

Prevalence of traumatic events and posttraumatic stress symptoms in a student sample in Poland

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Abstract

The study investigated the prevalence of traumatic events and posttraumatic symptoms among university level students in Poland. Data was collected from 475 students:

69% women and 30% men, mean age 22.9. The measures included SLESQ, Mississippi-C Scale, IES and BDI. At least one traumatic event (according to DSM-IV) was reported by 75.6% of the studied group. Prevalence of traumatic events was higher for men than for women. Life threatening accidents, child physical abuse, traumatic bereavement, witnessing death/assault and adult physical assault/abuse were the most commonly experienced events in the whole group. There were differences in prevalence rates of specific types of traumatic events between men and women. The level of posttraumatic events between groups with different levels of exposure to trauma was analysed, as well as between the groups of persons who experienced particular types of traumatic events as compared with the groups of subjects with no exposure to this type of trauma.

Keywords: prevalence of traumatic events, post-traumatic symptoms, SLESQ, university students

Introduction

Originally, research on traumatic experiences and PTSD focused on survivors of combat and war trauma (e.g. Vietnam war veterans and Holocaust survivors) and specific traumas such as natural disasters, rape or criminal assaults. Research on the prevalence of traumatic events in the general population started about 15 years ago.¹ These studies provide data on the prevalence of PTSD and distributions among different groups, suggest risk factors for PTSD, and identify the types of traumas most likely to lead to PTSD.²

Estimates of the prevalence of exposure to trauma vary by the definition of the traumatic stressor and the methods used to measure exposure to traumatic events. Studies on the prevalence of trauma in the general population suggest that it is rather common for people to experience different traumatic events during their lives.^{3,4}

Research on university level students can be seen as reflective of the studies on the general population, as they are not done on any specific clinical groups or a group of persons with increased risk of PTSD (e.g. survivors of disaster or combat veterans). The data offers information on the possible threats for mental and physical health in that group, and suggests how to arrange for prophylactic and therapeutic interventions.

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The first studies on the prevalence of traumatic events among college students were done in the USA. Vrana and Lauterbach,⁵ using the Traumatic Events Questionnaire, found that 84% of college students related that they had been exposed to at least one traumatic event during their life. More than one third of the respondents in that study experienced four or more traumatic events. Bernat, Ronfeld, Calhoun and Arias⁶ studied 937 students (303 men and 634 women; mean age: 19.7) from a university in the southern USA, measuring the prevalence of traumatic events using the TAA Questionnaire.⁷ In addition to the items dealing with such traumatic events as combat, physical and sexual assault, life threatening illness and being a witness to somebody being seriously injured or killed, the authors added questions about physical abuse in childhood and about an event the respondent would not like to describe. 67% (N=626) of the students sampled reported experiencing at least one high-magnitude traumatic event in their lifetime. 35.5% of the respondents related experiencing a natural disaster. Other highly prevalent traumatic events among that group of students were: serious accident (31.9%), being witness to serious injury or death (22%), and experiencing sexual coercion during adolescence (21.5%).

Goodman, Corcoran, Turner, Yuan and Green⁸ studied a group of college students using their own Stressful Life Events Screening Questionnaire (SLESQ). 72% (N=140) of the respondents reported at least one traumatic event. The mean number of events was 1.83 (SD=1.96). There was no significant difference in the total number of events reported by women vs. men. Child and adult physical abuse/assault, sudden bereavement, and life-threatening accidents were the most

commonly experienced events. Women were significantly more likely than men to have been molested and to have experienced attempted sexual assault. Men were significantly more likely than women to have experienced adult physical assault, and other serious injury or life threat. Green et al.⁹ also used SLESQ to study second-year female university students (N=2.507). Besides measuring the prevalence of traumatic events the authors compared outcomes of single vs. multiple trauma exposure. The psychological consequences of trauma were measured with Trauma Symptom Inventory, TSI.¹⁰ 65% of the studied sample reported at least one event and 38% reported two or more event types. According to Green et al. the results of their study show that it is important while estimating the impact of a particular type of traumatic event to measure other exposures in the studied group.⁹

Purves and Erwin¹¹ conducted research on 700 students during their first years of university in Great Britain (222 men and 465 women, mean age: 23, SD=6.26). To measure the prevalence of traumatic events the authors asked one question based on the definition of trauma in DSM-III-R. 39% of the students responded that they had experienced a traumatic event. The authors estimated also the level of "posttraumatic stress" (PTSD), with the high lifetime prevalence = 23.3%.

Amir and Sol's¹² study was completed using Israeli students. Besides prevalence of traumatic events the authors analysed the outcomes of single vs. multiple traumas and also the impact of physical injury. Among the 983 students (412 men, 571 women) in this group, 20% (98 men and 100 women) were army officers, which according to the authors is typical among the student population in Israel, as all Israeli citizens must complete mandatory military service. To

measure prevalence of traumatic events an Israeli version of the Traumatic Event Questionnaire^{6,13} was used. The authors qualified as traumatic those events which follow the DSM-IV definition – but respondents were asked to relate only the events they experienced personally. Out of ten questions, six were related to the exposure to traumatic events associated with combat. The “psychological impact” of traumatic events was measured with IES, PTSD Scale and SCL-90. 67% of respondents in that study related experiencing at least one traumatic event, 31% experienced two events and 37% more than two events. Among those who experienced at least one traumatic event, 6% (N=38) received a “full” PTSD diagnosis, which represented 4% of the whole study group. The study also found significant differences in the level of psychological distress between the persons who did not relate any exposure to trauma and those who experienced at least one traumatic event. The persons who experienced physical injury scored significantly higher in SCL-90 compared to those without such injuries.

Haden, Scarpa, Jones & Ollendick¹⁴ studied 150 undergraduate students (50 male, 100 female; the mean age = 19.33; SD=1.31). Participants reported experiencing a range of traumas including accidents (e.g., car accidents, 30%), natural disasters (24%), violent crimes (16%), unwanted adult sexual experiences (14%), childhood abuse (10%), and abusive relationships (6%). The number of years since participants experienced the reported trauma ranged from a few months to 18 years, with an average time of 5 years and 6 months (SD=4 years, 5 months).

Aims of the study

The aims of the present study were two-fold: (1) to get preliminary data on the

psychometric characteristics of the Polish adaptation of Stressful Life Events Screening Questionnaire (SLESQ) by Goodman et al.⁸; and 2) to estimate the lifetime prevalence of traumatic events and the level of post-traumatic symptoms among the sample of university students.

Method

Procedure and participants

There were 475 participants; 325 women (69.4%) and 143 men (31.1%). The mean age of the study group was 22.92 (SD=3.89), with the majority of participants between the ages of 20 and 24 (84%). Participants were recruited from seven university-level schools and faculties located in Warsaw. The data were collected either before or after the lectures/seminars. Subjects agreed to participate voluntarily, and the study was anonymous. Substantial physical distance between the subjects was provided. Persons conducting the study have had previous experience in implementing clinical psychology studies.

Measures

Stressful Life Events Screening Questionnaire, SLESQ⁸

SLESQ is 13-item self-report screening measure designed to assess lifetime exposure to a variety of traumatic events. Participants are asked whether they have experienced each of 11 events and two “catch-all” experiences. If they answer affirmatively they are asked to provide additional information including the following: age (of self and perpetrator), a brief description of the event, extent of injuries, relationship to perpetrator, frequency of occurrence, etc. This descriptive information can be used by researchers to see if the description of the traumatic event fits the A1 definition of PTSD. Goodman et al.⁸ reported good test-retest reli-

ability, with median kappa of 0.73, adequate convergent validity (with lengthier interview) with median kappa of 0.64, and good discrimination between Criterion A and non-Criterion A events.

In a preliminary study of a group of 100 students in Warsaw (test-retest interval: 2 to 4 weeks) median kappa was 0.74 (the range for particular items was from 0.68 to 1.00).

Mississippi-C PTSD Scale^{15,16}

A civilian version of Mississippi Scale for Combat-Related PTSD¹⁵ was developed to measure PTSD symptomatology. The 35-item scale is derived from DSM-III PTSD diagnostic criteria and requires subjects to rate items on a 5-point Likert scale. Lis-Turlejska and Łuszczynska-Cieślak¹⁷ describe four studies using a Polish version of the Mississippi PTSD-C Scale. The results show satisfactory reliability and validity of the Polish version of the Scale. Cronbach's alpha for the present study = 0.91.

Impact of Event Scale (IES)¹⁸

IES is the self-report 15-item measure of subjective stress related to specific events. Participants were instructed to think about an especially difficult event from the previous questionnaire (SLESQ). Based on that event, they were instructed to rate the frequency with which they had experienced each of the 15 symptom statements during the past seven days. Cronbach's alpha for the present study = 0.92.

Beck's Depression Inventory (BDI)¹⁹

BDI consists of 21 items describing various symptoms of depression. Each item is rated on the scale of 0-3 with a rating of 3 reflecting the greatest intensity of feeling. The subject is instructed to base his or her ratings on the way he or she has been feeling over

the past week. A Polish translation of BDI was used in several studies on representative national samples.²⁰ Cronbach's alpha for the present study = 0.87.

Results

Prevalence of traumatic events

Similar to the research done in other countries, the results show that traumatic events had been experienced by the majority of the students in the study group. Among the respondents, 345 subjects (75.6%) experienced at least one potentially traumatic event according to the Criterion A1 of the PTSD diagnosis.²¹ 26.5% experienced one such event, 20.9% – two, 11.75% – three, and 8.55% – four events. 77 subjects (16.5%) experienced four or more traumatic events. Men experienced a greater mean number of events than women ($M=2.21$; $SD=1.67$ vs. $M=1.68$; $SD=1.69$, $t(466)=3.12$, $p<0.001$).

Life threatening accidents, child physical abuse, traumatic bereavement, witnessing death/assault and adult physical assault/abuse were the most commonly experienced events in the whole group. There were significant differences between genders in the prevalence of particular types of traumatic events. The highest prevalence rates among women were related to experiences of traumatic bereavement, child physical abuse, life threatening accidents and witnessing death or assault. Women also were significantly more likely than men to have been molested, to have experienced being sexually abused and to have experienced attempted rape. Men had the highest prevalence rates for experiencing robbery/mugging, life threatening accidents, child physical abuse, witnessing death/assault, adult physical assault/abuse and being threatened with a weapon. Prevalence rates of the traumatic events are presented in Table 1.

Table 1. Prevalence of potentially traumatic events by gender.

Traumatic event	Total, N=468, %	Women, N=325, %	Men, N=143, %	χ^2 df,=1
Life-threatening illness	12.4	12.6	11.9	0.05
Life-threatening accident	23.5	21.2	28.7	3.06
Robbery/mugging	18.8	9.3	40.6	63.56***
Traumatic bereavement	21.8	23.1	19.0	0.96
Sexual assault (penetration)	5.8	7.7	1.4	7.16**
Attempted sexual assault	3.9	4.9	1.4	3.35*
Molestation	8.8	12.0	1.4	13.96***
Child physical assault/abuse	23.1	22.5	24.5	0.65
Adult physical assault/abuse	12.2	8.6	20.3	12.5**
Threatened with weapon	9.6	5.2	19.6	23.41***
Witnessed death/assault	20.8	19.4	23.9	1.24
Other life threat (e.g. combat)	4.3	3.4	6.4	2.15
Other horrifying event	18.7	17.3	21.9	1.31

*) $p < 0.05$; **) $p < 0.01$; ***) $p < 0.001$.

Comparing the data on the prevalence of traumatic events among Polish and American study groups using the SLESQ to measure exposure to traumatic events

As Table 2 shows there are some differences between the data from Goodman et al.⁸ and Green et al.⁹ and the prevalence rates obtained in the present study, which used the same instrument (SLESQ) to measure exposure to traumatic events.

Comparing the results of the present study with the data from Goodman et al.⁸ our research shows that among the Polish students there are much higher rates of experiencing robbery/mugging (19% vs. 6%), witnessing someone being killed/assaulted (21% vs. 12%) and life threatening accidents (24% vs. 16%). The rates of traumatic events associated with sexual abuse: sexual assault (penetration) and molestation are lower among the Polish students than among the American ones (6% vs. 11% and 9% vs. 14%). The differences between the sexual abuse rates for the Polish and American students are more salient when comparing the rates among only the women.⁹ Attempted rape was reported more than twice as less often by the Polish women students

compared to the Americans. The rates for sexual assault and molestation are higher in the American groups. Also the rates of adult physical abuse in women (the wording of this item stresses the abuse is perpetrated by a partner and/or family member) are much higher among the American women students (9% vs. 18%).

The present data show that Polish students, compared with their American counterparts, have experienced more traumatic stress events, especially connected with criminal assaults and life threatening accidents. However, the rates of sexual assault, attempted rape, molestation and adult physical abuse are lower for Polish students. It is not clear whether the data presented here reflect the real picture of the prevalence of these types of traumatic events or if there are cultural differences in perception and readiness to disclose these kinds of events.

Exposure to traumatic events and level of post-traumatic symptoms

The IES and Mississippi-C Scale were used to assess posttraumatic symptoms, and BDI was used to assess the symptoms of depression. The results are shown in Table 3.

Table 2. Prevalence of traumatic events among Polish and American students.

Traumatic event	Lis-Turlejska (SLESQ) N=468 %	Goodman i in. 1998 (SLESQ) N=202 %	Green et al., 2000 (SLESQ) N=2507(women only) %
Life-threatening illness	12	13	8
Life-threatening accident	24	16	13
Robbery/mugging	19	6	3
Traumatic bereavement	22	19	15
Sexual assault (penetration)	6	11	14
Attempted sexual assault	4	8	12
Molestation	9	14	19
Child physical assault/abuse	23	22	17
Adult physical assault/abuse	12	18	18
Threatened with weapon	10	6	–
Witnessed death/assault	21	12	18
Other life threat (e.g. combat)	4	11	–
Other horrifying event	19	13	20
Any trauma (excluding „other“)	72.4	66	65

Table 3. Descriptive statistics for Mississippi-C, IES and BDI.

Measure	M	SD	Min	Max
Mississippi-C	73.97	17.27	43	147
IES – total	16.20	18.32	0	71
Intrusions	6.08	8.40	0	35
Avoidance	8.68	10.01	0	36
BDI	7.97	7.75	0	53

The study group was divided according to the number of traumatic events experienced. The first group (N=114) consisted of the subjects who did not report any traumatic event; group two (N=114) consisted of subjects who experienced one traumatic event; group three (N=98) experienced 2 events and group four, 3 or more events. The level of symptoms as measured with IES in these four groups was compared with one-way analysis of variance ANOVA (and additionally the Gabriel's and Games-Howell's tests). There were significant differences between the groups ($F_{[3,42]}=9.542$; $p<0.01$). There were no significant differences between the group without exposure to any traumatic event and the group with only one

traumatic event ($p=0.25$). There was also no significant difference between the group of subjects who experienced two events and those who experienced three or more traumatic events ($p=0.97$). However, the group of the students with no traumatic event had a lower level of symptoms compared to the subjects who experienced two such events ($p<0.01$) and the group of subjects who experienced three or more traumas ($p<0.01$).

There were statistically significant differences between groups in the level of posttraumatic symptoms measured using Mississippi-C ($F_{[3,40]}=3.437$; $p<0.05$). There was also difference between the group with no traumatic event and the group with three or more such events ($p=0.03$), such as a difference between the group of subjects who experienced one traumatic event and the group of persons who experienced three or more traumas ($p=0.06$). There was no significant difference between the subjects who were not exposed to trauma and those with one traumatic event ($p=1.00$) or two such events ($p=0.68$). Also there was no dif-

ference between the groups of subjects who experienced one vs. those who experienced two traumatic events ($p=0.84$). The level of symptoms in this group does not differ from the group with three or more traumas.

The level of posttraumatic symptoms between the groups of persons who experienced a particular type of traumatic event with the groups of subjects with no exposure to this type of trauma was compared. The significance of the differences was analyzed with the t Student's test for the independent groups, with the Cox-Cochrane correction if the variances were heterogenic.

This analysis was done for the BDI, IES and Mississippi-C scores. The results showed that the persons who experienced rape or child physical abuse have a significantly higher level of depression compared to those who did not have such traumatic experiences.

For the IES scores almost all types of traumatic events are significantly correlated with the level of posttraumatic symptoms (exceptions are: robbery/mugging; adult physical assault/abuse; being threatened with a weapon). For the Mississippi-C scores the results of the analysis show that the subjects who experienced serious accidents, physical assault/abuse in childhood, being threatened with a weapon or witnessing someone being killed or injured exhibit a higher level of posttraumatic symptoms.²²

Discussion and conclusion

One of the aims of this study was to obtain data for the Polish adaptation of Stressful Life Events Screening Questionnaire (SLESQ) as the measure of exposure to traumatic events. The obtained data on the psychometric characteristics of this instrument (reliability and validity) are promising. The kappa values for the whole questionnaire as well as for the items addressing specific types of traumatic events are satisfactory.

There are statistically significant differences between the prevalence of specific traumatic events between men and women. Men are more frequently victims of assaults and physical violence. Women are more likely to experience molestation and sexual assault. The differences in prevalence of specific traumatic experiences between the present results and the results obtained through study of American students (with the same measure) are worth attention: higher prevalence of events among Polish students involving physical violence (physical assaults, child physical abuse); lower prevalence of events involving sexual abuse (sexual abuse, molestation). Further research is needed however to clarify whether the data presented here reflect the real picture of the prevalence of these types of traumatic events or if they are due to cultural differences in perception and readiness to disclose these kinds of events.

The results indicate the interdependence between the overall number of experienced traumatic events and the intensity of posttraumatic symptoms (statistically significant correlations with IES and Mississippi-C scores) and the exposure to specific types of traumatic events and intensity of posttraumatic symptoms.

While analysing and interpreting the data on the prevalence of traumatic events among the university level students it is worth considering that the highest rates of exposure to traumatic events were obtained among subjects aged between 16 and 20.² Obviously, however, the data on the prevalence of traumatic events among the students from the university level schools in Warsaw needs attention, especially those who have been exposed to multiple traumas. Previous research⁹ confirms that multiple exposures are associated with a significantly higher risk of posttraumatic symptoms.

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