

A Comparative Study of Depression and Anxiety Disorders among Road Traffic Accident Victims in a Medical College

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ABSTRACT

BACKGROUND

RTAs are becoming more common as the victims sustain physical as well as psychological distress, which often go unrecognized. The psychological issues can be either acute or chronic in nature. Despite these, they are often poorly detected and managed. This study is aimed at estimating the occurrence of psychiatric morbidity among the injured road accident victims.

METHODS

75 RTA victims, above the age of 18 years, who were admitted to MVJ Medical College and Research Hospital in various wards, who had stayed in the ward for at least 2 weeks with no past or current history of mental disorders were included in this study. Informed consent was obtained from the patients before conducting the interview. The questionnaires PHQ-9 and GAD-7 were applied for screening and assessing the severity of the illness.

RESULTS

Out of 75 patients, 38 (50.66%) were found to have some psychiatric morbidity. Out of these 38 patients, 23 (30.66%) had mild anxiety, 6 (8%) had moderate anxiety and 1 (1.33%) had severe anxiety disorder. 4 (5.33%) had moderate depressive disorder and 3 (4%) had mixed anxiety and depressive disorder.

CONCLUSIONS

Road traffic accidents may lead to some serious and long-term psychiatric illnesses, which often go unrecognized at the time of the accident. Undiagnosed and untreated patients with psychiatric morbidity might affect the treatment and cause overall poor quality of life. Thus, early intervention can help to curb the occurrence of psychological distress among the RTA victims and improve the individual's overall performance.

KEYWORDS

Psychiatric Morbidity, Road Traffic Accident, Anxiety, Depression, RTA Victims

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BACKGROUND

A Road Traffic Accident (RTA) can be defined as, "any injury due to crashes, originating from, terminating with, or involving a vehicle partially or fully on a public road.¹ RTA results in the death of 1.35 million people worldwide every year and injure or disable as many as 50 million people, which represents a 60% increase in the last 5 years.² India accounts for nearly 10% of the world's total RTA. More than half of RTA involves the young population between the age of 15 and 44 years and males are involved usually at a higher frequency than females.³ Thus, it is estimated that by 2020, road traffic injuries are to become the 2nd leading cause of DALYs lost in the developing countries and decreasing the burden of injuries is the need of the hour.

The RTA patients are usually attended by emergency room physicians and trauma surgeons who have been trained in managing only the physical injuries.⁴ However, the psychological issues which are not immediately evident end up going unrecognized, resulting in a significant impact on the victims, their families and ultimately the society as a whole. Psychological concerns, if not addressed timely, may give rise to acute or chronic mental health conditions in the long term which can affect an individual's psycho-social functioning. Psychiatric morbidity is characterized by disturbance in an individual's behaviour, mood, perception and thinking process. It can also affect memory, language functions and other cognitive deficits. The presence of psychiatric illness diminishes the ability of an individual to cope with the stress of day to day life and lead an ordinary lifestyle. In addition to this, it also affects the socio-occupational functioning. The most frequent psychiatric disorders usually seen in the RTA victims are PTSD, anxiety disorder, depression, sub-syndrome PTSD, acute stress disorder, OCD and phobia.⁴ Anxiety symptoms manifest in the form of excessive fear, palpitations, increased heart rate and respiratory rate, sweating, difficulty in falling asleep, dizziness, syncope, headache, increase urinary frequency or hesitancy, restlessness or tingling in the extremities. The features of depression are sad mood, reduced energy level, loss of interest in pleasurable activities, impaired attention and concentration, diminished self-esteem and confidence, ideas of guilt, pessimistic views of future, ideas of self-harm or suicide, with decreased appetite and sleep disturbances. Psychological issues, thus, give rise to acute or chronic mental health conditions. The psycho-social sequelae of RTA injuries are often ignored which in the long-term cause heavily to the patient and their family. Thus, this study is aimed at estimating the occurrence of psychiatric morbidity in the injured road traffic accident victims.

We wanted to study the occurrence of depression and anxiety disorders among RTA victims in a medical college.

METHODS

The sample size of 75 RTA victims who were admitted to MVJ Medical College and Research Hospital in various wards

and were above the age of 18 years who had stayed in the ward for at least 2 weeks with no past or current history of mental disorders were included in this study.

A sample size of 75 patients who had given their consent to participate in the study were included in the study. The sample were taken up from the patients who were admitted to MVJ Medical College and Research Hospital in various wards. Only the victims above the age of 18 years were taken up for the study. After obtaining the informed consent from the patients, the participants were administered PHQ-9 and GAD questionnaire.

Inclusion Criteria

1. Patients who met with Road Traffic Accident.
2. Those who were above 18 years of age.
3. Those who gave informed consent.
4. Those who stayed in the ward for minimum 2 weeks.

Exclusion Criteria

1. Patients with history of pre-existing psychiatric disorders.
2. Patients who were not willing to participate in the study.
3. Patients who were admitted in critical care units.
4. Patients who had sustained head injury.
5. Patients with intellectual disability.

RESULTS

Sl. No.	Sex	Frequency	Psychological Distress
1.	Male	58	31
2.	Female	17	7
3.	Total	75	38

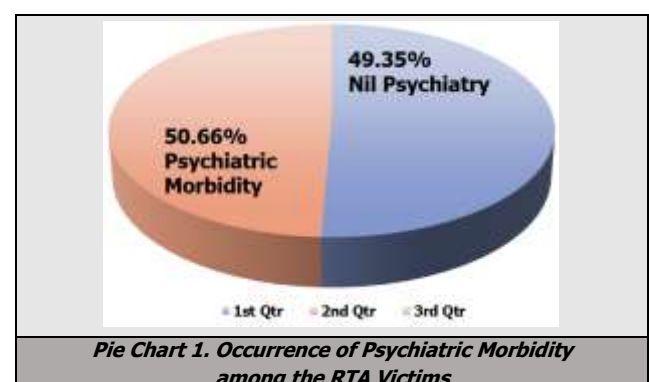
Table 1

Sl. No.	Occupation	Frequency	Psychological Distress
1.	Employed	67	32
2.	Unemployed	8	6
3.	Total	75	38

Table 2

Sl. No.	Disorder	Population	Percentage
1.	Mild Anxiety	23	30.66%
2.	Moderate Anxiety	6	8%
3.	Severe Anxiety	1	1.33%
4.	Moderate Depressive Episode	4	5.33%
5.	Mixed Anxiety and Depression	4	5.33%

Table 3. Tabular Presentation of the Varying Intensities of Anxiety and Depression among RTA Victims



Out of 75 patients enrolled in the study, 58 were male and 17 females. out of 58 males, 31 were found to have some psychological distress while only 7 out of 17 had some psychiatric morbidity. Out of 75 Subjects, 67 were Employed Out of Which 32 had Psychological Distress whereas in Case of Those Being Unemployed 6 Out of 8 Presented with Psychiatric Morbidity.

DISCUSSION

There are not many studies done to study the psychiatric morbidity among the RTA victims and thus this study is an attempt to advance the understanding of the occurrence of anxiety and depression amongst this group. This is a cross sectional observational study on the occurrence of anxiety and depression among the RTA victims without head injury conducted in a medical college situated on the national highway. This study was conducted to assess the occurrence of the psychiatric morbidity among the RTA victims after their minimum stay of 2 weeks in the hospital.

A total of 75 patients were taken up for the study after obtaining the informed consent from them. They were then administered the PHQ-9 version questionnaire and GAD to screen the patients manifesting with psychological issues. Out of 75 patients, 38 were screened positive for depression and anxiety disorder. Among these 38 patients, 30 (40%) were diagnosed with anxiety disorder, 4 (5.33%) were diagnosed with depression while another 4 patients were diagnosed to have features of both anxiety as well depression (5.33%). Moreover, the incidence of psychological distress was observed to be highest among the individuals who were above the age of 50 years. It was observed in our study that, out of 17 patients meeting with the road traffic injury, 14 were found to be screened positive for psychiatric morbidity. This was followed by the individuals who were between the age of 30 to 49 years with frequency of 18 out of 33 patients and thence those who were below 30 years of age. This finding highlights that the probability of occurrence of the psychiatric morbidity is relatively higher among the older population than the young group. Another important finding in our study was the association between the employed status and psychological distress. Out of total 75 patients, 67 were employed and 8 unemployed. Amongst the employed group, 32 out of 67 were screened positive while 6 out of 8 unemployed were found to be screened positive for psychiatric distress, which is a significant number.

The overall occurrence of anxiety and depression among the RTA victims as determined by the aforesaid questionnaire was 50.66% and majority of them chiefly had anxiety disorder. There is a paucity of information on the prevalence of psychiatric morbidity among injured road traffic accident victims. The available studies on this subject are prevalence of individual disorders like post- traumatic stress disorders, acute stress disorders and depression.

O' Donnell⁵ et al (2004) studied prevalence of psychiatric morbidity following severe injury in a longitudinal

study in 363 patients who were assessed at three periods, just before discharge, at 3 months and 12 months after injury. Their assessment revealed that PTSD and major depressive disorder were the most frequent diagnoses at both 3 and 12 months. Overall, 20% of the group met criteria for at least one psychiatric diagnosis after 12 months of their injury. They also reported that comorbidity was common, with the most frequent being PTSD with major depressive disorder. Our study too, found the occurrence of depressive disorder among the participants. Since, ours was a cross sectional study, follow up of the patients could not be studied and the variations in the symptoms could also be not ascertained.

Manuela Kuhn⁶ et al, found that shortly after the accident, the incidence of acute disorder (7%), subsyndromal acute stress disorders (12%) and adjustment disorders (1.5%) and 29% of all the patients had suffered from an acute psychiatric disorder. Schnyder⁷ et al (2001) assessed the prevalence of post -traumatic stress disorder and symptoms of depression and anxiety in severely injured accident victims at 1 year follow up study in 106 patients. Their study revealed that 2 (1.96%) patients had PTSD, and 13(12.3%) had subsyndromal PTSD. Eighteen (17%) patients had anxiety symptoms and nine (8.5%) were depressed and overall 27 (25.5%) patients had psychological sequelae. In our study as well, the occurrence of anxiety disorder was highest followed by depression in a cross-sectional analysis.

R Mayuo⁸ et al (1993) studied 188 patients to determine psychiatric consequences among the RTA victims in a one year follow up study. The study found that almost one fifth of subjects, suffered from an acute stress syndrome. Anxiety and depression usually improved by the end of a year, however one -tenth of patients had developed mood disorder. Moreover, one tenth of patients were diagnosed to have PTSD. In our study we found that 30 out of 75 participants had anxiety disorder while 4 presented with depression and 4 had mixed anxiety and depression symptoms.

Our study showed similar findings to the pilot study by Ajabde⁵ et al, (2015) who too had conducted a descriptive cross- sectional study and studied 400 subjects who had met with RTA to estimate the prevalence of psychiatric morbidity, their study revealed that 65% individuals were screened positive for psychiatric illnesses, highest among those who were between 26 and 35 years of age and that psychiatric morbidity had no significant relationship with socio-demographic variables. Our findings showed that the psychological sequelae following road accidents are major clinical problem. Which revealed that psychological distress is more common in males than females and in those who were above 50 years of age, especially among the unemployed population. The difference in figures between our study and others could be accounted for by subject variation, methodology and assessment tools used. Our findings showed that the psychological sequelae following road accidents are major clinical problem and psychological

evaluation of such patients shall be considered apart from treating them for the physical injuries.

Limitations

Our study had few limitations as well. Since, it was a cross-sectional study done in the patients after 2 weeks of minimum stay in our hospital, many of the subjects who would have developed features of PTSD or sub symptoms of PTSD and other psychiatric disorders could not be identified and went unnoticed. In addition to this, those who developed mood disorder or other psychiatric disorder in the later phase could have been identified in a follow up study. Moreover, the sample size was small to estimate the occurrence of psychiatric morbidity. The sampling done was non randomized because of which the finding of the study can only be representative of the study population and cannot be extrapolated to the community at large.

CONCLUSIONS

More than half of the road traffic injury victims suffered from varying intensities of anxiety disorder; 5% had moderate depressive episode, and 4% individuals had both anxiety and depression. Thus, the road traffic accidents can give rise to some serious and long-term psychiatric illnesses, which often go unrecognized at the time of the accident and may lead to socio-occupational dysfunction in the long run. Undiagnosed and untreated patients with psychiatric morbidity might affect the treatment and cause overall poor quality of life. Thus, early intervention can help to curb the occurrence of psychological distress among the RTA victims. More research is needed to evaluate the high-risk group and plan proper management for handling physical as well as

psychological distress. The consultation liaison between various departments and psychiatrists could be of great help in combating such issues and promote the smoother and faster recovery of the patients.

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