Journal of Sociology, Psychology & Religious Studies

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ISSN: 2706-6622

Stratford Peer Reviewed Journals and Book Publishing
Journal of Psychology
Volume 3||Issue 2||Page 100-115 ||August||2021|
Email: info@stratfordjournals.org ISSN: 2706-6622

The Level of Depression and Post Traumatic Stress Disorder among Road Traffic Accident Victims at Makindu Level 4 Hospital

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***How to cite this article*: Mweu, J. M., Ireri, N. W., & Menecha, J., B. (2021). The Level of Depression and Post Traumatic Stress Disorder among Road Traffic Accident Victims at Makindu Level 4 Hospital. *Journal of Psychology, 3*(2), 100-115.**

Abstract

Road traffic accidents represent a major epidemic of non-communicable diseases in the current century. Globally it is estimated that 1.2 million people die yearly through road accidents and over 50 million people are disabled. The main objective of this study was to determine the effect of depression on road traffic accident victims at Makindu level 4 Hospital. A descriptive research design was used. The study findings were presented by use of bar graphs and pie charts. The main finding of the study was that the prevalence of the road traffic accidents in Makindu Level 4 Hospital was at a high 57.14 percent. The findings from the study further indicate that the RTA victims admitted Makindu level 4 Hospital had a moderate level of depression and a high level of Post-Traumatic Stress Disorder. This study recommended that in formulating policies targeting to reduce the psychological effects on victims due to road traffic accidents, the psychological therapists must be involved from the day of an accident up to the full healing depression. In supporting motor vehicle accidents victims' well-being then the government should offer public training to all motor vehicle riders and provide riding licenses to them at affordable fees so that survivalist nature increases, and this was also reducing the level of single parenthood.

Keywords: *Level of Depression, Post Traumatic Stress Disorder, Road Traffic Accident Victims*

1.0 Introduction

Although a lot has been done by different governments globally regarding the safety of people while travelling, road carnage continues to loom in different parts of the world. For instance, road traffic accidents are a major cause of death and dysfunction in the United States of America (Beck, Dellinger & Neil, 2017). Their study reported that forty thousand people die through road accidents, and millions are treated in hospitals. Beck et.al (Beck, Dellinger & Neil, 2017), assert that just before 2017, the US motor vehicle fatality rate was 17.5 per 100,000 population. This number gives us the estimated population burden but not the risk. Motor vehicle crash is at a higher rate in the United States because of the significant number of people in the United States of America who use vehicles for transport. Some researchers denied the fact that high speed might be one of the causes of road accidents however the likelihood of being injured in a vehicle might be because of high speed.

In Africa, Nigeria has the largest number of road traffic accidents, "the Nigerian Federal Road safety commission indicates the country has the highest rate of death from motor accidents in Africa" (Atubi, 2016). Atubi further asserted that the road accidents' situation in Lagos is worse due to lack of effective planning, vehicle misuse, poor management, inadequate spaces for or unprofessional street parking, traffic congestion, delays, and accidents among other factors. Trauma is ranked as the main reason for emergency room visits in Nigeria and road traffic accidents are responsible for the significant number of deaths (Sumaila, 2013).

Road accidents have been considered the main cause of congestion in the roadway in the United States road networks (Zhang, Chen & Tu, 2015). Many families have been affected by motor vehicle accidents through losing their loved ones, breadwinners, and the energetic members of families. It is shocking that globally, approximately 1.2 million people lose their lives annually due to road traffic accidents. This is unexpected and saddening because with the improved state of the roads, mushrooming of driving schools, and stringent traffic laws, one expects the situation to be better. This study, therefore, sought to establish the prevalence of road traffic accident victims in Makindu Level 4 Hospital in Kibwezi west sub-county Makueni County, Kenya.

1.1 Research Problem

Globally, more than 1.2 million people die, and 20 to 50 million get injuries through road accidents annually (Olemo, 2017). In Kenya alone, over 134,000 crashes occur on the Kenyan roads annually killing more than 3000 and seriously injuring 11,000 (Okemwa, & Gatei, 2017). A report by WHO (2017) pointed that road traffic accidents are considered as one of the major causes of death and injuries worldwide. The report further projects that motor vehicle accidents will be the third leading cause of death. It is also possible that road traffic accident victims silently go through devastating levels of Major Depressive Disorder (MDD) and Post Traumatic Stress Disorder (PTSD) which at times go undiagnosed in many hospitals such as Makindu Level 4. Even though doctors treat the medical diagnosis of the road accident victims, the presence of MDD and PTSD in such patients can result in poor prognosis and even increase the mortality rates.

Due to the comorbid nature of MDD and PTSD, their effects on the mental health of the victims may tend to be lethal hence urgent measures need to be taken. There is limited documentation on the area that this study focuses on, and many hospital administrations have not fully implemented psychological services to victims of road traffic accidents hence this points to a critical gap for investigation.

2.0 Theoretical Framework

This study was anchored on Cognitive-Behavioral Theory (CBT). This theory was initially developed by Aaron Beck, whose key focus was on challenging cognitive mental depression and distortions in adults (Beck 1963). This theory was used to assess many psychological problems namely, anxiety disorders, eating disorders, anger, chronic pain, marital instability, personality disorders, and psychotic disorder. The theory helps clients to know how to manage and reshape their thinking amidst problems. In Cognitive Behavior Therapy, the client walks hand in hand with the counselor so that the client will be able to conversant and knowledgeable about his problem and find his/her solutions.

Cognitive behavior theory focuses on the relationship between thoughts, feelings, and behaviors, aiming at the current problem and its signs. At the same time, it focuses on changing the behaviors, thoughts, and feelings that lead to difficulty in normal functioning and therefore can be used to help the client to re-check their thinking patterns and assumption to understand unhelpful thoughts. These include overgeneralizing bad outcomes, thinking negatively that minimizes positive thinking, and always regard catastrophic results to greater fairly thinking patterns, these are aimed to assist the person to reconsider their understanding of any horrible events in life as well as understanding themselves and cope (Christine, 2017). Cognitive behavior theory helps the client reduce avoidance of maladaptive behavior associated with trauma, to restore a client's sense of control and self-confidence.

2.1 Empirical Review

2.1.1 Prevalence of Road Traffic Accidents

A study done in Lokoja, Kogi State from January 1997 to December 2010, using a univariate time series data collected from the Federal Road Safety Commission (FRSC) used the model for the data and found it to be Y = 22.062 + 0.252T. Test for the existence of trend and seasonal variation was conducted at 5% level of significance and a four-year forecast for road accident was made for the year 2012, 2013, 2014 and 2015. The study found that there is no seasonal variation but a trend that shows a steady increase in Kogi State accident rate.

In Malaysia, there were recorded 15,905,608 units of active vehicles on Malaysian roads with a population of 29.24 million people in 2011. Statistics of 10 years showed that several road accidents and deaths were dramatically increasing from one year to the next. The scope of the study only covered Malaysian drivers with some criteria such as monthly income less than RM7000, monthly loans less than RM5000, Driving experiences not less than 3 years, and Age not more than 60 years.

2.1.2 The Level of Depression and Post Traumatic Stress Disorder among Road Traffic Accident Victims

Bedaso *et al*. (2020) sought to investigate the prevalence and determinants of post-traumatic stress disorder among road traffic accident survivors: a prospective survey at selected hospitals in southern Ethiopia. The study used the Institution based cross-sectional study design. Data were collected from a sample of consecutively selected 423 Road Traffic Accident (RTA) survivors through an interviewer-administered technique. A pre-tested post-traumatic stress disorder Checklist-Specific version (PCL-S) tool was used to screen PTSD. The prevalence of probable PTSD among RTA survivors was 15.4%. This study concluded that the prevalence of probable PTSD in the current study was high (15.4%). Time since the accident, history of a previous road traffic accident, having depressive symptoms and common mental disorder were significant determinants of PTSD.

A study done by Ongecha-Owuor, Kathuku, Othieno, and Ndetei (2007) to determine the prevalence rate of post-traumatic stress disorder (PTSD) and associated risk factors among

motor vehicle accident (MVA) survivors attending the orthopaedic and trauma clinic at Kenyatta National Hospital, Nairobi used a cross-sectional study and one hundred and ninety-seven adult males and sixty-seven female patients. The 264 patients were interviewed using a questionnaire to collect the socio-demographic data, the Self Rating Questionnaire (SRQ) and the Impact of Event Scale-Revised (IES-R). Overall, the prevalence rate of PTSD was 13.3%. None of the cases had been previously diagnosed as having PTSD. Females had a higher rate of 17.9% (n = 67), compared to the males 11.7% (n=197). The majority of those with PTSD (42.9%) were young, 20 - 29 years.

A study done in Kenya by Hung, Tol, Musci, Aketch, and Bachani, (2019) on Trauma Exposure, Posttraumatic Stress Disorder Symptoms Trajectory, and Disability Level among Hospitalized Injury Survivors in Kenya took a longitudinal direction. The study estimated the trajectory of PTSD symptoms up to 7 months after hospitalization and the associated disability level among adult patients who had been hospitalized due to injury.The respondents were adult injury patients (N = 476) admitted to Kenyatta National Hospital in Nairobi, Kenya. This study found out that having previously witnessed killings or serious injuries, being female, elevated depressive symptoms during hospitalization, and having no household savings/assets, were associated with the elevated PTSD symptoms trajectory class after controlling for other risk factors.

3.0 Research Methodology

Descriptive survey research design was used in conducting this research. The design helped in gathering data about individual attitudes, perceptions, worldviews, and psychosocial factors. Bell (2003) asserts that a descriptive survey research design is more investigative and focuses on a particular variable factor. This study was conducted in Makindu Level 4 Hospital, Kibwezi West Sub-County, Makueni County. Makindu Level 4 Hospital is in Makindu town, which is along Nairobi-Mombasa Highway. The sample size of this study was 40 respondents who met the inclusion criteria for this study. Stratified random sampling was used in collecting the data. The orthopedic ward was divided into four strata representing each of the rooms in the ward. Simple random sampling was used to sample ten respondents from each of the wards. This study used a researcher's developed questionnaire, the Beck's Depression Inventory BDI, and PTSD Symptom Scale.

4.0 Results and Discussion

4.1 Depression Levels

The levels of depression on RTA victims in the hospital were assessed using the Beck's Depression Inventory (BDI). The respondents were required to respond by ticking the appropriate statement that related to how they were feeling that moment and in the past two weeks. The ratings were from 0 to 3, 0 being the lowest while 3 being the highest. The levels of depression were rated as between 1-10 for normal levels of depression, 11 – 16 for mild mood disturbance, and between 17–20, which was interpreted as borderline to clinical depression. Scores between 21–30 were interpreted to mean moderate depression. Severe depression was in the score range of 31- 40, and over 40 was considered to have extreme depression. Table 1 shows the descriptive analysis results of the depression levels.

Stratford Peer Reviewed Journals and Book Publishing
Journal of Psychology
Volume 3||Issue 2||Page 100-115 ||August||2021|
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Table 1: Depression Levels

Question No.	Score 0 - %	Score 1 - %	Score 2 - %	Score 3 - %	M
1.	(6) 15	(19) 47.5	(4) 10	(9) 22.5	9.5
2.	(7) 17.5	(19) 47.5%	(3) 7.5	(10) 25	9.75
3.	(7) 17.5	(19) 47.5	(3) 7.5	(10) 25	9.75
4.	(5) 12.5	(13) 32.5	(7) 17.5	(14) 35	9.75
5.	(7) 17.5	(11) 27.5	(11) 27.5	(10) 25	9.75
6.	(16) 40	(10) 25	(5) 12.5	(8) 20	9.75
7.	(7) 17.5	(19) 47.5	(6) 15	(6) 15	9.5
8.	(3) 7.5	(17) 42.5	(11) 27.5	(8) 20	9.75
9.	(24) 60	(5) 12.5	(6) 15	(4) 10	9.75
10.	(6) 15	(7) 17.5	(5) 12.5	(21) 52.5	9.75
11.	(2) 5	(6) 15	(10) 25	(21) 52.5	9.75
12.	(10) 25	(19) 47.5	(3) 7.5	(7) 17.5	9.75
13.	(10) 25	(12) 30	(8) 20	(9) 22.5	9.75
14.	(9) 22.5	(19) 47.5	(9) 22.5	(2) 5	9.75
15.	(5) 12.5	(10) 25	(8) 20	(16) 40	9.75
16.	(2) 5	(27) 67.5	(7) 17.5	(3) 7.5	9.75
17.	(7) 17.5	(18) 48	(7) 17.5	(7) 17.5	9.75
18.	(2) 5	(23) 57.5	(7) 17.5	(7) 17.5	9.75
19.	(8) 20	(14) 35	(14) 35	(3) 7.5	9.75
20.	(1) 2.5	(21) 52.5	(9) 22.5	(6) 15	9.25
21.	(1) 2.5	(14) 35	(18) 48	(6) 15	9.75
Average					9.7

Summing all the depression scores of the 39 patients gave a sum of 974 and an average mean of 24.97. The mean of 24.97 lies within the category of 21-30 which can be interpreted as moderate depression. This study, therefore, found out that RTA patients at the Makindu Level 4 Hospital presented with a moderate level of depression.

Regarding PTSD, the respondents were required to respond to the items on the PTSD symptom scale (PSS) to rate their feelings. The rating was from 0 to 3; 0 = not at all, 1 = once per week or less/ a little bit/one in a while, 2 = 2 to 4 times per week/ somewhat/ half the time; 3 = 3 to 5 or more times per week/very much/almost always. The respondents rated the frequency of the feeling in response to the given statement. Regarding the prevalence of PTSD, it was important to obtain a total PTSD severity. This was done by tallying all the items for an overall PTSD symptom severity score. A score of 13 or higher indicated a likelihood of PTSD. In this study, the average sum of the 39 respondents was 27 hence showing that the RTA victims met the criteria for PTSD. It was noted that majority of the RTA victims had been in the hospital for more than one month. To ensure that the PTSD criteria were achieved, the researcher ensured that he checked the date of admission of the participants from the medical records in their files kept within the respective wards. Further, it was ensured that the participants at least one intrusion symptom, one avoidance symptom, and this caused clinically significant distress or interference in their stay within the hospital while awaiting treatment.

4.2 Upsetting Thoughts

The descriptive analysis results on upsetting thoughts are shown in Figure 1.

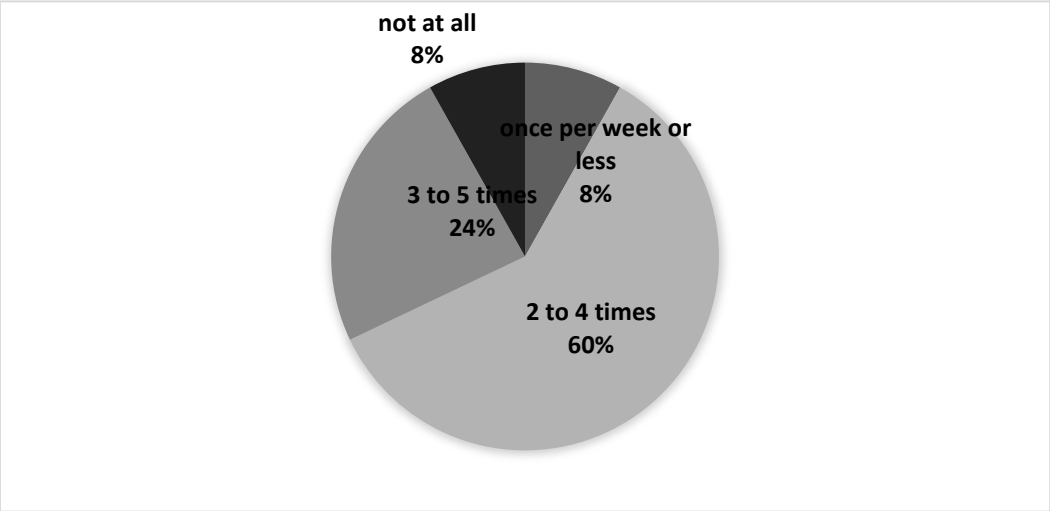

Figure 1: Upsetting Thoughts

A person experiencing distressing thoughts or images about traumatic events in their minds without their control were three (7.5%) once per week or less, 22 (55%) 2 to 4 times per week, eight (22%) 3 to 5 or more times per week and three (7.5%) not at all. The findings, therefore, reveal that a significant number of people experiencing distressing thoughts or images about traumatic events at 55% in their minds happen 2 to 4 times per week causing trauma.

4.3 Bad Dreams or Nightmares

Figure 2 portrays results from respondents on their frequency of having bad dreams or nightmares.

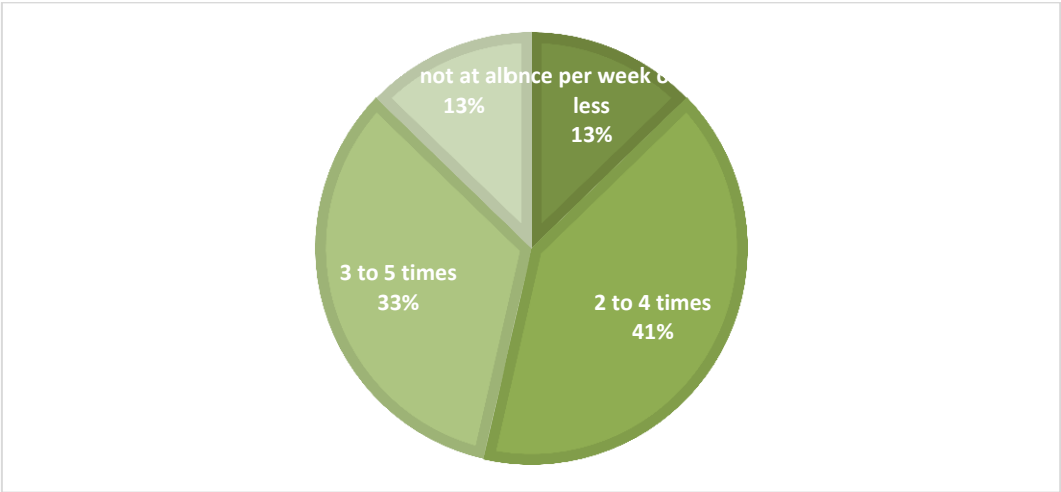

Figure 2: Bad dreams or nightmares

The results reveal that the respondents are experiencing bad dreams or nightmares about the traumatic events. The respondents rated one (12.5%) once per week or less, 16 (40%) 2 to 4 times per week, 13 (33%) 3 to 5 or more times per week, five (12.5%) not at all. This indicated that more motor vehicle accident victims have bad dreams or nightmares about the traumatic events at least once per week.

4.4 Relieving Traumatic Events

The descriptive analysis results for relieving traumatic events are shown in Figure 3.

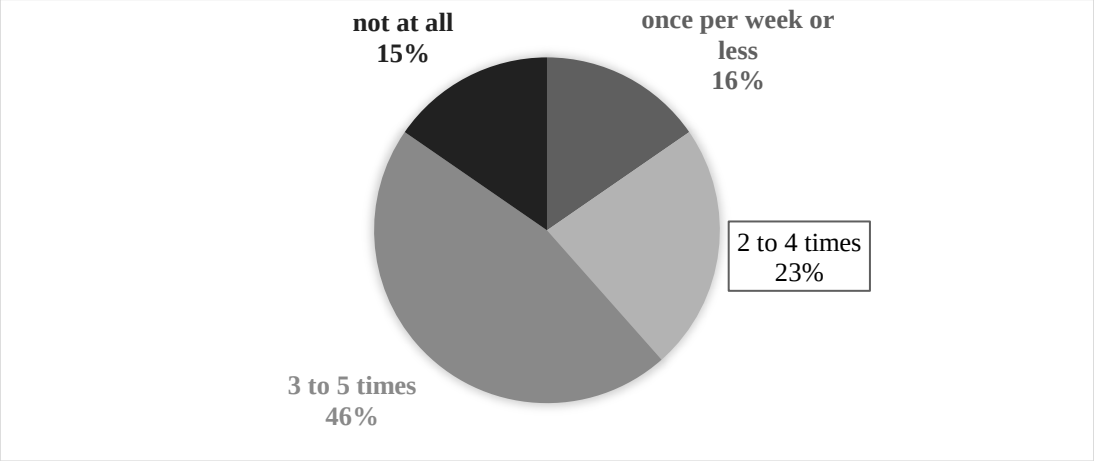

Figure 3: Relieving traumatic events

In figure 3, the findings reveal that a significant number of the respondent's accidents at 18 (45%) 3 to 5 Getting to relieve their traumatic events. The respondents rated six (15%) once per week or less, nine (22.5%) 2 to 4 times per week, 18 (45%) 3 to 5 or more times per week, six (15%) not at all. This indicated that more RTA victims experience distressing dreams or nightmares about the traumatic event at least 3 to 5 times a week.

4.5 Feeling Emotionally Upset

Figure 4 shows the descriptive analysis results for feeling emotionally distressed when prompted by traumatic events.

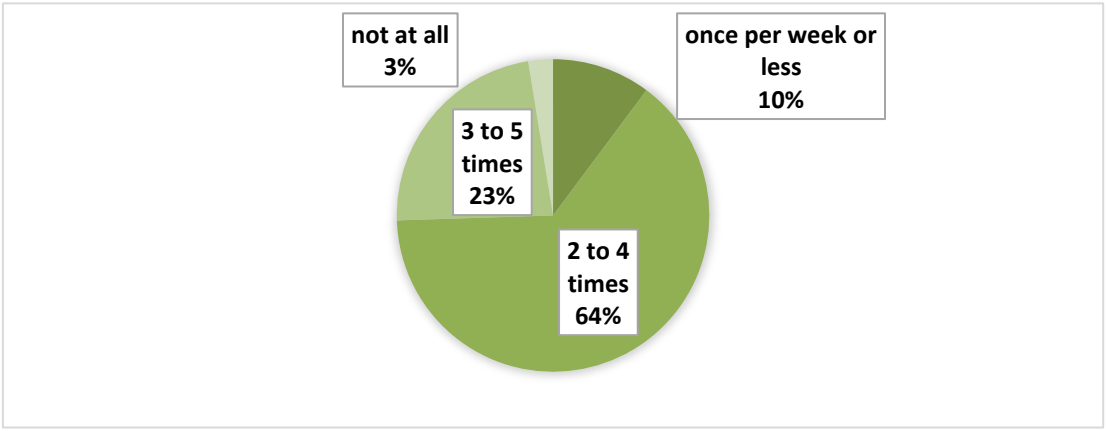

Figure 4: Feeling Emotionally upset

In figure 4, the findings reveal that 10% once per week or less, 25 (63%) 2 to 4 times per week, nine (22.5%) 3 to 5 or more times per week, one (2.5%) not at all. This implies that the motor vehicle accident victims feel emotionally upset when reminding of traumatic 2 to 4 times per week.

4.6 Experiencing Physical Reactions

The descriptive analysis results on experiencing physical reactions scale are shown in figure 5.

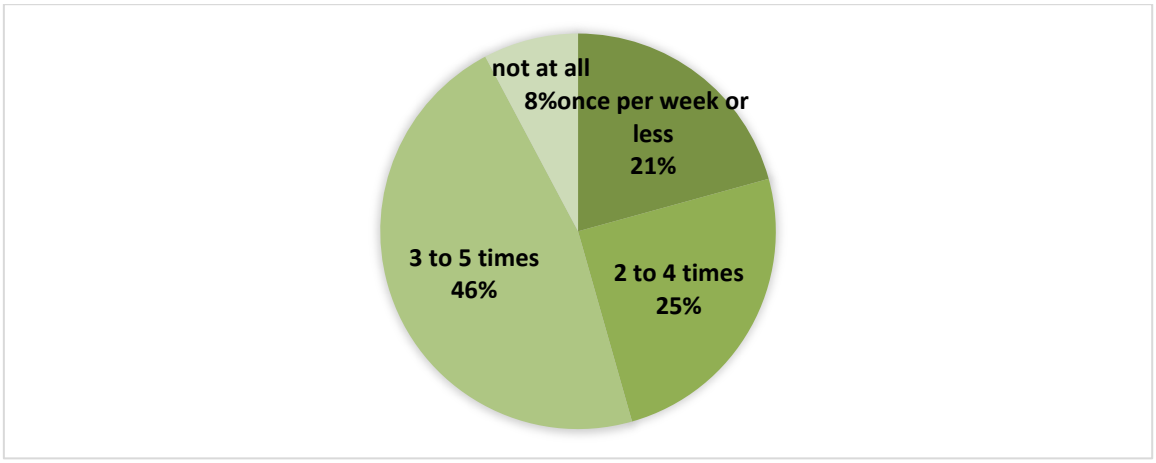

Figure 5: Experiencing physical reactions

In figure 5, the finding indicates that the highest percentage of motor accident victims in Makindu level 4 hospital suffering physical reactions when prompted by the traumatic event more than 5 times weekly. The results revealed that eight 20% experienced once a week or less, over nine (24%) 2 to 4 times per week, 18 (45%) 3 to 5 or more times per week, three (7.5%) never experience physical reactions. This implies that 18 (45%) motor vehicle accident victims experience physical reactions when reminded of the traumatic events.

4.7 Trying Not to Think or Talk

The descriptive analysis results for trying to ponder or talk about the scale of the traumatic event are shown in figure 6.

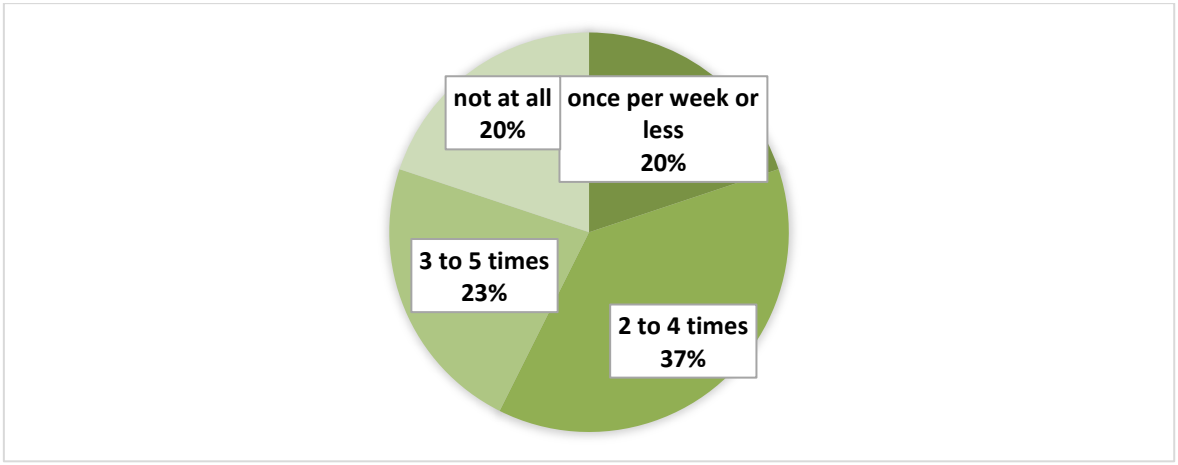

Figure 6: Trying not to think or talk

In figure 6, the findings reveal that a significant number of motor vehicle accident victims 33% agreed that try not to think or talk about traumatic events. The results show that seven (17.5%) attempt not to talk or think about the traumatic events experienced once a week or less, over 13 (33%) 2 to 4 times per week, and eight (23%) 3 to 5 or more times per week. While seven (17.5%) try to think or talk about the traumatic events. This implies that the results were significant, in that over 13 (33%) motor vehicle accident victims try not to think or talk about the traumatic events.

4.8 Trying to Avoid Activities or People

The descriptive analysis results for they try to avoid activities scale are portrayed in figure 7.

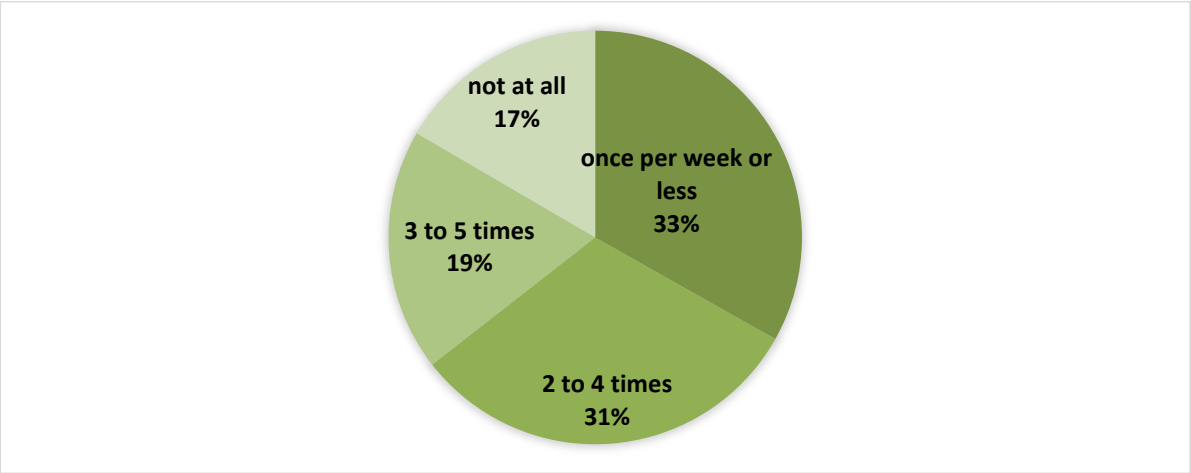

Figure 7: Try to avoid activities or people

In figure, the results reveal that 14 (35%) of the respondents try to avoid activities or people who remind them of the traumatic events at once per week or less. 14 (33%) responded 2 to 4 times per week, eight (20%) 3 to 5 or more times per week, while seven (17.5%) try to engage in activities or people who reminded them of them o the traumatic events. This implies that the results were significant for those who tried not to engage in activities or events that reminded them of the traumatic events.

4.9 Not Able to Remember

The descriptive analysis results for not able to remember are shown in figure 8.

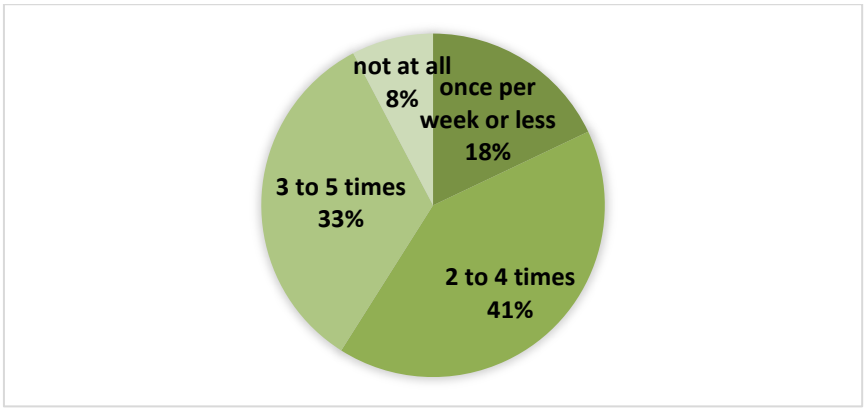

Figure 8: Not able to remember

In Figure 8, the findings show that 17.5% could not remember a vital part of the traumatic event at least once per week or less. 16 (40%) respondents 2 to 4 times per week, 13 (32.5%) 3 to 5 or more times per week, three (7.5%) were able to remember the traumatic events. The findings reveal there was a significant number for those who could not remember a vital part of the traumatic event. This implies that a significant number of motor vehicle accident victims, 40 could not remember a significant part of the traumatic event.

4.10 Having Less Interest

The descriptive analysis results for having less interest scale are shown in figure 9.

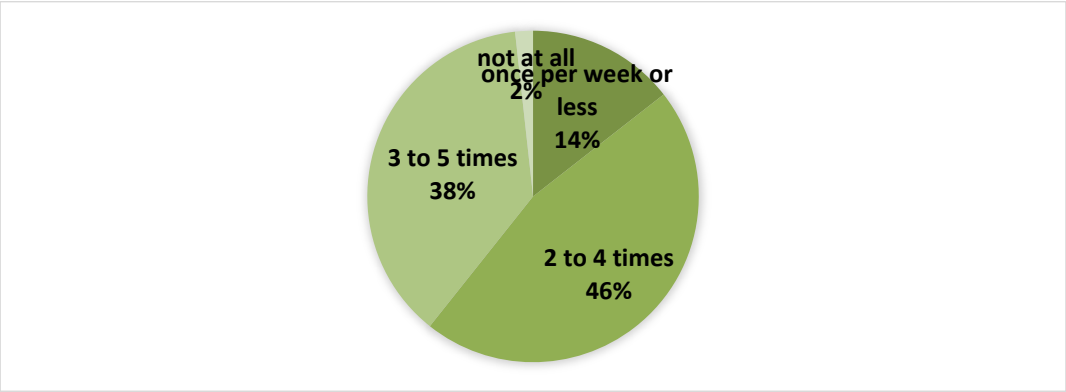

Figure 9: Having less interest

In Figure 9, the findings portray five (14%) once per week or less were having less interest or participated often in important activities. While 16 (46.0%) of the respondents show interest 2 to 4 times per week, 13 (38%) 3 to 5 or more times per week, one (2%) who was interested or participated in important activities. The finding, therefore, reveals that a substantial number of the respondents at 46%, were having minimal interest or participated less frequently in important activities. This implies that most of the motor vehicle accident victims were shown less interest in important activities.

4.11 Feeling Distant

The descriptive analysis results for the feeling distant scale are shown in figure 10.

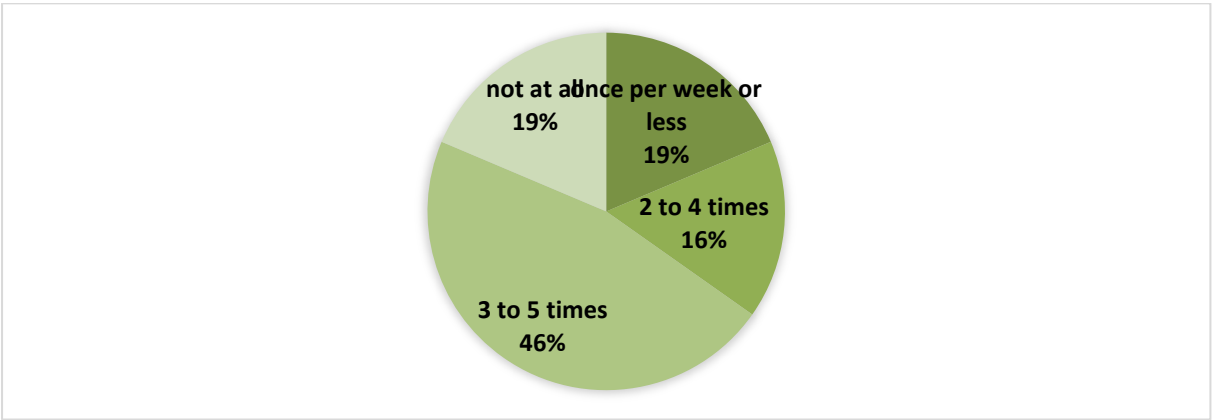

Figure 10: Feeling Distant

In Figure 10, the findings portray that six (19%) of the respondents stated that they were feeling detached or cut from the people around them at least once per week or less. Five (16%) developed the feeling 2 to 4 times per week, 15 (46%) 3 to 5 or more times per week, while six (15%) were not feeling distant from people. This reveals that over 30 respondents were feeling distant from the people. This implies that the results were significant for motor vehicle accident victims who were feeling detached or cut from the people around them.

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Journal of Psychology
Volume 3||Issue 2||Page 100-115 ||August||2021|
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4.12 Feeling Emotionally Numb

The descriptive analysis results for feeling emotionally numb scale are shown in figure 11.

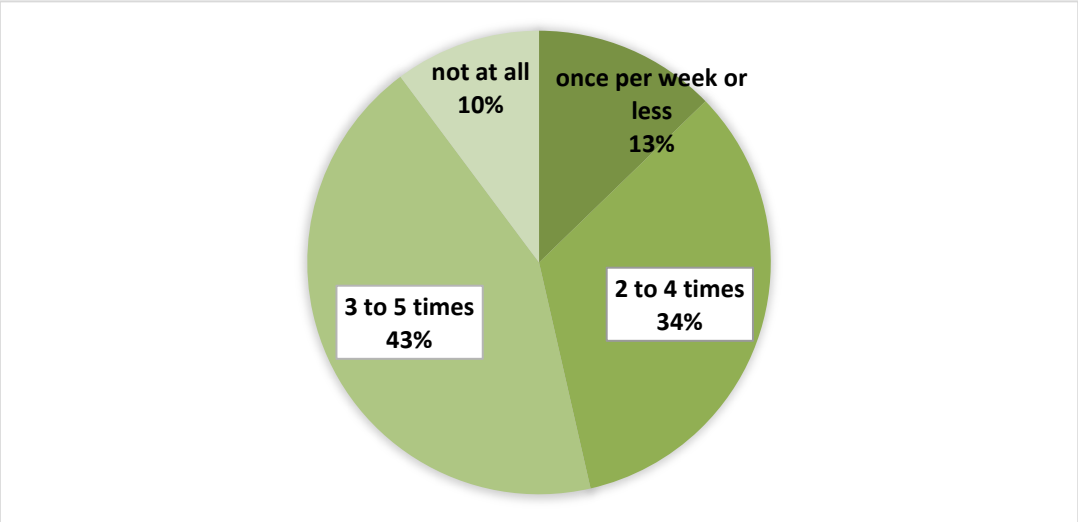

Figure 11: Feeling emotionally numb

In figure 11, the findings show that five (12.5%) respondents recorded that they felt emotionally numb once per week or less. While over 13 (33%) felt 2 to 4 times per week, 17 (42.5%) 3 to 5 or more times per week, and 4 (10%) were stable. Emotionally numb. This revealed that over 34 respondents recorded that they feel emotionally numb. This implied that the results were significant and that the motor vehicle accident victims felt emotionally disoriented (unable to cry or having affectionate feelings).

4.13 Feeling No Hope

The descriptive analysis results of the feeling no hope scale are shown in figure 12.

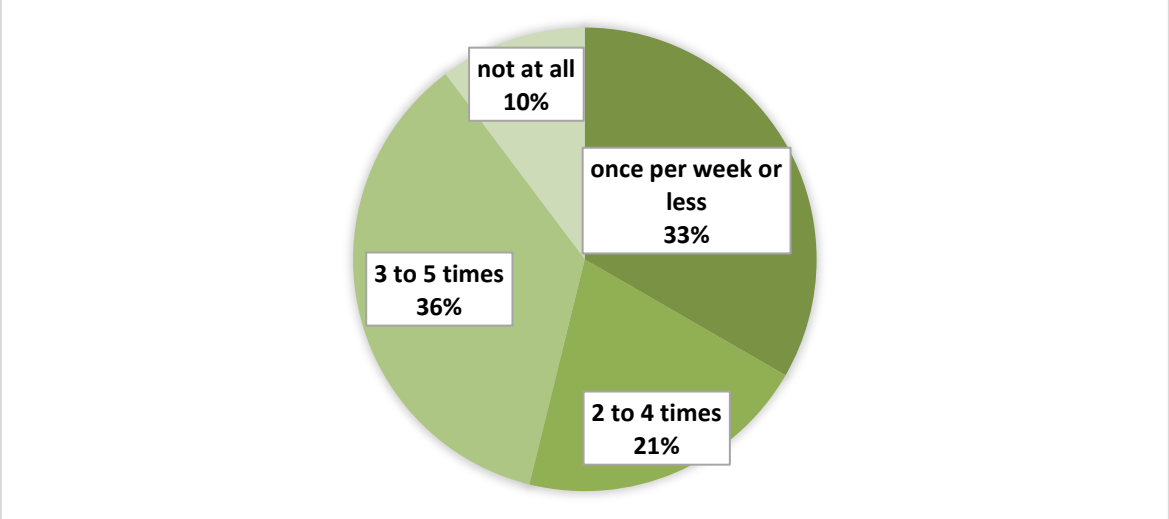

Figure 12: Feeling no hope

In Figure 12, the findings portray that 13 (32.5%) of the respondents have no hope for their future at least once per week or less. Eight (20%) felt 2 to 4 times per week, 14 (35%) 3 to 5 or more times per week, and four (10%) had hope for their future. The findings indicated that the results were significant; the respondents were having a feeling of hopelessness about their

future. This implies that 34 (85%) motor vehicle accident victims felt that their future anticipations or plans will not come true.

4.14 Trouble Falling Asleep

The descriptive analysis results for having fallen asleep scale are shown in figure 13.

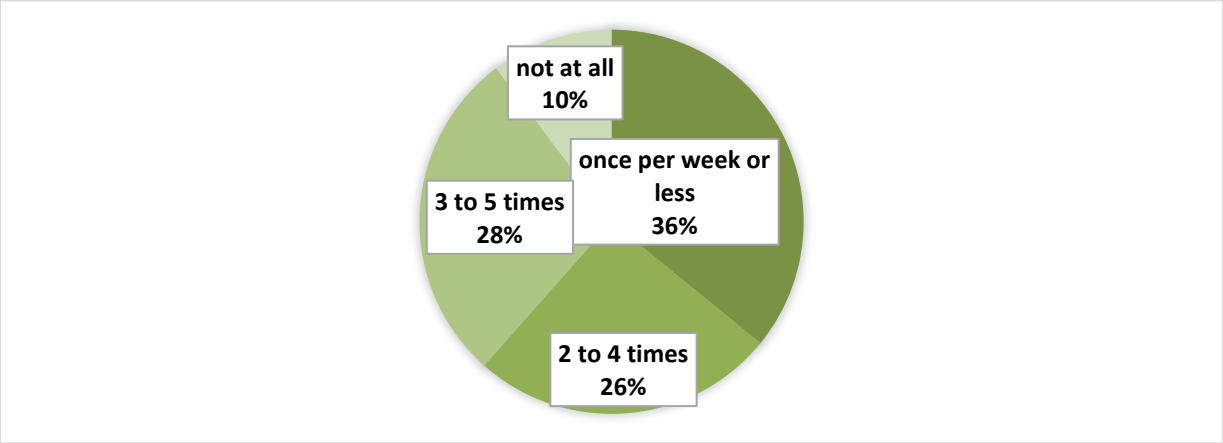

Figure 13: Trouble falling asleep

In Figure 13, the findings indicated that a significant number of respondents at 80% are having trouble falling asleep or staying asleep. 14 (35%) respondents stated at least once per week or less. Ten (25%) 2 to 4 times per week, 11 (27.5%) 3 to 5 or more times per week, and four (10%) were able to sleep without any problem. This implies that more than 32 (80%) motor vehicle accident victims are having difficulty falling asleep or remaining asleep.

4.15 Feeling Irritable

The descriptive analysis results on feeling irritable are shown in figure 14.

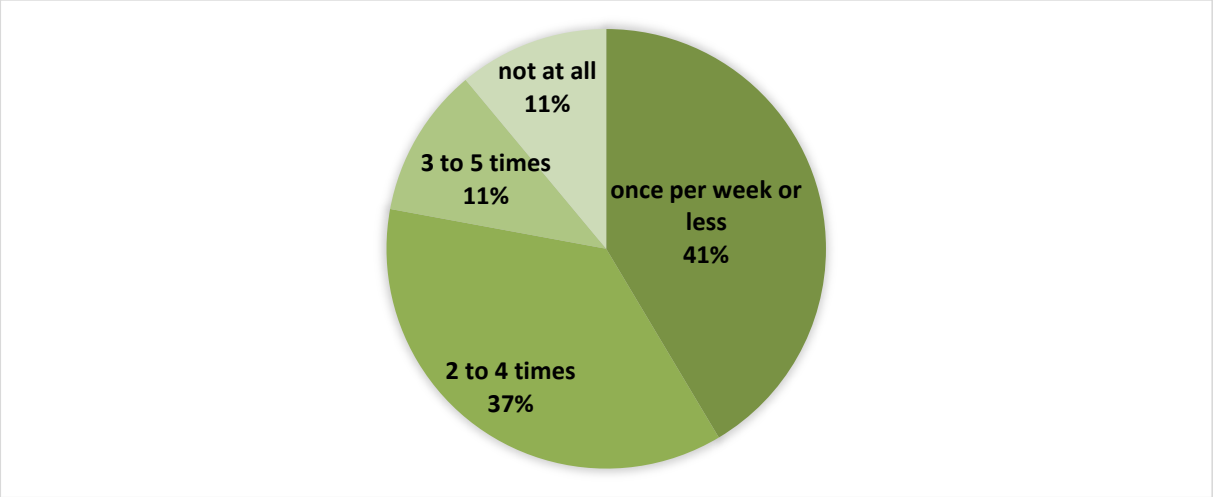

Figure 14: Feeling irritable

In Figure 14, the findings indicated that a significant number of respondents at 70% are feeling short-tempered or experiencing fits of anger. 15 (41%) of the respondents feel irritable at least once per week or less. Over 13 (37%) 2 to 4 times per week, four (10%) 3 to 5 or more times per week, and four (10%) do not feel irritable. This implies that over 28 (70%) motor vehicle accident victims feel irritable or have fits of anger more than once per week.

4.16 Trouble Concentrating

The descriptive analysis results on having trouble concentrating scale are shown in figure 15.

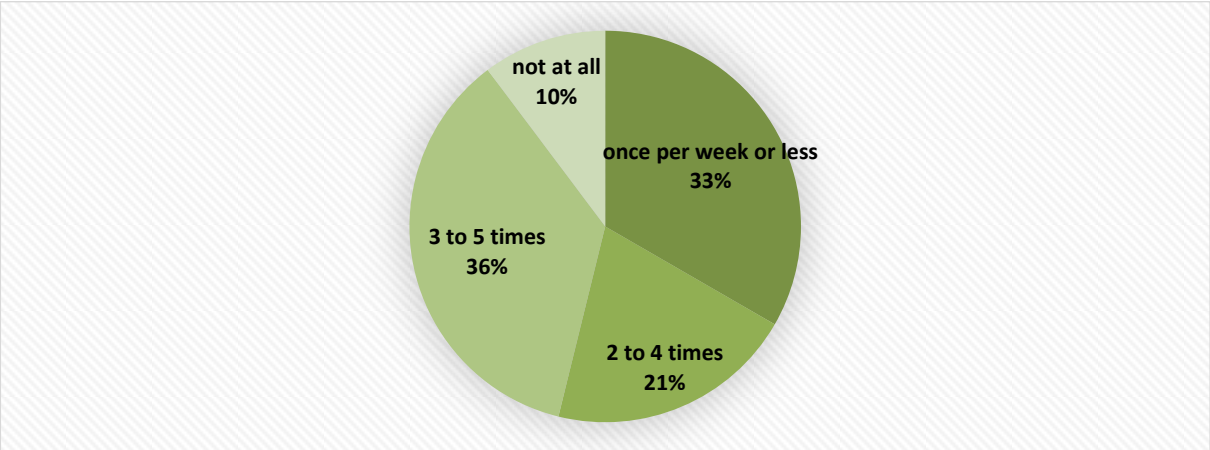

Figure 15: Trouble concentrating

In Figure 15, the findings indicated that a significant number of respondents at 85% are having trouble concentrating. 13 (32.5%) respondents stated that they experience trouble concentrating at least once per week or less. eight (20%) 2 to 4 times per week, 14 (35%) 3 to 5 or more times per week, and four (10%) were able to concentrate. This implies that over 34 (85%) motor vehicle accident victims were having trouble concentrating.

4.17 Overly Alert

The descriptive analysis results on being overly alert scale are shown in figure 16.

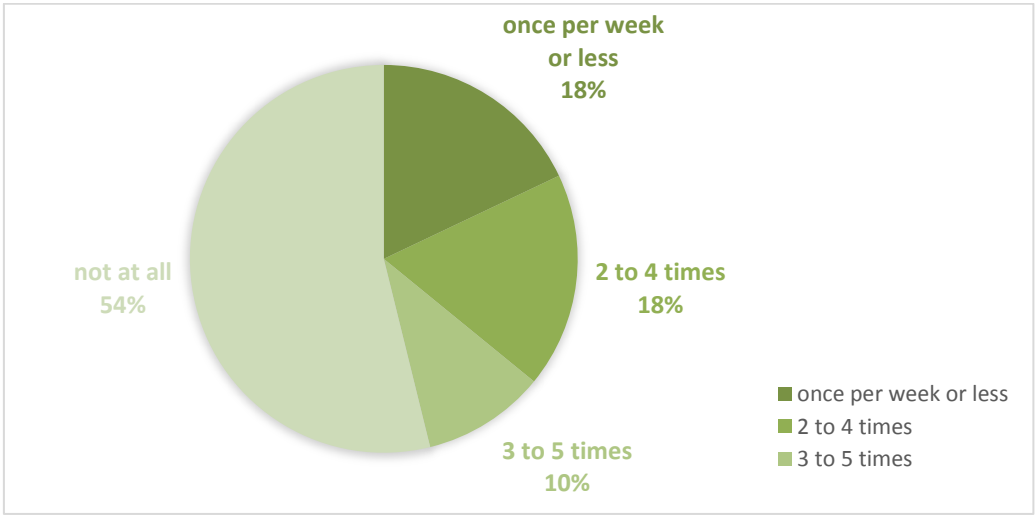

Figure 16: Overly alert

In Figure 16, the findings indicated that a significant number of respondents at 52% are not overly alert. Seven (17.5%) of the respondents stated that they were feeling overly alert at least once per week or less. seven (17.5%) 2 to 4 times per week, four (10%) 3 to 5 or more times per week, and 21 (52.5%) were not feeling overly alert. This implies that over 21 (52%) of the motor vehicle accident victims were having trouble concentrating. acting normally.

4.18 Being Jumpy

The descriptive analysis results on being jumpy scale are shown in figure 17.

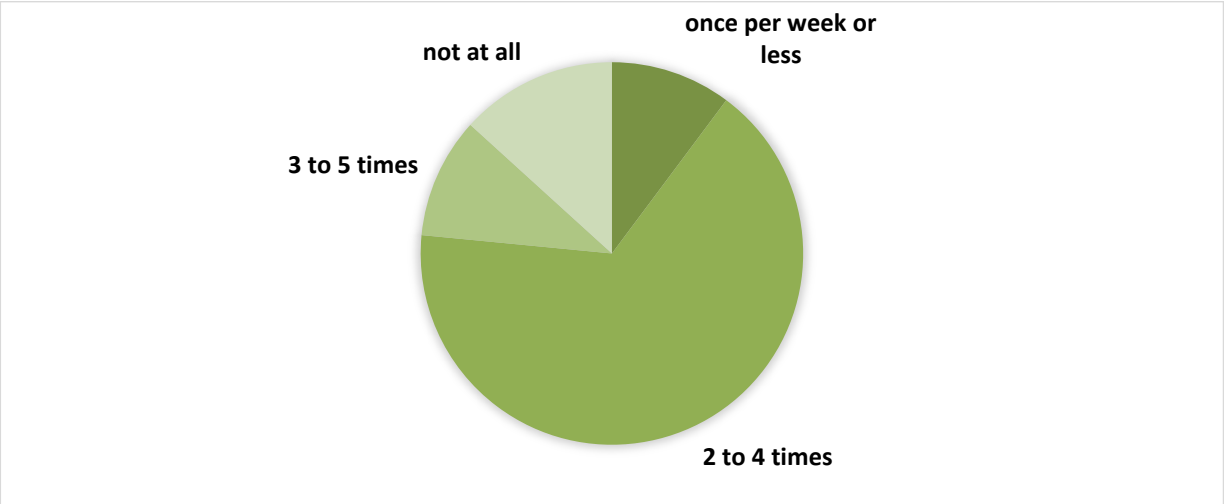

Figure 17: Being jumpy

In Figure 17, the findings indicated that a significant number of respondents at over 60% were being jumpy or easily startled. Four (10%) of the respondents stated that they were being jumpy at least once per week or less. 26 (65%) 2 to 4 times per week, four (10%) 3 to 5 or more times per week, and over 5 (13%) were not being jumpy or easily startled. This implies that over 24 (60%) of motor vehicle accident victims were being jumpy or easily startled.

The PTSD Symptom Scale (PSS) wanted the respondents to mark either 'YES' or 'NO' on several aspects if there have been affected by the traumatic event. The 37 (92.5%), respondents indicated that the traumatic events interfered with their work, 26 (65%) household duties, 33 (82.5%) friendships, 33 (82.5%) fun activities, 33 (82.5%) family relationships, 35 (87.5%) sex life, 35 (87.5%) general life satisfaction, and 26 (65%) overall functioning. However, 26 (65%) responded that it did not interfere with their schoolwork.

4.19 Discussion

The study found out that there were high levels of depression and PTSD among RTA victims in Makindu Level 4 Hospital. The victims had a moderate level of depression (24.97) and a high level of PTSD (an average score of 27 on PTSS). This finding agrees with other previous studies done on the levels of depression and PTSD among RTA victims. For instance, a study done in Nigeria by Asuquo et al. (2017) to assess the prevalence of depression and post-traumatic stress disorder among patients in road traffic accidents found out that the prevalence of PTSD among the cased was 41.3% compared to 13% in the control group while the level of depression among the cases 63% as compared 30.4% in the control group. The findings of this study were statistically significant ($P < 0.002$). This is in line with the findings of this study.

Similarly, the findings are like those of a study done by Fekadu et al. (2019) in Ethiopia that whose findings indicated that 139 (46.5%) participants had at least three extremely severe symptoms that fulfilled the criteria of Diagnostic Statistical Manual IV of PTSD. Results of the study also indicated frequent severe symptoms included having repeated, disturbing memories, thoughts, or images. Alcohol dependence, hazardous alcohol consumption, and harmful use were reported by 7.9%, 15.1%, and 4.7% of the participants, respectively. This

study concluded by revealing that RTA survivors reported substantial rates of PTSD (32.3%) and depression (17.4%) symptoms, and low rates of anxiety (5.8%).

5.0 Conclusion

The findings for levels of depressions among RTA victims concluded that the victims have experienced moderate levels of depression. Finally, the findings on the effect of depression and PTSD on RTA victims concluded that these victims get affected by several factors.

6.0 Recommendations

Victims of RTA should be offered and encouraged to seek psychological counseling to reduce levels of depression and the effect of PTSD. In supporting RTA victims' well-being then the government should offer public re-training to all motor vehicle drivers and motorcycle riders. In formulating policies targeting to reduce the psychological impact on victims due to motor vehicle accidents, the psychological therapists must be involved from the day of an accident up to the full healing of the victims to avoid the prevalence of motor vehicle accidents, depression, and trauma.

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