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Self-image, war psychotrauma and refugee status in adolescents

Accepted: 17 August 2004

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■ **Abstract** The aim of this study was to assess how war psychotrauma, refugee status and other factors relate to self-image. Psychotherapeutic-psychiatric interview, the Offer Self-Image Questionnaire (OSIQ), questionnaires for measuring war stressors, post-traumatic stress reactions (PTS-reactions), depression and general data were administered. A total of 322 adolescents from Bosnia-Herzegovina and Croatia were included in the study. In 60.32 % of the examinees, more than four war stressors were encountered. In 13.68 % of the examinees, high PTS-reactions occurred. The refugees had nearly four times higher odds (aOR = 3.66; 95 % CI = 1.63–8.2; $p < 0.01$) of having a higher Offer score for the sexual attitudes subscale. Lower war stress

had 0.28 times lower odds (aOR = 0.28; 95 % CI = 0.11–0.71; $p < 0.01$) of having a higher Offer score for the sexual attitudes subscale. More severe PTS-reactions had six times higher odds (aOR = 6.15; 95 % CI = 1.7–22.2; $p < 0.01$) of reaching a higher Offer score for the emotional tone subscale. War psychotrauma and refugee status are related to poorer adjustment only in some of the OSIQ subscales. Practical measures of joined sexually preventive/therapeutic activities are proposed, as well as educational and preventive/therapeutic psychotrauma models.

■ **Key words** adolescents – war trauma – refugees – self-image – depression

Introduction

The results of many studies show that war trauma is very stressful for children/adolescents. Long-lasting effects of war trauma are heterogeneous, i. e. complex, congruent with the interaction of various risk and protective factors [8, 12]. On the one hand, posttraumatic stress disorder (PTSD) symptoms, personality changes and/or depression are often found [4, 5, 27, 29]. On the other, there are no symptoms of overt psychic disorders [26]. The war in Croatia and Bosnia-Herzegovina lasted from the beginning to the end of the 1990s, the most intensive period being from 1991 to 1995. This war was charac-

terised as being very brutal, causing great suffering to civilians, children and adolescents [1, 25, 32]. Now, after an elapse of several years, an impression of the complex consequences of this war has crystallised.

Certain confusion is present in the current literature, because in adolescence various concepts resembling self-image (S-I), such as self-concept, self-esteem, identity and others, are mentioned. Some authors tried to mutually define these notions [23], and to develop various adequate instruments respectively. One of the more prominent authors of S-I is Daniel Offer, who, with his collaborators, developed the Offer Self-Image Questionnaire (OSIQ) [20, 21]. Offer et al. defined S-I as affective-cognitive representations of personality. Adolescence is

a critical period related to the psychological development of the self.

We accepted the use of Offer et al.'s concept, because it seemed useful in its multidimensionality and because the OSIQ had been used in Croatia in 1989, i. e. before the war [17]. Existing evidence proves that S-I according to Offer et al. is related to different factors. The most-often encountered factors in the literature connected with S-I in adolescents are age, gender, depression and cultural influences [15, 19–21, 28]. The relationship between psychotraumatic experiences and refugee status and S-I according to Offer, as far as we know, was published only in our previous study [2]. Thus, by broadening the concept of S-I according to Offer to other related terms (self-concept, self-esteem, identity) with regard to psychotrauma, we find only little research in the literature, with inconsistent results [3, 11]. In this literature, there were mainly findings on the relation between psychotrauma and poor general self-concept, with different possible negative outcomes: poor self-concept, lack of the development of coherent and valued feeling of self and the like [3, 14]. However, other studies did not succeed in finding a positive correlation between psychotrauma and low self-esteem [10].

The aim of this study was to assess how war trauma (war stressors and posttraumatic stress reactions/PTSR-reactions/), refugee status and other factors (gender, age, parents' education, nationality, school performance, depression) were related to each OSIQ subscale. To the best of our knowledge, there are no data in the literature about research on the relationship between war trauma and refugee status with every single OSIQ subscale.

Subjects and methods

Subjects

The sample comprised 322 adolescents, aged between 13 and 19. In Table 1, social-demographic characteristics for the whole sample are listed. In all, 133 examinees were refugees, and 189 were school adolescents, with an equal number of male and female participants. Younger adolescents (13–15 years) accounted for 38.81% of the sample and higher father's education (more than eight classes) was found in 69.87% of the examinees, while higher mother's education (more than eight classes) was present in 60.33% of the sample. A total of 86.42% were of Croatian nationality, and 13.57% were Bosnian-Muslims. Better school performance (better than two marks out of five) was found in 56.54%. The study was actually the continuation of previous research of S-I in adolescents [2]. The main aim in the previous study had been to compare scores on the S-I subscale of refugees (N = 133) with the scores of school-aged adolescents as comparison subjects (N = 189). Because of the aim of the

Table 1 Sociodemographic characteristics of sample

	N	%
Refugees		
Yes	133	41.3
No	189	58.69
Gender		
Male	162	50.31
Female	160	49.68
Age		
Younger (13–15 years)	125	38.81
Older (16–19 years)	197	61.18
Education of fathers		
Lower	72	30.12
Higher	167	69.87
Education of mothers		
Lower	94	39.66
Higher	143	60.33
Nationality		
Bosnian-Muslims	41	13.57
Croatian	261	86.42
School performance		
Poorer	103	43.45
Better	134	56.54

Note: totals vary because of missing data

previous study, it was not possible to confirm the relation (association) between specific S-I subscales and individual factors. The sample used in this study was the same as in the previous study.

The research was carried out in Germany and Croatia. In Germany, refugees were accommodated in Hamburg, a city in the north with a population of 1.8 million. In Croatia, refugees were placed in Zagreb, the capital city, with a population of 700,000, as well as in Varaždin, a town in the north with 42,000 inhabitants. In all, 189 school-aged adolescents from Zagreb, the capital of Croatia, took part in the research. The exclusion criterion was mental disorder unrelated to war trauma, diagnosed by a general data questionnaire. Fifteen incorrectly completed OSIQ questionnaires were also excluded from the analysis.

Sampling procedures

The study was performed from January 1997 to April 1999. It was approved by the local and school authorities, and informed consent was obtained both from the participants themselves and their parents.

The procedure of data collecting from the refugee sample (N = 133) and the sample of school adolescents (N = 189) was presented in more detail in the previous work [2]. The refugee sample (N = 133) was taken from

four refugee camps in Hamburg, from dormitories in Zagreb, and from two refugee camps in Varaždin. Refugees were selected from accommodations where they could have been settled in the greatest possible number. The list of all refugees was delivered to the first author by an authorised social worker or by a dormitory leader. These refugees were aged 13–19. One obstacle during sampling was that some of the refugees were absent from their accommodation during the day; thus, a certain number of families had not been informed about the research. After psychotherapeutic-psychiatric interviews with the adolescents and their family members had been conducted, a meeting (with the aim to collect self-descriptive data) was summoned. The response rate among informed individuals was about 93%. The total number of refugees in this research was, therefore, the maximum number of adolescents obtainable in the given circumstances and time. A specific psychiatric and psychotherapeutic treatment was offered in the case of psychic symptoms.

The sample of school adolescents, which had served as control group in our previous work ($N = 189$) was obtained in the following way. The intention was to gather school-aged adolescents from Zagreb, approximately 50 of them in each of the four groups: younger/older, male/female. They were randomly chosen from one primary school, one secondary and two vocational schools, representing the city of Zagreb. The response rate to the research reached 99% and this high response rate was presumably the result of the authors' presence during the data collection, and the consequence of good co-operation with school authorities.

■ Measures

Psychotherapeutic-psychiatric interview was conducted with the refugee adolescents and their family members. It was performed in the quarters of a respective family, conducted by a psychiatrist, i. e. the first author. The interviews were mostly performed in the presence of several family members. These were not structured interviews, but served as an introduction to applied investigation. The school-aged adolescents were excluded from these interviews.

The Croatian version of the OSIQ self-administered test comprising 130 items was used [17, 20]. The items were rated from 1 to 6 on the Likert scale, with 1 indicating "is a very accurate description of me", and 6 representing "does not describe me at all". The whole questionnaire consisted of five scales: 1) *psychological self* – separated into three subscales: impulse control (the total range being 9–45; for the purpose of this study scores were divided into three groups: lower 9–23, moderate 24–28 and higher 29–45), emotional tone (the total range being 10–60; the scores were divided into three

groups: lower 10–21, moderate 22–28, higher 29–60), and body image (the total range being 9–45; the scores were divided into three groups: lower 9–20, moderate 21–26, higher 27–45); 2) *social self* – separated into three subscales: social relations (the total range 9–45, the scores were divided into three groups: lower 9–17, moderate 18–24, higher 25–45), moral (the total range 10–60; divided into three groups: lower 10–27, moderate 28–32, higher 33–60), and professional and educational goals (the total range 10–60; the scores were divided into three groups: lower 10–20, moderate 21–26, higher 27–60); 3) *sexual attitudes* (the total range 10–60; divided into three groups: lower 10–23, moderate 24–31, higher 32–60); 4) *family relations* (the total range 19–114; comprising three groups: lower 19–40, moderate 41–52, higher 53–114), and 5) *adaptable self* – scores were separated into three subscales: mastering of the external world (the total range 10–60; divided into three groups: lower 10–23, moderate 24–29, higher 30–60), psychopathology (the total range 14–84; divided into three groups: lower 14–32, moderate 33–41, higher 42–84) and optimal adjustment (the total range 14–84; divided into three groups: lower 14–37, moderate 38–43, higher 44–84). In all, 11 (sub)scales were applied. Their validity and reliability was confirmed. The alpha coefficient for the purpose of this study amounted to 0.88.

War stressors were assessed by the questionnaire on children's stressful and traumatic war experiences, a self-administered questionnaire developed and used in Croatia in 1993 [30, 31]. The instrument included the most frequent war stressors and subscales of stressful events: general war events, loss of home and achieving a refugee status, victimisation of family members, witnessing victimisation and personal victimisation. This instrument originally had 20 items. For the purpose of this investigation, the instrument was slightly modified and consisted of 22 items in total. An examinee responded to each item with Yes or No regarding his/her past experience. The total score was the sum of Yes responses, representing the intensity of stressful events. The total range was from 0 to 22. Stressors were divided into three groups according to a one-third division (percentiles): the lower number of experienced stressors (0–4), the moderate (5–7) and the high value (8–22). The alpha coefficient for this research was 0.80.

PTS-reactions were investigated by the questionnaire for the examination of PTS-reactions in children, a self-administered questionnaire, originally consisting of 20 items based on the description of PTSD in DSM, developed and used in Croatia in 1993 [30, 31]. Three items listed in the current DSM-IV edition were not used in the study, so the questionnaire had a total of 17 items. Examinees indicated the frequency of the symptoms on a three-point scale (1 = never, 2 = sometimes, 3 = always). The total score on the inventory represented the overall intensity of PTS-reactions, ranging from 17 to 51.

The expressiveness of PTS-reactions was divided into two groups, according to the criteria for six items of PTSD diagnosis in DSM-IV: less expressed PTS-reactions (17–28) and more intense PTS-reactions (29–51). The alpha coefficient for this research was 0.88.

Depressive symptoms were assessed by the Croatian version [33] of the Child Depression Inventory (CDI) [16]. This is a 27-item self-administered questionnaire, each item examining the intensity of depressive symptoms on a three-point scale. The total result reflected the manifestations of depressive symptoms, with the possible range from 0 to 54. The expressiveness of depressive symptoms was divided into three groups according to a one-third division (percentiles): slightly (1–8), moderately (9–12) and highly expressed depression (13–54). Internal consistency (Cronbach's alpha) in the whole study sample reached 0.78.

General data were obtained through the self-administered questionnaire for social-demographic and general data. School performance is usually described in five grades. In this study, poor school performance comprised three lower grades, including also an insufficient grade (failure), while good performance comprised the two best grades. Psychiatric disease in the family history and previous psychiatric treatment were assessed by choosing binary answers, Yes or No.

■ Statistical analysis

The mean scores of all individual Offer subscales were compared for different characteristics of adolescents by using the Mann-Whitney U or Kruskal-Wallis test. For multi-variate analyses, the recoded Offer subscales were used as the outcome variable (0 = low, 1 = moderate, 2 = high score), and logistic regression analysis was performed for each of 11 Offer subscales. All explanatory variables were categorised as previously described. Cumulative logits with ordered logistic regression were done by using the proportional odd model when the assumption of proportional odds was met ($p > 0.1$); otherwise, a multinomial logistic regression was performed. Included in the initial model were all explanatory variables with a $p < 0.25$ on uni-variate analyses. A stepwise procedure was applied by using backward elimination according to likelihood ratio scores. The final model was also checked for significant interaction terms. The adequacy of the model was assessed by the deviance goodness of fit test. All analyses were performed by the SAS version 8.2 software.

Results

■ Univariate analysis

Refugees from Bosnia-Herzegovina came from 29 different places. The average number of months they spent as refugees in Germany was 52.8 (SD = 9.09) and for those accommodated in Croatia it was 64.55 months (SD = 14.49). The mean score of experienced war stressors for the whole sample was 6.16 (SD = 3.14). War stressors were expressed as low in 39.67 %, moderate in 30.32 % and high in 30 % of the subjects. Among the total of 22 war stressors items, the five most often chosen were the following: 1) I saw war terrors on TV – 96.15 %; 2) I experienced raid-alarms or spent time in a cellar or shelter – 81.73 %; 3) I was present to a conversation about war terrors – 63.46 %; 4) There was shooting near me – 57.05 %; and 5) My close family member (mother, father, brother, sister) was at the battlefield – 50.96 %. The mean PTS-reactions score for the whole sample was 21.81 (SD = 6.13); lower PTS-reactions were present in 86.31 %, and higher reactions in 13.68 %. The mean CDI score was 10.83 (SD = 5.31), with the distribution between 31.21 and 36.62 % of low, moderate and high CDI scores. The percentage of adolescents with a CDI score > 20 was 6.36 %. A history of psychiatric treatment was found in six cases, and psychiatric disease in the family history was found in ten cases.

■ Multivariate analysis

The multivariate analysis of each Offer scale was adjusted for the refugee status, war stressors, PTS-reactions, depression, age, gender, father's and mother's education, nationality and school performance, if any of those variables contributed to the model. A higher Offer score of a particular subscale represented its poorer adjustment. The refugees had nearly four times higher odds (aOR = 3.66; 95 % CI = 1.63–8.2; $p < 0.01$) of having a higher Offer score for the sexual attitudes subscale in multivariate analysis (Table 2). Lower war stress had 0.28 times lower odds (aOR = 0.28; 95 % CI = 0.11–0.71; $p < 0.01$) of having a higher Offer score for the sexual attitudes subscale. More severe PTS-reactions had six times higher odds (aOR = 6.15; 95 % CI = 1.7–22.2; $p < 0.01$) of reaching a higher Offer score for the emotional tone subscale.

Girls had 0.55 times lower odds of reaching a higher Offer score for the professional and educational goals subscale. The examinees with better school performance had 0.4 times lower odds of having a higher Offer score for the professional and educational goals subscale. Higher father's education had a 0.47 times lower chance of achieving a higher Offer score for the sexual attitudes subscale. Better school performance had 0.4

Table 2 Logistic regression analysis of the association of refugee status, war stressors, PTS-reactions and depression to emotional tone, sexual attitudes, social relations, psychopathology, mastering of the external world and optimal adjustment as measured by the Offer subscale. The model predicts the probability of being in a lower Offer subscale category

Offer subscales	N	Refugee status aOR (95% CI)	War stressors low vs. high aOR (95% CI)	PTS-reactions aOR (95% CI)	Depression low vs. high aOR (95% CI)
Emotional Tone	190	1.52 (0.6–3.84)	0.65 (0.21–1.94)	6.15* (1.7–22.2)	42.76** (16.76–109.03)
Sexual Attitudes	233	3.66* (1.63–8.2)	0.28* (0.11–0.71)		Interaction
Social Relations	232	Interaction		1.65 (0.66–4.16)	12.98** (6.35–26.52)
Psychopathology	232	Interaction			14.98** (7.22–31.05)
Mastering of the External World	237	Interactions			71.28** (19.55–259.84)
Optimal Adjustment	236		Interactions		8.65** (3.28–22.78)

Note: The analysis was adjusted for age, gender, education of father, education of mother, nationality and school performance if any of those variables contributed to the model. Totals vary because of missing data. * $p < 0.01$; ** $p < 0.001$. Interactions are described in the text

times lower odds of having a higher Offer score for the professional and educational goals subscale. A high CDI score had from 2.16 to 42.76 times higher odds for a higher Offer score in almost all subscales in the ordered logistic regression.

For boys, there was a 0.33 and 0.19 times respectively lower chance of having a low in comparison to a high Offer score for the subscale of mastering the external world and in the subscale of optimal adjustment. There was a 0.18 times lower chance of the examinees with poorer school performance obtaining a low compared to a high Offer score for the family relations subscale. The examinees with a higher CDI score had 19.92, 72.28 and 8.65 times respectively greater odds of having a high in relation to a low Offer score in the subscales of family relations, mastering of the external world and optimal adjustment (multinomial log regression).

Through the interactivity of various factors, some significant interactions were found. The refugees with poorer school performance had 0.24 (aOR = 0.24; 95% CI = 0.11–0.56; $p < 0.001$) times lower odds of reaching a lower Offer score in the social relations subscale. The examinees with the higher CDI score in older age had 0.11 times lower odds of having a lower Offer score in the sexual attitudes subscale. The refugees with poorer school performance had 0.21 (aOR = 0.21; 95% CI = 0.09–0.48; $p < 0.001$) times lower odds of obtaining a lower Offer score in the psychopathology subscale.

There was an almost 23 (aOR = 22.9; 95% CI = 4.57–115.2; $p < 0.001$) times greater chance for the refugees with poorer school performance to have a high compared to a low Offer score in the subscale of mastering the external world. Also, there was an almost 7 (aOR = 6.8; 95% CI = 1.6–28.3; $p < 0.01$) times greater chance for the refugees with poorer school performance to have a high compared to a moderate Offer score in the subscale of mastering the external world. An 8.5 times (aOR = 8.5; 95% CI = 2.35–30.7; $p < 0.01$) greater chance existed for the examinees with moderate war stress in

comparison to lower war stress with poorer school performance to have a high in relation to a low Offer score in the subscale of optimal adjustment. The chance for the examinees with moderate war stress in comparison to lower war stress with lower school performance was 7.56 (aOR = 7.56; 95% CI = 2.04–28; $p < 0.01$) times greater to have a high compared to a moderate Offer score in the subscale of optimal adjustment. There was a 7 (aOR = 7.07; 95% CI = 1.7–29; $p < 0.01$) times greater chance for the examinees with higher war stress and poorer school performance to have a high Offer score compared to a low one in the optimal adjustment subscale. A 0.19 (aOR = 0.19; 95% CI = 0.05–0.74; $p < 0.05$) times lower chance existed for the examinees with moderate war stress and poorer school performance to have a low Offer score in relation to a high one in the optimal adjustment subscale. A 0.25 (aOR = 0.25; 95% CI = 0.06–0.96; $p < 0.05$) times lower chance was found for the examinees with moderate war stress and poorer school performance to have a moderate compared to a high Offer score in the subscale of optimal adjustment. There was a 0.16 times lower chance (aOR = 0.16; 95% CI = 0.05–0.5; $p < 0.01$) for the examinees with better school performance and moderate war stress in relation to lower war stress to have a moderate compared to a high Offer score in the optimal adjustment subscale.

■ Clinical vignette

A four-member family housed in a small refugee room in a camp welcomed a therapist very warmly. A large photograph (approx. 50 cm × 100 cm) on the wall dominated the room catching attention. The photo showed a nice two-storey house in the middle part of Bosnia, built by a hard-working father. The house was destroyed in the war. The photo showed the mood prevailing in the family: melancholic memories of the recent and good past. The conversation with the family was similar to the

photo, and referred to pleasant pre-war memories: building of their own house, watching football matches, their indifference to politics, working in a factory, etc. A female adolescent, A., aged 18, from the respective family, spoke about her escape from war threats. Last year, she succeeded in completing secondary education. However, due to undefined refugee status, always being prolonged for a few months only, she did not obtain the right to enrol for medical school as she longed to do. Since last autumn, she has no longer been to school and has spent most of her time in the refugee room. She feared she would have to finish some other school upon return to Bosnia, and concluded helplessly: "If it had not been for the war, I would have completed my education."

Discussion

■ War stressors, PTS-reactions and relation between self-image and war psychotrauma/refugee status

The main aim of this study was to establish the relation between the factors of war trauma, refugee status and S-I. The findings of war stressors reveal a very high rate of exposure. As many as 60.32% of our examinees experienced more than four different war stressors. Bearing in mind that other investigations state a rate of about 45% of exposure to traumatic stressors in the general population [7], we considered our finding as high, i. e. an important result of our study. Furthermore, we found significantly higher PTS-reactions in 13.68% of the examinees, who, we suspected, could have had clinical PTSD. This is also an important and valuable result of our research. It can be compared to recorded findings in literature dealing with PTSD [6, 26, 32]. Generally observing the relation of all Offer's subscales with the war trauma factors and refugee status, we found that they were related only to a smaller number of subscales. This finding was in accordance with the data from our previous study, where deviation was present only in some S-I subscales in refugees when compared with controls [2].

We tried to explain the finding of prominent war stressors and PTS-reactions along with a smaller number of aberrant OSIQ subscales by the complexity of war trauma and exile, similarly to other investigations [8, 12]. We assumed the lack of risk factors, i. e. the lack of personal victimisation. We presupposed the presence of protective elements: time elapse from traumatic events, regular development and also presumed well-established S-I before trauma, resilience of adolescence, coping styles, good family and community support, various psychosocial, preventive and therapeutic programmes, etc.

To sum up, as such an investigation of S-I had not been performed before, we tried to explain the findings by other similar investigations. Namely, overall, our

finding seemed similar to other results in literature describing good or average general functioning of children/adolescents' personalities, despite the experiencing of war trauma, that is, despite concomitant PTSD symptoms [2, 10, 26]. The implication of this could be that in the approach to trauma we do not only deal with possible psychopathological manifestations, but also with preserved personality traits, i. e. general personality functioning, as could, in a way, be encompassed by S-I according to Offer et al.

■ Relation between particular self-image subscales and war psychotrauma/refugee status

The most interesting finding in this study was that refugee status and war stressors were related to the sexual attitudes subscale, directed towards poorer adjustment. Such a finding with the use of OSIQ has not yet been published. So far, in the literature, sexuality and migration/refugee status in adolescents have been touched on in only a few studies [9, 18]. The sexual self subscale represents sexual experiences and behaviours, feelings and attitudes, and also conduct towards the opposite sex. Poorer adjustment on this subscale indicates relatively conservative attitudes toward sexuality [20], behind which anxiety or a standstill of developmental tasks in adolescence could supposedly be hidden. One of the reasons why sexual attitudes have changed is probably that they are something more intimate than attitudes depicted on other subscales. This phenomenon could be explained in two ways. The experienced war trauma and refugee status could lead (through the mediation of learned helplessness) to the increased possibility of interpreting or processing subsequent events in the domain of sexuality as out of one's control [22, 27]. The other possible explanation could be the psychodynamic understanding of the trauma [4]. Thus, the hypothesis was that war trauma and refugee status had influenced sexual attitudes of children/adolescents by equating a feeling of helplessness during traumatic experience with the feeling of sexual helplessness thereafter. Practical implications of the findings spoke in favour of sexual education and sexual prevention/intervention programmes [13, 21].

PTS-reactions were associated with the emotional tone subscale, also as poorer adjustment. The emotional tone subscale represents a degree of emotional harmony within psychic apparatus [20]. This finding was consistent with the descriptions of psychotraumatized refugee children/adolescents [4, 29]. According to our results, the examinees with higher PTS-reactions were exposed to greater emotional fluctuations, with less control of affects. Namely, it seemed they had a reduced possibility of experiencing their emotions in an appropriate way. Different emotional problems were partly described in our

case vignette. Our results pointed to the obvious necessity to apply prevention/intervention models for psychotraumatized adolescents, including cognitive-behavioural and psychodynamic aspects [4, 5, 22, 27].

The findings obtained emphasised the importance of the “school performance” factor, because this had the most interactions with other factors. This result is in accordance with other published studies [24]. According to the results of this study, adolescent migrants with poor school performance had more behavioural and emotional problems, they were less socialised, and had a sense of lower competency in mastering the external world. Because it was quite easy to detect adolescent migrants with poor school performance, this finding had important practical implications when considering help needed by these adolescents. Such help could include educational measures such as teaching; modified education patterns for migrants; the use of creative, joint workshops; adequate information for migrants about possible educational options, etc. Our findings confirmed the models of the institutional help network already offered by host countries [3].

■ Interrelations among the self-image and other factors

Different interrelations emerged among S-I and other factors. Depressiveness showed the strongest relation to all S-I subscales in an untoward direction. Thus, this result is a replication of other studies of the connection between relationship S-I and depression [15, 21]. This finding did not surprise us. Clinical impression about mutual connection of depressive mood with low S-I is well known. According to our findings, depressive adolescents have a worse psychological image about themselves and the world, in social relations they feel incompetent, have no adequate plans for the future or future profession, feel they are in conflict with parents, are less open towards sexuality, and feel less capable of mastering the world around them.

Interestingly, nationality did not show any relation to the S-I subscales. With regard to the recent war in former Yugoslavia, where nationality affiliation was greatly stressed, this could be the confirmation that adolescents

have universal developmental possibilities in discovering similarities among themselves, and in transcending the models of their own nationality used so far. Similarly to what has already been said, this is interesting, but not emphasised enough in the study by Weine and his co-workers on Bosnian refugees. They noticed that refugees of Muslim nationality settled in the USA found their identification model in the Croatian basketball player in the NBA league [32].

Several possible limitations of this study were suggested. Firstly, the authors faced the problem of omitting some of the families from the research, the problem of refusing to participate in the study, the problem of a certain lack of data, posing the question of its influence upon the final results. Nevertheless, in our opinion, in a specific situation it was useful to collect the data anyway, as well as to try to analyse them. Secondly, more competent data could probably have been collected by following up these subjects, but the circumstances of the research did not allow this. Thirdly, the data were collected by self-administered tests, not through structured clinical interviews, so the conclusions were not so firmly established as they could have been. Fourthly, the influence of some other factors on the S-I that was not included in this study could be relevant as well, e. g. the parents' family status or some other unknown factors, so that the influence of this fact on the total results remained open.

In conclusion, the study presented important findings of war stressors and PTS-reactions. War trauma and refugee status were related in the sense of worse adaptation only to some S-I subscales. Our study confirmed the complexity of war trauma in adolescence. In accordance with our results, specific practical implications are possible in approach and therapy. The results emphasise the need to apply prevention/intervention models regarding sexuality, in combination with prevention/intervention models for psychotraumatized adolescents, accompanied by educational procedures. Further scientific research is needed to clarify our conclusions.

■ **Acknowledgements** This work was partly done by Ivan Begovac, MD during the DAAD scholarship in Hamburg, Germany. We would like to give special thanks to Staniša Nikolić, MD PhD, Peter Riedesser, MD PhD, and Johann Walter, MD PhD, and also to Josip Begovac, MD PhD, for helping with statistical analysis.

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