



ASSESSING DEMOGRAPHIC FACTORS AND TRAUMATIC STRESS AS PREDICTORS OF PSYCHOLOGICAL WELL-BEING AMONG ROAD TRAFFIC ACCIDENT VICTIMS

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ABSTRACT

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Road traffic accident has been a severe yet ignored psychological well-being issues that requires concerned endeavors for compelling and satisfactory prevention in Nigeria. The study aimed at assessing demographic factors and traumatic stress as predictors of psychological well-being among road traffic accident victims in Kaduna State. A cross sectional survey design was adopted using purposive sampling technique. 200 participants were selected from four hospitals sited in two local governments with age ranges from 15-65, 104 males and 96 females. Two instruments were employed; The Brief PWB Scale by Ryff (1989) and Trauma Stress Scale by Bride et al (2004). Two hypotheses were postulated and tested. The first hypothesis was tested using Pearson- Moment Correlation and the result revealed a statistically significant positive influence of intrusion $r(178) = 0.244, P < 0.01$; avoidance $r(178) = 0.355, P < 0.01$ and arousal $r(178) = 0.330, P < 0.01$; on psychological well-being. Further analysis revealed a statistically significant inter-correlation between intrusion and avoidance ($r=0.722, P < 0.01$), arousal and intrusion ($r=0.692, P < 0.01$) and avoidance and arousal ($r=0.683, P < 0.01$). In other words, the hypothesis was confirmed in this study. The second hypothesis was tested with independent sample t-test. The results further indicates that, male and female victims do not statistically significantly differ in psychological well-being; $t(198) = 0.125, P > .05NS$. We concluded and recommended that; there is statistically significant relationship with an indication of a positive relationship between demographic factor of (Age) and traumatic stress on the psychological well-being of road traffic accident victims in Kaduna State. Health care practitioners should endeavor to be closed to their patients through interaction and understanding of patients' needs, patients need to be taught ways to adapt positively and cope with traumatic stress as this could in turn contribute to an increase or decrease in their psychological well-being.

INTRODUCTION

Road traffic accident has been a severe yet ignored psychological well-being issue that requires concerned endeavours for compelling and satisfactory prevention (Arnsberg, 2011). Nigeria loses \$6.2 billion each year due to traffic crashes, according to Yushau (2010). Some of the victims had injuries as a result of the accident, and a few died while undergoing treatment. The total amounts to roughly 12% of GDP and 17% of the existing remote saving. He also bemoaned the fact that many of those killed in car accidents were men aged 25 to 45. "Road accidents result in a slew of social challenges, including financial and psychological problems. The amount of people who come to the clinic with shattered legs and arms as a result of car accidents is a significant loss in our society."

Traumatic stress comprises of three distinct symptom clusters, the re-experiencing indication cluster, the avoidance/numbing side effect cluster, and the hyper arousal indication cluster. The encounter of at least one re-experiencing symptom, three avoidance/numbing symptoms and two hyper arousal symptoms are moreover fundamental for the task of a traumatic push clutter diagnosis. Furthermore, in order for a traumatic stretch diagnosis to be given, the duration of the above symptoms needs to be at least one month and impressive trouble or impairment within the person's social, occupational and other regions of functioning ought to be apparent (George, 2000). Ehlers and Clarke (2000) recommended that an individual with traumatic stress is incapable to evaluate happenings and its suggestion as time-limited, thus supporting a sense of current risk. For example, the world may be a more perilous put, or changed convictions almost one's capacity to oversee stressful scenarios. The individual might make an overestimation of the predominance of these events and thus the discernment of future risk. Consequently, the person might create a methodology for overseeing that chance that really keeps up the fear through evasion, for illustration, dodging the action amid which the event happened due to unrealistic convictions around the chance of

the event echoing. On the other hand, the person might accept that since he or she experienced the trauma that "awful things happens to me" is more likely to develop poor psychological well-being, particularly when it has got to do with episodes of mishaps (Ehlers & Clarke, 2000).

Psychological well-being is frequently operationalized as a temperament, affect, trait, or involvement which may last few minutes or some days. In comparison with disposition, psychological well-being comprises of unsteady components which might dynamically impact the genuine mental state (Hasmenn, Koivula & Uutela, 2000; Martin & Newell, 2005). Akin (2008) cites various terms such as bliss, disposition, influence, subjective well-being, quality of life, fulfilment with life, mental well-being, emotional health and subjective well-being has all being utilized interchangeably with psychological well-being. Through advancing definitions and understandings, there has been a move from the prior estimations of mental dysfunction and trouble in understanding well-being and mental health, towards positive brain research highlighting positive working and defensive components of individuals as imperative measures of mental well-being and psychological well-being.

Psychological well-being is alluded to as palatable mental working that involves subjective rating of bliss and agreeable encounters. (Diener, 2000). Concurring to Diener (2000), there are three main features of psychological well-being: it is personal to individual and often depends on encounter; it is not limited to absence of negative impacts, but moreover positive influences; and it signifies subjective assessment of all aspects of an individual's life. In order to form practical evaluations of well-being, it is essential and imperative to utilize both cognitive and affective measures, which are the two components of psychological well-being (Kaliterna-Lipovcan & Prizmić-Larsen, 2006). (Pavot & Diener, 2004). The study is interested in assessing how traumatic stress and demographic factors such as duration of treatment, nature of accident, gender, age, household size, socio-economic factors, predicts the

psychological well-being of road traffic accident victims in Kaduna state.

Statement of the Problem

Road traffic accidents are inescapable, despite the fact that they can be averted, and when they happen to someone, they produce perplexity psychological imbalance. Traumatic stress in male and female road traffic accident victims has been a cause of concern for individuals in the helping profession, including doctors, nurses, social welfare officers, and counselling psychologists. Road traffic accidents can result in catastrophic physical and mental consequences. Accident victims are treated by specialists from a variety of medical schools. Little is understood about conditions that may predispose to psychiatric diseases, such as traumatic stress (TS) following an accident, or how psychological issues affect physical treatment. Traumatic stress is more likely to occur in road traffic accident victims who are either burdened with the responsibility of making daily arrangements for their family members or who have low socio-financial base (Ebiai, 2010).

According to Yushau (2010), Road Traffic Accident is on the rise in Nigeria and other developing countries, with antagonistic physical and socio-financial suggestions. Regardless, an all-inclusive and coordinated solution to combating this threat has yet to be developed. Road traffic collision has social, physical, emotional and financial consequences. The treatment of road traffic accident cases is an invasive technique that can result in embarrassment, physical and psychological suffering, as well as have an impact on the patient's mental condition. This has a lot of effect both physically and psychologically. Moreover, socially, there is a restriction in the movement of accident victims. Road traffic accident victims while undergoing treatment are made to realize depending on the severity of case presentation that they could do a few things by themselves and this only involves oral activities (talking, eating, drinking, etc.). For occasion, patients might as it were move once they are done with the treatments. This is often an issue which

may lead to visit considerations competent of generating into Tall Blood Weight problem (Duckworth & Lezzi, 2005).

Among researches that has been conducted, the focus has been on psychological well-being among road traffic accident victims without reflecting more on the traumatic stretch that they pass through which has been a thing of concern to the well-being labourers in our healing centers, leaving the victims at the mercies of God, without anybody helping them successfully and effectively overcome the menace and to secure mental stability. Hence, this study has set out to explore certain demographic and mental variables as determinants of psychological well-being among road traffic accident victims. Such variables include; traumatic experience, gender, age, nature of accident and other variables.

Objectives of the Study

The following particular objectives will be met:

- i. To investigate whether demographic factors such as (socio-economic status, gender, age, education & marital status) will have significant joint and independent influence on psychological well-being among road traffic accident victims in Kaduna State.
- ii. To examine the relationship between traumatic stress components of (intrusion, avoidance and arousal) and psychological well-being among road traffic accident victims in Kaduna State.

METHODS

Design: A cross-sectional survey research design was used in this study. This allowed the researcher to collect data from a diverse group of people at a specific period in time.

Participants: The Participants consisted of road traffic accident victims drawn from Hospitals such as 44 Army Reference Hospital Kaduna, St Gerald

Catholic Hospital, Gwamna Awan Hospital, Barau Dikko Teaching Hospital (Nursing Home) cutting across genders (males and females) excluding little children and those in very critical conditions as a result of the aftermath of the incidence. The study looked at young persons (15-26 year old) and older adults (27-40 years old) who were engaged in road traffic accidents (RTA). The above hospitals were selected because it houses a handful of accident cases. The study selected a total of two hundred (200) participants of road traffic accident victims. The duration for the study was two weeks and the researcher was assisted by trained research assistants, who assisted in the collection of data. The frequencies and percentages of the characteristics of 200 accident victims (104 males and 96 females). Age ranged between 15-65 years with a mean age of 30.20 and standard deviation of 7.942. Education: primary (N= 13, 6.5%), SSCE (N=51, 25.5%), OND/NCE (N=21, 10.5%), HND (N=59, 29.5%), BSC (N=42, 21%) and PG (N= 41, 7%). Marital Status: single (N= 44, 22%), married (N= 133, 66.5%), Divorced/Separated (N= 15, 7.5%) and widowed (N=8, 4%). Social-Economic Status: Low (N=57, 28.5%), Middle (N= 116, 58%), High (N=27, 13.5%), Duration in Hospital: > 1 week (N=92, 46%), 1-3 weeks (N=89, 44.5%) and Above 3 weeks (N= 19, 9.5%) and Nature of accident: motorcycle (N=101, 50.5%), Car (N=51, 25.5%), Domestic (N=29, 14.5%) and Roadside (N=19, 9.5%).

Sampling Size/ Sampling Technique: A purposive sampling technique was used in this study where two hundred (200) participants were selected for the research. This is because the road traffic accident victims cannot be found in one place. This sampling method helped save cost. The study lasted for a period of two weeks with the support of trained research assistants who assisted the researcher to administer the survey.

Instrument:

Brief Psychological Well-Being Scale developed by Ryff (1989). It is made up of eight categories that describe fundamental components of human functioning, including pleasant relationships,

feelings of competence and having a sense of meaning and purpose in life. Each item is graded on a 1–7 Likert scale, with Strong Disagreement being the highest and strong agreement being the lowest. The brief PWB performed well, with high internal and temporal reliabilities and high convergence with other similar scales. At 0.80 and 0.69, the PWB had a substantial correlation with the total scores on the other psychological well-being scales. The scale developer reported a Cronbach alpha of $\alpha = 0.86$. Isah (2019) validated psychological well-being scale in Nigeria by Isah with a Cronbach alpha of .94.

Secondary Traumatic Stress Scale was developed by Bride, Robinson, and Figley (2004). Is a 17-item traumatic stress scale which was created to assess how stressed an individual is following a traumatic event. The scoring pattern is based on a 1-5 Likert scale with N denoting never and R denoting rarely. OC stands for “sometimes,” OF for “often,” and A for “always.” Internal consistency of $=.82$ was reported by the scale’s creators as adequate. The study validated the Secondary Traumatic Stress Scale which consists of 17 items. The pilot study was conducted using 20 participants and a Split-Half Reliability method was adopted. The result revealed a Cronbach’s Alpha Coefficient for the two-half as 0.784 and 0.785 respectively with a Guttman Split-Half Coefficient of 0.959. Consequently, the tool was found reliable and valid for use in this study.

Procedure

The research was carried out in Kaduna State. Kaduna is the capital of Kaduna State in Nigeria’s north-western region. The study was conducted out in some selected hospitals as it houses larger proportion of accident victims in Kaduna. Permission was obtained in the setting where the research was conducted, introducing the researcher to the authorities for permission to conduct the research and to seek for ethical approval. Participants were debriefed and gave their consent to participate in the study by filling an informed consent form. The following hospitals were visited for data collection; 44 Army Reference Hospital Kaduna, St Gerald Catholic Hospital, Gwamna

Awan Hospital, Barau Dikko Teaching Hospital (Nursing Home). The choice of the settings was because they house a considerable number of accident victims on a daily basis. The study lasted for a period of two weeks with the assistance of trained research assistants.

Statistical Technique Used: The study presents the data analysis and correspondent interpretations of the data collated in the study using SPSS v 23 software program, where frequencies, percentages, means and standard deviations were used to analyze

and described the demographic data while the further was analyzed using inferential statistics for the test of hypotheses are: Pearson Product-Moment

Correlation was used to test the relationship between traumatic stress components and psychological well-being, Independent Sample t-test was used to test the gender difference on psychological well-being, One-Way ANOVA was used to test the age mean difference in psychological well-being and Multiple Regression Analysis was used to test the joint and independent influence of demographic factors on psychological well-being among accident victims in Kaduna State.

RESULTS

Table 1: Summary Results of Inter-Correlational Matrix

VARIABLES	PW	G	A	E	MS	SES
Psychological well-being (PW)	1					
Gender	-.015	1				
Age	.156*	-.223*	1			
Education	-.096	-.105	.113	1		
Marital Status	.076	.110	.412**	.060	1	
Socio-economic Status	-.031	.061	.009	.375*	-.021	1

Sig. Level: * $P < .05$, ** $P < .01$

Table 1 shows the summary of inter-correlational matrix results where the variables age and gender indicate a statistically significant inter-relationship psychological well-being. This implies that the variables inter-related significantly in age, gender, marital status and socio-economic status as factors that influences psychological well-being among accident victims.

Hypothesis 1

Gender, Age, Education, Marital Status and Socio-economic Status will jointly and independently influence the psychological well-being of accident victims in Kaduna State. This hypothesis was tested using Multiple Regression Analysis in table 2.

Table 2: Summary of multiple regression analysis showing joint and independent influence of Demographic factors on Psychological Well-being among Accident Victims in Kaduna State.

Variables	R	R ²	F	p-value	β	t	p-value
PSWB							
(Constant)					-	7.41	0.000**
Gender					0.007	0.087	0.931
Age	0.19	0.038	1.52	0.000	0.165	2.029	0.044
Education					0.120	-1.552	0.122
Marital Status					0.015	0.185	0.853
Socio-economic Status					0.012	0.157	0.875

Table 2 presents the summary results of the multiple regression analysis where it revealed that, gender, age, education, marital status and socio-economic status do not jointly and significantly influence psychological well-being ($R = .195$; $F = 1.526$, $P > .05$) and indicates a proportion of 3.6% variance for psychological well-being among accident victims in Kaduna State. The results further revealed that age significantly influence psychological well-being ($\beta = .165$; $t = 2.029$, $P < .05$) while other factors were statistically insignificant. In other words, this hypothesis was not confirmed in the study.

Hypothesis 2

There will be a significant relationship between stress components and psychological well-being among accident victims in Kaduna State. This hypothesis was tested using Pearson Product Moment Correlation in table 3.

Table 3: Summary of Pearson Product-Moment Correlation Showing the Relationship between Traumatic Stress Components and Psychological Well-being among Road Traffic Accident Victims in Kaduna State

Variables	N	r	df	p-value	Remarks
Psychological Well-being	200	0.244	198	0.000	Significant
Intrusion					
Psychological Well-being	200	0.355	198	0.000	Significant
Avoidance					
Psychological Well-being	200	0.330	198	0.000	Significant
Arousal					

Table 3 shows the summary results of the Pearson Product-moment correlation between traumatic stress components and psychological well-being among accident victims. The results revealed a statistically significant positive influence of intrusion $r(198) = 0.244$, $P < 0.01$; avoidance $r(198) = 0.355$, $P < 0.01$ and arousal $r(198) = 0.330$, $P < 0.01$; on psychological well-being among accident victims in Kaduna State. Also, the results revealed a statistically significant inter-correlation between intrusion and avoidance ($r=0.722$, $P < 0.01$), arousal and intrusion ($r=0.692$, $P < 0.01$) and avoidance and arousal ($r=0.683$, $P < 0.01$). In other words, the hypothesis was confirmed in this study.

DISCUSSION

The study examined demographic factors and traumatic stress as predictors of psychological well-being among road traffic accident victims in Kaduna State. Two hypotheses were stated and tested.

Hypothesis one stated that Gender, Age, Education, Marital Status and Socio-economic status will jointly and independently influence the psychological well-being of accident victims in Kaduna State. Results of this analysis revealed that, gender, age, education, marital status and socio-economic status do not jointly and significantly influence psychological well-being. The results further revealed that age independently significantly

influence psychological well-being of accident victims. Which is in line with findings of Argyle (2001), who found prove that happiness increases delicately with age, basically due to a declining objective accomplishment gap. In other words, as time goes by, individuals figure it out that their desires were likely set too high in their more youthful years and learn to accept the reality of their lives. Similarly, Mirowsky and Ross (2003) investigated whether demographic variables such as age, sex, and class of study have an impact on psychological well-being among cancer patients in USA. Their review of the data from 210 patients in the United States from 1990 revealed that age, sex, and class of study all have an impact on their

psychological well-being. Furthermore, men were found to keep their emotions to themselves more than women and women communicated their emotions more openly than men, who appeared to be more distressed.

The second hypothesis suggested that traumatic stress components of intrusion, avoidance and arousal will have a major impact on the psychological well-being of accident victims in Kaduna State. The findings revealed that traumatic stress components have a significant relationship with psychological well-being. This is in line with Chrestman (2000), who detailed that presentation to trauma and self-detailed misery among accident victims are related with expanded side effects of interruption, avoidance, detachment, and sleep disturbance which impacts psychological well-being. Ifeagwazi, (2005) examined the sources of traumatic stretch among clergymen and seminarians in Nsukka, Enugu state. 103 subjects comprising 41 Rev, 6 Ministers, 30 Rev Sisters, and 26 Seminarians were randomly tested for the study. The ages of the subjects extended between 17 a longtime and 62 with mean age of 39.6. A questionnaire was used a split-half reliability coefficient of .71 was obtained using this inventory. The result showed that various groups of subjects used in the investigation were experiencing considerable stress arising from various sources. Similarly, Ofoegbu and Nwadiani (2006) investigated the prevalence of stressful working conditions in higher education. According to the study things which are life undermining, destructive as well as challenging circumstances stressful to individual's presence and well-being which the authoritative staff are among results in trauma. Supporting the discoveries in this work, Yekeen (2010) on the young people of the Niger Delta locale of Abia and Akwa Ibom States, probing the exposure of 120 young people (60 each from each state) to community crime. A basic clinical meet was utilized to stimulate information from the participants. The result of the study showed that all the participants had been exposed to community ferocity. In general, forty per cent of the participants were diagnosed with one or more psychiatric disorders, while eighteen per cent

reported no symptoms. Research in Nigeria have demonstrated that a noteworthy number of accident victims experience severe psychological problems after road traffic accident has occurred (Afolabi & Gbadamosi, 2017). In any case, research has also shown that for a few certain individuals, indeed after witnessing traumatic encounters they still have their psychological well-being unbroken (Akowe, 2014).

CONCLUSION

Based on the findings of the study and the discussion of the same, the following conclusions could be drawn. Results of study analysis revealed that, gender, age, education, marital status and socio-economic status do not have a joint significance influence psychological well-being. However, age independently had an influence on psychological well-being. Also that traumatic stress components and age significantly predicts psychological well-being. This implies that psychological well-being is affected by traumatic stress and age. Thus, Psychology profession has a lot of responsibility in educating the public on best traumatic stress management principles and well-being. Results also revealed that these variables indeed predict the psychological well-being of road traffic accident victims. It is thus concluded that stress components vary across individuals in their different states of well-being.

RECOMMENDATIONS

The following recommendations were made based on the finding of this study.

- i. Thus, Psychology profession has a lot of responsibility in educating the public on best traumatic stress management principles and well-being practices. Practitioners should therefore emphasize life-building skills such as assertiveness, decision-making, and group formation, etc. to foster a stronger sense of well-being.
- ii. There is a need for trauma-educated care (TEC) which gives a wide understanding of traumatic stress

reactions and common retorts to trauma. This research will better direct providers on how trauma can influence treatment presentation, engagement, and the result of psychological well-being especially in terms of accident casualties.

- iii. The study will also be advantageous to therapeutic practitioners and administrators of hospitals in making a difference and helping them to recognize a few of the well-being behaviours that could lead to poor psychological well-being among patients.

REFERENCES

- Afolabi J, A., & Gbadamosi K. T., (2017). Road traffic crashes in Nigeria: Causes and consequences. *transport & logistics: The International Journal*, 17(42), 4049.
- Akowe, J. (2014). Optimism, coping behaviour and gender as predictors of psychological health of flood victims in Kogi State. *Unpublished project work*
- Argyle, M., & Crossland, J. (2001). Dimensions of positive emotions. *British Journal of Social Psychology*, 26, 127–137.
- Akin, A. (2008). The scale of psychological well-being: A study of validity and reliability. *Educational sciences: Theory and Practice*, 8 (3) 741- 750.
- Bride, B. E., Robinson, M. M., Yegidis, B., & Figley, C. R. (2004). Development and validation of the secondary traumatic stress scale. *Research on Social Work Practice*, 14(1), 27-35
- Chrestman, K. R. (2000). Exposure to trauma and self-reported distress among accident victims. *In B.H. Stamp (Ed) Secondary traumatic stress; preventing and managing accident victims.*
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national indeks. *American Psychologist*, 55(1), 34-43.
- Duckworth M, P., & Lezzi T. (2005). Chronic pain and post-traumatic stress symptoms in litigating motor vehicle accident victims. *Clinical Journal of Pain*. 21(251-261).
- Ehlers, A., & Clark, D.M. (2000). A cognitive model of traumatic stress disorder. *Behaviour Research and Therapy*, (38) 319–345.
- Figley, C. R. (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. New York: Brunner/Mazel
- Ifeagwazi, M, C., (2005). Stress in religion communities. In Ezeilo, B, N., (ed.) *Family italic management* (Pp 85-103). Enugu: Snaap press limited.
- Kaliterna Lipovcan, L, J., & Prizmic Larsen, Z. (2006). *Quality of life: Life satisfaction and happiness in Croatia in comparison to European Countries*. The Challenges of Participation, 8(189-208). Zagreb: Institute of Public Finances.
- Martire, L. M., Stephens, M. A., & Townsend, A. L. (2000). Centrality of women's multiple roles: Beneficial and detrimental consequences for psychological well-being. *Psychology and Aging*, 15, 148–156.
- Mirowsky, & Ross (2003). Adult attachment style and affect regulation: Strategic variations in self-appraisals. *Journal of Personality and Social Psychology*, 75, pp 420-435.
- Ofoegbu, F., & Nwadiani, M. (2006). Level of perceived stress among lecturers in Nigerian Universities. *Journal of Instructional Psychology*, 30(3), 1-2.
- Pavot, W., & Diener, E. (2004). Findings on subjective well-being: Applications to public policy, clinical interventions, and education. In P. A, Linley & S. Joseph (Eds.), *Positive psychology in practice* (pp.679-692). Hoboken, NJ: Wiley and Sons, Inc.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being.

Journal of Personality and Social Psychology, 57, 1069 – 1081.

Yekeen, A. J. (2010). Exposure to community violence: Niger Delta Youth, Posttraumatic Stress reactions and treatment implications. *Journal of Alternative Perspectives in the Social Sciences*, 2(2), 917-931.

Yushau, A. (2010). “Chidoka confront road traffic crashes.”, *New Nigerian Newspapers*, Monday, August 09.