# TRAUMA SYMPTOMS: VICTIMS OF ARMED CONFLICT AND TSUNAMI IN ACEH

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### ABSTRACT

In the history of Aceh, armed conflict is not new, because for a long time various wars have taken place so that many people experience moderatelevel trauma, especially teenagers with very significant differences in each region, source of trauma, and gender. This condition requires the handling of experts in the areas stated in different post hoc results such as: South Aceh, Abdya, and Bireun, so that adolescents suffering from trauma can be cured and continue to live better and happier lives. This research was conducted using a quantitative approach survey method with the Trauma Symptom Inventory (TSI) instrument that was adapted to the local community. TSI has two scales, namely the scale of validity with the indicators are ATR, RL and INC, and the clinical scale is divided into four dimensions, namely: (1) Dysphoric Mood, the indicators are AA, D and AI; (2) PTSD indicators are: IE, DA and DIS; (3) Sexual Dysfunction indicators are SC and DSB; (4) The Self Dysfunction indicator is ISR and TRB. Respondents who responded with high scores on each indicator showed the level of trauma and type of trauma, which needed immediate treatment so they could return to normal activities, otherwise they would experience PTSD and would damage their physical and psychological health

*Keywords:* Trauma, Trauma Symptom Inventory (TSI), Post Traumatic Stress Disorder



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### **INTRODUCTION**

Aceh is one of Indonesian's provinces and experinces long social conflicts. It started with war with the Netherlands, continued with Japan, Darul Islam (DI) / TII and recently with the Free Aceh Movement (GAM). Its suffer continued with a devastating earthquake and tsunami on December 26, 2004, which a great number of casualties in which property such as houses, offices, other public facilities destroyed and thousands of lives were lost.

During the aforementioned GAM conflict, children experienced violence and lived under dangerous conditions which was metaphorically portrayed as an iceberg in the ocean where the summit is barely seen while large amount of the iceberg is under the surface. The children, who is now an adult, suffered a long term psychological condition. At the appearance, they are physically and mentally normal and tough, but the inside shows the opposite, such as they are furious, anxious, melancholic, stressed, and depressed which can lead to trauma (Siti Taniza, 2007).

The term psychological trauma has been explained in various contexts, which are likely to have been different from the original explanation. Trauma is often used for dangerous events that cause damage to the sufferer. Trauma is technically just an event, not a reaction, usually due to extraordinary events that cause psychological disorders in individuals. According to the Diagnostic and Statistical Manual for Mental Disorders, 4th edition [DSM-IV-TR; The American Psychiatric Association (APA), 2000] specifically explains that trauma is an experience of an event that threatens physical and psychological conditions; or witnessing a frightening event such as seeing murder, robbery, rape; or severe injuries due to accidents, attacks by sharp weapons; or death threats to the family or the closest person (Criteria A1). A person's response to the event is feeling fearful, helpless or horror, (in children the response is usually irregular or disturbed (Criteria A-2)

Trauma according to Cavanagh in Mental Health, (2004) is interpreted as a very extraordinary event that causes many injuries both physically and psychologically and also a combination of both that affect a person's behavior in acting. A dangerous event is felt to be different from one person to another and the effect will also be different, depending on how support is given to them.

After a traumatic event, victims will usually show symptoms that are different from their daily behavior. Threatening and dangerous events in the lives of children will imprint in a long time and if no treatment will become PTSD, and when they get new trauma, they will usually respond according to their previous curriculum vitae. Events that occur repeatedly in one's life, will help him deal with physical and psychological injuries well. The psychological effects of these events can be seen from how to avoid themselves, defend themselves and remember all things in detail, excessive worry, thus leading to trauma, (Breslau et. al., 2004)

Webb, (2004) classifies trauma into seven: 1) physical and psychological health caused by pain that reduce activity and productivity; (2) brain shock, due to physical and mental damage; (3) excessive anxiety and fear caused by traumatic events; 4) changes in behavior, thoughts and feelings due to heightened symptoms of stress; and 5) physical injuries caused by attack, accidents, and the like.

Roan (2003) states that trauma means injury, tissue damage, wound or shock. While the psychical trauma in psychology is defined as great and sudden emergency because of the case in environment that transgresses its ability to survive, overcome or avoid. Everly and Lating (1995) state that trauma are events outside of the context of human experience in general, which seem very real and vivid and distressing, causing a great scare, disability, horror and others. Vikram (2003) states that a traumatic event is one that causes fear in one's life and raises negative stress. Yule (1999) and Hughes (1991) explain that the events that may trigger the occurrence of trauma are serious threat to a person's life or physical threats. Spencer Eth, a child psychiatrist and expert in child PTSD (in Goleman, 2000) states that it is the inclusion of traumatic memories of the violence that became the main focus such as stabbed by knife and gun shots. Memory is a great experience for sighting perception. Until victims are sometimes silent, suddenly they are hysterical to hear the sound, screaming, police sirens or to smell powder and blood. In addition, psychological disorders due to traumatic events arise essentially due to easy excitement (*stelanamygdala*).

Chaplin (2001) explains that *amygdala* is a gray substance found in large brains and functions associated with control of aggressive behavior. Goleman (2000) mentions that patients experiencing trauma-centered limbic circuit change in *amygdala*, have seruleus locus in which there are two types of catecholamine containing chemicals which are: adrenaline and noradrenalin. Two chemical substances serve as mobilization of body to face an emergency situation (fight or flight). So in traumatic patients, the *amygdala* system is very active to make catecholamine release brain chemicals with excessive doses to respond to situations that are sometimes not an emergency or non-threatening.

Choy (1998) defined conflict as contradiction, dispute or differences between individual, ideas, interest and so forth. Weapons means tools used for battle or a fight such as guns, rifle etc. Conflicts in this study mean a fight, contradiction and dispute between GAM with Indonesia National Army (TNI). As tsunami, Choy (1998) defined as a wave produced by earthquake or seabed volcano eruption. Tsunami in this study means a giant wave formed after an earthquake and has destroyed most of the district in Aceh.

#### METHODOLOGY

### Subject of Study

A total of 1185 fourth year secondary school student aged 18 to 23 years old from 14 schools in 14 districts that were affected by either armed conflict or tsunami or both tsunami and armed conflicts in Aceh were selected as respondents. Eight schools from 8 districts where the source of trauma was armed conflict, were; (1) Great Aceh, (2) Pidie, (3) Pidie Jaya, (4) Bireun, (5) North Aceh, (6) West Aceh, (7) Abdya and (8) South Aceh. Subjects were also selected from 4 schools from 4 districts that were badly affected by tsunami, which were (1), West Aceh (2) Aceh

Jaya, (3) Great Aceh, dan (4) Banda Aceh City. As subjects for both armed conflicts and tsunami were selected from 2 districts chosen from 2 schools; (1) Aceh Jaya; (2) Great Aceh.

Subjects were selected using a purposeful sampling using information-rich case principle (Patton, 1990). Subjects were selected based on interviews conducted by counseling teachers, religious teachers and teachers for student affairs. The subject criteria are; (1) subjects are victims of armed conflict, and tsunami disasters or both, both directly and indirectly experienced; (2) subjects exhibit different behaviors from others such as depression, stress, anxiety, hysteria, avoidance and excessive sadness; (3) homeless due to the tsunami and must live in a shelter or with a family; (4) losing their parents due to conflict and tsunami and (5) selected students a minimum age of 18 years and a maximum of 23 years, but still a school student because of the past experience they had during their childhood regarding armed conflict and the tsunami . After the interview, students are given a TSI questionnaire form to fill out.

#### Tool Review

Insensory TSI (Briere, 1995) has been used to examine the level and difference of trauma in adolescents, covering several aspects, such as region and gender. For this region and gender aspect, two scales which are called validity and clinical scales are used to measure its influence. ATR, RL and INC are indicators for validity scale, while Dysphoric Mood, PTSD, sexual dysfunction, Self dysfunction are indicators for clinical scale. Dysphoric Mood consists of three indicators: AA, D and AI; PTSD consists of three indicators: IE, DA and DIS; Sexual dysfunction has two indicators: SC and DSB; and Self dysfunction consists of two indicators: ISR and TRB. The subject is traumatized if a high score is obtained . A qualitative approach is used to support data.

#### Data analysis

SPSS version 13 application, with ANOVA testing for data analysis on differences on adolescent trauma stage is operated to obtain a quantitative result. T-test is used to differentiate gender type and regression test is use to obtain the influence of the region.

#### Objective of study:

- 1. To identify effect of trauma among juvenile
- 2. To identify level of trauma based on regions in Aceh.
- 4. To find out clearly, the level of trauma seen from the source of trauma
- 5. To know clearly there is no influence on the source of trauma seen from the TSI response

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# **RESULTS AND DISCUSSION**

Results Hypothesis (Ha.1):

Table 1. The ANOVA test results on the hypothesis (Ha.1) can be accepted, because there is a very significant impact of trauma seen from the response on both TSI scales, namely p = .000. This value is less than the specified p value limit, that is (p < .05). To be clear see table 1 below.

### Table1

	Indicator		Validity I		
Scale		Ν	Mean	F	Sig
	Atypical Respon (ATR)	1185	15.251	13.705	0.000
Validity	Respond Level (RL)	1185	3.977	3.392	0.000
	Inconsistent Respon (INC)	1185	10.934	5.602	0.000
clinical	Anxious Arousal (AA)	1185	22.324	7.795	0.000
Dysphoric	Depression (D)	1185	22.872	7.261	0.000
mood	Anger Irritability (AI)	1185	23.213	6.753	0.000
clinical	Intrusive Experience (IE)	1185	18.882	4.307	0.000
PTSD	Defensive Avoidance (DA)	1185	23.328	3.326	0.000
	Dissociation (DIS)	1185	19.075	10.167	0.000
Clinical	Sexual Concerns (SC)	1185	17.125	8.377	0.000
Sexual	Dysfunction Sexual Behavior	1185	12.512	7.744	0.000
Dysfunction					
Clinical	Impaired Self Reference (ISR)	1185	21.490	7.307	0.000
Self dysfunction	Tension Reduction Behavior (TRB)	1185	22.340	5.168	0.000

Results of ANOVA Validity and Clinical Scale with the Indicator of Each Dimension

Results Hypothesis (Ha.2)

Table 2 shows the result of hypothesis (Ha.2) is accepted as the level of adolescent trauma in the region was modest average, though high and low scores were also available. High scores > 20%. Only on the clinical scale the dimensions of PTSD and self dysfunction on the ISR indicator. To be clear see table 2 below.

# Table 2

Trauma Based on Regional Level

			Region						
Scale	Indicator	Ν	Low		Modes	Modest		High	
			F	%	F	%	F	%	%
	ATR	1185	122	10.3	877	74.0	186	15.7	100
Validity	RL	1185	146	12.3	865	73.0	174	14.7	100
	INC	1185	199	16.8	810	68.4	176	14.9	100
clinical:	AA	1185	167	14.1	802	67.7	216	18.2	100
Dysphoric	D	1185	143	12.1	853	72.0	189	15.9	100
Mood	AI	1185	180	15.2	803	67.8	202	17.0	100
	IE	1185	167	14.1	784	63.1	270	22.8	100
PTSD	DA	1185	70	5.9	756	63.8	359	30.3	100
	DIS	1185	120	10.1	737	62.2	327	27,6	100
Sexual	SC	1185	288	24.3	645	54.4	252	21.3	100
Dysfunction	DSB	1185	225	19.0	753	63.7	205	17.3	100
Self	ISR	1185	157	13.3	708	59.8	319	26.9	100
Dysfunction	TRB	1185	57	4.8	916	77.3	212	17.9	100

Table 3. The results of hypothesis testing (Ha.3) are acceptable, because trauma is at a moderate level in the source of trauma, even though there are high and low scores. High scores> 20% on the dimensions of the clinical scale such as dysfunction of the ISR and PTSD indicators. For more details, see table 3 below.

			Trauma Source						
Scale	Indicator	Ν	Low		Modes	Modest		High	Total
			F	%	F	%	F	%	%
	ATR	1185	122	10.3	877	74.0	186	15.7	100
Validity	RL	1185	146	12.3	865	73.0	174	14,7	100
	INC	1185	199	16.8	810	68.4	176	14.9	100
Clinical:	AA	1185	167	14.1	802	67.7	216	18.2	100
Dysphoric	D	1185	143	12.1	853	72.0	189	15.9	100
Mood	AI	1185	180	15.2	803	67.8	202	17.0	100
	IE	1185	167	14.1	748	63.1	270	22.8	100
PTSD	DA	1185	70	5.9	756	63.8	359	30.3	100
	DIS	1185	120	10.1	737	62.2	327	27.6	100
Sexual	SC	1185	288	24.3	645	54.4	252	21.3	100
Dysfunction	DSB	1185	225	19.0	753	63.7	205	17.3	100
Self	ISR	1185	157	13.3	708	59.8	319	26.9	100
Dysfunction	TRB	1185	57	4.8	916	77.3	212	17.9	100

# Table 3 Level of Trauma Based on Trauma Source

Results Hypothesis (Ha.4)

Table 4 shows the results of hypothesis (Ha.4) acceptable, because the results of the ANOVA and Scheffe Post Hoc Multiple Comparisons test showed a very significant difference between one region and another for trauma symptoms, especially for Bireun, Banda Aceh City, South Aceh and Abdya.

For details see the following Table 4.

Table 4

Post Hoc Test Response Differences between District Indicators

Region	Scale of validity : ATR, RL, INC												
	Mean	1	2	3	4	5	6	7	8	9	10	11	12
East Aceh	-			*	**							*	****
	2,00147												
North Aceh	-					**		*		***	**		
	2,00147												
LHOKSEUMAWE	-									***	*	*	
	1,18812												
BIREUEN	-	***				* <b>*</b> ***	***	***	***	****	* <b>*</b> **		
	3,54406												
PIJAY	,16636		**		* <b>*</b> **							***	****
PIDIE	-,87406				**					*	**	*	
West Aceh	-,46503		*		***							***	**
Great Aceh	-				***							**	
	1,08993												
BANDA ACEH	-,16423		****	****	******		**					*****	<b>**</b> **
A JAYA	-,34073				***							*	
South Aceh	-	**		*		****	*	**	*	*****	*	*	
	4,09891												
Abdya	-	***				**		**		***	*		
	3,18826												

\*p < .05, \* ATR, = Atypical Response, \*INC= Inconsistent Response \*AA = Anxious Arousal, \*D= Depression, \*AI = Anger Irritability, \*DIS= Dissociation response, \*IE= Intrusive experience, \*SC= Sexual Concern, \*DSB= Dysfunction Sexual Behavior, \*ISR= Impaired Self Reference, \*TRB= tension Reduction Behavior.

Table 5 shows the results of hypothesis (Ha.5) acceptable, because the results of the post hoc analysis show a significant difference of 95% in all indicators. This can be seen from the difference in mean values which are very clear in the source of conflict. For more details see Table 5.

Table 5

Difference In Post Hoc Analysis Results On All Indicators

	All Indicators			
	Mean	1	2	3
1 Tsunami	,48229		<b>**</b> *********	***
2 Conflict	-1,47684	********	*	*****
3 Tsunami Conflict	,99454	****	****	

\**p* < .05, \*ATR \***RL** ,\*INC \*AA \***D** \*AI \*IE \***DA** \***DIS** \***SC** \*ISR \*TRB

Results Hypothesis (Ha.6)

Table 6 shows the regression results contribute to the region in response to the ATR indicator validity dimension; RL and INC, the hypothesis (Ha.6) some are received some are rejected. Received on ATR indicator because the results showed F = (10716) < .05 and R = 0.095 (9.5%), while RL and INC is in decline.

For more detail see Table 6.

		Region			
Scale	Indicator	SS	F	R	Sig
	ATR	181.225	10.716	0.095	0.001
Validity	RL	3.466	0.852	0.27	0.356
	INC	32.290	2.837	0.049	0.092
Clinical:	AA	17.602	0.741	0.025	0.389
Dysphoric	D	20.725	0.856	0.027	0.355
Mood	AI	3.316	0.136	0.011	0.713
	IE	1.624	0.083	0.008	0.773
PTSD	DA	29.942	1.257	0.033	0.263
	DIS	9.565	0.462	0.020	0.497
Sexual	SC	12.824	0.701	0.024	0.403
Dysfunction	DSB	0.025	0.755	0.025	0.385
Self	ISR	12.556	0.552	0.022	0.458
Dysfunction	TRB	11.845	0.510	0.021	0.475

Table 6

Regression Test Results contribution region on the TSI indicator Trauma

Table 7 shows the regression results of the contribution of resources in response to trauma validity dimensional ATR indicator, RL and INC; the hypothesis (Ha.7) indicates some are accepted while some are rejected. Received on RL due to the indicator results show F = (7741) < .05 and R = 0081(8.1%). While for the dimensions of dysphoric mood the accepted indicator AAF = (5.059) < .05, R =0.065 (6.5%) and DF = 5534, R = 0.068(6.8%), Dimensions of Sexual Dysfunction in the received IEF = 8.217, *R* = 0.083(8.3%), for the self dysfunction ISR = 7.529, *R* = 0.080(8.0%). For more details see Table 7.

Table 7		
Trauma Source	Contributions in Response to	TSI

		Source of Trauma					
Scale	Indicator	SS	F	R	Sig		
	ATR	43.516	2.555	0.046	0.110		
Validity	RL	31.296	7.741	0.081	0.005		
	INC	2.369	0.208	0.013	0.649		
Clinical:	AA	119.655	5.059	0.065	0.025		
Dysphoric	D	133.440	5.534	0.068	0.019		
Mood	AI	82.824	3.394	0.053	0.066		
	IE	158.953	8.217	0.083	0.004		
PTSD	DA	189.058	7,980	0.082	0.050		
	DIS	20.435	0.983	0.029	0.322		
Sexual	SC	42.263	2,312	0.044	0.129		
Dysfunction	DSB	37.546	2.828	0.049	0.093		
Self	ISR	170.350	7.529	0.080	0.006		
Dysfunction	TRB	41.611	1,794	0.039	0.181		

### DISCUSSION

The result of the study suggests several points. First, that it is true that adolescent victims of conflict and tsunami experienced trauma caused by long armed conflict and natural disaster. As a way to stop conflict, Law No. 11 of 2006 concerning the Government of Aceh was issued after an understanding between GAM and the Indonesian Government reached. Yet, Aceh social condition is seen as similar to that of post-war in 1873-1913 after the Law being enforced, where many physical injuries affected people's mental health. Antony Reid (2007) described these destructive conditions as to trigger trauma in adolescents

Second, findings indicate that the level of adolescent trauma due to long armed conflict and the natural disaster is at middle level. The trauma of adolescent conflict victims and the tsunami in Aceh is considered at the middle level, while also taken account the low score and high score of each region and dimension. Scores on the PTSD IE indicator, DA and DIS are 20%, and on self-dysfunction ISR indicator are above 20%. This indicates that adolescent traumatic disorders reaches clinical dimension of PTSD.

Brewin et al. (2000) believe that suffering from PTSD could risk a person if she or he lives in a traumatic event or danger, suffers from a mental illness, witnesses people injured or killed, feels terrified and helpless, experiences pain of losing loved ones, beloved properties or residence, and does not get social support when most needed. In line with this, Gurvits, et al. (2000) emphasise that early brain growth can be caused by environmental factors, such as trauma in childhood, injuries on head, and psychological sicknesses, which therefore, Charney (2004) agrees that help from family, friends and society can reduce the risk of PTSD where the victims do not feel alone so that she or he can positively and effectively respond to any dangerous situations in her or his life.

The results of this study, showed three significant differences between the trauma suffered by adolescents victims of armed conflict with the tsunami disaster in Aceh, seen based on the region and source of trauma. Subsequently, the most obvious difference as shown by the post hoc test was based on Bireuen region, South Aceh, Banda Aceh City and Abdya. These differences are common, because people live and react strongly influenced by the local culture, understanding of religion, education and the level of trauma experienced by them. IOM survey results (2006-2007) found that psychosocial needs in Bireuen and South Aceh included high trauma, which requires support from various quarters. The source of trauma resulted in a significant difference based on the source of conflict, which showed that injury, pain, sorrow made by humans during the armed conflict badly affected the soul than grief and pain which causes injuries as a result of natural disasters caused by earthquake and tsunami. This finding is proven by the results of Kusmawati's study (2009) Trauma due to armed conflict is more disastrous compared to the tsunami disaster

The findings of this study show the contribution of the fourth region turned out to be so significant on the level of trauma suffered by victims of armed conflict and tsunami, only 9.5% in

ATR charity indicator, while the contribution of trauma resources only on indicators of RL, AA, D, IE, and ISR pro rate at 8%.

# CONCLUSION

Overall, results of the study indicate that teenagers in Aceh have trauma symptom. There are effects of trauma on the average level, which differ according to each district where the sources of trauma are significantly different, especially in Bireun Region, South Aceh, Banda Aceh City and Abdya. Besides, these regions only contribute to the validity of the indicator scale Atypical Response (ATR) of 9.5%, while the source of trauma on the scale contributed validity is the indicator Response Level (RL) of 8.1%, and the clinical scales on the dimensions of dysphoric mood the indicator Anxious Arousal (AA) of 6.5% and Depression (D) 6.8%, on the dimensions of the indicator Impaired Self dysfunction Self Reference (ISR) of 8.0%. Based on these findings, the researcher recommended the Aceh government to open a trauma counseling service in the context of handling victims.

### REFERENCES

Al-Chaidar, (1999) Acheh Bersimbah Darah. Jakarta: Pustaka Al-Kautsar.

- American Psychiatric Association, (2000) *Diagnostic and Statistical Manual of Mental Disorder* (4th ed, tex rev) Washington, DC: Author
- American Psychiatric Association, (2005) *Diagnostic and Statistical Manual of Disorder* (4th., text rev) Wasington DC: Author
- Breslau, N., Davis, G.C., Andreski,P& Peterson, E.L (2004) *Traumatic Events and Post-Traumatic Stress Disorder in Urban Population of Young Adults*. Archivers of General Psychiatry, 48,216-222
- Brewin, C.R., Andrews, B., & Valentine, J.D (2000) *Meta Analysis of ris Factors Post Traumatic Stress* Disorder ini Trauma-Exposed Adults/ Consul Clin Psychol. 68 (5) 748-66
- Briere, J. (1995) Trauma Symptom Incventary (TSI): Professional Manual. By Psychological Assessment Resources, In, (PAR) U.S.A
- Chaplin, J. (2001) Kamus Lengkap Psikologi (terj.Dr Kartini Kartono). Jakarta: PT.Raja Grafindo Persada
- Charney, D,S & Keane, T,M, (1995) *The Development og a Clinician-Administered PTSD Scale.* Journal of Traumatic Stress, 8,75-91

- Choy, K.C, (1998) Kamus Perwira Bahasa Melayu-Bahasa Inggris: Latest Malay English Dictionary Penerbitan Daya BH
- Everly,G.S, Jr, & Lating, J.M (1995) *Psychotraumatology: Key Paper and Core Consepts in Post Traumatic Stress.* New York, NY: Plenum
- Goleman, D, (2000) Emotional Intellegence. Jakarta, Indonesia: Gramedia Pustaka Utama
- Gurvits, T.V. Gilbertson, M.W Lasko N.B, et al, (2000, February). *Neurologic Soft Singns in Chronic Post Traumatic Stress Disorder*. Arch Gen Psychiatri. 57 (2) 181-186.
- Hughes, H, (1991) An Outline of Modern Psychiatry. Chichester, UK: Wiley.
- Jarnawi, (2007) Konseling Trauma Untuk Anak Korban Kekerasan. IAIN Ar-Raniry Bekerjasama dengan CV AK Group.
- Kusmawati Hatta (2009) Perbedaan Bentuk-Bentuk Truma Pada Remaja Korban Konflik dengan Tsunami (Kajian Pada Remaja SMU Aceh Besar , Banda Aceh Pusat Penelitian IAIN Ar-Raniry
- Mental Health Channel. (2004). *Posttraumatic Stress Dissorder (PTSD)*. Retrieved from http://www.ncptsd.va.gov/facts/disasters/fs\_rescue\_workers. html
- Reid, A. (2007). Asal mula konflik Aceh dari perebutan Pantai Timur Sumatera hingga akhir Kerajaan Aceh Abad ke 19 (Terj. Masri Maris). Yayasan Obor, Indonesia.
- Patton, M. J. (1990). Qualitative research method. Beverly Hills, CA: Sage.
- Roan, W. (2003) *Melupakan Kenangan Menghapus Trauma dalam Intisari*. Retrieved from http://www.jaga-jaga.com/anIjakTerkini. php? ida= 65234
- Shapiro, F. (1999). Eye movement desensitisation and reprocessing: Basis principle, protocol and procedures. New York, NY: Guilford Press.
- Taniza Toha, (2007) Pasca Trauma Tsunami: Satu Kajian Kes di Kuala Muda dan Langkawi Kedah Malysia. Jurnal Psikologi dan Kaunseling, 1.84-116 UKM
- Vikram, P, (2003) Where There is no Psychiatrist. UK: Bell & Bain.
- Webb,B.N, (2004) Mass Trauma and Violence: Helping and Children Cope. New York, Ny: Guilfor Press
- Wiersma, W, (2000), Research in Education: An Introduction. Boston, MA: Allyn & Bacon
- Yule, W, (1999) Post Traumatic Stress Disorder: Consep and Therapy, Chichester, UK: Jhon.