

## AN ANALYTICAL STUDY ON PATIENT SATISFACTION, WITH RESPECT TO THE POST-TRAUMATIC STRESS DISORDER OF MEDICAL PRACTITIONERS

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### ABSTRACT

Post-traumatic stress disorder is a mental disorder, which is slowly taken into grip by the physicians working in the emergency department, ICU, burn unit etc. It happens gradually, due to continuous exposure of traumatic events. This psychological disorder may affect the treatment of the patients. This study is incorporated to investigate whether there is any impact on the satisfaction of the patients having PTSD, after treatment from the doctors. The reliability analysis confirms internal consistency of the data. Three types of factor analysis are done, to evaluate the patient satisfaction level after treatment. A regression analysis is applied to predict patient satisfaction from the relevant factors of factor analysis. ANOVA is used to find whether patient satisfaction and PTSD scores are related to each other. A framework has been developed, to show the factors leading to PTSD, their impact on the physical and mental wellbeing of the physicians, the impact of PTSD in doctors on the overall satisfaction of the patients, which may help in implementing strategic decision in healthcare industry.

**KEYWORDS:** PTSD, Patient Satisfaction, Traumatic, Mental Disorder, Impact

### INTRODUCTION

Majority of people spend a large portion of their time in the workplace. But, some work settings led to unhealthy environment which led to stress, depression and in advance cases may lead to post-traumatic stress. Trauma exposure can be defined as a sudden encounter with some terrified event, which led to the occurrence of a situation which in turn led to a feeling of horror. Post-traumatic stress disorder (PTSD) is a psychological problem, which develops after a traumatic exposure, generating a feeling of continuously recurring of the situation or flashback, avoiding that particular disturbing situation, detachment and continuously feeling within oneself on that type of horrified incident will reoccur. PTSD does not always happen after going through trauma. Sometimes, the person doesn't know that he is in the grip of PTSD. It generally happens within one month to six months of the occurrence of the incident. We all know that, the lives of the people are in the hands of the physicians. Hospitals have evolved from a place of providing not only one treatment to a place with multi treatment facilities. The patients coming to the hospital expect a good quality treatment, but also good behaviour from doctors, so they feel comfortable in the hospital while doing treatment. This change in attitude and expectation has come due to tremendous growth of commercialization and improvement in the facilities.

Although, their main expectation is getting cured and getting best treatment possible, it is very crucial to understand the cause of PTSD occurrence in physicians, since this research will be conducted to find out whether physicians with PTSD are likely to provide quality treatment. The main issue in the treatment of PTSD is the reluctance on

the part of the doctor, which is to accept the fact that, they are having PTSD. This issue of doctors with PTSD, if not receiving the proper treatment which they need may have further implications for patient care, leading to possible post-treatment complications. This study is mainly conducted to observe that, if PTSD prevalence among the physicians when left untreated, the disorder lessens the physician's ability to diagnose and treat patients for anxiety and depression. Over the time being symptoms of PTSD may increase or decrease and so, early tracking down of symptoms and prevention are crucial to proper treatment and a better quality of service care for patients. Effective doctor-patient communication enhances patient and physician satisfaction, reduces patient complaints and malpractice and increases patients' physical and mental condition.

Anyone can get encountered with traumatic situation at any point of time, as the doctors are facing it regularly and many of them fall victim to PTSD. This paper mainly emphasises on the factors that led to PTSD, their impact on the lives of the physicians and their effect on overall satisfaction of the patients, who seek treatment from these doctors.

## **LITERATURE REVIEW**

Several interesting studies examined the causes, consequences and effects of PTSD among physicians. These studies discussed the situations of PTSD on the level of exposure among the physicians, their after effects and their effect on the quality of the service received by the patients.

### **PTSD**

Lei Shi, Lingling Wang, Xiaoli Jia, Zhe Li, Huitong Mu, Xin Liu, Boshi Peng, Anqi Li, Lihua Fan (2017) to examine the level of PTSD in physicians, due to physical violence, their impact and coping styles according to personality traits. Francis J. Somville Email, Véronique De Gucht and Stan Maes (2016) conducted a study on the situations that, the emergency physicians in Belgium gets confronted every day, including stress and fatigue that led to PTSD and their impact on job satisfaction of the physicians. It was seen that, these factors not only have an negative impact on physician's life, but also affect the patient care to certain extent. Meredith Mealer, RN, Ellen L. Burnham, Colleen J. Goode, RN, Barbara Rothbaum, and Marc Moss (2009) made a study that, PTSD and BOS are very common symptoms in nurses and those with PTSD have same symptoms of BOS. Co-existence of PTSD and BOS has a tremendous effect on work and private lives, activities and perceptions, about the world. Sharon Einav, Arieh Y. Shalev, Hadas Ofek, Sara Freedman, Idit Matot and Carolyn F. Weiniger (2008) studied that, the PTSD reduce the performance of the doctors. The survey is conducted during a war period. The result shows that, the physicians having PTSD are reluctant to receive any treatment, although their performance has been degraded. Bradley D. Grinage (2003) conducted a study on the criteria, to judge whether a person is having PTSD or not and if having PTSD, the factors that help to cope with this problem.

### **PATIENT SATISFACTION**

Salima Kerai, Omrana Pasha, Uzma Khan, Muhammad Islam, Nargis Asad, and Junaid Razzak (2017) performed the study in a hospital in Pakistan, in order to find out the relationship of PTSD on work performance, which in turn affect the patient's satisfaction level. IESR scale was used and found out that, there is no relation between PTSD and the work performance. Don Hee Lee, Kai K. Kim (2017) studied the health service quality, based on treatment of patients in a North Korean hospital and the type of treatment a general public receives. Damian Jacob Sendler, Aleksandra Rutkowska and Marta Makara-Studzinska (2016) conducted a survey on the impact of PTSD and its implication on the lives of the

physicians. It was observed that, the level of PTSD in physicians is more than general public, but less than the people traumatized by war. Patricia F. Anderson, Elise Wescom, Ruth C. Carlos(2016) studied that, effective doctor-patient communication facilitates a healthy relationship, enhances patient physical and mental health status, and improves physician's as well as patient's satisfaction. Manorama Meinam (2015), conducted study on three government hospitals in Manipur, to examine that people get more satisfied if they can communicate easily and friendly with the doctors during consultation. Rashid Al-Abri and Amina Al Balushi (2014), made a research to find out the gap and to develop an effective plan, to improve the quality of the patient satisfaction level and to improvise the quality of the healthcare that, the hospitals are providing. Aram Hans Mishra, Tripti Mishra(2014) performed a study on the various aspects of patient's satisfaction, in a tertiary hospital and found out that, the five major satisfiers which increase their satisfaction level were doctors behaviour and explanation about disease and treatment, courteous behaviour of staff at admission and nurses.

## OBJECTIVES

- To find out the important factors and their effects leading to Post traumatic disorder among the physicians.
- To investigate the significant factors, that led to patient satisfaction.
- To find out if there is any association between PTSD of the physicians and their effect on respective patient satisfaction.
- To suggest a framework, to enhance the quality of treatment in hospitals and the level of patient satisfaction.

## METHODOLOGY

In this case, an exploratory research is done in which, many cases regarding this topic is being studied and then followed by Causal research, to find the effects of Traumatic stress on medical professional and thereafter its impact on patient satisfaction. Judgmental sampling is done and the questionnaires are been given to only those professionals, who are regularly confronted with this type of critical incidents and to the patients, whom this physicians are treating to access their satisfaction level. The sample size is 280.

For collecting primary data, two questionnaires are designed for those professionals, who are dealing with critical patients like in ICU, Emergency Departments from different hospitals and another questionnaire for those patients whom these physicians are giving treatment, in order to know their satisfaction level.

After collection of data Reliability analysis is used to test the internal reliability of the factors, in comparison to stress experienced. This will be followed by Pearson's correlation, to determine the relation between overall stress experienced and its impact on physical, emotional and personal wellbeing of doctors. Factor Analysis will be conducted to find the most relevant factor that led to PTSD, Stress and the most Suitable factor that help doctors to cope with PTSD. Other factor analysis will be performed, to access the patient satisfaction level after treatment from these doctors, who may have developed PTSD. With the most relevant factors, regression equation will be formed to predict the effect of different variables on the stress experienced by the physicians and also, with the factors effecting customer satisfaction will try to predict the total satisfaction level. This is followed by ANOVA to see, if there is significant difference on the basis of gender on the stress level. Another ANOVA test is conducted to test the impact of PTSD on Patient Satisfaction.

## RESULTS AND DISCUSSIONS

First of all, reliability analysis is done on the value of Chronbach's alpha, that shows the internal consistency among data.

### Factor Analysis of PTSD Factors

**Factor Analysis** is done to identify the major causes, which led to PTSD as well as the factors, which has impact on patient satisfaction. The following were the results of factor analysis-

#### Factor Analysis with PTSD Stressors- The Major Factors are

- Accident Victims
- Burn Victims
- Crime Victims

#### Factor Analysis with Stressful Factors at Work- The Major Factors are

- Rare Procedure
- Incompetent Team
- Emergency Call at Night

So these are the stressors which let physicians to a condition of PTSD.

## REGRESSION ANALYSIS

**Table 1: Regression Analysis is done to Predict the Effect of these Factors on Physical Wellbeing**

Coefficients										
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Co linearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
(Constant)	4.469	1.275		3.505	.001					
1 PTSDscore	.786	.052	.751	15.103	.000	.776	.747	.704	.880	1.137
OTHERSTRESSOR	.046	.031	.072	1.453	.148	.333	.107	.068	.880	1.137

a. Dependent Variable: PHYSICALWELLBEING

R=.779, R<sup>2</sup>=.606, Durbin Watson= 1.614

**Table 2: Regression Analysis to Predict the Effect of These Factors on Emotional Wellbeing of Doctors**

Coefficients										
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
(Constant)	3.483	.962		3.621	.000					
1 PTSDscore	.775	.039	.793	19.740	.000	.849	.826	.744	.880	1.137
OTHERSTRESSOR	.095	.024	.161	3.998	.000	.436	.285	.151	.880	1.137

a. Dependent Variable: EMOTIONALWELLBEING

R=.862, R<sup>2</sup>=.743, DURBIN WATSON=1.747

**Table 3: Regression Analysis to Predict the Effect of These Factors on Personal Wellbeing of Doctors**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
(Constant)	9.075	2.281		3.978	.000					
1 PTSD SCORE	.599	.059	.637	10.200	.000	.647	.604	.578	.822	1.217
OTHERSTRESSORS	.015	.039	.024	.388	.698	.293	.029	.022	.822	1.217

a. Dependent Variable: Personal well being

R=.648, R<sup>2</sup>=.420, DURBIN WATSON=1.757

First of all factor analysis is done to identify the factors, that led to such a harmful mental condition called PTSD. Then, the relevant factors are regressed upon the dependent variables of Physical well being, mental well being, and Personal well being. These regression equations help to find the impact of PTSD factors, on the well being of the doctors.

**FACTOR ANALYSIS ON PATIENT SATISFACTION**

**Factor analysis** is done to identify the factors that influence the **general satisfaction** level of a patient. From the first component, two factors which influence are Worry for paying large medical bills; Doctors should be more thorough in treatment. The two components can be renamed as **Cautious Factors**. Another factor is Reason for medical test.

Factor analysis is done, to identify the factors that include the **technical quality** of the hospitals, as well as the physician’s treatment, which in turn affect the satisfaction level of a patient. From the First Component factor which influence are Problem in covering medical cost, Second Component is Doctor should give proper respect to patients, Third Component consists of a patient who is allowed to speak all the complications that he is facing and the Fourth Component is made up of the hospital’s check everything before entering the doctor’s cabin like pressure, weight, height.

Factor analysis was conducted; to identify the major factors which influence the **easy availability** of the medical services due to which, the satisfaction level of the patients got affected. First Component factor which influence are Physicians trying to keep the patients relaxed and listening to the patient carefully. These factors can be renamed as Physician’s Care. Second Component which influence is hard to get an appointment. Third Component which influence is a patient can ask doctor without any hesitation. Fourth component is hospitals should maintain the privacy of the patients.

**REGRESSION**

**Table 4**

Model Summary <sup>b</sup>										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
dimension01	.519 <sup>a</sup>	.270	.164	.976	.270	2.553	12	83	.006	1.985

Multiple regressions are used to predict the value of a variable, based on the value of two or more other variables. In this, we try to predict the influence of the relevant factors, which are obtained from factor analysis on the patient satisfaction level of the patients. R=.519, R square =27%. Durbin Watson =1.985 First of all factor analysis is done to

identify the factors that influence the patient satisfaction level. Then, the relevant factors are regressed upon the dependent variables of overall satisfaction, to identify effect of factors on overall satisfaction of patients.

**Table 5**

ANOVA					
PATIENTSATISFACTION					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.382	3	.461	.350	.789
Within Groups	38.133	29	1.315		
Total	39.515	32			
b. Dependent Variable: PATIENTSATISFACTION					

Anova table shows that, the F-ratio (.350) derived from degrees of freedom (3, 29) is not statistically significant, as the value of (sig>0.05). This shows that, there is no statistically difference in the means of two groups, in terms of patient satisfaction and effect of the overall PTSD of the physicians.

## CONCLUSIONS

From the analysis, the main causes of PTSD were identified. It can be seen that, not only the traumatic factors led to PTSD, but there are certain other factors also, which can led to PTSD. Those factors are very helpful for predicting the well being of the doctors. PTSD imposed a major impact on the physical, emotional as well as personal well being of the professionals. Thus, by looking at the regression equations, the impact of PTSD on the health of the professionals can be identified. Also, by looking at the above analysis it can be derived that, doctor's PTSD does not have much impact on patient satisfaction level. This study was conducted on the physicians working in the emergency departments and ICU of various hospitals, and also from the patients whom they are providing treatment. One third of the total physicians scored very high on the PTSD scale. The patient satisfaction questionnaire studied various aspects of satisfaction of the patients. Hence, the questionnaire is divided into seven major parts. The first factor analysis deals with the normal factors that affect the satisfaction level, the monetary factors and that, the doctors should thoroughly examine them and they expect from the physicians, a detailed explanation of the test to be done if prescribed. Then, taking the technical aspects into consideration, they believe that they can express everything in front of the doctor and the hospital authorities will provide whole check-up that are the most vital items, considered by patients for their satisfaction. Thirdly, the communication with the physicians is a very important part of the satisfaction. They should feel relaxed and can clarify their doubts regarding the treatment. Next issue which the patient party is facing is that, to get an appointment with the senior doctors. If the doctors can manage their time efficiently, they can very well give appointment on the basis of priority of need. Patients spent a huge amount of money on treatment and they have faith in doctors that, they only can save them and their loved ones. So, their satisfaction is of prime concern. If the doctors themselves are sick, it can be assumed that their treatment can also get affected by this type of psychological disorder. But, from the ANOVA analysis it can be seen that, there is no effect of PTSD on the patient satisfaction, i.e. the doctors are doing their duty properly and not letting physical/ mental condition disturbed, which affect their work. They are very much aware that, they are responsible for the wellbeing and life of a person. They do not let these types of stress hamper their work.

So, from the above analysis, it can be very well concluded that, the physicians in spite of the PTSD condition try to provide the best treatment to the patients. Patients may be dissatisfied sometimes and that's not due to the stress level of the physicians. So, PTSD in doctors does not affect the patient satisfaction level.

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