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# Evaluation of Post Traumatic Stress Disorder Prevalence Among Devotees

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Present study has been performed to evaluate prevalence of PTSD (Post Traumatic Stress Disorder) among devotees (the handicapped of imposed war against Iran) with disability more than 50%. Statistical society include all devotees with more than 50% disability of Ardabil City (N = 208). Hundred individuals were randomly selected and after getting demographic information, Mississippi PTSD questionnaire was filled for them individually and in their residence place. Age mean and standard deviation of samples' age were 42.36 and 6.67, respectively and mean duration of their disability was 21.5 with standard deviation 2.69. Subject nature compelled to select cross sectional canvass method and data analysis be done by t-test and one way ANOVA. Findings showed that 26% of devotees with more than 50% disability had PTSD. Additionally, prevalence rate of this disorder was significantly higher among devotees with mental cripple and mental and physical disability simultaneously in comparison with other devotees. Also devotees with chemical disability had the least prevalence of PTSD. Prevalence rate had no significant relation with age, marriage status, spinal lesion and occupation.

**Key words:** PTSD, TRUMA, devotees

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## INTRODUCTION

PTSD is a syndrome that occurs after observation, involvement or hearing a severe traumatic stressful factor. The person responses to this factor with fear and frustration relive the event in his mind frequently and try to void its reminiscence. Clinical feature of PTSD include traumatic event return meet, emotionally numbness avoidant pattern and relatively continuous arousal state. The disorder may not appear within months even years after event. Mental examination often demonstrates feeling of guilt, being rejected and humiliate. The patient may explain panic attack and dissociation. Hallucination and illusion may exist. Accessory signs may include aggression, impulse control disorder, depression and drug abuse disorder. Cognitive test may show that patient have memory and attention disorder. These patients have high scores in scales of depression, schizophrenia, F reliability score and paranoia in the MMPI test and show violence and aggression in the Rovershakh test (Kaplan and Sadock, 2003). Reports about emotional reaction to various adversities have been recorded since many years ago. Although military strike is the main source of data collecting about reaction of individuals to awkward events however, more attention has been attracted to non-military damages like catastrophic events and disconcerting adventures like sexual assault, economic problems and familial abstruse (Klein and Alexander). According to DSM-IV-TR a trauma that can cause disorder is a sever stressor agent which in the individual has a direct experience of an event that has seriously threatened his or her life or healthiness (American Society of Psychiatry, 2000).

Traumatic events include violence, being annoyed and experiencing disaster and war, road accidents, rape and fire (Kaplan and Sadock, 2003). Majority of published studies that have obtained from surveys at USA and Australia using DSM-IV-TR have estimated 6.8% prevalence of PTSD in the general population (Kessler *et al*., 2005). Twelve month prevalence rate of this disorder has been determined in the range of 1.3% (at Australia) to 3.6% (at USA) while one month prevalence has been estimated in the 1.5-1.8% range using DSM-IV and to 3.4% using ICD-10 criteria (Klein and Alexander, 2006). PTSD is more found in the persons that have experienced severe mental or physical stress like mentioned cases. War veterans are among people who are more exposed to severe trauma. Then it is expected that PTSD be more prevalent among them. An exact study on Vietnam War soldiers showed that men and women soldiers had DSM-IV criteria for PTSD in the 15.2 and 8.5%, respectively while among non-soldiers persons in this study men and women had these criteria in the 2.5 and 1.1%, respectively. Whole life prevalence rate was 30.9 and 36.9% for male and female, respectively. However recent researches have challenged this prevalence rate. Studies on Golf war soldiers have reported less prevalence rate (1-3%) (Ismail *et al*., 2002). Captives and war wounded are more liable to PTSD. Stress can act as agent that can cause transformation of this disorder to a chronic pertinacious personality change, which is defined as deep personality change after catastrophic event in ICD-10 (Klein and Alexander, 2006). Solomon (1993) evaluated effect of long-lasting captivity and fight stress reaction on PTSD prevalence among Israel soldiers in the Yom Kippur war (1973). In this study, 164 war captives and 112 soldiers with fight stress completed PTSD questionnaire and a group with 184 soldiers who did not have these features (as control group) completed mentioned questionnaire (a self report questionnaire on the basis of DSM-IV). Those persons had PTSD sometimes in the past, were 37% of soldiers with fight stress, 23% of war captives and 14% of control group. And current prevalence rate was 13% for soldiers with fight stress, 13% for war captives and 3% for control group samples (Klein and Alexander, 2006). PTSD has been noticed in Iran with expressions like explosion wave (bomb blast). According to this fact that participating in the war and disability more than 55% is a stressful accident and regarding that, studies show PTSD is common among war hurts if we do not recognize and do not treat PTSD, it will be chronic and beside devotees own healthiness, mental health of their family will be threatened. Then, with performing this study besides determining number of devotees afflicted with PTSD, true prevalence of this disorder was got, to can use it for health planning and can determine cases need treatment and treat them. Then the main question of this study is that how much is the prevalence rate of PTSD among devotees with disability more than 50% an whether this prevalence rate has a relation with variables like age, sex, spinal lesion, marriage status and occupation condition or not?

## MATERIALS AND METHODS

Statistical society include all devotees with more than 50% disability of Ardabil City (N = 208). In the descriptive studies samples with at least 100 members are needed (Delavar, 2006), then we choose 100 sample in the random sampling method from Statistical society. Data collecting tool was researcher edited questionnaire about

demographic specification of samples. These information were collected through a questionnaire that contain questions include age, sex, marriage status, occupation condition, number of offspring, type of disability, percent of disability, date of disability, having or not having spinal lesion, using or not using psychiatric drugs.

Second data collecting tool was Mississippi post trauma stress criterion. This criterion has been formulated by Keane and Tayor (1988) that is self report criterion and is used for evaluating signs of PTSD. This criterion has 35 items and is classified in 5 groups (re-experience, isolationism, numbness, excess arousal state and self mutilation). Three of these items have close relation with DSM-IV criteria for PTSD. Samples response these items with a 5 degree scoring (False, scarcely correct, sometime correct, very correct and completely correct) that are scoring as 1, 2, 3, 4 and 5, respectively. For a person scores range varies from 35 to 175, that 107 and more, represent PTSD in person. Criterion of PTSD has high integral coincidence coefficient. This reliability coefficient has been obtained through 0.86-0.94 Cronbach's alpha coefficient. In this study Cronbach's alpha coefficient of criterion was 0.89. Retest reliability coefficient of this criterion have reported high. Criterion of PTSD has high validity and great integration with other tools of PTSD assay. This criterion can distinguish between persons with and without PTSD.

For data collection, we completed questionnaires individually and in the residence place of devotees after selecting statistical sample. We use cross-sectional survey method according to subject nature and goals of study. Obtained data were analyzed with t-test for comparison of mean between two separate groups and one way ANOVA.

## RESULTS

As it is shown in the Table 1, age mean and standard deviation of samples' age were 42.36 and 6.67, respectively and mean duration of their disability was 21.5 with standard deviation 2.69.

As it is shown in the Table 2, 26% had PTSD and 74% have not had it.

Table 3 show that mean and standard deviation in the Mississippi test were 83.42 and 26.43, respectively for 35 samples in the 33-40 age range. And for 41 samples in the 41-48 age range mean and standard deviation were 86.55 and 25.04, respectively. Mean and standard deviation were 103.60 and 21.53, respectively for 12 samples in the 49-56 age range. In the 57-64 ages range 8 samples had 97.25 and 18.28 mean and standard deviation, respectively. And for 4 samples in the 65-72 age range mean and standard deviation were 64 and 14.42, respectively.

Table 4 shows there is no significant difference between various age groups for prevalence of PTSD. It means that age has no relation with PTSD prevalence in this study. Second part of this table show that there is difference between mean of devotees' scores and disability type, it mean PTSD prevalence are different in various disabilities. Results of Tooki test for this variable showed that prevalence rate of disorder was significantly higher among devotees with mental disability and both physical and mental disability in the comparison with other disability groups. Also, devotees with chemical disability had the least PTSD prevalence.

In the Table 5, it is observable that comparison between two groups of devotees with and without spinal lesion with using t-test for separate groups is showing

Table 1: Mean and standard deviation of samples' age and duration of their disability

| Variables | Mean±SD | Minimum | Maximum |
|---|---|---|---|
| Age | 42.36±6.67 | 33 | 71 |
| Duration of disability | 21.50±2.69 | 11 | 27 |

Table 2: Rate of devotees with more than 50% disability afflicted by PTSD

| Classes | Frequency | Percent |
|---|---|---|
| Afflicted by PTSD | 26 | 26 |
| Without PTSD | 74 | 74 |
| Total | 100 | 100 |

Table 3: Mean and standard deviation of different age groups in the Mississippi test

| Age groups | F | Mean±SD |
|---|---|---|
| 33-40 | 35 | 83.42±26.43 |
| 41-48 | 41 | 86.55±25.04 |
| 49-56 | 12 | 103.60±21.53 |
| 57-64 | 8 | 97.25±18.28 |
| 65-72 | 4 | 64.00±14.42 |

Table 4: Results of one way ANOVA of devotees' mean on the basis of age and types of disability

| Variables | Sources of change | SS | df | MS | F | Sig. |
|---|---|---|---|---|---|---|
| Age | Inter groups | 4336.47 | 4 | 1084.118 | 1.698 | 0.157 |
| | Intra group | 60662.04 | 95 | 638.548 | | |
| | Total | 64998.51 | 99 | | | |
| Duration of disability | Inter group | 14781.75 | 6 | 2463.620 | 4.540 | 0.000 |
| | Intra group | 50406.21 | 93 | 542.000 | | |
| | Total | 65187.96 | 99 | | | |

Table 5: Comparison of scores mean between separate groups in Mississippi test

| Groups | | Numbers | Mean±SD | t | Level of meaningfulness |
|---|---|---|---|---|---|
| 1 | With spinal lesion | 18 | 24.00±5.8 | 0.46 | 0.64 |
| | Without spinal lesion | 82 | 26.50±2.93 | | |
| 2 | Retiree | 48 | 90.40±24.4 | 1.22 | 0.22 |
| | Occupier | 52 | 84.00±27.4 | | |
| 3 | Married | 2 | 53.00±0.50 | 1.92 | 0.06 |
| | Single | 98 | 87.62±25.41 | | |

that there is no significant difference between two groups for PTSD prevalence. And comparison between two retiree and occupied groups show no significant difference for PTSD prevalence. Also, comparison between two single and married groups shows no significant difference for PTSD prevalence too.

## DISCUSSION

The main question of this study was that how much is the prevalence rate of PTSD among devotees with disability more than 50%. Results showed that PTSD prevalence was 26%. These results accord with results of Klein and Alexander (2006). For explaining can say, since PTSD is appearing after a severe stressor event and experiencing war fields and disability are the stressor events of current study's samples then 26% prevalence rate of this study is natural.

Second question was that there is a relation between PTSD prevalence and their age or not. Results showed that there is no significant difference between different age groups of devotees for PTSD prevalence. This finding does not accord with findings of study of Cardazo *et al.* (2004). They concluded that individuals older than 65 year old are at increased risk for PTSD after war. For explaining can say, since in their study numbers of individuals older than 65 year old was low (only 4) then obtained data from this small sample cant be generalized and are not precise. Also since all samples of this study were elderly then their risk for PTSD has been equal. Furthermore supportive factors like religious beliefs and social support can play a role.

Third question was that PTSD prevalence is different in devotees with and without spinal lesions? Comparison between two groups of devotees with and without spinal lesions using t-test for separate groups showed that there is no significant difference between these two groups. This finding accords with Bremner *et al.* (2003). Different studies about brain of individuals afflicted by PTSD have shown that part of brain that is involved in the PTSD is Hippocampus. It means that Hippocampus in the PTSD persons is lesser than Hippocampus in the normal persons. Generally like previous studies we shoe that having or not having spinal lesions have no effect on PTSD prevalence.

Fourth question was that whether PTSD prevalence has relation with disability type. Results showed that there is no significant difference between devotees with different disability for PTSD prevalence. These findings accord with study of Langeveld *et al.* (2004). They concluded in a research that some demographics specification like job, level of education, type of disease and subsequent health issues do not have relation with PTSD. Results of Tooki test showed that, firstly PTSD prevalence was higher among handicapped with both physical and mental disability than handicapped with mental disability. To explain can say addition of physical disability make people to bear more stress and therefore be more susceptible for PTSD. Secondly, PTSD prevalence is different in psychologically handicapped from chemically ones with more prevalence for psychologically handicapped. To explain can say since chemical disability is specified in failures of physical organs and has lesser side effects than other disabilities then it is nature to be with lesser prevalence of PTSD. Finally, PTSD prevalence is different in physical, mental and chemical handicapped. Prevalence is lower in the chemical handicapped than physical and mental handicapped. What is derived from this finding is that having mental disability disposes the individual to PTSD. Addition of physical disability increases this risk. And the last conclusion is that, PTSD prevalence is among chemical devotees less than other devotees.

Fifth question was that whether PTSD prevalence differs with marriage status or not? Comparison of two groups (married and single) showed that there is no significant difference between these two groups. This finding is different from Nielsen's findings (2003). Nielsen found in his research that being single, low social support and severity of stressor factor are from PTSD risk factor. To explain this finding can say, since number of samples is very low (2 cases) then obtained data from this small sample can not be generalized.

Sixth question is that whether PTSD prevalence differs with occupation or not? Comparison between two occupied and retiree devotees showed that there is no significant difference between these two groups. This finding accords with results of Langeveld *et al.* (2004) research and results of Beck *et al.* (2006). They concluded (through evaluation of a sample with 223 numbers) that

factors like disappointment, having no job predict the PTSD (Beck *et al*., 2006). Devotees of this study were retiree or were been supported by Organization of Devotees (economic support), then their occupation state can not influence PTSD prevalence. Then can derived that this finding correlate with the recent reviews.

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