

## **Post-Traumatic Stress Disorders and Adjustment Technique following Methanol Consumption among Selected Residents of Ode-Irele Township, Ondo State, Nigeria.**

<sup>1</sup>Bayo L. Ajibade, <sup>2</sup>Makanjuola, O. John, <sup>3</sup>Amoo, Patience, O., <sup>4</sup>Okunlade, J. Layisade

<sup>1,3,4</sup>Ladoke Akintola University of Technology Ogbomosho College of Health Sciences, Osogbo, Osun State, Nigeria

<sup>2</sup>Ondo State School of Nursing, Akure, Ondo State, Nigeria.

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**Abstract : Introduction:** Methanol, also known as wood alcohol, is a commonly used organic solvent that, because of its toxicity can cause metabolic acidosis, neurologic sequelae and even death, when ingested. This was the scenario at Ode-Irele township resulting in the death of some of the residents and admission into the hospitals in April, 2015. Therefore, this study was to assess the post-traumatic stress disorders and adjustment strategies adopted by some community members were exposed to methanol consumption.

**Methodology:** Convenient sampling was used to select the respondents which resulted from the calculation of sample size using Thumb's rule. Standardized instrument on post-traumatic disorders by Weathers, et al and adjustment styles by Carver, et al. instruments. Data collected were analyzed with SPSS for window version 20. MANOVA and CHI-SQUARE were used as the statistical tools. Three (3) research questions were answered and three (3) hypotheses were tested.

**Results:** The findings revealed that the respondents experience the following post-traumatic stress disorders, disturbing memories, thoughts or images of a stressful experience from the past, feeling very upset, avoid talking about the stressful experience. In terms of coping styles; 87.7% prayed and trusted God. One of the three hypotheses was significant at  $P=0.000$ .

**Conclusion :** It was concluded that people experienced post-traumatic disorder at different levels and exhibit different adjustment/coping styles when faced with unhappy situations. It was recommended that Nurse should have adequate knowledge of clinical manifestations of PTSD and encourage the patients to adopt any of the adjustment strategies rather than not using any at all.

**Keywords :** PTSD, Methanol Poison, Adjustment styles / MANOVA, Ode-Irele, Ondo.

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### **I. INTRODUCTION**

Methanol, also known as wood alcohol, is a commonly used organic solvent that, because of its toxicity, can cause metabolic acidosis, neurologic sequelae, and even death, when ingested. It is a constituent of many commercially available industrial solvents and of poorly adulterated alcoholic beverages. Methanol toxicity remains a common problem in many parts of the developing world, especially among members of lower socioeconomic classes. Sophisticated imaging techniques have enabled a better understanding of the clinical manifestations of methanol intoxication. Additionally, neurologic complications are recognized more frequently (Zakharov et al, 2014).

According to a study by Jaff et al (2014) methanol intoxication can lead to several ECG changes, with sinus tachycardia and non-specific T-wave changes being the most common. In the study, the changes were more prominent in cases of severe acidosis. A retrospective chart review of 9 patients between 2006 and 2011 revealed that lower pH and higher plasma methanol concentration were associated with multiple ECG changes. On admission, ECG changes included sinus tachycardia (44%), PR prolongation (11%), QTc prolongation (22%), non-specific T-wave changes (66%).

Post traumatic stress disorder (PTSD) is a condition that generates waves of anxiety, anger, aggression, depression, and suspicion, threatens a person's sense of self, and interferes with daily functioning (Copel, 2000). Specific examples of events that place people at risk for PTSD are rape, family violence, torture, terrorist attack, fire, earthquake, military combat and death. It is often thought that the incidence of PTSD is very low in the overall population. However, when high-risk groups are studied, the results indicate that more than 50% of study participants have PTSD (Copel, 2000).

Exposure to traumatic events enhances the risk of post traumatic stress disorder (PTSD) (Bugg, Turpin, Mason, & Scholes, 2009). This disorder is one of the consequences which occurs in survivors of traumatic events such as war, torture, natural disasters, assault, rape and accidents (Kaplan & Sadock, 2007). This was introduced for the first time in diagnostic classification of American Psychiatric Association of Mental Disorders in 1980, and since then it has been addressed in various topics (Naijaria & Barati Sade, 2000). Post-traumatic stress disorder is one of the unique, complex and chronic disorders in which symptoms include three dimensions of high arousal, avoidance and apathy, and the individual regular re-experiencing of the traumatic event (American Psychiatric Association, 2013). These symptoms have great impact on individual's quality of life and affect their job, social and educational performance (Chossegros et al., 2011).

Although it is worth nothing that exposure to traumatic events is common; but the post-traumatic stress disorder is rare. Generally the prevalence of this disorder has been estimated from 1% to 9% in public population (Chossegros et al., 2011). In a study that was performed on 430 people among earthquake survivors after Turkey earthquake in 1999, the manifestation of disability and mental disorder like PTSD was seen. PTSD is usually the first response of the survivors to the trauma. National center of the post-traumatic stress disorder studies (1999) reported the PTSD manifestation after earthquake from 32% to 80% in adults and 25% to 95% in children. In national survey of disorder co morbidity, 60/7% of American adults have reported the experience of at least one traumatic event throughout their life in which 8/2% of males and 20/9% of females were suffering from PTSD and no difference was found between PTSD and their occupation (Kessler et al., 2005). In this context, Narimani, Zahed Bolbolan, and Basharpour (2010) reported to prevalence of PTSD in nurses of hospital emergency centers and fire station workers 14% and 8% respectively.

These evidences show that although exposures to traumatic events increases the risk of post-traumatic stress disorder (PTSD), not everybody would suffer from psychological complications after traumatic experiences. One of the risk factors of PTSD after exposure to trauma is experimental avoidance. Unwanted thoughts, emotions and memories along with efforts to control, suppress and inhibit the shape and the frequency of these private events and the contexts that have been created by these situations (Hayes, Wilson, Glifford, Follette, & Strosahl, 1996).

Evidence shows that exposure to traumatic events is an important issue for general health. Exposure to traumatic events is a common phenomenon which increases the risk of post-traumatic stress disorders. Most people remember a stressful event like death of a loved one, divorce and emotional trauma throughout their life which is probable to happen, hence recognizing protective and risk factors of PTSD can play an important role after experiencing traumatic events. Pickett, Bardeen, and Orcutt (2011) suggested that there is a positive relationship among experimental avoidance and PTSD and sensitivity of the behavioral inhibition system. Barden Fergust, and Orkutt (2013) in their study concluded that although anxiety sensitivity is positively correlation with high level of perceived stress, it is not correlated with their occupation. In contrast, mindfulness as an adaptive psychological construct can work like a protective factor and break the basic traumatic cycle of experiencing traumatic events and psychological symptoms coincidence. Kabat Zinn (2003) defines mindfulness as a kind of psychological state characterized by paying total attention to the present moment with a non-judgemental awareness of inner and outer experiences. Studies have shown that the high level of mindfulness is associated with the low level of stress symptoms and mood disorders (Tamagawa et al., 2013). Thompson and Waltz (2010) showed that mindfulness is associated inversely with avoidance symptoms of post traumatic stress disorder. Vujanovic, baBARA, Asley , Schmertz, and Potter (2013) came to the result that increasing mindfulness and mental integration with supportive treatments will be associated with the recovery of post traumatic stress disorder symptoms empirically.

How individuals cope with traumatic events may be more important in the development of post traumatic stress disorder (PTSD) than the occurrence of the trauma itself (Aldwin, 1999; Mikulincer & Florian, 1996). For example, Fairbank, Hansen, & Fitterling (1991) compared coping strategies of three groups of WWII male veterans, prisoners of war (POWs) with PTSD , those without, and veterans who were not POWs. POWs with PTSD were more likely to use wishful thinking, self-blame, and self-isolation, whereas POWs without PTSD were more likely to use reappraisal coping. Aldwin, Levenson, & Spiro (1994) also found that the perceived benefits of military service also resulted in lower PTSD symptoms in WWII veterans. Vietnam veterans who used more emotion-focused coping were also more likely to report PTSD. The Israelis have also conducted a number of studies in this area. One prospective study of combat soldiers in the Lebanon War found that wishful thinking and denial were also predictive of PTSD over the course of a year (Solomon, Mikulincer, & Benbenishty, 1989). Concurrent use of problem-focused coping was inversely related to PTSD two to three years after the war in the same population (Solomon, Mikulincer, & Abitzur, 1988). Israeli civilians who used palliative coping during the SCUD missile bombing were more likely to experience negative stress reactions (Zeidner & Hammer, 1992).

As mentioned earlier, the impact of emotional disclosure of trauma may be moderated by the reactions of others in the environment. Specifically, Stephens and Long (2000) found that New Zealand police officers who received positive peer communication and who could easily talk about trauma had lower PTSD scores and lower levels of physical symptoms.

Pisarsi, Bohle & Callan (1998) examined coping and physical symptom among shift workers. There were both direct mediated effect of coping on health outcomes. Specifically, disengagement coping strategies were directly related to increased physical symptoms, but emotional expression was mediated through both conflicts and support. Finally, two studies found that the relationship between coping and physical symptoms disappeared once controlling for personality factors such as neuroticism (Costa & McGrae, 1986) and anxiety (Hemenover & Dienstbier, 1998).

## **II. PROBLEM STATEMENT**

It as being discovered specifically that anytime there is an emergency problem which is devastating in nature, the aftermath is usually post-traumatic stress disorders. In Ode-Irele it was discovered that in one evening of April many people complained of stomach ache, blurred vision and fatigue resulting in some of them giving up the ghost and within the 24hrs of that occurrence it was discovered that many have been admitted complaining of the above clinical manifestation on admission with a lot of corpses taking to mortuary. It was later discovered that those that died were taking locally brewed wine contained methanol. Many people in this community think that it was spiritually inclined, because they have refused to worship the ancestors which was the natural practice before now, therefore, this research assess the post-traumatic stress disorder and the adjustment technique adopted by the member of the community.

## **III. SIGNIFICANCE OF THE STUDY**

Base on this information concerning local gin will assist in planning health educating and inform process that will for stall further occurrence. It will serve as a pivot in the designing a policy on how such an occurrence can be managed in terms of creating awareness among community members and state at large.

### **The study objectives are:**

- To assess the demographic variable of the respondents.
- To examine various types of adjustment styles being adopted by the respondents.
- To determine various types of post traumatic stress disorders.
- To determine the relationship between post traumatic stress disorder and respondents demographics characteristics
- To assess if there is any relationship between adjustment style and post traumatic stress disorder.
- To examine if there is any association between respondents demographics characteristics and post traumatic stress disorder.

### **RESEARCHER QUESTIONS**

1. What are the demographic characteristics of respondents?
2. What is the level of post traumatic stress disorder among the respondent styles among the respondents.
3. There is no association between post traumatic stress disorder and adjustment styles among the respondents.

### **RESEARCHER HYPOTHESIS**

1. There is no significant difference between demographic variables and post traumatic stress disorder among the respondents.
2. There is no significant difference between demographic characteristics and adjustment styles among the respondents.
3. There is no association between post traumatic stress disorder and adjustment styles among the respondents.

**IV. METHODOLOGY**

**Research Design:** An exploratory research design was adopted for the study to explore post traumatic stress disorders among residence of Ode-Irele, Ondo-State following the methanol poison episode & adjustment / coping styles adopted. The study was conducted between July and September, 2015.

**Research Setting:** This study was carried out in Ode-Irele town in Irele Local Government Area, Ondo-State in Nigeria.

**Sample Size Determination and Sampling Technique:** The study sample size was derived through Thumb’s rule which state that in any research 30% of the populations would give good representation of a good universe. Areoye, (2006), supported the thumb’s rule by saying that whenever the population/universe  $b \geq 10,000$ , the sample size determine through the thumb’s rule will be a good representation of the universe.

$$\frac{Z^2Pq}{D^2}$$

$$Z = (1.96)^2$$

$$2 = 3.84$$

$$P=0.30$$

$$q=0.30$$

$$q = 1 - 0.30 = 0.70$$

$$D = 0.05^2 = 0.0025$$

$$\frac{3.84 \times 0.30 \times 0.70}{0.0025} = \frac{0.08064}{0.0025} = 322$$

For the purpose of attrition 350 respondents was taking as the study sample size.

Convenient sampling method was employed to select the available individual in Ode-Irele that participated in the study. The subjects were in their various homes, streets, motor-cycle Parks and primary schools. (The instrument was given experts in the field to ensure the face and content validity of the instrument, pilot test was done with 20 respondents in another Local Government areas of Ondo State). The data colled were analyzed and Cronbach’s alpha was used to determine its reliability with  $r = .75$ . Permission to conduct the study was sought from the appropriate authority and individual who participated in the study, as they were informed that information given would be kept confidential and were asked not to write their names and phone numbers.

**Instrumentation:** Two (2) standardized instruments were used for the study

1. Post traumatic Stress Disorder check listL: It was designed by Weathers et al 1993. The civilian version was used for the study. It has it items, it is believed to have good test-retest reliability over a 2-3 day period. Internal consistency is very high for each of the three groups of items corresponding to the DSM-IV symptoms clusters as well as for full 17 item scale. The PCL correlates strongly with other measures of PTSD, such as the Mississippi scale, the PK Scale of the MMPI2, and the impact of events scale and also correlates moderately with level of combat exposure.
2. Adjustment styles inventory: - It was designed by R. Balaji Rao. It consists of 40 items. It consisted of items on ways of managing distressing events by an ordinary person.

**Method of Data Collection:** A well structured questionnaire was used to collect data from the participants. The questionnaire is made of three sections, section A; consisted the demographic data of the participants, section B; consisted of 17 items information on post traumatic stress disorder, section C; consisted of 40 items information on the adjustment styles being used by the participants.

**Method of Data Analysis:** The data collected were coded and analyzed with statistical Package for Social Science (SPSS) for window version 20. Descriptive statistics such as frequency and percentage were used to answer research questions, research hypotheses were analyzed with MANOVA and Chi-Square.

**V. RESULTS**

**Table 1: Showing the Demographic variables of the respondents**

VARIABLES	F	%
<b>AGE CATEGORY</b>		
15-25	188	53.7
26-36	132	37.7

37-47	15	4.3
48-58	15	4.3
<b>SEX</b>		
Male	146	41.7
female	204	58.3
<b>OCCUPATION</b>		
Civil Servant	139	39.7
Self Employed	126	36.0
Trading	39	11.1
Farming	13	3.7
Driving	33	9.4
<b>EDUCATION</b>		
Primary	26	7.4
Secondary	115	32.9
Tertiary	209	59.7
<b>RELIGION</b>		
Christianity	288	82.3
Islamic	62	17.7

Table 1 above shows the demographic variables of the respondents, majority of the respondents 53.9% were between 15-25 years, more females 58.3% participated in the study than male 39.7% of the respondents were civil servants, 36% were self-employed, 11.1% were Trader, 9.4% were drivers and only four of them who were farmers 3.75 who participated in the study. Fifty nine percent of the respondents had tertiary education, 32.9% of the respondents had secondary school education while 7.4% of the respondents could not proceed their education beyond primary school education. Majority of the respondents 82.3% were Christian and 17.7% were Muslim who participated in the study.

**Table 2: Showing response to the level post traumatic stress disorder**

Response	Not at all (1)		A Little bite (2)		Moderately (3)		Quite a bite (4)		Extremely (5)	
	f	%	f	%	f	%	f	%	f	%
Repeated disturbing memories thoughts, or images of a stressful experience from past?	69	19.7	106	30.3	88	25.1	67	19.1	20	5.7
Repeated disturbing dreams of a stressful experience from the past?	138	39.4	67	19.1	97	27.7	32	9.1	16	4.6
Suddenly acting or feeling as if a stressful experience were happening again	95	27.1	114	32.6	90	25.7	30	8.6	21	6.0
Feeling very upset when something reminded you of a stressful experience from the past?	66	18.9	102	29.1	75	21.4	66	18.9	41	11.7
Having physical reaction when something reminded you of a stressful experience from the past?	78	22.3	90	25.7	87	24.9	44	12.6	51	14.6
Avoid thinking or talking about a stressful experience from the past? Or avoid having feeling related to it.	62	17.7	93	26.6	88	25.1	55	15.7	52	14.9
Avoid activities or situations because they remind you of a stressful	87	24.9	68	19.4	94	26.9	47	13.4	54	15.4

experience from past										
Trouble remembering important parts of a stressful experience from the past	130	37.1	85	24.3	69	19.7	54	15.4	12	3.4
Loss of interest in things that you used to enjoyed.	129	36.9	73	20.9	71	20.3	51	14.6	26	7.4
Feeling distance or cut off from other people.	136	38.9	102	29.1	41	11.7	65	18.6	6	1.7
Feeling emotionally numb or being unable to have loving feelings for those close to you	142	40.6	83	23.7	58	16.6	47	13.4	20	5.7
Feeling as if your future will somehow be cut short	184	52.6	70	20.0	45	12.9	47	13.4	4	1.1
Trouble falling or staying asleep	161	46.0	86	24.6	50	14.3	34	9.7	19	5.4
Feeling irritable or having angry outburst	103	29.4	105	30.0	78	22.3	31	8.9	33	9.4
Having difficulty concentrating	96	27.4	120	34.3	41	11.7	65	18.6	28	8.0
Being "super alert" or watchful on guard	112	32	81	23.1	81	23.1	32	9.1	44	12.6
Feeling jump or easily started?	119	34.0	100	28.6	54	15.4	46	13.1	31	8.9

Table 2 above shows the level of respondents responses to post traumatic disorders, 30.3% of the respondent shown a little bit response to repeated, disturbing memories thought or images of a stressful experience from the past, 25.1% of them responded moderately while 19.7% of them were not affected with the repeated, disturbing memories thought or images of a stressful experience from the past. Twenty-seven percent of the respondents responded moderately to repeated, disturbing dreams of a stressful experience from the past, 39.4% of the respondents did not affected at all with the repeated, disturbing dreams of a stressful experience from the past.

Also, 32.75% of the respondents acted a little bit, 25.7% of the respondents acted moderately, 8.6% of the respondents responded quite a bit while 6% of the respondents extremely acted suddenly or felt as if a stressful experience were happening again, 29.1% of the respondents show a little bit, 21.4% of the respondents responded moderately, 18.9% of them responded quite a bit and 11.1% of the respondent extremely felt very upset when something reminded them of a stressful experience from the past to having physical reaction (such as heart pounding, trouble breathing or sweating) when something reminded them of a stressful experience from the past, 25.7% of the respondents shown a little bit response, 24.7% responded moderately to it, 12.6% shown quite a bit reaction while 14.6% of the respondents extremely reacted to the condition. 26.6% of the respondents avoided thinking about or talking about a stressful experience from the past a little bit, 25.1% of the respondents moderately avoided thinking or talking about stressful experience from the past. Only 2.49% of the respondents could not avoid activities or situations that reminded them of a stressful experience from the past. Also 37.1% of the respondents were not trouble remembering important parts.

Among the respondents, only 36.9% did not lose their interest in things that they used to enjoy, 29.1% of the respondents felt a little bit distant or cut off from other people, 11.7% of them moderately felt distant or cut off from other people, only 1.7% of them extremely felt distant cut off from other people. 40.6% of the respondents were not affected by feeling of emotional numb or being unable to have love feelings for those who are close to the majority of the respondents, 52.6% felt that their future will not be cut-short. Forty six percent for the respondents had no trouble falling or staying asleep, 24.6% of them were a little bit affected, 14.3% of them were moderately affected, while 52% of the respondents were extremely had trouble falling or staying asleep. Concerning feeling irritable or having angry only 29.4% of the respondents were not irritable and angry to post traumatic stress disorder.

Also, 34.3% of the respondents had a little bit difficulty in concentrating, 11.7% of them moderately experienced difficulty in concentrating. 18.6% of them had difficulty in concentrating quite a bit, while 8% of them extremely experienced difficulty in concentrating following traumatic stress disorder. Post-traumatically, 32% of the respondents were not being super alert and watchful on guard, others were super alert and watchful on their guard though a varying level of responses, 23.1% of them responded a little bit, 23.1 responded moderately and 12.6% of them were not affected by feeling of jump or easily started when traumatic stress disorder occurred. From the above one can deduce that people reacted to traumatic stress disorder at different level ranging from a little bit, moderately, quite a bit to extremely, the findings show that larger percent of the respondents experienced post-traumatic stress disorder following the episode of death as a result of methanol poison in their community (Ode-Irele). The level of respondents to post-traumatic disorder was moderate.

**Table 3: Showing information on the adjustment styles used by the respondents**

Response	NE		VR		SO		VO	
	f	%	f	%	f	%	f	%
Hope that things will get better	13	3.7	54	15.4	103	28.4	180	51.4
Try to maintain some control over the situation	17	4.9	58	16.6	148	42.3	127	36.3
Find out more about the situation to that you can handle it better	28	8.0	46	13.1	159	45.4	117	33.4
Think through different ways to handle the situation	39	11.1	52	14.9	103	29.4	156	44.6
Looking at the problem objectively	34	9.7	62	17.7	162	46.3	92	26.3
Eat, smoke, chew gum	201	57.4	59	16.9	75	21.4	15	4.3
Try out different ways of solving the problem to see which works the best	53	15.1	48	13.7	136	38.9	113	32.3
Draw on past experience to help you handle the situation	31	8.9	64	18.3	163	46.6	92	26.3
Try to find meaning in the situation	20	5.7	46	13.1	145	41.4	139	39.7
Pray trust in God	9	2.6	34	9.7	97	27.7		
Got nervous	56	16.0	100	28.6	124	35.4	70	2.0
Worry	56	16.0	97	27.7	147	42.0	50	14.3
Break the problem down into smaller pieces.	49	14.0	101	28.9	132	37.7	68	19.4
Seek comfort or help from family or friends	34	9.7	92	26.3	128	36.6	96	27.4
Set specific goals to help	42	12.0	52	14.9	134	38.3	122	34.9
Accept the situation as it is	445	12.9	96	27.4	133	38.0	76	21.7
Want to be alone	89	25.4	84	24.0	113	32.3	64	18.3
Laugh it off, figuring that things could be worse.	69	19.7	117	33.4	131	37.4	33	9.4
Try to put the problem out of your mind.	36	10.3	75	21.4	132	37.7	107	30.6
Day Dream, fantasize	69	19.7	92	26.3	131	37.4	58	16.6
Get prepared to expect the worst	78	22.3	97	27.7	181	33.7	57	16.3
Talk the problem over someone who has been in the same type of situation	57	16.3	56	16.0	149	42.6	88	25.1
Actively try to change the situation	65	18.6	93	26.6	124	35.4	68	19.4
Get mad, curse, swear	214	61.1	57	16.3	51	14.6	28	8.0
Cry, get depressed	117	33.4	79	22.6	101	28.9	53	15.1
Go to sleep, figuring things will look better in the morning	55	15.7	78	22.3	112	32.0	105	30.0
Don't worry about it, everything will probably work out fine.	48	13.7	79	22.6	113	32.3	110	31.4
Withdraw from the situation	68	19.4	113	32.3	105	30.0	64	18.3
Work off tension with physical activity	61	17.4	80	22.9	143	40.9	66	18.9
Settle for the next best thing	53	15.1	67	19.1	148	42.3	83	23.4
Take out your tension on someone or something else	95	27.1	123	35.1	75	21.4	57	16.3

Drink alcohol beverages	218	62.3	58	16.6	54	15.4	20	5.7
Resign yourself to the situation because things look hopeless.	136	38.9	114	32.6	83	23.7	17	4.9
Do nothing in the hope that the problem will take care of itself.	132	37.7	119	34.0	65	18.6	34	9.7
Resign yourself to the situation because it is your life	126	36.0	108	30.9	68	19.4	48	13.7
Do nothing just to do something	143	40.9	108	30.9	81	23.1	18	5.1
Blame someone else for your problems	183	52.3	70	20.0	79	22.6	18	5.1
Meditation, Yoga, Bio-feedback	101	28.9	84	24.0	126	36.0	39	11.1
Let someone else solve the problem	131	37.4	91	26.0	92	26.3	36	10.3
Take drugs.	224	64.0	49	14.0	52	14.9	25	7.1

Table 3 above shows that people behave in different ways to adjust stressful events they experienced, as 79.8% of the respondents hoped that things will get better, 78.6% of the respondents said they tried to maintain some control over the situation, situation so that they can handle it better, 74% of thing through different ways to handle the situation, 72.6% of them adjusted to unhappy situation by looking at the problem objectively. Some of the respondents 71.2% tried out different ways of solving the problem to see which works the best, (72.9%) of the respondent draw on the past experience to help them handle the situation, 81.1% of them said they try to find meaning in the situation, majority of the respondents 87.7% prayed and trusted in God when they were faced with unhappy events. 55.4% of them were nervous and 56.4% of them were worried when unhappy events happened to them. In terms of adjustment styles, breaking the problem down into smaller places, 57.1% affirmed to this as their adjustment styles to unhappy situations, 64% of them reported that they seek comfort or help from friends or family when unhappy events occurred to them. 73.2% of the respondents set specific goals to help solve the problem, 59.7% of them accepted the situation as it is, 50.6% of the respondents said they preferred to be alone when they were faced with unhappy situations, 68.3% of the respondents try to put unhappy events out of their mind, 54% of the respondents said that day dream, and fantasize were their adjustment styles to unhappy situations, 67.7% of them said thy talked the problem over with someone who has seen in the same type of situation, 54.8% of the respondents affirmed that they actively try to change the situation, 62% of them go to sleep, figuring things will look better in the morning as an adjustment styles whenever unhappy events occurred. 63.7% of them said they did not worry about unhappy events, but believed everything will probably work out fine, 59.8% of them worked off tension with physical activity to unhappy events. 65.7% of the respondents said that they settle for the next best thing.

It can be inferred from the above that most of the respondents pray and trusted in God as to adjust unhappy events. Other adjustment styles used by the respondents are, hope that things will get better, try to maintain some control over the situation, find out more about the situation so that they can handle it better, thinking through different ways to handle the situation, try out different ways of solving the problem to see which works the best, draw on past experience to help you handle the situation, try to find meaning in the situation, seek comfort or help from family or friends, set specific goals to helps solve the problem and go to sleep, figuring things will look better in the morning.

**Research hypothesis 1: There is no significant difference between demographic characteristics and post traumatic stress among the respondents**

⊕ **Table 4: Showing MANOVA ANALYSIS OF HYPOTHESIS 1**

Effect	Value	F	Hypothesis	Error df	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power <sup>d</sup>	
Occupation	Pillai's Trace	.572	3.257	68.000	1328.000	.000	.143	221.484	1.000
	Wilks' Lamda	.533	3.313	68.000	1293.408	.000	.16	220.652	1.000
	Hotteling's Trace	.698	3.361	68.000	1310.000	.000	.149	228.531	1.000
	Roy's Largest Root	.297	5.806 <sup>c</sup>	17.000	332.000	.000	.229	98.701	1.000



Table 4a shows a one-way MANOVA analysis which revealed a significant multivariate main effect for region (occupation) WILKS' = .533, F (68,1293.408) = 3.31, P = 0.000, partial of a squared 0.146, power to detect effect (observed power) was 1. Thus the null hypothesis is hereby rejected at  $p \leq 0.05$ . This result suggested that differences occur between demographic characteristics and post traumatic stress disorders experienced by the respondents.

**Table 4b: Showing Univariate ANOVA TEST of dependent variables**

Source	Dependent Variable	Type III sum of squares	df	Mean square	F	Sig.	Partial Eta square	Noncent Parameter	Observed power
Occupation	Repeated, disturbing memories thoughts, or images of a stressful experience from the past?	41.750	4	10.437	8.304	.0001	.088	32.217	.999
	Repeated disturbing dreams of a stressful experience from the past?	8.425	4	2.106	1.501	.201	0.17	6.003	.464
	Suddenly acting or feeling as if a stressful experience were happening again	2.956	4	.739	.565	.388	.007	2.260	.188
	Feeling very upset when something reminded you of a stressful experience from the past?	12.973	4	3.243	1.991	.095	0.23	7.966	.596
	Having physical reaction when something reminded you of a stressful experience from the past?	10.429	4	2.607	1.472	.210	.017	5.889	.456
	Avoid thinking or talking about a stressful experience from the past? Or avoid having feeling related to it.	18.694	4	4.673	2.801	.026	.031	11.203	.764
	Avoid activities or situations because they remind you of a stressful experience from past	11.818	4	2.955	1.579	.179	.018	6.316	.487
	Trouble remembering important parts of a stressful experience from the past	18.706	4	4.677	3.329	.011	.037	13.317	.841
	Loss of interest in things that you used to enjoyed.	16.441	4	4.110	2.449	.046	.028	9.796	.699
	Feeling distance or cut off from other people.	4.903	4	1.226	.885	.473	.010	3.539	.281
	Feeling emotionally numb or being unable to have loving feelings for those close to you	11.590	4	2.897	1.843	.120	.021	7.372	.558
	Feeling as if your future will somehow be cut short	24.776	4	6.194	5.027	.001	.055	20.107	.963
	Trouble falling or staying asleep	23.090	4	5.772	4.029	.003	.045	16.114	.910
	Feeling irritable or having angry outburst	14.537	4	3.634	2.345	.054	.062	9.381	.677
	Having difficulty concentrating	2.099	4	.525	.315	.868	.004	1.260	.121
	Being "super alert" or watchful on guard	24.097	4	6.024	3.379	.010	.038	13.515	.847
	Feeling jump or easily started?	9.055	4	2.264	1.333	.257	.015	5.333	.416

POST HOC TESTS

**Table 4c: Showing pos hoc comparism with Sheffe Test**

Occupation (1)	(2)Occupation	Mean Difference	Std. Error	Sig	95% confidence interval	
					Lower Bound	Upper Bound
Civil Servant	Self Employed	.2285	.13790	.462	-.6067	.1497
	Trading	.8557	.20315	.000	.2987	1.4128
	Farming	.2916	.32515	.298	-6.000	1.1833
	Driving	.4641	.21709	.206	-.1312	1.0595
Self Employed	Civil servant	.2285	.13790	.462	-.1497	.6067
	Trading	1.0842	.20543	.000	.5209	1.6476
	Farming	.520	.32659	.503	-.3754	1.4157
	Driving	.6926	.21923	.015	.0914	1.2938
Trading	Civil Servant	-.8557	.20315	.000	-1.4128	-.2987
	Trading	-1.0842	.20543	.000	-1.6476	-.5209
	Farming	-.5641	.35904	.517	-1.5487	.4205
	Driving	-.3916	.26517	.578	-1.1188	.3356
Driving	Civil Servant	-.4641	.21709	.206	-1.0595	.1312
	Trading	-.6926	.21923	.015	-1.2938	-.0914
	Farming	-.3916	.26517	.578	-.3356	1.1188
	Driving	-.1726	.36711	.990	-1.1792	.8342
Farming	Civil Servant	-.2916	.32515	.898	-1.1833	.6000
	Trading	-.5201	.32659	.503	-1.4157	.3754
	Farming	.5641	.35904	.517	-.4205	1.5487
	Driving	.1725	.36711	.990	-.8342	1.1792

Table 4b shows the univariate Anova test of dependent variables. Given the significance of the overall test, the univariate main effects were examined. Significant univariate main effects for region were obtained for the following, repeated, disturbing memories thoughts or images of a stressful experience from the past,  $f = 8.304$ ,  $p = 0.000$ , feeling very upset when something reminded me of a stressful experience from the past  $F = 1.991$ ,  $P = 0.095$ . Avoid thinking about or talking about a stressful experience from the past or avoid having feelings related to it  $F = 2.801$ ,  $P = 0.026$ , trouble remembering important parts of stressful experience from the past  $F = 3.329$ , feeling as if the future will somehow be cut short.  $F = 5.027$ ,  $P = 0.001$ , Trouble falling or staying asleep  $F = 4.029$ ,  $P = 0.010$  all these were post traumatic stress disorders experience by the respondents when faced with unpleasant situations. Post hoc test in Table 4c revealed different responses in respondent's occupation to unhappy event. Trading, driving, self employed and civil servants were most affected by post traumatic stress disorder.

**RESEARCH HYPOTHESIS 2: There is no significant difference between demographic characteristics and adjustment styles among the respondents.**

**Table 5: SHOWING MANOVA ANALYSIS OF HYPOTHESIS 2**

Effect		value	F	Hypothesis df	Error df	Sig.
Occupation	Pillai's Trace	.344	.817	144.000	1252.000	.939
	wilk's Lambda	0.97	.814	144.000	1237.333	.942
	Hotelling's Trace	.379	.811	144.000	1234.000	.945
	Roy's Largest Root	.133	1.153	36.000	313.000	.258

Table 5 above shows the result of a one way MANOVA which revealed a non-significant multivariate main effect for region Wilks' = .697,  $F(144, 1252) = .814$ ,  $P = .942$  at  $P \leq 0.05$

This result suggests that there is no significant difference between demographic character and the way respondents adjusted to/or cope with unhappy events whenever it occurred.

**RESEARCH HYPOTHESIS 3: There is no association between post traumatic stress disorder and adjustment styles among the respondents.**

	Values	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	345.804 <sup>a</sup>	349	.878
Likelihood Ratio	255.192	349	1.000
Linear-by-Linear Association	7.66	1	.382
N of Valid Cases	350		

Table 6 above shows the chi-square analysis to determine the relationship/association that exist between post traumatic stress disorder and adjustment/coping styles, a Pearson chi-square revealed no significant relationship / association existence between the two at (chi-square value = 345.80, df = 349, p = 0.878). This result also suggest that there was no relationship between post traumatic stress disorder and adjustment/coping styles adopted by the respondents.

## VI. DISCUSSION OF FINDING

The findings of this study revealed a high percentage of the respondents were females. The response age range between 15-58years who participated in the study. In the study the following were identifies as post traumatic stress disorder experienced by the respondents followings event of methanol poison in their community.

These are repeated, disturbing memories thoughts or images of a stressful experience from the past, feeling very upset when something reminded me of a stressful experience from the past, avoid thinking about or talking about a stressful experience from the past or avoid having feelings related to it, trouble remembering important parts of stressful experience from the past, feeling as if the future will somehow be cut short, trouble falling or staying asleep, feeling irritable or having angry outbursts and being super alert or watchful on guard. This finding is similar to Copel, 2000 who stated that more than 50% of study participants have PTSD such as rape, family violence, torture, terrorist attack, fire, earthquake, and death. The findings also revealed significant difference between respondents' demographic characteristic and post traumatic stress disorder, as Traders, Drivers, Self employed and civil servants were most affected by post traumatic stress disorder. This finding is incongruent to finding from study conducted by Kessler et al., 2005 who stated that there was no difference between PTSD and respondents occupation.

Finding from hypothesis two shown no difference between respondents demographic characteristics and adjustments/coping styles adopted by the respondents though the findings from research question revealed different adjustments/coping styles adopted by the respondents when faced with unhappy events, most of the respondents pray and trusted in God as to adjust to unhappy events. Other adjustment styles used by the respondents are, hope that things will get better, try to maintain some control over the situation, find out more about the situation so that they can handle it better, thinking through different ways to handle the situation, try out different ways of solving the problem to see which works the best, draw on past experience to help you handle the situation, try to find meaning in the situation, seek comfort or help from family or friends, set specific goals to helps solve the problem and go to sleep, figuring things will look better in the morning. The findings is in support of Stephens and Long (200) who found that New Zealand police officers who received positive peer communication and who could easily talk about trauma had lower PTSD scores and lower levels of physical symptoms. The finding from hypothesis three revealed no relationship between post traumatic stress disorder and adjustment/coping styles used by the respondents, this finding was against the result reported by Hemenover & Dienstbier, 1998 who found relationship between coping and physical symptoms.

## VII. CONCLUSION AND RECOMMENDATIONS

As a whole, the study results showed that people experienced post traumatic stress disorder at different level and exhibit different adjustment / coping styles when faced with unhappy situation. MANOVA test was used to test

for two hypotheses which shown a significant difference between demographic character and PTSD. Drivers, traders, civil servants and self-employed were those who shown signs of PTSD. Chi-square was used to test for relationship between PTSD and adjustment/coping styles adopted by the respondents. Prayer and trusting in God were the adjustment/coping styles adopted by most of the respondents. Following the findings from the study, the following can be recommended. Nursing should have adequate knowledge of signs of PTSD and plan adequate health education to educate people at risk. Awareness should be created through media to members of the entire community. Government should enact policy that will prevent the sales of unprocessed ethanol. More studies should be carried out on the relationship between PTSD and adjustments styles adopted when people are faced unhappy situations.

### **Implication of the Study Of Mental Health/Psychiatric Nursing Practice**

This study becomes imperative in the sense that Psychiatric Nurses need to be aware that many people experience a psychological traumatic stressor “outside the range of usual experience” but few develop post traumatic stress disorder, therefore nurses should be abreast to various problems that can aggravate stressors.

Nurses should note that those subjected to psychologically traumatic stressors re-experience them in dreams or memory with associated unpleasant feelings, changes in affect and re-experiencing of trauma usually diminish in frequency and intensity (just as recall of pleasant events does) and are not in themselves signs of post-traumatic disorders. No matter at what level of developing post traumatic stress disorders, patients should be taught adjustment styles or are made to build on the previously acquired positive adjustment styles.

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