An Experimental Study to Assess the Level of Stress and Evaluate Information Booklet Regarding Stress and its Management among the Nursing Staff of Pediatric Department in Shri Mahant Indiresh Hospital, Dehradun

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Abstract: *Background: The stress among the nurses working in paediatric department is in need to be managed to improve the quality care in health care system. The presence of healthy and stress - free nurses in paediatric department to providing vigilant monitoring, empathic patient care, and vigorous advocacy. Many workplace stressors can produce physical and mental illness. Stress is what mind and body experience while adopting continuously changing environment. Organizational stress includes harmful emotional and physical reactions which occur when worker's capabilities, needs, or resources do not fit to the job. Objectives: 1) Assess the level of stress among nursing staff of paediatric department. 2) Evaluate information booklet regarding stress and its management. 3) Find out association between post - test knowledge core with their selected socio demographic variable. Materials and Methods: A quantitative research approach is used for the study. The research design adopted for the study is experimental. The study was conducted among nursing staff of paediatric department in Shri Mahant Indresh Hospital, Dehradun. The conceptual framework used for the representation of elements is systemic conceptual framework. The data was collected using purposive sampling technique. The data was collected to assess the level of stress and to evaluate information booklet regarding stress and its management among paediatric department nursing staff. It was done using standardized questionnaire. The collected data was analyzed and interpreted using descriptive statistics. Results: The pretest score 6.66% samples scored within the range of 0 - 14 (normal stress), 6.66% samples scored within the range of 15 - 18 (mild stress), 3.33% of samples scored within the range of 19 - 25 (moderate stress), 6.66% of the samples scored within the range of 26 - 33 (severe stress) and mean pre - test majority of the sample show that 23 (76%) were having (extremely severe) within the range of 34 - 100. And post - test majority of the sample shows that 30 (100%) were having (normal) within the range of 0 - 14. There is significant effect seen of providing information booklet regarding stress and its management among paediatric department nursing staff. Conclusion: On the basis of finding of the study, the following conclusions were drawn which also bring out the limitations of the study in the picture: 1) From the findings it can be concluded that most of the nursing employees where in the age group of (20 - 25) years 2) Majority of samples were females, most of them were single, and majority of them had degree in nursing. 3) Most of them (76%) had extremely severe stress, whereas (6.66%) had normal level of stress. Moderate level of stress was found to be among (3.33%) and similar percentage (6.66%) of them had mild and severe stress. 4) It shows that most of them had extremely severe stress which may interfere with their efficacy of work health status of nursing employees at all levels. 5) The information booklet about stress and its management was found to be quite effective is managing the stress among paediatric nursing staff.*

Keywords: nurse stress management, pediatric nursing, workplace stressors, stress levels in nurses, stress management booklet

1. Introduction

Stress is what mind and body experience while adopting continuously changing environment. Organizational stress includes harmful emotional and physical reactions which occur when worker's capabilities, needs, or resources do not fit to the job. As per WHO Expert committee nursing services is defined as that part of health organization which aims to satisfy the nursing needs of the community in the form of prevention of disease, promotion of health and provision of mental and physical comfort to the patient in co - ordination with doctors, social workers and technicians. A large number of hospitals were built and an equally large number of nurses

were enrolled by Emperor Ashoka. As per Charaka Samhita and writings of Sushruta, nurses in that era were supposed to be proficient in cooking, empathetic, patient listeners, God fearing and good in caring for bed patients. Lord Buddha in 500 B. C. created monasteries and hospitals and established an order of nuns for nursing in the hospitals. Florence Nightingale, a pioneer in nursing laid down the standards for nursing care and started a school of nursing in London in 1860. The purpose was to probe and inspect the association between occupational stress, caring behaviours and quality of life of nurses with respect to them health.

Sources of stress at workplace and levels of satisfaction are extensively studied abroad, but very few studies assessing

sociodemographic background as well as workplace - related domains catering different emotional and practical aspects of stress have been conducted in India among nurses. Some of the stressors in the paediatric ward/department, are related to routine patient care, emotional needs, and counselling, while others are linked to healthcare personnel, such as unexperienced staff, dealing with interpersonal communication. Some are related to the environment and organizational structure. Working in paediatric department is challenging emotionally and physically for nurses. Every day they deal with suffering, grief, and death. Increased workload, growing occupational stress, and lack of support from family are major concerns in nursing. Several studies have identified different stressors in some paediatric ward/department in hospitals that may not be present in other ward. Therefore, it is important to identify the workplace to assess the level of stress experienced by paediatric staff nurses.

Exposure to stress among paediatric staff nurses can have various outcomes like anxiety, depression, sleep disturbances, post - traumatic stress disorder, impairment of immune function, increase in cardiovascular risk factors, disturbed relationships with family, and burnout. Knowledge about presence of stress is therefore important, and if found, should be given attention for timely intervention. All these stressors can affect the well - being of clinicians as well as health care and needs of patients and relatives.

All the paediatric nursing staff have to do shift work these stresses of shift work can also aggravate health condition and lead heart disease or digestive disorders. Fatigue can lead to error, injury and carelessness. Long hours are a source of Depression, Low Morale and Low motivation and stress shift workers/employees are on the job in the evening or on weekends and they sleep during the day. Hence, they often miss out of social and family activities. Elimination of all stressors is a utopian goal. Effective solution can be found, like increasing skills, enriching work, teaching relaxation technique and increasing the participation of nurse in the organization. Adequate staffing, which reduces job stress and overtime, could lead to improved efficiency along with cost effectiveness.

A previous report has shown that nursing is a particularly stressful profession. Furthermore, excessively stressed nurses were less satisfied with their work and ended up providing poorer nursing care quality as a result of this. Therefore, it is essential to appropriately manage the stress levels in the nursing workplace to maintain and improve the quality of nursing care. However, no study in the literature has so far evaluated the differences in perceived stress levels in paediatric nursing care.

This study results may help in identifying different level of stress among paediatric nursing staff in undertaking appropriate interventions to overcome them in healthcare workers. Considering this, the present study is planned to determine levels of stress among paediatric nursing staff and evaluate the information booklet regarding stress management among paediatric nursing staff.

Stress is a feeling of emotional or physical tension. It can come from any event or thought that makes us feel frustrated, angry, or nervous. Stress is our body's reaction to a challenge or demand. In short bursts, stress can be positive, such as when it helps us to avoid danger or meet a deadline. Our body reacts to stress by releasing hormones. These hormones make our brain more alert, cause our muscles to tense, and increase our pulse. In the short term, these reactions are good because they can help you handle the situation causing stress. This is our body's way of protecting itself. (Medical encyclopaedia). Aschbacher (2013) Good stress, " or what psychologists refer to as "eustress, " is the type of stress we feel when we are excited. Our pulse quickens and our hormones surge, but there is no threat or fear. We feel this type of stress when we ride a roller coaster, compete for a promotion, or go on a first date. There are many triggers for this good stress, and it keeps us feeling alive and excited about life. Another type of stress is acute stress. It comes from quick surprises that need a response. Acute stress triggers the body's stress response as well, but the triggers aren't always happy and exciting. This is what we normally think of as "stress" (or "bad stress"). Chronic stress is another form of bad stress. It occurs when we repeatedly face stressors that take a heavy toll and feel inescapable. A stressful job or an unhappy home life can bring chronic stress. This is what we normally think of as serious stress. Because our bodies aren't designed for chronic stress, we can face negative health effects (both physical and emotional) if we experience chronic stress for an extended period of time. Work - related stress doesn't just disappear when you head home for the day. When stress persists, it can take a toll on your health and well - being. A stressful work environment can contribute to problems such as headache, stomach ache, sleep disturbances, short temper and difficulty concentrating. Chronic stress can result in anxiety, insomnia, high blood pressure and a weakened immune system. It can also contribute to health conditions such as depression, obesity and heart disease. Compounding the problem, people who experience excessive stress often deal with it in unhealthy ways such as overeating, eating unhealthy foods, smoking cigarettes or abusing drugs and alcohol. Steward cooper (2012)

Stress management looks at stress as a problem that can be addressed solved, or at least improved, using practical problem - solving methods. It provides a variety of research - backed stress management strategies. It shares real life stories of how people use these specific strategies to manage their stress more effectively. It guides us through a few questions to help us to make use of strategies. Stress is a part and parcel of human lifestyle. Stress is a bodily or mental tension resulting from factors that tend to alter an existent equilibrium. Nursing is generally perceived as demanding profession.

2. Material and Methods

A quantitative research approach is used for the study. The research design adopted for the study is experimental. The study was conducted among nursing staff of paediatric department in Shri Mahant Indresh Hospital, Dehradun. The conceptual framework used for the representation of elements is systemic conceptual framework. The data was collected using purposive sampling technique. The data was collected to assess the level of stress and to evaluate information booklet regarding stress and its management among

paediatric department nursing staff. It was done using standardized questionnaire. The collected data was analysed and interpreted using descriptive statistics.

3. Instrument / Tool

The standardized rating scale (DASS 42) Lovibond & Lovibond (1995) is used to collect the data regarding level of stress. Consist of items related to level of stress and this part further sub - divided into 42 questions from Depression, Anxiety, Stress, scale 42 (DASS 42) Lovibond & Lovibond (1995). The DASS is a 42 items self - report inventory that yields 3 factors - Depression, Anxiety and Stress.

Scoring Procedure

In this tool are contain to assess different scoring process that is normal within the range 0 - 14 score, mild within the range

of 15 - 18 score, moderate within the range 19 - 25, severe within the range of 26 - 33, and extremely severe within the range of 34 - 100.

Reliability is the extent to which an instrument consistently measures the concept of interest.

(Burn N. Groove 1997)

Implementing the tools on 30 samples in Shri Mahant Indresh Hospital tested reliability of the tool and it is found good reliable.

The internal reliability of the DASS - 42 stress was assessed using Cronbach's alpha. Alpha was 0.866 for stress scale. Stress has good item - internal consistency. (Cronbach's alpha values were higher than 0.70)

4. Statistical Analysis

Table showing that based on the percentage of scores level of stress was graded as follows

Scoring key

S. no	Level of stress	Scores
1.	Normal	0 - 14
2.	Mild	15 - 18
3.	Moderate	19 - 25
4.	Severe	26 - 33
5.	Extremely severe	34 - 100

Table 4: Frequency and percentage distribution of nursing staff with their selected socio demographic variables, N=30

S. No.	Demographic variables	Frequency (f)	Percentage (%)
1	Age in Years:		
	a) 20 - 25	12	40%
	b) 25 - 30	10	33.33%
	c) 30 - 35	7	23.33%
	d) 35 - above	1	3.33%
2	Sex		
	a) Male	7	23.33%
	b) Female	23	76.66%
	c) Others	0	0%
3	Professional Qualification		
	a) B. Sc. Nursing	13	43.33%
	b) GNM	8	26.66%
	c) Post Basic B. Sc. Nursing	7	23.33%
	d) M. Sc. Nursing	2	6.66%
4	Marital Status		
	a) Married	12	40%
	b) Unmarried	17	56.66%
	c) Divorced	1	3.33%
	d) Widowed	0	0
5	Place of Living		
	a) Rural	10	33.33%
	b) Urban	17	56.66%
	c) Town	3	10%
6	No of children		
	a) 0	16	53.33%
	b) 1	9	30%
	c) 2	4	13.33%
	d) More than 3	1	3.33%
7	Type of family		
	a) Joint Family	10	33.33%
	b) Nuclear Family	16	53.33%

	c) Extended Family	0	0
	d) Single living	4	13.33%
8	How many years/months have Experience in Paediatric Ward		
	a) 1	13	43.33%
	b) 2	10	33.33%
	c) 3	3	30%
	d) More than 3	4	13.33%
9	Family Income per month		
	a) 8000 - 12000	7	23.33%
	b) 12000 - 20000	14	46.66%
	c) 20000 - 30000	5	16.66%
	d) 30000 or above	4	13.33%
10	Previous exposure to relaxation technique		
	a) Physical Activity	7	23.33%
	b) Listening music	12	40%
	c) Going to outdoor	5	15.66%
	d) Socializing	6	20%

Table 5: Finding related to level of stress before and after administration of information booklet regarding stress and stress management, N= 30

Level of Stress	Score Range	Pre - test		Post - test	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Normal	0 - 14	2	6.66%	30	100%
Mild	15 - 18	2	6.66%	0	0%
Moderate	19 - 25	1	3.33%	0	0%
Severe	26 - 33	2	6.66%	0	0%
Extremely Severe	34 - 100	23	76%	0	0%

Maximum score - 30

Table 6: Finding related to effectiveness of information booklet regarding level of stress and stress management among nursing staff of paediatric department

Mean, Standard Deviation among nursing staff of paediatric department before and after the administration of information booklet.

Level of stress Score value	Mean	SD	Df	Calculated 't' value	Tabulated 't' value	Level of significance
Pre test	47.23	19.01	29	10.80	3.69	Extremely Statistically Significant
Post test	7.3	2.81				

Table 7: Chi square value showing association between post - test knowledge score and selected socio demographic variables

S. No.	Demographic Variables	Normal Stress	Mild Stress	Moderate stress	Severe Stress	Extremely severe Stress	df	Chi Sq. value	Level of Association Table value
1	Age in years								
	a) 20 - 25	12	0	0	0	0	12	0	Not significant
	b) 25 - 30	10	0	0	0	0			
	c) 30 - 25	7	0	0	0	0			
	d) 35 - +	1	0	0	0	0			
2	Sex								
	a) Male	7	0	0	0	0	8	0	Not significant
	b) Female	23	0	0	0	0			
	c) Others	0	0	0	0	0			
3	Professional Qualification								
	a) B. Sc. Nursing	13	0	0	0	0	12	0	Not significant
	b) GNM	8	0	0	0	0			
	c) Post Basic B. Sc. Nursing	7	0	0	0	0			
	d) M. Sc. Nursing	2	0	0	0	0			
4	Marital Status								
	a) Married	12	0	0	0	0	12	0	Not significant
	b) Unmarried	17	0	0	0	0			
	c) Divorced	1	0	0	0	0			
	d) Widowed	0	0	0	0	0			
5	Place of Living								
	a) Rural	10	0	0	0	0	8	0	Not significant
	b) Urban	17	0	0	0	0			

	c) Town	3	0	0	0	0			
6	No of children								
	a) 0	16	0	0	0	0			
	b) 1	9	0	0	0	0	12	0	Not significant
	c) 2	4	0	0	0	0			
	d) More than 3	1	0	0	0	0			
7	Type of family								
	a) Joint Family	10	0	0	0	0			
	b) Nuclear Family	16	0	0	0	0	12	0	Not significant
	c) Extended Family	0	0	0	0	0			
	d) Single living	4	0	0	0	0			
8	How many years/months have Experience in Paediatric Ward								
	a) 1	13	0	0	0	0			
	b) 2	10	0	0	0	0	12	0	Not significant
	c) 3	3	0	0	0	0			
	d) More than 3	4	0	0	0	0			
9	Family Income per month								
	a) 8000 - 12000	7	0	0	0	0			
	b) 12000 - 20000	14	0	0	0	0	12	0	Not significant
	c) 20000 - 30000	5	0	0	0	0			
	d) 30000 or above	4	0	0	0	0			
10	Previous exposure to relaxation technique								
	a) Physical Activity	7	0	0	0	0			
	b) Listening music	12	0	0	0	0	12	0	Not significant
	c) Going to outdoor	5	0	0	0	0			
	d) Socializing	6	0	0	0	0			

*Significant at p>0.05 level, not significant at p<0.05 level

Table 4 The data represents that calculated chi square value was obtained to find out the association between post - test knowledge score of adolescent students with selected socio demographic variable at level of 0.05 significance level.

On computation it is found that there was no significant association between the post - test knowledge scores with all selected demographic variables such as age gender religion professional qualification marital status place of living no. of children type of family how many years/ months have experience in paediatric ward.

5. Discussion

The present study was conducted to assess the level of stress among nursing staff of paediatric department. Pre - experimental one group pre - test post - test design was used in the study; permission was obtained by the Nursing superintendent of Shri Mahant Indresh Hospital, Dehradun. The data were collected from 30 nursing employees through purposive sampling techniques using standardized tool DASS 42 Lovibond & Lovibond (1995) scale. The data collections were conducted from 13 - 06 - 23 to 16 - 06 - 23. The analysis and interpretation of findings were presented in chapter IV.

The effectiveness of the information booklet was assessed by using 't' - test. Chi - Square analysis was used to find out the association between the pre - test and post - test scores with their selected socio demographic variables such as Sex, Professional Qualification, Marital status, Family income per month, Place of living, how many years month have experiences in paediatric ward, Type of family, Previous exposure to relaxation technique among the nursing staff of paediatric department.

The findings of the study have been discussed under the following sections;

Section –I: Finding related to Frequency and percentage distribution of nursing staff with their selected socio demographic characteristics.

Section – II: - Finding related to level of stress before and after administration of information booklet regarding stress and stress management

Section - III: - Finding related to effectiveness of information booklet regarding level of stress and stress management among nursing staff of paediatric department

Section –IV: - Finding related to association between post - test knowledge score with their selected socio - demographic variables among nursing staff of paediatric department.

Conflict of Interest

None declared

Financial Support

Nil

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