

Post-Traumatic Stress Disorder And Quality Of Life Among Road Traffic Accident Survivors

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ABSTRACT

The purpose of the study is to investigate the post-traumatic stress disorder and quality of life among road traffic accident survivors. This study was conducted on 120 road traffic accident survivors from Kerala and Karnataka. Quality of life scale and PTSD check list civilian version are used. Person coefficient of correlation and independent sample t-test were employed to analyze the data. Significant negative correlation (-.391) obtained between post-traumatic stress disorder and quality of life among road traffic accident survivors. There is no significant gender difference obtained ($p > .01$) in post-traumatic stress disorder and quality of life among road traffic accident survivors.

Key Words: Post-traumatic stress disorder, Quality of life, Road traffic accident survivors.

Introduction

Today there is considerable evidence that survivors of road traffic accidents (RTAs) can suffer from significant and long-lasting behavioral problems and mental disorders such as post-traumatic stress disorder (PTSD), depression, and anxiety. Previous studies have found that around 1035 of children after RTA develop PTSD or suffer from clinically relevant post-traumatic stress symptoms (PTSS) that may last more than 1 year and it also influence the quality of life of the survivors. Despite this growing interest in mental health problems of traffic-injured children, the effects of RTA on quality of life (QOL) of the survivors have received almost no attention (Vollrath, 2009). Quality of life is a highly subjective measure of happiness that is a significant component of many financial decisions. Features that play a role in the quality of life differ according to individual preferences, but they often include financial security, job satisfaction, family life, health, and safety. Financial decisions can often involve a trade-off where the quality of life is decreased in order to save money or earn more money or, conversely, quality of life can be boosted by spending more money. (Shookner, 1997) Explains quality of life as "The product of the interplay among social, health, economic and environmental conditions

which affect human and social development." Quality of life is defined as "A state of complete physical, mental, and social well-being not merely the absence of disease" (Organization, 1948).

Quality of life

Quality of life has received recognition as an important component of wellbeing over the last few decades. By comparison to the conventional biomedical model, the healthcare results model puts emphasis not only on life expectancy (or life quantity), but also on helping patients feel better about the quality of their lives. There has been a comparable increase in recognition of how mental disorders can affect quality of life. Later 2000, there have been no less than 6 reviews of quality of life in anxiety disorders. The studies reviewed reveal the diversity of measures that fall under the umbrella of the term "quality of life." Some studies included objective measures, such as work status and income, while others assessed self-reported occupational or social role functioning using measures such as the Medical Outcomes Survey Short Form-36 or the Sheehan Disability Scale (Sheehan, 1983).

Posttraumatic stress disorder (PTSD)

Posttraumatic stress disorder (PTSD) is a psychiatric condition that is experienced by a division of individuals after exposure to an event that involved life threat and elicited feelings of fear, helplessness, and/or horror in the individual. PTSD is characterized by several interrelated symptom clusters including re-experiencing symptoms (Recurring dreams, intrusive thoughts, flashbacks, depression and physiological reactivity after exposure to trauma signals,) avoidance and emotional numbing symptoms (e.g., anhedonia, isolation from others, restricted emotional experiences, avoidance of painful memories, sense of foreshortened future), and hyper awakening symptoms (e.g., sleep changes, irritability and rage, concentration problems). Two highly vulnerable, at-risk groups for developing PTSD are diverse active service members and veterans. Nonetheless, recent, large-scale studies indicate that PTSD may be a highly prevalent condition among U.S. service men and women returning from current military deployments, with incidence estimates as high as 14– 16 per cent (Gates, 2012).

Road traffic accident survivors

Survivors of road traffic accidents also suffer from different types of injuries and disabilities that can impair their quality of life. They generally face with various physical, mental, and social problems. Most traffic accident survivors had trouble to coming back to normal life. Road traffic accidents (RTA) are a life event with the potential to affect the global population. The World Health Organization (WHO) considers road traffic accident one of the leading causes of death in people 24 years old and younger. It is estimated that every year 1.2 million people die of injuries sustained through motor vehicle accidents. In Brazil, road traffic accident is the eighth leading cause of death, particularly among the 20-39 year-olds. Road traffic accident results in a number of negative consequences besides mortality: physical injury, changes in family life and professional performance, changes in social relationships and other costs resulting from road traffic accidents legal and economic implications. In addition to the effect on physical health of motor vehicle accidents, road traffic accident results in mental health costs, particularly those arising from dissociative reactions, acute stress disorder (ASD) and post-traumatic stress disorder (PTSD). (Sofia & Maia, 2013).

Need for the Study

According to World Health Organization (WHO)

report (2019) India accounts for about 10% of road crash fatalities worldwide. More people die in road crashes in India than any other place in the world. An accident is reported every 3 min and a death every 10 min on Indian roads. Psychiatric trauma-related complications have been reported to rise globally, and survivors of road traffic accident experience posttraumatic stress disorder (PTSD) symptoms. Road traffic accidents are causing significant damage to people, such as their families, economic losses, and to nations in general. These losses are result for those killed or affected by their injuries, and for family members who need to take time off work or school to care for the wounded, the cost of the treatment as well as the lost productivity. Road crashes impact 3 per cent of their gross domestic product in most countries. For the noticeable reasons stated above, special care is needed to reduce the psychological consequences of road traffic accident, which can potentially have a significant impact on productivity and on quality of life (QOL) of the survivors.

Zaidin & Othman (2016) conducted a study on Posttraumatic Stress Disorder and Quality of Life among Survivors of Flood Disasters. Flood is a terrible disaster affecting the lives of the peoples. The tragedy impacts people in various ways and many people experience a posttraumatic stress disorder (PTSD) as a result of daily routine changes and the loss of positions in their lives. Subsequently, such changes affect their quality of life. The purpose of this study was to identify posttraumatic stress disorder in Kelantan, Malaysia among flood victim. In this cross-sectional analysis one hundred and forty-nine participants took part. The results indicated that there was a significant difference in PTSD among study participants among ethnicity, gender, ethnic groups and age groups. (Zaidin & Othman, 2016)

Bulathwatta & Nayana (2017) who conducted a study was investigating the Effect of emotional intelligence and resilience among university students on trauma coping. This research studied samples of German and Sri Lankan university students (N= 356), attempting to establish associations between emotional intelligence and its effect on trauma compared to potential for resilience. Data collection was conducted using a purposeful sampling method. Findings from this study revealed that independent sample t-testing and hierarchical multiple regression analysis showed that German students and students from Sri Lanka used different levels of resilience and emotional intelligence in their trauma coping phase. (Bulathwatta & Nayana, 2017)

Naemeh (2015) conducted a study on Quality of

Life, Emotional Intelligence and Life Satisfaction amongst Students. Research findings found that emotional intelligence had a significant positive correlation with quality of life ($r=.454$, $p<.001$) but there was no connection between emotional intelligence and life satisfaction. Quality of life also had a considerable correlation with life satisfaction ($r=.402$, $p<.001$). The t-test results indicated that female students displayed higher mean scores in quality of life and satisfaction with life relative to their male student counterparts; however, there was no significant difference in emotional intelligence scores between the two classes. (Naemeh, 2015)

METHOD

Research Design

Non experimental co correlational research design is used for the study.

Statement of the Problem

To study the posttraumatic stress disorder and quality of life among road traffic accident survivors.

Objectives

- To assess the level of post-traumatic stress disorder and quality of life among road traffic accident survivors.
- To investigate the relationship between posttraumatic stress disorder and quality of life among road traffic accident survivors.
- To examine the gender differences
- To find the gender difference in posttraumatic stress disorder among road traffic accident survivors.
- To understand the gender difference in quality of life among road traffic accident survivors.

Hypotheses

H₀₁: There will be no significant relationship between posttraumatic stress disorder and quality of life among road traffic accident survivors.

H₀₂: There will be no significant gender difference in posttraumatic stress disorder among road traffic accident survivors.

H₀₃: There will be no significant gender difference in quality of life among road traffic accident survivors.

Operational Definition

Quality of life

To what degree an individual obtains life satisfaction. For a good quality of life, the following are important: emotional, material and physical well-being; engagement in interpersonal relationships; opportunities for personal (e.g., skill) development; exercising rights and making choices about self-determining lifestyles; and participation in society. Improving the quality of life is of particular concern to those with chronic or developmental disability and other disabilities, to those receiving medical or psychological care, and to the elderly. (Psychology, 2018)

Post-traumatic stress disorder

Post-traumatic stress disorder (PTSD) is a psychiatric disorder that may occur in people who have experienced or witnessed a traumatic event like a natural disaster, a serious accident, a terrorist act, war / combat, rape or other violent personal assault. (What Is Posttraumatic Stress Disorder, 2020)

Variables

- Post-traumatic stress disorder
- Quality of life

Demographic Variables

Demographic Variables of the study included age, gender, marital status and occupation.

Universe of the study

The population of the study consists of accident survivors belonging to young and middle adulthood.

Geographical Area

The samples of the study were collected from various district of Kerala and Karnataka.

Sample Distribution

Inclusion Criteria

- Road traffic accident survivor in the age group of 20-50
- People without mental disabilities.
- People know English.

Exclusion Criteria

- People without having an accident
- People less than age 20.
- subject's previous treatment history
- Presence or absence of other medical, psychosocial, or emotional conditions.

Sample and Technique

The universe of the study was road traffic accident survivor from various places. The sample of the study was 120 road traffic accident survivors including 60 male and 60 female with an age of 20 to 50, selected through purposive sampling method.

Research Ethics Followed

- Respect for the integrity of participants in research was prioritized.
- Written consent was to be taken prior to the test.
- Privacy protection of research participants needs ensured.
- Adequate confidentiality was maintained for the research data.
- Anonymity ensured of the individuals and organizations involved in the research.
- Any distortion or exaggeration about the research's goals and objectives was prevented.

Tools used for the study:

In the present study, the investigator tries to study different variables posttraumatic stress disorder and quality of life. The instruments used have been developed and standardized by experts in the field. The selected measures are; PTSD Checklist-Civilian Version (PCL-C) and Quality Of Life Scale (QOLS)

Description of the tool

Quality of life Scale (QOLS)

The Quality of life scale (QOLS), developed by John Flanagan (1970) & Andrews and Crandall .It uses a scale of 0 – 112 where a score less than 90 may indicate a problematic low quality of life. This form of the Quality of Life Scale (QOLS) has 16 items rather than the 15 found in the original Flanagan version. Item #16, "Independence, doing for yourself" was added after a qualitative study indicated that the instrument had content validity in chronic illness groups but that it needed an item that reflected the importance to these people of remaining independent and able to care for themselves.

The instrument is scored by summing the items to make a total score. Subjects should be encouraged to fill out every item even if they are not currently engaged init. (E.g. they can be satisfied even if they do not currently participate in organizations. Or they can be satisfied about not having children.) Missing data can be treated by entering the mean score for the item.

The QOLS designed similar to social survey questionnaires. It is a 16 –item Likert-type scale with items answered on a seven –point scale-from delighted to terrible. The scale measures state quality of life by asking the respondents to reflect on their current feelings. The original sample for which the scale was developed consisted of 120 road traffic accident survivors from various places. The QOLS is considered a reliable and valid quantitative tool for quality of life assessment.

Reliability and Validity

The Quality of life scale presented high ratings in reliability areas was 0.84. The validity of the scale was .75.

PTSD Checklist-Civilian Version (PCL-C)

The PTSD Checklist – Civilian Version (PCL-C), developed by Weathers, Litz, Huska, & Keane National center for PTSD (1994) .It uses a scale of 0 – 85 where a score more than 44 is considered to PTSD positive for general population.

The PCL is a standardized self-report rating scale for PTSD comprising 17 items that correspond to the key symptoms of PTSD. Two versions of the PCL exist:

- 1) PCL-M is specific to PTSD caused by military experiences and
- 2) PCL-C is applied generally to any traumatic event.

The PCL can be easily modified to fit specific time frames or events. For example, instead of asking about "the past month," questions may ask about "the past week" or be modified to focus on events specific to a deployment. The PCL is self-administered; Respondents indicate how much they have been bothered by a symptom over the past month using a 5-point (1–5) scale, circling their responses. Responses range from 1 Not at All – 5 extremely

Reliability and Validity

The PTSD Checklist for civilian version presented high ratings in reliability areas was 0.96. The

validity of the scale was .85.

Statistical Analysis

The data collected from the response of the sample is statistically analyzed with descriptive statistics like mean, standard deviation, percentage. Inferential statistics like Pearson's product moment correlation is conducted to examine the relationship between the post-traumatic stress disorder and Quality of life among accident survivors. Independent sample t-test is done to find out the significant difference in post-traumatic stress disorder and Quality of life scores between male and female accident survivors,

RESULTS AND DISCUSSION

Table 4.1: Demographic details of sample

Gender		Age			Marital Status		Occupation	
Male	Female	20-29	30-39	40-49	Married	Unmarried	W	NW
60	60	92	16	12	87	33	72	48

Demographic details of the sample showing that the sample consisted of 120 accident survivors 60 male and 60 female. Age of the sample was categorized in to three groups 92 accident survivors was collected in the age group of 20-29, 16 are collected in the age group of 30-39 and for the age group 40-49 collected details from 12 accident survivors. From that 87 are married and 33 are unmarried and 72 are working and 48 are not working.

Objective: To assess the level of post-traumatic stress disorder and quality of life among road traffic accident survivors

Table 4.2 Descriptive Statistics of post-traumatic stress disorder score and quality of life score of the sample

Variables	N	Minimum	Maximum	Mean	Standard deviation	Interpretation
PTSD	120	17	80	38.49	1.319	Negative symptoms
Male	60	17	75	40.33	13.476	Negative symptoms
Female	60	17	80	36.65	15.252	Negative symptoms
QOL	120	42	110	83.90	1.743	Low
Male	60	42	112	82.47	19.314	Low
Female	60	43	110	85.33	18.932	Low

Table 4.2 shows the descriptive statistics of post-traumatic stress disorder and quality of life among road traffic accident survivors. N indicates the sample size; Minimum score obtained for post-traumatic stress disorder is 17 and the maximum score obtained for post-traumatic stress disorder is 80, Mean obtained is 38.49 and standard deviation is 1.319 which indicates that the sample is having post-traumatic stress disorder negative. For male the minimum score obtained is 17 and the maximum score is 75, Mean obtained is 40.33 and the standard deviation is 13.476 which indicate that the male road traffic accident survivors have negative symptoms of post-traumatic stress Disorder. In the case of female road traffic accident survivors the minimum score obtained is 17 and the maximum score obtained is 80, Mean obtained is 36.65 and the standard deviation is 15.252 which indicate that the female road traffic accident survivors have negative symptoms of post-traumatic stress disorder. The minimum score obtained for the quality of life is 42 and the maximum score obtained is 110, mean obtained is 83.90 and the standard deviation is 1.743 which indicate that the samples have low quality of life. For male road traffic accident survivors the minimum score obtained is 42 and the maximum score obtained is 112, mean obtained is 82.47 and the standard deviation is 19.314, which indicate that the male road traffic accident survivors have low quality of life. In female road traffic accident survivors the minimum scored is 43 and the maximum score obtained is 110, mean obtained is 85.33 and the standard deviation is 18.932 which indicate that the female road traffic accident survivors have low quality of life.

Objectives: To investigate the relationship between quality of life and posttraumatic stress disorder among road traffic accident survivors.

H₀1: There will be no significant relationship between posttraumatic stress disorder and quality of life among road traffic accident survivors.

Table 4.3: Pearson's coefficient of correlation between post-traumatic stress disorders

Variables	N	r	P
PTSD & QOL	120	-.391	.000

*p < .01 Significant at the 0.01 level

From table 4.3, the r value for scores on post-traumatic stress disorder and quality of life is -0.391 which is significant at the 0.01 level. Therefore, the hypothesis1, that “There will be no significant relationship between posttraumatic stress disorder and quality of life among road traffic accident survivors” is rejected. Hence there is a negative correlation between PTSD and QOL among survivors of road accident (Shine, 2017).

Objectives: To find the gender difference in posttraumatic stress disorder among road traffic accident survivors.

H₀₂: There will be no significant gender difference in posttraumatic stress disorder among road traffic accident survivors.

Table 4.5: Gender difference in post-traumatic stress disorder among road traffic accident survivors.

Group	N	Mean	SD	t	p	df	Decision
Male	60	40.33	13.476	1.402	.164	118	Null hypothesis accepted
Female	60	36.65	15.25				

* p > .01 Not Significant at the 0.01 level

Table 4.5 shows that male road traffic accident survivors (M = 40.33, SD = 13.476) and female road traffic accident survivors (M = 36.65, SD = 15.252) differ not significantly on post-traumatic stress disorder mean score, t = 1.402, the p value is .164 p > .01. Thus, the null hypothesis stating that, “There will be no significant gender difference in posttraumatic stress disorder among road traffic accident victims.” is accepted. Even if there is no significant difference in post-traumatic stress disorder among road traffic accident survivors the mean score showing that males have positive post-traumatic stress disorder than females.

The result shows that the p value is greater than 0.01, therefore there is no significant difference. Thus the null hypothesis stating that “There will be no gender significant difference in posttraumatic stress disorder among road traffic accident

survivors.” is accepted. The result was supported by a study conducted by (Marianne S. Birkeland, 2017) on gender differences in Posttraumatic Stress Symptoms after a Terrorist Attack: A Network Approach. The result of the study shows that Women reported higher levels of all symptoms, and the strongest effect sizes were found for symptoms of re-experiencing, and anxious and dysphonic arousal. Among individuals with considerable levels of posttraumatic stress symptoms, women reported higher levels of physiological cue activity and exaggerated startle response. No significant gender differences in the networks of posttraumatic stress were found. The result was against by (Ahmad Zaidin, 2016) Conducted a study on Posttraumatic Stress Disorder and Quality of Life among Survivors of Flood Disasters. Flood is a terrible disaster affecting the lives of the peoples. The tragedy impacts people in various ways and many people experience a posttraumatic stress disorder (PTSD) as a result of daily routine changes and the loss of positions in their lives. Subsequently, such changes affect their quality of life. The purpose of this study was to identify posttraumatic stress disorder in Kelantan, Malaysia among flood victim. In this cross-sectional analysis one hundred and forty-nine participants took part. The results indicated that there was a significant difference in PTSD among study participants among ethnicity, gender, ethnic groups and age groups.

Objectives: To understand the gender difference in quality of life among road traffic accident survivors.

H₀₃: There will be no significant gender difference in quality of life among road traffic accident survivors.

Table 4.6: Gender difference in quality of life among road traffic accident survivors.

Group	N	Mean	SD	t	p	df	Decision
Male	60	82.47	19.314	-.821	.413	118	Null hypothesis accepted
Female	60	85.33	18.932				

* p > .01 Not Significant at the 0.01 level

Table 4.6 shows that t-test for quality of life among road traffic accident survivors. For male road traffic accident survivors (M = 82.47, SD = 19.314) and female road traffic accident survivors (M = 85.33, SD = 18.932) differ not significantly on quality of life mean score, t (118) = -.821, p > .01. Thus, the null hypothesis stating that, “There will

be no significant gender difference in quality of life among road traffic accident survivors” is accepted. Even if there is no significant difference in quality of life among road traffic accident survivors the mean score showing that female survivors have more quality of life than male survivors.

Conclusion

The present study obtained a significant relationship between posttraumatic stress disorder and quality of life among road traffic accident survivors (-0.391). Findings also suggested the importance of reducing PTSD scores and enhancing resilience among survivors of road traffic accident that might increase their QOL. There was no significant gender difference in posttraumatic stress disorder and quality of life among road traffic accident survivors.

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