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STRESS AMONG PATIENTS DURING HOSPITALIZATION: A STUDY FROM CENTRAL INDIA

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ABSTRACT

Background: The process of hospitalization is a very traumatic experience whether it's a male or a female. People have to move their life setting from the familiar to unfamiliar environment, loosing their privacy, and sense of security and individuality. There are several factors which can lead to stress and recovery of the patients. This study was undertaken to know the factors or predictors which can lead to stress in hospitalized patients. **Objectives:** To measure stress and factors associated with stress during hospitalization.

Methods: Observational cross sectional study was carried out by indepth interview using pre tested structured proforma on patients admitted to the medicine,OBG,Surgery and Orthopaedic wards and rated on 11 point Thurstone scale.

Result: Total 700 patients participated,out of which,510(72.9%) were under stress due to hospitalization. Females (76.5%) and patients from urban (77.6%) area were in more stress.Fear of loosing body part or function,stress of undergoing operation and not knowing the outcome of treatment were found to be major factors for stress.

Conclusion: The strangeness of the hospital environment can act as a potential source of stress. A warm welcoming attitude at admission on the part of nurse and members of the health team contribute significantly to minimizing the trauma of hospital stay.

Key Words: Stress, Hospitalization, Factors, India

INTRODUCTION

There is an old saying"to be alive is to be under stress". Stress is a Noun and is a state of mental or emotional strain or tension resulting from adverse or demanding circumstances[1]. **Dr. Hahs Selye**, the father of stress theory, defined stress as "the non-specific response of the body to any demand made upon it."[2] Mueller DJ stated that stress likely be experienced by patients within a day or two after admission to hospital[3]. Hospitalization is always associated with tension, worry and pressure. The process of hospitalization is a very traumatic experience whether it's a male or a female. People have to move their life setting from the familiar to unfamiliar environment, loosing their privacy, and sense of security and individuality.

The strangeness of the hospital environment can act as a potential source of stress.Sophisticated instruments with flashing lights can be extremely anxiety provoking. Financial worries creates the fear about how to pay medical bills and how long to remain off the work[4]. There are other several factors which can lead to stress and recovery of the patients. Preoperative depression and anxiety, which are stress related emotions, were related to heightened pain and fear of death or not getting recovered[5] A warm welcoming attitude at admission on the part of nurse and other members of the health team contribute significantly to minimizing the trauma of hospital stay[6]. In order to establish such relationship empirically, however a quantitative and objective measure of hospital stress needs to be developed.This study was undertaken to

know the factors or predictors which can lead to stress in hospitalized patients.

METHODOLOGY

The study area selected for the study was, C R Gardi hospital associated with R D Gardi medical college. It is 570 bedded hospitals in the Medical College Campus Study was done in Medicine, Orthopaedics, Surgery and obstetrics & Gyanecology.The study was conducted in the year 2010.The study population of this study was a Hospitalized patient in the four major departments of C R Gardi Hospital Ujjain. IDI (In depth interview) patients will be interviewed On day 2nd or 3rd of hospitalization.Observational study.The sample size derived for the study was according to the given formula 4 PQ/L X L after performing pilot study Where,P- Prevalence(P =37.5% after conducting pilot study on 100 subjects),Q- 100-P,L- 10% of P (permissible error),after considering 5% non response rate sample size came to be 702.A self administered questionnaire was prepared. Participant who were admitted in the hospital were interviewed on 2nd or 3rd day ask to rate, on a 11 point scale, the stress level of events most commonly experienced in hospital settings.The scale used in the study was THURSTONE SCALE[4,7], measuring an attitude.

Stress level & Point scale

Not at all stressful: Point 0,1,2
Moderately stressful: Point 3,4,5,6,7
Extremely stressful: Point 8,9,10

Patient admitted for more than 24 hours,who are admitted to the general ward and oriented with the time place and person.Patients consented to participate in the study. Patient admitted for less than 24 hours. Patients of paediatrics wards. Patients who are admitted to ICU and who are not oriented with the time place and person.Patients not willing to participate in the study.ethical approval was taken from the ethics committee of the R D Gardi Medical college and verbal consent was obtained from th eligible study subjects prior the study.

RESULTS

Table 1 shows the socio demographic profile of the sample. total study subject were 700.From each department of Medicine, surgery, obstetrics and gynecology and Orthopedics 175(25%) subjects were taken. Out of total of 700 patients, 53.3% were males, 46.7% were females. Most of the patients 63% belongs to rural area and 37 % to urban. Mean age of Study subjects were 38.69(SD 11.50) 79 % of subjects were in the age group of 15-49 only 20% of the Subjects Above 50 yrs. nearly 75% subjects are literate. As far as family income is Concerned, Modified Prasad's classification[7] was taken in account and it was found that maximum subjects have their family Income between 5000-2999Rs (42.9%), Followed by 21.6% belongs to Rs 3000-4999.in our study it was found that 510 participants had stress due to hospitalization(Table 2)which accounts for 72.9%. out of these 510 patients,364(71.2%) were under moderate level of stress (Fig 1) and 28.2% were in extreme level of stress. This classification of stress level were according to the rating done on Thurstone scale.

Table 1: Socio-demographic characteristics of patients (N=700)

Characteristics	Cases
Department	
Orthopedics	175 (25)
Surgery	175 (25)
Medicine	175 (25)
Obstetrics and Gynecology	175 (25)
Gender	
Male	373 (53.3)
Female	327 (46.7)
Residence	
Urban	259 (37.2)
Rural	441 (62.8)
Age	
15-49 yrs.	554 (79.1)
50-59 yrs.	112 (16)
>60 yrs.	34 (4.9)
Education	
Illiterate	172 (24.6)
Literate	528 (75.4)
Family income (per month)	
0-500 rs.	16 (2.3)
501-1499 rs.	43 (6.1)
1500-2999 rs.	300 (42.9)
3000-4999 rs.	151 (21.6)
5000-9999 rs.	127 (18.1)
>10,000 rs.	63 (9)

Table 2: Presence of stress in study subjects

Stress	Cases (n=700)(%)
Absent	190 (27.1)
Present	510 (72.9)

Our study reveled that females(76.5%) were under more stress as compared to males(69.7%),this is depicted in a Fig 2.this can be understood on the basis, as females were more concerned of looking after their family and childrens.Fig 3 shows the stress level between urban and rural participants,and it was found that stress is more in urban population as compared to rural.

Table 3: Stress present in study subjects (n=700)

Characteristics	Total (n=700)	Stress present (n=510) (%)	X^2	P
Department				
Ortho	175	124 (70.9)		
Surgery	175	135 (77.1)	5.46	0.141
Medicine	175	118 (67.4)		
Obstetrics	175	133 (76.0)		
Gender				
Male	373	260 (69.7)		
Female	327	250 (76.5)	4.01	0.045*
Residence				
Urban	249	201 (77.6)	4.69	0.030*
Rural	441	309 (70.1)		
Age				
15-49Yrs	554	403 (72.7)	0.24	0.885
50-59Yrs	112	81 (72.3)		
>60Yrs	34	26 (76.5)		
Education				
Illiterate	172	118 (68.6)	2.08	0.15
Literate	528	392 (74.4)		
Family Income (Per Month)				
0-500Rs.	16	13 (81.2)		
501-1499Rs.	43	26 (60.5)	8.59	0.126
1500-2999Rs.	300	213 (71)		
3000-4999Rs.	151	111 (73.5)		
5000-9999Rs.	127	94 (74)		
>10,000Rs.	63	53 (84.1)		

*p<0.05 means statistically significant.

Table 4: Main stress factors in the study subjects (N=700)

Stress factor	Cases (%)
Stress of loosing body/part function	685 (97.8)
Stress of undergoing operation stress	657 (93.9)
Stress of not knowing the outcome of treatment	653 (93.3)
Stress of not having enough money to pay for treatment	634 (90.6)
Stress of not having your questions answered by the staff	631 (90.1)
Stress to be bedridden or stay in same room for whole day	623 (89.0)
Stress of having nurses or doctors talk too fast or use words you can't understand.	622 (88.9)
Stress of unexpected things to be done on you during treatment	617 (88.1)
Stress of being in the hospital during holidays or special family occasions	612 (87.4)
Stress of being away from home	599 (85.6)

Table 3 enumerates the major stress factors among participants due to hospitalization. Participants quoted stress of loosing body part or function(97.8%),undergoing operation(93.9%),not knowing the outcome of treatment(93.3%) and not having enough money for treatment(90.6%) as major stress factors. Other main reasons for stress given were when nursing staff do not answer the call, being bed ridden for whole day, not understanding the doctors and nurses language and being away from home.

DISCUSSION

The present study highlights the fact that 97.8% of the study subjects had stress of loosing body part/function, 93.9% were under stress of undergoing operation. Stress of not knowing the outcome of treatment and not having enough money to pay for treatment are other major stress factors. Our research shows that females are under more stress more than males which is in disagreement with the study done by Nir Barak et al[10] who showed the stress level in men and women were same. More stress in female can be due to of the insecurity to be ignored by the in laws in case of chronic diseases

This is in partial agreement with the study done by Y Lilja et al[11] who found that thinking of loosing body part(54%) is the main worry during their stay in hospitalization followed by stress of undergoing operation(51%),and stress of treated by unknown doctor(47%).It was also in agreement with the study done by Volicer BJ,et al[12] who stated stress of undergoing operation, stress of loosing function of body part, stress of using bedpan and

stress of unexpected things to be done as major stress factors.

CONCLUSION

The present study conducted to measure stress and factors associated with hospitalization in first 48 hours.Approximately 73% of the study subjects were shown to have stress.More stress in female can be due to of the insecurity to be ignored by the in laws in case of chronic diseases Stress of loosing body part or function as one the main stress factor during hospitalization can be due to of fear of becoming dependant and handicapped.Other factors of stress were undergoing operation(94%),stress of not knowing the outcome of the treatment(93%),not having enough money to pay for treatment(90%).Patients also cited that when staffs do not answer their call, they undergo stress. 82% of patients stated that not knowing for sure what illness and diagnosis they have.It has been found that patients undergo stress during hospitalization when they were least informed, not had support of family or friends and nursing staff and fear of loosing body/part or function. A warm welcoming attitude at admission on the part of nurse and other members of the health team contribute significantly to minimizing the trauma of hospital stay.

Limitations of the study

The present study included only 4 departments where OPD load is maximum. Other departments like psychiatry should also have been included but they were not taken as our study was mainly on the patients having maximum IPD load..Pediatric ward was not taken in account. The stress of parents/guardian is also undergoing stress when their ward is hospitalized.Patients of ICU have not been taken in study subjects since they were not in condition of giving interview. These patients also contribute to the stress. Illiteracy of the clients may be considered a limitation of the present study because illiteracy can affect the understanding and interpretation of the process and such clients may not be able to answer properly or even correctly during their exit interview that may affect their stress level.These interviews , based upon pretested questionnaires, were done by the researcher and the results relied upon the respondents' understanding of the questions and the frankness of their responses, which may have been influenced by the presence of the interviewer.

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