

## Evaluation of Supportive Psychosocial Protocol on Anxiety of the Patients' Families' Located at the Al-Zahra/Isfahan Intensive Care Unit in 2011

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DOI: 10.21859/focsci-03031448

Submitted: 02.19.2017

Accepted: 05.23.2017

### Keywords:

Anxiety  
Intensive Care Unit  
Family  
Nurse

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### Abstract

**Introduction:** Critical illnesses and subsequent hospitalization of a relative to an intensive care unit (ICU) can result in many psychosocial problems for patient and their family members. Caring for the anxiety and frustration of their families within the first days of patient's hospitalization is an integral part of critical care nursing. The purpose of this study was to evaluate the supportive psychosocial protocol in anxiety of patient families' located at the ICU, provided within the first days of patient's hospitalization.

**Methods:** This was a quasi-experimental study. A convince and random sample was recruited over a six months, consisting of seventy-five primary family members of each critically ill patient who had been newly admitted to Isfahan Al-Zahra university hospital. Mean family psychosocial need and anxiety scores' were measured and compared before and after intervention, using two questionnaires, a critical care family needs inventory (CCFNI) and an Anxiety questionnaire (Spilburger) forms. Different statistical tests were used for data analysis.

**Results:** with a significant difference ( $P < 0.001$ ), the mean family psychosocial need scores' associated to before and after intervention was  $57.1 \pm 4.7$  versus  $32.6 \pm 3.9$  respectively. There was a significant difference ( $P < 0.001$ ) related to the mean family anxiety scores' of before and after intervention with values of  $32.8 \pm 4.6$ , versus  $27.7 \pm 2.3$  respectively.

**Conclusions:** The findings support the effectiveness of supportive psychosocial protocol on ICU patient families' anxiety to allay anxiety and immediate psychosocial needs. The formation of an ICU patient families' supportive psychosocial protocol should be based on a need assessment, in order to alleviate their anxiety and meet their immediate psychosocial needs.

### INTRODUCTION

Acute critical disease and hospitalization in intensive care units (ICU) usually occur without anticipation in a rapid onset. Admission to an ICU is not only stressful to the patients but also to the patient's family. After admission, patients and their families feel urgent needs and may suffer from psycho-social anxiety and many other negative emotions such as; fear, anxiety, uncertainty, sense of guilt, anger, irritation, frustration and fears about losing loved of ones. In such cases family will expose to socio-cognitional and

emotional stressors that might affect psychological function. The efforts of the team of ICU doctors and nurses primarily focus on saving the patient's life, and needs of family members that are often neglected. It is worth to remember that families also require support as stress they experience might be even stronger than those patients. In united states; approximately every 15 seconds a head trauma occurs, in which every years 7 million Americans experience head trauma that over than 500/000 will be hospitalized. Among

them half to one third was reported to be admitted in ICU and finally one-fifth reported to deaths.

In United States of America it costs 2000-3000 \$ for hospitalizing to ICU per a day that is 6 times more than of expenses for a usual hospitalization. In Hong Kong more than 30/000 patient will be admitted to ICU because of critical disease which mortality rate is about %25. In Isfahan/Iran, based on extracted data from hospital statistic registry, there were 257 patients admissions' to the ICU located at the AL-Zahra hospital in the year 2005. There was report of deaths in 43 deceased due to severity of accident related to head trauma. Investigation performed by Tolou\_Ghamari Z., in AL-Zahra hospital related to the final causes of deaths in 5360 deceased between the years 2011 to 2013 confirmed that disorders due to neurologic, pulmonary and heart could be mentioned as the final causes of death in ICU. In another study ranked reasons of death due to brain disorders resulted as: unspecified intracranial hemorrhage (41%) > stroke (32%) > traumatic intracranial injuries (27%). Factors that could cause stress and anxiety for patients relatives could be stated as: lack of information, uncertainties related to prognostic and treatment, facts of death concerns about financial conditions, changes of roles and disruption roles, unties life, emotional conflicts, to be unfamiliar with rules and hospital environment, isolation from other family members, to unfamiliar with medical terms used by nurses and doctors, failure to make a good relation between nurse and patient's family can cause anxiety, unreliability and hostile feelings in some family members. In such occasion the nurses usually involve with care and fulfilling the patient's needs'. It is fundamental that the health care term is prepared to establish a relation of empathy and trust with family. Necessity for urgent evaluating of patient's family needs', by nurses have been started since 1970. The most important needs that mentioned by different studies could be categorized as: 1) receiving information about treatment and disease prognosis 2) to be supported by medical term and other resources 3) receiving an assurance from medical team about treatment process 4) to remain with patient 5) preparing comfort and welfare for patient's family.

The most important anxiety maker factors' that have been experienced by patient's family were listed as: 1) lack of information 2) hopelessness 3) wish to be near to patient 4) confidence about treatment and disease prognosis 5) emotional and financial supports from remedy and other resources. Families usually request for facilities like bathroom, restaurant, phone and etc. also said; they require a place near to ICU to be alone in private situation. Religious attractions' also could be mentioned as another significant factor that could reduce tension and anxiety. Anxiety and stress imposed to one member will be transferred to others that may affect functional abilities. Many researchers believe that family health needs' are not the same exactly fulfilled by nurses. However studies about instructions and protocols about anxiety interventions are scarce. Obviating and supporting relatives of hospitalized patients constitute a major function of the nurse and health care team. Family of patients who suddenly admitted to ICU is susceptible for anxiety as high risk group. Patient's family members would be surrogate decision makers during hospitalization in ICU.

A nurse as a holistic care giver should be involved in family needs, support them to overcome anxiety and preparing them a good sense of health, as there is poorly defined studies insight into patient's family anxiety and its effects on society health. It seems to be important to design an intervention plan based on family needs during first days of hospitalization, by fulfillment of psycho-social needs that could make great progress in decreasing anxiety level [1-32]. Therefore, this study aims to investigate the effects of supportive psycho-social protocols' on patients admitted to ICUs located in Isfahan/Al-Zahra hospital.

## METHODS

This semi-experimental study was conducted to 75 first degree relatives of patients those, were under treatment in intensive care unit (ICU) located at the Isfahan/Al-Zahra hospital. Inclusion criteria were: 1) being an adult, 2) having first degree relatives, 3) to be admitted to ICU for at least 24 hours, 4) having no previous ICU experience. Duration of investigation was between November 2015 to March 2016. At the first day of hospitalization the voluntary those agreed for participating in the study, signed the term of consent. The Spilburger questionnaire used to estimate the level of anxiety. It was used before in Spain, Canada, Portagues and Iran for Psycho-social needs evaluation by CCFNI questionnaire. It also were used before in descriptive and semi-experimental studies that have been performed in Canada, Hong Kong, England and Iran. The next day we started giving information by pamphlets, personal meetings, and describing all notes might be needed for patient's relatives; based on most important needs mentioned before. Statistical analysis was performed with the use of statistical program (SPSS version 18) paired T test and person coefficient.

## RESULTS

With a minimum of 20 and a maximum of 63 years old, the mean age of population was 40.5 years old. Study population investigated 75% of relatives' members' with no differences in age related to different genders. There was 53.3% male and 46.7 % females. As shown in Table 1, the mean score for Spilburger anxiety, before and after intervention was 32.8 versus 27.7 respectively based on paired; T test.

**Table 1:** Mean and Standard Deviation of Anxiety and Psycho-Social Needs Score Were Categorized Before and After Interventions

Variable	Time		P
	Before	After	
Anxiety score	32.84 ± 4.6	27.65 ± 2.3	P < 0.001
Psycho-social needs score	57.1 ± 4.7	32.6 ± 3.9	P < 0.001

Severity on anxiety has been decreased significantly (P < 0.001). There was a significant change in anxiety with 88% decrease after intervention. Table 2, specified to show mean and standard deviation of those two variables according to gender segregation. T test analysis revealed no significant difference between male and female.

**Table 2:** Mean and Standard Deviation of Anxiety and Psycho-Social Needs Score Based on Patient's Gender Segregation

Time	Before Intervention			After Intervention		
	Female	Male	P	Female	Male	P
Relative's anxiety score	33.9 ± 4.9	31.9 ± 4.9	0.06	33.4 ± 4.1	27.8 ± 2.4	0.62
Relative's psycho-social needs score	57.6 ± 3.4	56.6 ± 5.6	0.36	33 ± 3.8	32.3 ± 4	0.42

It is worth to remind that; there was an under privileged correlation between patient's age and relatives' anxiety score ( $P = 0.06$ ) but not significant by person coefficient test Mean score for psycho-social needs was respectively  $57.1 \pm 4.7$  versus  $32.6 \pm 3.9$  before and after interventions, that depicts an obvious decrease by T paired test ( $P < 0.001$ ). According to final results mean discrepancy of psycho-social needs score was  $34.48 \pm 5.4$  with a range of 3 to 34 that showed 98.7% decrease in population studied

## DISCUSSION

The results obtained from this study confirmed that the mean score for psycho-social needs' decreased after interventions. This decrease in anxiety could support the vital role of family needs' by nursing care and their attention. Providing needs like: 1) have an access to information particularly about prognosis, 2) proper communication, 3) assurance, 4) comforting, 5) support and personal meetings with health care team members were found as strong way for reducing family needs' which demonstrated or confirmed by other studies [1, 18-22]. Spilburger mean score's with the values of  $32.8 \pm 4.6$  versus  $27.7 \pm 2.3$  before and after intervention, was in agreement with other published studies [1, 23, 24] in which the similarly reveal high levels of anxiety before any intervention. In agreement with previous publications, giving necessary information about patients must be considered emphatically as a part of nursing role, since it could reduce anxiety levels' [1, 20, 25]. Demographic distribution in this study was comparable to previous study [1].

There was a weak alliance, correlated with patient's age and anxiety score. Study performed by Prosa GB., et al in 2009 stated a high level of anxiety for mothers of newborns with congenital malformations admitted to NICU [26]. In agreement with other result, age could not affect the level of anxiety as study performed by Carvalho AE, in 2009 explained a %71 anxieties of patients' families that were correlated to admitted adult to ICU [20]. There was no significant difference between male and female patients in association with mean score for their relative's anxiety level ( $P = 0.06$ ;  $4.1 \pm 5.8$  male versus  $6.4 \pm 4.1$  for women). Fumis RR et al., in 2009 showed no difference between sex and anxiety level, [24] but Pilchard F, et al., indicated more anxiety [27]. Finally, In Isfahan/Iran it is suggested that: 1) health team members should be aware of patient relative needs', 2) utilize their potential abilities and facilities to deal with their needs 3) helps families to express their emotions 4) consult with psycho-therapist or religious consultants' if necessary 5) determining family interactions and supportive systems 6) affording necessary information 7) support families in critical decision making situations 8) accommodate financial support or charity organizations 9) adjacency or meeting performed in relative's presence and 10) establish facilities like: bathroom, restaurant, phone and a suitable place to settle families.

## ACKNOWLEDGEMENT

Thanks to Isfahan University of Medical Sciences for supporting this study. Special thanks to all nursing staff in ICUs of Isfahan/Al-Zahra hospital. We also thank family members' those participated in this study.

## FOOTNOTES

**Implication for health policy/practice/research/medical education:** The present article investigated supportive psychosocial protocol on the anxiety of families' of patients those attended intensive care unit, to alleviate anxiety and immediate psychosocial needs. The formation of supportive psychosocial protocol for ICU patient families' seem to be based on a need assessment, for alleviation of their immediate psychosocial needs' and anxiety.

## AUTHORS' CONTRIBUTION

Farhaz Bahrami contributed to the study concept, literature review, acquisition of data, design, analysis and interpretation of manuscript, drafting of the manuscript and critical revision of manuscript for intellectual content.

Parviz Kashefi, Saeed Abbasi and Hamid Mazdak contributed to the study concept, design and interpretation of the manuscript.

Zahra Tolou\_Ghamari contributed to the study concept, drafting of manuscript and critical revision of manuscript for intellectual content.

## FUNDING

There is no financial disclosure between the current article and any individual or organization.

## CONFLICTS OF INTEREST

There is not any conflict of interest.

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