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Multi-type Childhood Abuse, Strategies of Coping, and Psychological Adaptations in Young Adults

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Aim To retrospectively analyze the rate of multi-type abuse in childhood and the effects of childhood abuse and type of coping strategies on the psychological adaptation of young adults in a sample form the student population of the University of Mostar.

Methods The study was conducted on a convenience sample of 233 students from the University of Mostar (196 female and 37 male), with a median age of 20 (interquartile range, 2). Exposure to abuse was determined using the Child Maltreatment Scales for Adults, which assesses emotional, physical, and sexual abuse, neglect, and witnessing family violence. Psychological adaptation was explored by the Trauma Symptom Checklist, which assesses anxiety/depression, sexual problems, trauma symptoms, and somatic symptoms. Strategies of coping with stress were explored by the Coping Inventory for Stressful Situations.

Results Multi-type abuse in childhood was experienced by 172 participants (74%) and all types of abuse by 11 (5%) participants. Emotional and physical maltreatment were the most frequent types of abuse and mostly occurred together with other types of abuse. Significant association was found between all types of abuse ($r = 0.436$-0.778, $P < 0.050$). Exposure to sexual abuse in childhood and coping strategies were significant predictors of anxiety/depression ($R^2 = 0.3553$), traumatic symptoms ($R^2 = 0.2299$), somatic symptoms ($R^2 = 0.2173$), and sexual problems ($R^2 = 0.1550$, $P < 0.001$).

Conclusion Exposure to multi-type abuse in childhood is a traumatic experience with long-term negative effects. Problem-oriented coping strategies ensure a better psychosocial adaptation than emotion-oriented strategies.

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There is a high degree of overlap between adults' reports of sexual abuse, physical abuse, psychological maltreatment, neglect, and witnessing family violence (1-4). These problems tend to occur together. Children who are ridiculed or subjected to verbal attacks are also likely to be physically punished or harmed, have their physical or emotional needs neglected, and witness violence toward other members of the family. Multi-type abuse can be defined as the concurrent exposure of a child or adult to more types of maltreatment, including sexual abuse, physical abuse, psychological (emotional) abuse, neglect, and witnessing family violence (5).

Researchers who study the consequences of multi-type abuse believe that more types of stress experienced by children exposed to various types of abuse and neglect actually accumulate and interact in different ways, thus producing more serious and less reversible consequences than in cases of single-type abuse (2,6-9). Posttraumatic stress disorder is one of the most common immediate consequences of abuse and neglect of children (10). Arata et al (11) have found that persons exposed to multi-type abuse were more depressed and suicidal, and expressed more feelings of helplessness than non-abused persons. Experiencing physical and mental abuse in childhood is associated with low self-esteem (12,13), deviant sexual behavior, difficulties in coping with anger/aggression, and psychosocial malfunctioning in adult age (14). When they reach adult age, victims of childhood sexual or physical abuse have more pronounced psychosocial disorders, chronic somatic symptoms, respiratory and gastrointestinal illnesses, increased risk of developing anxiety and depressive disorder, dissociative and trauma symptoms, as well as antisocial and asocial behavior (1,15,16). Edwards et al (17) have found a relationship between the number of different types of abuse and the consequences on mental health, ie, the more types of abuse a victim had experienced, the more serious were the consequences.

Although the concept of coping with stress has been variously defined by different authors, coping can generally be conceived as a response to a stressful situation with the goal of psychosocial adaptation (18). Coping can involve problem-oriented strategies and emotion-oriented strategies. The former refer to attempts by a person to change the stressor, and specific strategies to achieve this are confrontation and planned problem-solving. In contrast, emotion-oriented coping refers to attempts to regulate negative emotional responses to a stressor, with self-control and distancing as specific strategies (19).

Stressful life events are the most extensively studied environmental risk factors for the development of psychopathology in children and adolescents. These events can be everyday situations that pose irritating and frustrating demands on the child, events that are expected and desired by the child but that never take place, and intense stressful events such as traumas that are horrifying and very disturbing for the child. Stressful life events can precede various disorders, increase the risk of their occurrence, as well as appear as consequences of such disorders (20).

Research on mechanisms that play a mediating role between the stressful events and occurrence of symptoms has yielded equivocal results. A number of variables such as age, sex, type of stressful event, reactions of parents and family, and coping strategies should all be taken into account when trying to answer why some individuals in certain situations react by developing symptoms of psychopathology, while others do not. Despite the complexity of this problem, one thing seems certain: how a child interprets and judges a certain event, and what strategies he or she uses to cope with stressful events, plays a decisive role in predicting future psychopathology (20).

Research has still not established a reliable method for differentiating effective and non-effective coping strategies. Some studies indicate that emotion-oriented coping is associated with emotional and behavioral difficulties in children (21,22). At the same time, other researchers have failed to show that problem-oriented and active strategies contribute to the success of psychological adaptation (23,24). Indeed, the effectiveness of coping strategies depends on the specifics of the stressful situation. Strategies effective for one type of stress are not necessarily effective for other types (25).

It has been shown that exposure to multi-type abuse in childhood is associated with more serious difficulties in psychological adaptation than exposure to single-type abuse (10-16). The question remains whether various protective factors, such as strategies of coping with stress (26-29), can mediate the psychological adjustment of people who were abused in childhood.

The aim of this study was to perform a retrospective study on a sample of students of the University of Mostar, Bosnia and Herzegovina, in order to explore the rate of multi-type abuse in childhood and the effects of the type of childhood abuse and choice of coping strategy on the students' psychological adaptation.

METHODS

Participants

The study included 233 students from the Faculty of Philosophy at the University of Mostar (196 female and 37 male). The median age was 20 years (interquartile range, 2). These students were in different years of study and had different study subjects, including social work, psychology, and linguistics. The participants were provided with an information sheet that outlined the main principles of the research and contained researchers' contact information. They were given time to read the information sheet and to ask questions. Completion of the questionnaire was interpreted as consent. The study was approved by the ethics committee of Mostar University and by the Ministry of Science, Education, and Sports of the Neretva county, Bosnia and Herzegovina.

Instruments

The experience of childhood abuse. The exposure to multitype abuse in childhood was assessed with the Child Maltreatment Scales for Adults (2,30). This questionnaire is intended for retrospective study of childhood abuse among adult respondents and it explores 5 types of abuse: emotional (psychological) abuse, physical abuse, neglect, witnessing family violence, and sexual abuse. The scores are not used for a simple categorization into "abused" and "non-abused;" rather, a more nuanced picture is produced by asking the respondents to rate the frequency of exposure to abuse on each of the items that describe potentially abusive behaviors of parents and other adults. The behavior of father, mother, and other persons is rated separately, which allows their comparison and reveals whether the child was abused by one or more individuals. On the scale assessing neglect, respondents are asked only about the behaviors of their father and mother. Grading the seriousness of each type of abuse is made possible by the items corresponding to that type of abuse (eg, "slapped" to "inflicted serious physical injuries"). For each item, respondents grade the frequency of their exposure to such behavior ("never," "sometimes," or "often;" on the scale of sexual abuse, "never," "once," "twice," or "thrice or more"). To explore some of the circumstances and characteristics of sexual abuse, a number of questions is given at the end of questionnaire and these are answered only by those who experienced some kind of sexual abuse before the age of 14.

Based on the respondents' answers it is possible to calculate a summary score on each of 5 scales assessing different types of abuse and a total result for the entire questionnaire. Furthermore, it is possible to use the items summatively, ie, to sum up the results for mother, father, and other adults for each possible source of behavior and thus create a new summative variable. Composite results for emotional, physical, and sexual abuse, neglect, and witnessing family violence can also be obtained (2,30). For each scale, higher scores indicate more frequent abusive behavior.

We looked at the summative results for father, mother, and other adults, as well as composite results, on each of the questionnaire scales. The mean value was used as the cut-off to divide participants into "abused" and "non-abused" based on the prevalence of different types of abuse (2,30). Participants with a summative score on each scale of abuse and neglect above the arithmetic mean were classified as abused. The percentage of abused participants in the total sample was also calculated.

Psychological adjustment. Psychological adjustment in adolescence was assessed by the Trauma Symptom Checklist 40 (TSC-40) (31). TSC-40 is used to determine the symptomatology in adults who experienced trauma in either childhood or adult age. It measures the aspects of posttraumatic stress and other symptoms that occur in traumatized individuals. TSC-40 is a 40-item self-reporting instrument. In addition to yielding a total score, it has 6 subscales: Anxiety, Depression, Dissociation, Sexual Abuse Trauma Index, Sexual Problems, and Sleep Disturbances.

For each item of the scale, respondents are asked to rate the frequency of symptom occurrence during the preceding two months using a Likert-type scale from 1 ("never") to 4 ("often").

Coping strategies. The Coping Inventory for Stressful Situations (CISS) (32,33) is used to assess stress coping styles. The inventory consists of 48 statements grouped in 3 subscales (16 statements each): Emotion-oriented Coping, Task- or Problem-oriented Coping, and Avoidance. This three-factor structure was confirmed on a sample of students at the University of Zadar, Croatia (34). Respondents are asked to rate how much they use different types of activities when confronted with a difficult, stressful, or disturbing situation. For each statement, respondents answer on a Likert-type scale ranging from 1 ("not at all") to 5 ("very much").

DATA COLLECTION

Data were collected in January 2009. Following agreement with the lecturers of the courses in clinical psychology, intro-

ductory psychology, social psychology, and linguistics, one of the authors (MB or KS) came to the beginning of the class, introduced herself to the students, explained the purpose of the study, and encouraged them to participate, pointing out that the survey was anonymous. Students were given 30 minutes to fill out the survey during the class. After completing the questionnaires, they sealed them in an envelope and placed them in a collection box located on a desk in a rear corner of classroom, where students would not feel monitored when depositing the envelope.

Data analysis

Data are presented as percentages, frequencies, and arithmetic means with standard deviation. Pearson correlation coefficient was used to evaluate the correlation between variables. Multivariate hierarchical regression analysis was used to calculate multiple correlations between predictor variables (exposure to abuse and coping strategies) and criterion variable (psychological adaptation in young adults). This analysis allows the calculation of the highest possible correlation (R, multiple correlation coefficients) by optimizing the combination of predictor and criterion variables. Multiple determination coefficient (R^2) was calculated to show the percentage of criterion variance explained by a set of predictors. Statistical analysis was done using Statistica 7.0 (StatSoft, Inc., Tulsa, OK, USA).

RESULTS

On the 3 instruments that we used, we obtained responses from 233 students. Factor analysis with varimax rotation for Trauma Symptom Checklist 40 (TSC-40) yielded 4 factors: anxiety/depression, trauma symptoms, somatic symptoms, and sexual problems. These subscales showed an acceptable reliability in terms of internal consistency: anxiety/depression $\alpha = 0.91$, trauma symptoms $\alpha = 0.84$, somatic symptoms $\alpha = 0.71$, and sexual problems $\alpha = 0.74$. The α coefficient for the entire checklist was 0.94. The CISS subscales showed an acceptable reliability in terms of internal consistency: problem-oriented strategies $\alpha = 0.84$, emotion-oriented strategies $\alpha = 0.86$, and avoidance strategies $\alpha = 0.82$. The α coefficient for the entire questionnaire was 0.88. For the Child Maltreatment Scales, we used the original factor scale and did not analyze factor structure or scale reliability ourselves.

Results on the Child Maltreatment Scales showed that 69 (30%) participants were exposed to emotional abuse in childhood, 57 (24%) to physical abuse, 92 (39%) to neglect, 92 (39%) witnessed family violence, and 91 (39%) were sexually abused before the age of 14. Multi-type abuse in childhood was reported by 172 (74%) participants, whereas all types of abuse were reported by 11 (5%) participants. Emotional and physical abuse most frequently occurred together, and they occurred in combination with other types of maltreatment. Emotional and physical abuse was reported by 39 (17%) participants. Thirty (13%) participants were not only emotionally and physically abused but also neglected, while 18 (8%) participants were emotionally and physically abused, neglected, and witnessed family violence before the age of 14. Results on the TSC-40 scales for assessment of difficulties in psychological adaptation showed that participants most frequently had symptoms of anxiety/depression, somatic symptoms, and trauma symptoms. The frequency of sexual problems was the lowest (Table 1). Results on the CISS revealed that, when confronted with a difficult, stressful, or disturbing situation, participants most frequently used problem-oriented coping strategies, followed by avoidance strategies, and emotion-oriented strategies (Table 1).

Significant associations were found between all types of abuse (Table 2), which indicates that the participants ex-

TABLE 1. **Mean scores, theoretical score range, and observed score range of responses on the Child Maltreatment Questionnaire, Trauma Symptom Checklist 40, and Coping Inventory for Stressful Situations in a convenience sample of undergraduates at the University of Mostar (n=233)**

	Score		
Scale and subscale	mean ± standard deviation	theoretical range	observed range
Child Maltreatment Questionnaire:			
Emotional Abuse	25.61 ± 4.93	0-42	21-24
Physical Abuse	13.06 ± 1.52	0-24	12-24
Neglect	10.85 ± 1.47	0-20	5-20
Witnessing Family Violence	6.64 ± 1.34	0-12	6-12
Sexual Abuse	42.00 ± 3.28	0-117	40-66
Trauma Symptom Check – list 40:			
Anxiety/Depression	30.32 ± 9.43	1-64	16-63
Trauma Symptoms	15.10 ± 4.67	1-44	11-38
Somatic Symptoms	16.36 ± 4.05	1-36	9-27
Sexual Problems	5.59 ± 2.10	1-16	4-16
Coping Inventory for Stressful Situations:			
Problem-oriented	56.63 ± 8.32	16-80	34-79
Emotion-oriented	49.39 ± 10.48	16-80	23-78
Avoidance-oriented	53.20 ± 9.64	16-80	26-79

TABLE 2. Pearson correlation coefficients between different types of abuse and neglect

Child Maltreatment Questionnaire Subscale	Child Maltreatment Questionnaire Subscale*				
	Emotional Abuse	Physical Abuse	Neglect	Witnessing Violence	Sexual Abuse
Emotional Abuse	1.000				
Physical Abuse	0.637	1.000			
Neglect	0.565	0.495	1.000		
Witnessing Violence	0.589	0.499	0.443	1.000	
Sexual Abuse	0.778	0.600	0.436	0.501	1.000

*$P < 0.001$ for all coefficients.

TABLE 3. Pearson correlation coefficients between measures of difficulties in psychological adaptation and coping strategies

Trauma Symptom Checklist 40 Subscale	Type of coping strategies		
	problem-oriented	emotion-oriented	avoidance-oriented
Anxiety/depression	-0.175*	0.504†	0.045
Trauma Symptoms	-0.080	0.369†	0.045
Somatic Symptoms	-0.057	0.399†	0.108
Sexual Problems	-0.208†	0.283†	-0.054

*$P < 0.05$.
†$P < 0.001$.

TABLE 4. Pearson correlation coefficients between abuse and stress-coping strategies

Child Maltreatment Questionnaire Subscale	Type of coping strategies		
	problem-oriented	emotion-oriented	avoidance-oriented
Emotional Abuse	-0.044	0.118	-0.127
Physical Abuse	-0.012	0.060	-0.158*
Neglect	-0.018	0.138*	-0.083
Witnessing Family Violence	-0.044	0.057	-0.191*
Sexual Abuse	-0.006	0.077	-0.123

*$P < 0.05$.

TABLE 5. Pearson correlation coefficients between abuse and measures of psychological adaptation

Child Maltreatment Questionnaire Subscale	Trauma Symptom Checklist 40 Subscale			
	Anxiety/depression	Trauma Symptoms	Somatic Symptoms	Sexual Problems
Emotional Abuse	0.322*	0.310*	0.187†	0.188†
Physical Abuse	0.139†	0.214*	0.073	0.103
Neglect	0.259*	0.199†	0.192†	0.159†
Witnessing Family Violence	0.212*	0.090	0.054	0.081
Sexual Abuse	0.297*	0.317*	0.253*	0.188†

*$P < 0.001$.
†$P < 0.05$.

posed to one type of abuse were also exposed to other types. The smallest significant correlations were found between sexual abuse and neglect, and between witnessing family violence and neglect, whereas the highest correlation was between sexual and emotional abuse.

We found significant positive correlations between emotion-oriented coping and all investigated indicators of difficulties in psychological adaptation, which means that the participants who used this stress coping strategy more frequently had problems in psychological adaptation in adult age (Table 3). Small but significant negative associations were found between problem-oriented coping and anxiety/depression, as well as between problem-oriented coping and sexual problems. No association was found between avoidance coping strategy and difficulties in psychological adaptation.

To explore the relationship between childhood abuse and stress coping strategies, we calculated Pearson correlation coefficients for each of the abuse types and each of the coping strategies (Table 4). A significant positive association was found between emotion-oriented coping strategies and neglect. A significant negative association was found between avoidance coping strategies and physical abuse, as well as between avoidance coping strategies and witnessing family violence.

Significant association was found between all types of abuse, including neglect, and anxiety/depression (Table 5). Neglect, emotional, and sexual abuse in childhood was associated with somatic symptoms and sexual problems in adult age. Neglect, emotional, physical, and sexual abuse were also associated with trauma symptoms.

To explore whether coping strategies and childhood abuse can predict difficulties in psychological adaptation in young adult age, we performed a hierarchical regression analysis to determine the contribution of each variable to explaining the difficulties in psychological adapta-

TABLE 6. Hierarchical regression coefficients for predicting difficulties in psychological adaptation

Predictive variable	Criterion variable	R	R^2	Predictors	β
Emotional, physical and sexual abuse, neglect, witnessing family violence, problem-oriented coping strategies, emotion-oriented coping strategies, avoidance-oriented coping strategies	Anxiety/depression	0.596	0.355	Sexual abuse	0.165*
				Problem-oriented strategies	-0.172†
				Emotion-oriented strategies	0.444†
	Trauma symptoms	0.479	0.229	Sexual abuse	0.196*
				Emotion-oriented strategies	0.316†
	Somatic symptoms	0.466	0.221	Sexual abuse	0.265*
				Emotion-oriented strategies	0.338†
	Sexual problems	0.393	0.155	Problem-oriented strategie	-0.182*
				Emotion-oriented strategies	0.272†

*$P < 0.05$.
†$P < 0.001$.

tion. Scores on the TSC-40 subscales (anxiety/depression, trauma symptoms, somatic symptoms, sexual problems) were taken as criterion variables. Predictive variables were types of abuse and neglect in childhood (emotional, physical, and sexual abuse, neglect, and witnessing violence), as well as different coping strategies (problem-oriented strategies, emotion-oriented strategies, and avoidance strategies). Sexual abuse, problem-oriented coping strategies, and emotion-oriented coping strategies explained 36% of the variance of criterion variable anxiety/depression (Table 6). For trauma symptoms as the criterion, predictive variables explained 23% of variance. Sexual abuse and emotion-oriented coping were found to be significant predictors. Furthermore, 22% of the variance of somatic symptoms was explained by the investigated predictors. Significance was reached for sexual abuse and emotion-oriented coping. For sexual problems, 16% of variance was explained by problem-oriented coping strategies and emotion-oriented coping strategies (Table 6).

DISCUSSION

Our study showed that multi-type abuse in childhood had been experienced by 172 participants (74%) and all types of abuse by 11 (5%) participants. Emotional and physical maltreatment were the most frequent types of abuse and mostly occurred together with other types of abuse. Exposure to sexual abuse in childhood and coping strategies were significant predictors of difficulties in psychological adjustment.

The prevalence of multi-type abuse in childhood in our study is lower than in the study by McGee et al (35), who have reported that 90% of participants had been exposed to more than one type of abuse in childhood. Other researchers have found even lower prevalence rates than the present study. Higgins and McCabe (1) have reported that 43% of their participants had been exposed to multi-type abuse in childhood, and Sesar et al (4) reported 58% (4). The reasons for these differences may partly lie in methodological differences. Further possible explanation can be found in research on the effect of traumatic experiences on memory (1). It suggests that self-assessment of abuse may result in underestimates of prevalence. A number of individuals who were victims of sexual abuse in childhood do not recall these experiences and thus answer negatively to the question about the abuse (7). Different criteria for classifying abused and non-abused participants can also explain the differences in the prevalence rates between our study and previous ones (1,2). In our study, childhood maltreatment experiences were assessed with frequency ratings on a range of items that vary in severity. The most important advantage of this approach is that participants' experiences are summed on a continuous scale, allowing assessment of the overall degree to which they have experienced that type of maltreatment. These continuous scores can also be used in sophisticated multivariate analyses, as was the case here. However, there are some disadvantages of this approach. It does not distinguish between frequent maltreatment of a less severe nature and infrequent maltreatment of a more severe nature. Participants with quite different maltreatment experiences may receive similar scores. Continuous scores also limit the ability of researchers to distinguish easily between abused and non-abused participants, or to identify those who experienced multi-type maltreatment. One solution to this problem is to create a cut-off between high and low scores on the Child Maltreatment Scales for Adults. Thus, we used the mean score as the cut-off for classifying participants as abused or non-abused.

Because multiple victimization appears to be the norm (4,36-38), we wanted to see what kinds of victimizations tend to occur together. We addressed this question by examining how different kinds of victimizations were associated with one another. Our findings showed significant associations between all types of abuse and neglect. The highest levels of association in this study were found between emotional abuse and other types of abuse. This is in accordance with the findings of O'Hagan (39), who points out that emotional abuse always accompanies other types of abuse and that children suffer emotional damage when they are physically punished, neglected, sexually abused, or forced to witness family violence.

Few studies have addressed the relationship between abuse and choice of coping strategies. They suggest that a flexible and rich repertoire of strategies facilitates coping with different life challenges and complex traumatic situations (25). Our results showed significant positive associations between emotion-oriented coping strategies and neglect, which is in accordance with the results of Shipman et al (40). These authors found that neglected children used less effective stress-coping strategies than non-neglected children. Furthermore, we found significant negative associations between avoidance coping strategies and witnessing family violence, as well as between avoiding coping strategies and physical abuse. Based on these findings, we suggest that although avoidance is generally considered ineffective and a maladaptive coping strategy in the long term, it can also be seen as a useful strategy for coping with physical abuse and witnessing family violence. Coping strategies contribute to lowering the level of victimization and alleviate the consequences of the abuse experience. This can affect whether or not victimization leads to different forms of psychological disturbances (41). Consistent with the findings of previous research (21,22,42-46), our results showed that problem-oriented strategies resulted in better psychosocial adaptation than strategies of problem avoidance or emotional regulation of the situation. Folkman and Lazarus (43) explain this by the fact that people feel better when they solve the stress-causing problem. In addition, planning to solve the problems can improve the relationship between the individuals and their environment, and lead to modifications in cognitive judgments and more positive emotional outcomes. In this study, there was no significant association between avoidance strategies and difficulties in psychological adaptation. This supports the findings of some authors (43,46,47) that avoidance as a coping strategy has a relatively short-term adaptive effect and usually does not have positive emotional consequences in the long term.

Our results show that maltreatment in childhood was associated with trauma symptomatology and self-depreciation in young adulthood. Neglect, emotional abuse, and sexual abuse were the types of maltreatment most strongly related to trauma symptomatology and self-depreciation. This supports the findings of some studies (1,4,48-52) that emotional abuse is associated with numerous difficulties in psychological adaptation. The present study shows that the consequences of neglect are as grave as those of other types of abuse. We found an association between neglect and somatic symptoms, as well as between neglect and sexual problems. DePanfilis and Zuravin (53) argue that child neglect is more likely to be repeated than other types of abuse, and therefore its consequences are at least equal to those of other types of abuse. Previous research has found an association between neglect and trauma symptoms (54,55), depression (49,56), and anxiety (57), but not between neglect and somatic symptoms or sexual problems. Differences between the results of this study and previous research can be explained by the fact that this study also found some overlaps between different types of abuse. It is possible that participants had been exposed not exclusively to neglect, but also to other types of abuse, the consequences of which were somatic symptoms and problems in sexual functioning. Previous studies have shown an association between witnessing family violence and anxiety, as well as between depression and trauma symptoms (4,58). However, we did not detect an association between witnessing family violence and trauma symptoms in our population. This may be due to the negative association between witnessing violence and avoidance coping strategies. In our sample, use of avoidance coping strategies was associated with a lower amount of violence witnessed and thus milder consequences on psychological adaptation in adult age.

As expected according to other studies (59-62), the present study found that depressive symptoms in young adults were the most common consequence of sexual abuse. It also found anxiety and trauma symptoms to be among the long-term consequences of sexual abuse in childhood. Based on these findings, one can presume that adult individuals who were sexually abused in childhood are more likely to suffer from sexual dysfunction, ie, sexual identity problems and disorders in sexual functioning. Indeed, several studies support a relationship between sexual disorders and sexual abuse in childhood (15,55,63-68). Fur-

thermore, our study confirms previous findings (15,69,70) about the association between sexual abuse in childhood and somatic symptoms in adult age. These results indicate that child abuse is a traumatic experience with long-term negative consequences. Moreover, the observed cumulative effect of experiencing different types of childhood abuse on symptomatology in adult age can be greater than when the consequences for each type of abuse are considered separately (71).

In the current sample, exposure to sexual abuse in childhood was a significant predictor of anxiety, depression, trauma symptoms, and somatic symptoms in young adult age, which is consistent with findings of previous studies (15,60-63,70). Although previous research (64,66-68) has shown that sexual abuse in childhood can predict the level of disorders in sexual identity and functioning, this was not confirmed in our study. Consequences of sexual abuse are the most studied and controversial aspect of research on sexual disorders. Some researchers (72) argue that exposure to sexual abuse in childhood has inevitable consequences on victims; however, a significant number of children exposed to sexual abuse have no symptoms whatsoever. It seems that the truth lies somewhere in the middle. Some victims of sexual abuse will have few or no consequences, others will experience moderate symptoms, and still others will suffer serious consequences (59).

Consistent with findings of some previous studies (73,74), we identified emotion-oriented coping as a significant predictor of difficulties in psychological adaptation. Problem-oriented coping was found to be a protective factor for anxiety and depression, as well as for sexual problems. Previous research has generally indicated that problem-oriented coping strategies are more useful for well-being than emotion-oriented strategies (74). Although some studies have found that avoidance coping is associated with negative psychological outcomes (74), our study did not find this strategy to be a significant predictor of difficulties in psychological adaptation in adult age.

One limitation of this study is that it did not control for additional variables that can affect the psychological adaptation of adults who were victims of childhood abuse. Previous studies point out the importance of numerous cognitive, developmental, familial, and environmental factors that can protect from, or otherwise influence, abuse-related psychological difficulties (75). The effect of coping strategies on psychological adaptation is very complex and depends on the type of stressor and personal characteristics of the individual (76). Complex theoretical and analytical models are therefore needed to fully understand the effect of coping strategies on various aspects of physical and mental health.

Another limitation is that the Child Maltreatment Scales for Adults cannot detect whether the various forms of abuse occurred concurrently or in different periods of childhood. This study is also limited by the fact that abuse and coping strategies were explored retrospectively. Retrospective recall may affect the individual's perception of events and relationships in childhood (2,75). At the time of answering, some participants may have forgotten or may not think about the events that have occurred in the past. This is also characteristic for repressed memories of traumatic experiences. According to some authors (77), the prevalence of maltreatment/abuse reported in retrospective studies on adults is an underestimate. Up to one-third of all incidents of sexual abuse are not retained in memory. A close relationship between the abuser and the child at the time when the abuse occurred increases the likelihood of not remembering the abuse (78). Indeed, the self-reporting nature of this study is an important limitation. Some participants may have exaggerated negative childhood experiences due to current psychological difficulties, such as depression. Their perception of parents' behavior may also have been unrealistic. Another limitation is the size and type of the sample. The study was performed on a convenience sample of students, and at least one study with students reported a lower prevalence of maltreatment than a study with a clinical sample (79). It should be examined whether the prevalence of abuse among students in this study relates to demographic or family issues not covered in our survey instruments. The preponderance of women in our sample made it impossible to examine results by sex. Further studies of this kind should be based on the equal number of female and male participants and should include a clinical dimension, to examine whether the levels of disorder observed here approximate clinical case levels. They should also be performed longitudinally to provide deeper insight into factors that protect young adults from difficulties in psychological adaptation due to multiple types of childhood abuse.

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