

MENTAL AND PHYSICAL BURDEN OF NURSES IN OPERATING ROOM

Anna LITVÍNOVÁ^{1*} - Eva KRÁLOVÁ¹ - Nikoleta POLIAKOVÁ¹ - Daniela MURÁROVÁ²

¹ Faculty of Healthcare, Alexander Dubček University of Trenčín, Študentská 2, 91150
Trenčín, Slovak Republic

² Faculty Hospital Žilina, V. Spanyola 43, 012 07 Žilina, Slovak Republic

*Corresponding author E-mail address: anna.litvinova@tnuni.sk

Abstract

Objective: The burden represents a strenuous life situation. There occurs the discord between requirements of nurses' own situation and possibilities needed to manage it on the other side. It arises when individuals confront to strong pressure and unfavourable situational conditions. Mental and physical burden of nurses in operating room is evident.

Methods: The questionnaire was designed for operating room nurses. The sample consisted of 148 nurses.

Results: The research results indicate that nurses feel more physical than mental stress during their assistance in operating room.

Conclusion: Stress, physical and mental burden can be decreased by utilising relaxation techniques.

Keywords: physical stress, mental stress, nurse, operating room, questionnaire.

1 Introduction

The job of a nurse belongs to helping professions which are connected with higher level of stress. A nurse enters his or her profession with ideals and as time passes, he or she finds out that the job requires enormous performance and emotional interest [1].

The profession of a nurse is very interesting. However the demands to provide professional nursing care are strenuous and have impact on his or her mental and physical state [2].

The job of nurses who work in operating room service requires a workmanship, physical proficiency and mental balance. This job requires responsibility, patience and self-control. The nurses in operating rooms face physical and mental burden, pressure from workload, lack of time to solve daily task, social role conflicts, solving of ethical and moral dilemmas [3].

Physical burden of nurses working in operating rooms is related to strenuous demands which are placed on:

- Concentrated alertness in a tense situation of monitoring and continuous quality control;
- Increased eye strain and eye fatigue during the work with small sized objects in insufficient lightning;
- One-sized load of organism that are caused by monotonous activities, enforced tempo, long-term sitting and standing;
- Irregular work regime and rest;
- Long-term work in environment with artificial lightning and air-conditioning.

Mental burden of nurses is related to increased demands which are placed on:

- Constructive deciding in time deficiency,
- Fluent solution of situations that are changing,
- High responsibility for possible faulty decisions,
- Social communication with persons in stress [4],
- Constant acquaintance with new technological and material equipment,
- Management of strenuous situations when patient's life is threatened [5].

The relationship between a nurse and a doctor is considered to be the key factor in the operating room. The preservation of adequate collegially, professional, and also personal relationship is very important.

In case that within the scope of operating room comes about to disharmony, there arises personal discomfort which threatens the quality of surgery. The origin of strenuous situations can be registered by keeping failing of some member of a team in communicative or professional level. The nervousness of a surgeon fighting to safe patient's life is usually being transferred to nurses in operating rooms, and also to other members of operating team. The solution and management of such strenuous situation depends on a good personal and mainly mental resilience [6].

During the performance of a nurse's duties and services he or she is confronted with quite strenuous situations which should be managed not only in a professional, but also human way. The imbalance between the state of organism and negative impact of risk factors leads to mental and physical burden [7].

2 Approach, Methodology, and Research Sources

The goal of the study is to find out whether nurses feel during their work in operating rooms more physical or mental burden. The research sample included 148 operating room nurses who work in hospitals of the following cities: Martin, Žilina Trenčín, Banská Bystrica a Považská Bystrica.

3 Results

Table 1 Mental and Physical Burden

Parameter	5 Yes	4 Rather yes	3 Sometimes yes / Sometimes no	2 Rather No	1 No	Altogether
Physical Burden $x = 3.71$						
n	46	21	72	9	0	148
%	31.08	14.19	48.65	6.08	0	100.00
Mental Burden $x = 3.97$						
n	64	24	53	6	1	148
%	43.24	16.22	35.81	4.05	0.68	100.00

Legend: n-number of individuals; x-arithmetic mean

Table 2 Perception of Burden toward the End of Shift

Parameter	5 Yes	4 Rather yes	3 Sometimes yes / Sometimes no	2 Rather No	1 No	Altogether
Physical Burden $x = 3.81$						
n	56	26	53	8	5	148
%	37.83	17.57	35.81	5.40	3.38	100.00
Mental Burden $x = 4.07$						
n	68	29	46	3	2	148
%	45.95	19.59	31.08	2.02	1.35	100.00

Legend: n-number of individuals; x-arithmetic mean

The average age of nurses was 40.6 year old. The youngest nurse was 22 years old and the oldest 60 years old.

The information about physical and mental burden of the nurses was obtained by means of questionnaire. We utilized a non-standardized questionnaire the items of which were aimed at physical and mental burden. To process the results we utilized the method of one-dimensional descriptive statistic – arithmetic mean.

4 Description of the Achieved Results

By results analysis we found out that during their assistance in operating room, 46 (31.08%) nurses feels mental burden 64 (43.24 %) nurses admitted they felt physical burden (table 1). We can state that the nurses (surgical assistants, scrub nurses who hand the doctors surgical tools during the operation, who work alongside the surgeons, who are their assistants and help them directly) feel during their assistance feel during their assistance less mental burden ($x=3.71$) than physical burden ($x=3.97$).

56 (37.83 %) nurses admit they feel, especially toward the end of the shift, mental burden and 68 (45.95 %) physical burden (table 2). It means the nurses are at the end of their assigned shift less tired mentally ($x=3.81$) and more physically ($x=4.07$).

Excessive stress can be seen on nurses in physical and mental level [8]. The burden can be caused by various physical-chemical, somatic, psychological factors, and at the same time it is not rare that the starter of pressure situations is concurrent impact of more factors [9].

For nurses assisting in operating rooms it is important to point out to the factors by the consequence of which physical and mental burden emerges. From the point of burden emergence it is needed to devote the attention mainly to the factors of work environment and organization, as they can have a significant impact on the work of a nurse in operating room. They can consequently support the origin of mental and physical burden. It is important to beware of the conflicts which arose in operating room. Operating room is not stressful only for patients themselves, but also for nurses who care about patients in their perioperative periods.

Between the most frequent sources of stress in the work of a nurse belong tense interpersonal relationships between nursing staff and insufficient material-technical resources and basis [10]. Within the context of burden arousal we should mention utilization of new technologies. We also should pay attention to the fact that, except of the nursing performance itself, the important source of burden for nurses is caused by further related factors such as: the type of operational performance, surgeon demands, time pressure, sudden shift alteration, administrative and night shifts [11].

5 Conclusion

The nurses who work in operating rooms should be emotionally stable to manage the job from mental and physical point of view. These nurses consider their job to be a mission and they stay in it despite its demandingness. In the practice we can see more and more examples of a nurse who works in operating room constantly under the impact of physical and mental burden. It is inevitable to identify and effectively utilize the techniques which reduce stress.

The optimal solution is fortification of nurses' resistance and personal resilience. It is the extent of resilience and individual ability to manage in the most efficient way the stressful situations [12].

6 References

- [1] I. Bartošíková: O syndromu vyhoření pro zdravotní sestry. Brno: Národní centrum ošetřovatelství a nelékařských zdravotnických oborů, 2006. p. 86.
- [2] N. Chudobová: Sestra a její životní styl. Sestra. 2007, Vol. (6) 5-6, p. 44.

- [3] M. Kilíková: Stres v profesii sestry. Zdravotníctvo a sociálna práca, 2006, Vol. (1) 2, p. 9-14.
- [4] V. Roubalová: Psychická záťaž u instrumentárek. Sestra, 2004, Vol. (14) 9, p. 12.
- [5] V. Kebza, I. Šolcová: Komunikace a stres. Praha: Státní zdravotní ústav, 2004. p. 24.
- [6] J. Lukáč: Práce sestry na operačním sále z pohledu lékaře. Moderní babictví [online]. 2005, [cit. 2014-01-14]. Dostupné na internete <[http://www.levret.cz/publikace /casopisy /mb/2005-7/?pdf=88](http://www.levret.cz/publikace/casopisy/mb/2005-7/?pdf=88)>.
- [7] I. Dimunová: Chránia si sestry svoje zdravie? Sestra, 2009, Vol. (8) 11-12, p. 17.
- [8] N. Poliaková, A. Litvínová: Prejavý stresu v práci sestry. Sestra, 2013, Vol.(22-23) 11-12, p. 23.
- [9] E. Krkošková: Psychosociálny stres a jeho dopad na zdravie. Revue medicíny v praxi. 2012, Vol. (10) 1, p. 33.
- [10] A. McVicar: Workplace stress in nursing: a literature review. Journal of Advanced Nursing. 2003, Vol. (44) 6, p. 633 - 642.
- [11] R. Rashaun: Alleviating Job Stress in Nurses.Medscape.[online]. 2013, [cit. 2013-12-12]. Dostupné na internete: <http://www.medscape.com/viewarticle/765974_2>.
- [12] J. Křivohlavý: Sestra a stres. Příručka pro duševní pohodu. Praha: Grada, 2010. 128 p.