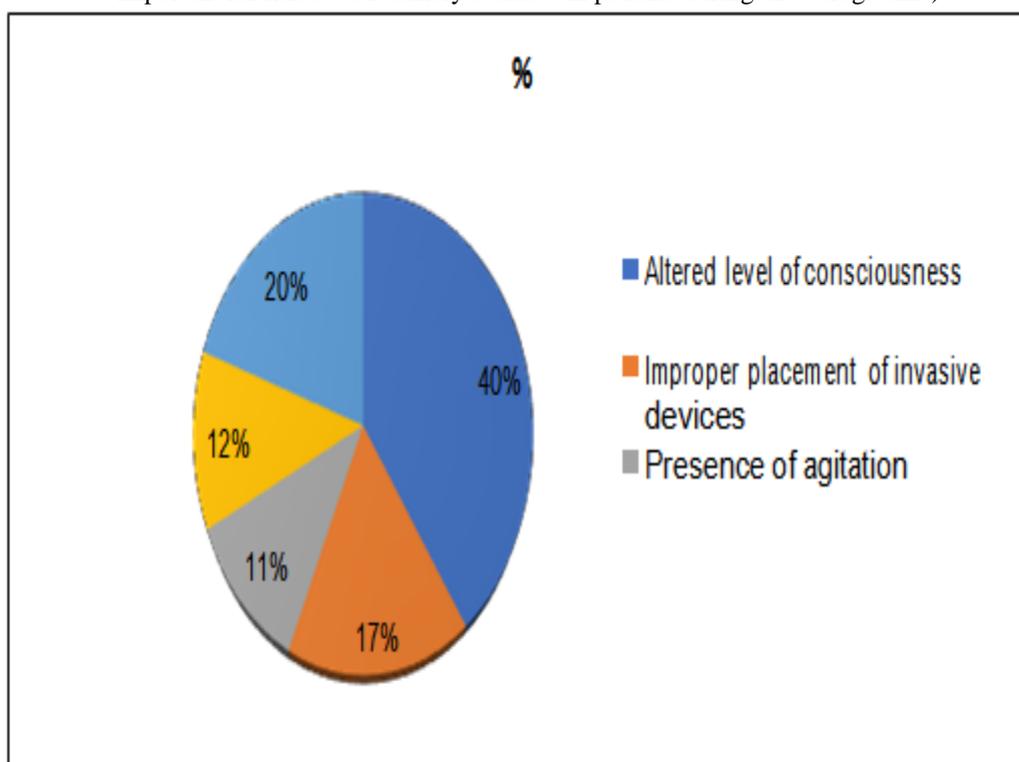


Fig 6 represents nurses' rank of conditions that routinely evaluated during their work in the ICU. It reveals that (40%) of ICU nurses ranked level of conscious as the first priority, pain assessment as the second priority, and assessing and caring for devices as the third priority. However, 12% ranked delirium as the fourth priority after handling agitation (fifth priority) (11%).

Figure (7): Availability of Sedation Protocol as Indicated by Nurses (N=55).

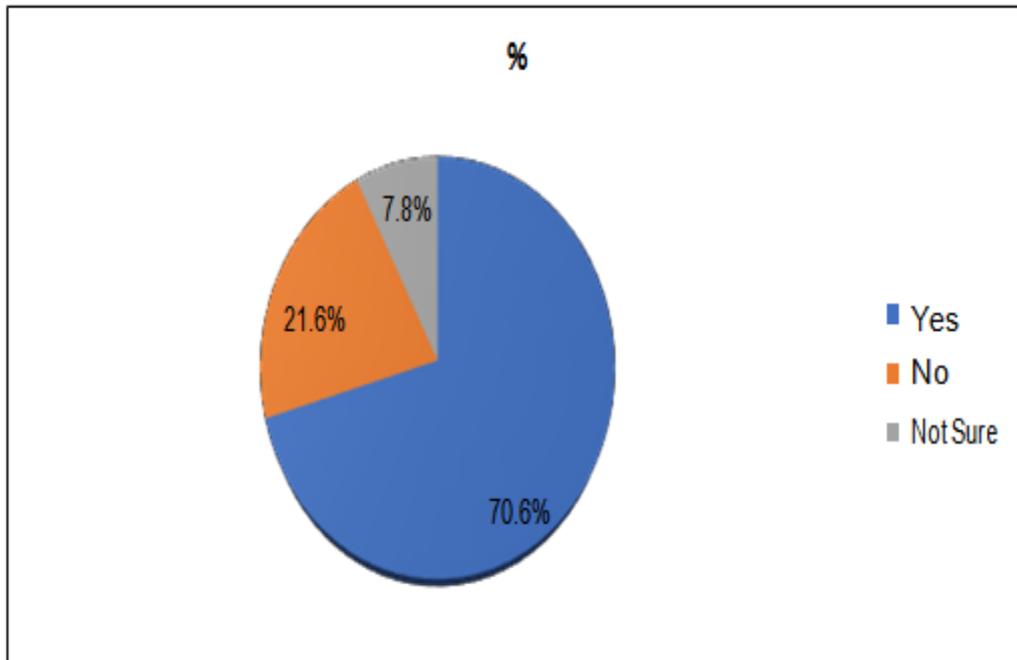


Figure (7) clarifies that more than half of the studied nurses (70.6%) revealed availability of sedation protocol to be utilized by critical care nurses. While 7.8% was not sure.

Figure (8) Frequency of patients evaluating for level of sedation and presence of delirium by ICU Nurses, (N=55).

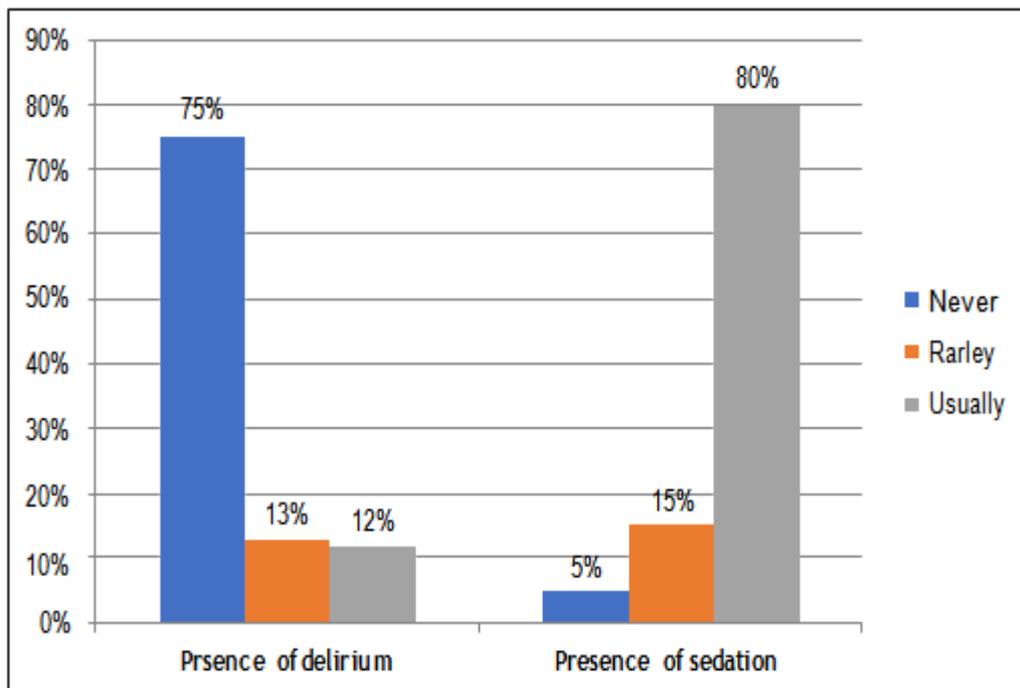


Fig. 8 shows frequency of delirium and degree of anesthesia assessment by ICU nurses. It reveals that three quarter of the studied nurses (75%) never assessed delirium, while (12%) rarely assessed delirium. However, much of the sample (80%) was usually assessed degree of anesthesia, 15% and 5% were assessed the sedation level consequently.

Fig. (9): Frequently used Methods of Assessing Delirium by Critical Care Nurses (N=55).

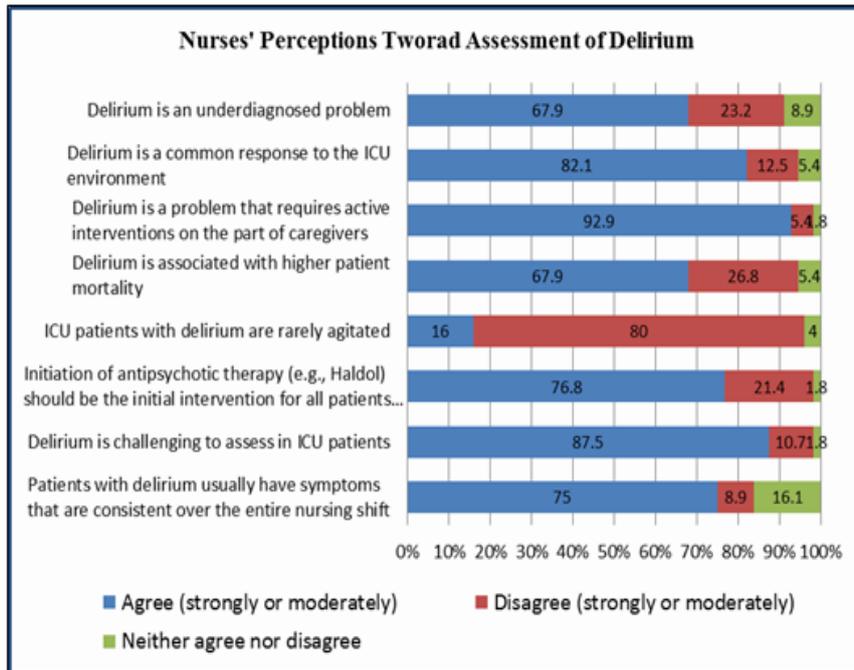


Figure (9) reveals that, the most common methods used to evaluate the patients for delirium were agitated related events and ability to follow commands (once or more per shift) 72.5% and 67.3% consequently. While, psychiatry consult was used rarely to evaluate the presence of delirium (67.9%). ICDSC and CAM – ICU were never being used by about of 76 % and 56.6.

Figure (10): Nurses’ Perceptions toward Assessment of Delirium

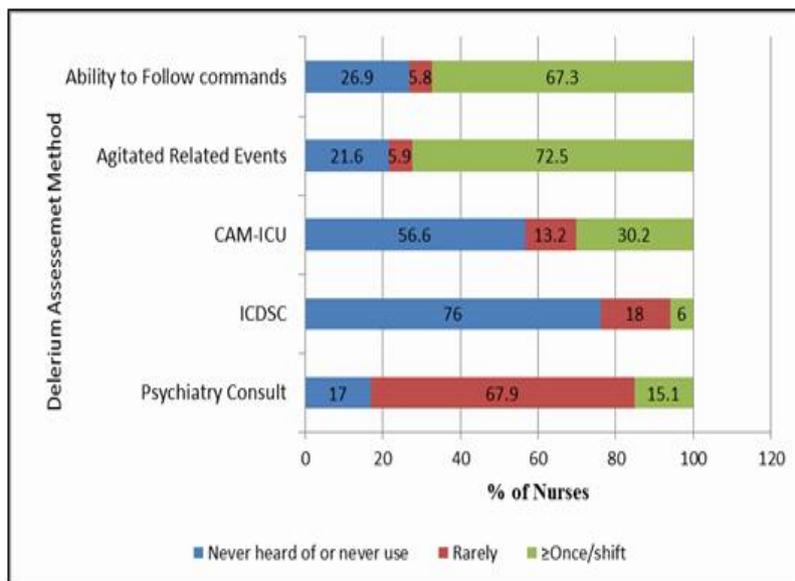


Figure.(10) exposes the nurses’ perceptions of delirium evaluation. The vast majority of nurses agreed (strongly or moderately) that delirium is a problem requiring active interventions on the part of caregivers (92,9%), followed by those who found that delirium is a challenge to asses in ICU patients (87,5%) and that delirium is a common response to the ICU environment (82,1%). Compared with nurses who assess rarely or never delirium among their patients frequently, those who always assess delirium in patients were significantly more likely to find that delirium is associated with higher patient mortality (45% vs 79,4%, p=0,011) and that patients with delirium usually have symptoms that are consistent over the entire nursing shift (45% vs 91,2%, p=0,001).

Figure.(11) Barrier to Nurses' Evaluation of ICU Patient for Presence of Delirium (N= 55)

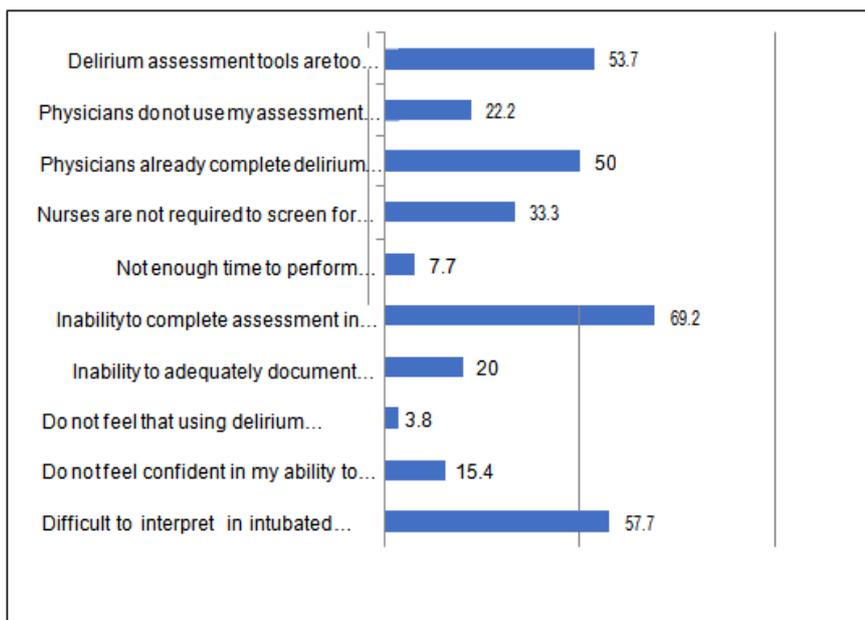


Figure 11 illustrates the barriers to the assessment of delirium in the ICUs. Overall, the inability to complete assessment in the sedated patient was the most commonly barrier reported by nurses (69,2%), followed by the complexity of manipulation of delirium assessment tools (53,8%), then the fact that physicians would already have completed the evaluation of delirium that was reported by half of respondents (50%).

Fig. (12): Percentage Distribution of the Studied Sample as Regards to Received Education/Training about Assessment and Handling Sedation and Delirium (N=55).

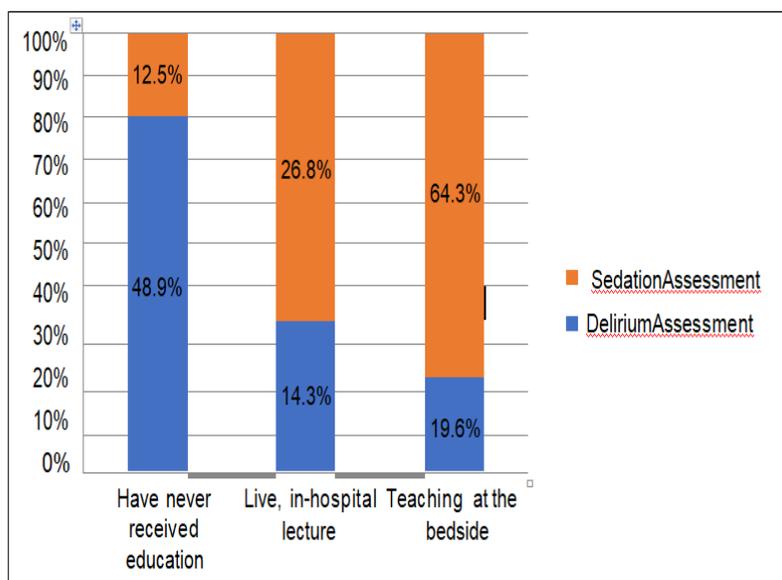


Figure 12 illustrates that, almost half of nurses (48,9%) reported never receiving education about delirium assessment, while concerning sedation assessment, a proportion of 12,5% stated never receiving training (p=0,352). In term of sources of education regards delirium assessment in comparison with sedation assessment, most nurses stated having been trained in the past year about delirium assessment in a live in-hospital lecture or in a service of delirium assessment (26,8% vs 19,6%, p=0,391), to a lesser extent nurses stated have been trained via bedside teaching (14,3% vs 64,3%, p=0,023) and via live out-of-hospital CE lecture (19,6% vs 28,6%, p=0,000).

V. Discussion

total of 55 nurses (100% participation) completed the voluntary and anonymous questionnaire. They aged between 21 and 57 years old with a mean age 32.4 (SD,7,3). More than three-quarters of nurses (76, 4%) had baccalaureate degree while 23, 6% earned diplomas. Most participants (38, 2%) worked in a surgical ICU. In term of nursing position, the majority (67, 9%) were staff nurse, the quarter worked as charge nurse, 3, 6% as nurse manager and 3, 6% as clinical nurse specialist. Delirium assessment was ranked as the fourth priority immediately before the agitation assessment. This means that, assessment of delirium and agitation were least important assessment to complete by the respondents in this study with (12% & 11%) These findings go against all evidences that have been reported on the importance of delirium assessment to the outcomes of patients. Obviously if nurses attach a low priority to these types of assessments then they are unlikely to complete them in the busy environment of the ICU. This result may also due to unawareness of the studied nurse to about delirium and its impact and complications or inability of them to identify patients' needs and preferences. Assessing for level of consciousness and proper placement of invasive devices are definitely important, but delirium assessment also needs to fit into the process of assessing critically ill patients.

In agreement with the finding of the current study, several researchers have been reported their findings. Although their ranking differs but all of them agreed that, delirium ranked the least importance. Elfeky et al (2013) has been reported that, most of the studied nurses gave delirium the fourth priority after handling agitation (as the third priority), and before assessing and caring for devices (the fifth priority). [22] However, all of the studied critical care nurses gave the first priority to assessing level of consciousness; and the second priority to pain assessment. Similarly, Mc Nicoll, et al., (2003) revealed that delirium in the critical care unit may incorrectly be perceived or often goes unrecognized by healthcare providers as a "normal" reaction by patients to a potentially life-threatening situation, or incorrectly attributed to dementia, depression, or ICU syndrome.

In an attempt to identify tools that were used to routinely assess patients for delirium, the current study revealed that, the most common methods used to evaluate the patients for delirium were agitated related events and ability to follow commands (once or more per shift) 72.5% and 67.3% consequently. While, psychiatry consult was used rarely to evaluate the presence of delirium (67.9%). ICDSC and CAM – ICU were never being used by about 76 % and 56.6 of nurses. These results indicated that, as expected the most common methods were the simplest techniques and these methods are already a part of the critical care nurses' routine assessment. As well, nurses in the current study revealed unavailability of delirium assessment sheet in the ICU. In congruent with the findings of the current study, Devlin (2008) reported that, of the 5 possible methods to evaluate for the presence of delirium that were presented in the survey, assessment of ability to follow commands was evaluated most frequently, followed by evaluation of agitation related events and fewer than half of the respondents used a validated delirium screening tool (ICDSC, CAM-ICU) as the primary means for assessing delirium.

The result of the current study in relation to the nurses' perceptions towards the importance of the assessment of delirium agrees with Elfeky et al (2013). They studied 120 nurses working at different critical care departments and the found that, all the studied critical care nurses revealed their strong agreement that delirium is an under diagnosed problem in the ICU.

As regards to the education and training received by nurses regarding delirium and sedation assessment, the current study revealed that, almost half of nurses (48,9%) reported never receiving education about delirium assessment, while concerning sedation assessment, a proportion of 12,5% stated never receiving training. Surprisingly, despite the complexity associated with detecting delirium in the ICU, more than one third of the nurses reported receiving no training about delirium. On the same platform, as revealed by, Devlin et al. (2008) reported that, despite the complexity associated with detecting delirium in the ICU, more than one third of the nurses reported receiving no training about delirium. They attributed low frequency of delirium assessment to lack of any published studies that evaluate the impact of delirium screening in the ICU on patients' outcomes. [6]

The survey also examined education that the respondents had received concerning delirium assessment as compared to sedation assessment. Lack of education has been proposed as a limiting factor in delirium assessment. Nurses are seldom educated about delirium in their nursing program and education within hospitals has been limited. [23] The majority of nurses surveyed (60%) had received no education on delirium assessment whatsoever. With the potential impact on patient's mortality that delirium imposes nurses require at least a basic understanding of delirium. As nurse educators, we will need to address this need for students of nursing as well as those nurses that are already working in the health care setting. In addition, Participants in several researches reported that, they did not feel adequately trained and lacked ability to competently screen for delirium. They felt that they were not adequately trained for performing cognitive assessments. Similar findings from the UK literature showed that there was a rise in the number of critical care Practitioners who

were not completing delirium screening due to lack of training. [24-25] It is understood that every university should develop their educational program based on the guidelines provided by the Irish Nursing Board. [25] However, the universities should consider these findings and encourage student nurses to undertake various projects such as clinical audits, risk assessment (Clinical governance) and research in the future.

VI. Conclusion

It can be concluded that delirium is a problem that requires active interventions in the part of care givers, more than half of the sample found the delirium is an underdiagnosed problem. As regards to nurses' practices towards delirium, three quarter of the studied nurses never assessed critically ill patients for delirium and this is due to misconceptions and unavailability of reliable, specific, and validated delirium assessment tools.

Recommendations

- Repetition of the study on a larger population.
- Follow up researches to monitor the nurses' knowledge and practices regarding assessment and management of delirium in the ICU.
- Carrying out educational programs about delirium assessment and management in critically ill patients.

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