INFLUENCE OF POSTTRAUMATIC STRESS DISORDER OF THE FATHERS ON OTHER FAMILY MEMBERS

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Abstract

The purpose of this work is to analyze the frequency of depression and anxiety and children behaviour in families whose heads of the family (father) suffer from post-traumatic stress disorder (PTSD).

The study was conducted from September 2005 until July 2006, with patients living in Mostar. The frequency of depression and anxiety in family members older than 18 years, and changes of the behaviour in children younger than 18 years of age were measured. The data were collected from 60 men and their families who had been diagnosed with PTSD by their psychiatrist. The control group was formed using matching criteria (age of the head of the family, his education, religion, family income and number of children). In this study, three questionnaires were used: one specially designed for this study, covering general information about family members, and a personal opinion of each family member about the family situation and relations within the family; Hopkins symptoms checklist – 25 (HSCL-25) for evaluation of depression and anxiety for subjects older than 18; and General Health Questionnaire (GHQ) for children 5 to 18 years of age, which was completed by their mothers.

More wives from the PTSD families had depression than wives from the controlled group (χ^2=21,099; df=1; P<0,050). There was no difference between groups in frequency of depression and anxiety (χ^2=0,003; df=1; P=0,959) for children older than 18 years. No difference in answers between groups of children younger than 18 years were found in the General Health Questionnaire. However, we found significant differences in separate questions. Mothers, who filled the questionnaire form, reported that children from fathers who had PTSD experienced stomach pain more often (χ^2=10,474;df=2; P=0,005), eating problems (χ^2=14,204;df=2; P=0,001) and breathing problems (χ^2=9,748;df=2; P=0,008), than children from fathers who did not have PTSD. Children from fathers with PTSD were more easily upset (χ^2=7,586; df=2; P=0,023) and worried more often (χ^2=12,093; df=2; P=0,002), they were also more aggressive towards other children (χ^2=6,156; df=1; P=0,013). The controlled group of children who wanted to help with the

house work was larger than the tested group (χ^2=10,383; df=2; *P*=0,006). More children from the controlled group missed school than from the other group of surveyed children (χ^2=6,056; df=2; *P*=0,048).
A significantly larger number of women, whose husbands had PTSD, were depressed, unlike women whose husbands were not ill. There was no significant difference in depression manifestation in a group of children older than 18, as well as in behaviour of a group of children younger than 18, but significant differences in some provided answers were found, that indicate the differences between controlled and tested groups.

KEY WORDS: family, PTSD, war, family health, parent-child relations

Introduction

When diagnosis of posttraumatic stress disorder (PTSD) was introduced in 1980, traumatic events sufficient to induce this condition were considered rare (1). Since then, epidemiologic surveys have documented such events to be highly prevalent, with 50-90% of the population exposed over the course of a lifetime. Lifetime prevalence of PTSD is approximately 8% (2). Thompson et al. (3) showed results from two large independent studies, funded by the US government about the impact of the Vietnam War on the prevalence of PTSD in US veterans. The National Vietnam Veterans Readjustment Study estimated the current PTSD prevalence to be 15,2%, while the Vietnam Experience Study estimated the prevalence to be 2,2%. People's exposure to traumatic events in general, and the development of PTSD in particular, are associated with poor physical health and increased rates of physician-diagnosed medical conditions (4). Moreover, people with PTSD often engage in behaviours associated with negative effects on health, such as alcohol and drug abuse or dependence (4). Epidemiological and clinical studies have shown that combat-related posttraumatic stress disorder was frequently associated with other psychiatric disorders (5). Australian Vietnam veterans who suffer from PTSD report enduring interpersonal relationship difficulties (6). It is unclear, however, where the source of their interpersonal troubles lies. Studies in this area have associated the conflict and distress in family and couple relationships to PTSD symptoms (6). This assumption appears reasonable given that the symptoms of PTSD are likely to produce affective and behavioural consequences consistent with poor relationship functioning. For example, the tendency of PTSD sufferers to avoid any emotionally tense situations could be a source of frustration for partners (6). While veterans were traumatized directly by the war, their wives and families became indirect victims of the trauma. Psychic trauma may create ripples which affect not only the victims themselves, but also those who are close to them (7). Previous studies have reported that the wives of PTSD veterans are subjected to increased physical violence, as well as emotional and verbal abuse (8). Marital relations appear to be particularly vulnerable to the negative consequences of traumatic combat experiences, with distress levels in wives virtually paralleling those of their husbands (8). Veterans' wives reported heightened levels of psychological maltreatment by their husbands. Veterans' combat exposure was positively correlated with hostility and violent behaviour among children (9). Jordan and colleagues (10) found that children of Vietnam veterans with PTSD were significantly more likely to have behavioural difficulties (as reported by their mothers) than children of veterans without PTSD. Using a similar rating scale, Person and colleagues (11) reported that children of veterans with PTSD showed more behavioural problems than children of veterans without PTSD, including aggression, delinquency, hyperactivity and difficulty in developing and maintaining close friendships. Several clinical and empirical studies have reported lower self-esteem, poorer family functioning and emotional and psychiatric disturbances in both wives and children of Vietnam veterans with PTSD (12). We assumed that depression and anxiety were more often present among the members of the families (wives, and children older than 18 years of age), whose heads have developed PTSD, than among matched controlled groups. Missing from the study is that we do not know a level of vigor of symptoms of fathers, and if the level of this difference has an influence on other members of the family. Furthermore, the data were not available regarding the direct exposure of the family members to the war activities and if that fact had any influence on the results of the study. The aim of the study was to show doctors in primary care the big problem of secondary traumatization.

Materials and Methods

Participants

The data were collected in the period from September 2005 until July 2006. The health charts from 60 people who had earlier been diagnosed with PTSD by their

psychiatrist were selected. The study included patients who had come to the Department of Family Medicine in the Health Care Center Mostar. Patients filled out questionnaires during their visits to the Health Care Center Mostar, or when they were referred to the Center by their psychiatrist. After the head of a family with PTSD was identified, the information about the age of the head of the family, his education, religion, total family income, and number of children, was used to find his "healthy" pair as matching criteria. All patients from the controlled group were selected among the outpatients of the Health Care Center Mostar. Data from patients at the Health Centre in Mostar were collected by the author from the Center and from the other family members in their homes.

Methods

To collect general information about the family, subjective opinion of the family members, and their mutual relations, a questionnaire specially designed for this study was used (Appendix 1). The designed questionnaire consisted of several parts, intended for different members of the family. The Hopkins symptoms questionnaire (HSCL-25) (13) was used for evaluation of depression and anxiety in mothers and children older than 18 years. The examinees personally filled out the HSCL-25 questionnaire. The General Health Questionnaire (GHQ) (14) was filled out by the mothers and used to evaluate general health and behaviour in children from 5 to 18 years of age. The purpose of this questionnaire was to determine if there was any change in the health and behaviour of the children. In the beginning, a pilot study with 15 patients and their families, who had come to the Health Care Center Mostar was conducted, with aim to check if the participants understood all the questions. The pilot study showed that the questionnaire did not need to be modified.

Statistical analysis

The differences between the groups were tested with a χ^2 test, and Fisher's exact test has been used only on a smaller sample. The level of significance was set at $P<0,05$. Statistical analysis was done using the Statistical Package for Social Science for Windows v. 12.0 (SPSP Inc., Chicago, IL, USA).

Results

One hundred and twenty families were tested, 60 with fathers who had PTSD and 60 with fathers without PTSD. There were a total of 155 children in the study group, and 103 of these children lived with their families. There were 156 children in the control group, but only 109 children who were tested lived with their parents. The children who had their own families or who lived separately from their parents were not included. In the group of families whose fathers had PTSD, the highest proportion of families had only one child (45%), whereas in the control group 53,3% of families had two children (Table 1). The families with fathers who developed PTSD had a higher unemployment rate for all members of the family (30%), than the control families (11,7%). In the control group (38,3%), both husbands and wives were more frequently employed (38% vs. 10%, $\chi^2=13,983$; df=4; $P<0,001$, Table 1). In the group of families with fathers with PTSD, 43,3% had a total income that was less than 500 KM (1 KM=1,958 €) and in the control group there was 35% ($\chi^2=3,517$; df=4; $P=0,475$). When questioned about relationships between husbands and wives in both groups, men answered that their relationships were good ($\chi^2=2,540$; df=2; $P=0,111$). However, when wives were asked the same question, 83,3% of wives from the study group, and 66,7% of wives from the control group answered that this relationship depends on the husband's mood ($\chi^2=10,370$; df=3; $P=0,005$, Table 2). Only fathers with PTSD were asked about the influence of their illness on their children, and within them 65% answered that their illness influenced their children, 11,7% did not think that their illness had any influence on their children, and 23,3% could not decide what to answer ($\chi^2=28,300$; df=2; $P<0,001$). Mothers from the study group stated (76,7%) that the relationship between their husband and children depended on his mood, unlike wives in the controlled group (33,3%) ($\chi^2=29,377$; df=3; $P<0,001$, Table 2). The Hopkins questionnaire revealed that women from the study group have been more often depressed (55%), than women from the controlled group (15%, $\chi^2=21,099$; df=1; $P<0,001$). There was no difference in depression for children older than 18 years. In both groups, the depression score was less than 1,75, indicating no significant depression ($\chi^2=0,003$; df=1; $P=0,959$). The wives from the study groups (68,3%) were religious and they regularly prayed, and in the controlled group, 33,3% of wives were religious ($\chi^2=22,200$; df=2; $P<0,001$). Looking at the connection between faith commitment and problems in marriage in the study group, 56,7% of religious wives who regularly prayed stated that their marriage was good, regardless of the problems what proved to be the most frequent answer ($\chi^2=39,876$; df=4; $P<0,001$, Table 3). The General Health Questionnaire (GHQ) did not reveal any differences between the studied groups, so

each question was analyzed separately. In the test group more children had stomach pain and vomiting (χ^2=10,474; df=2; *P*=0,005), eating problems (χ^2=14,204; df=2; *P*=0,001), and breathing problems (χ^2=9,748; df=2; *P*=0,008), than children who had fathers without PTSD (Table 4). In the study group children were more frequently upset (χ^2=7,586; df=2; *P*=0,023) and worried, and quarreled more frequently (χ^2=12,093; df=2; *P*=0,002). Children younger than 18 years from controlled families wanted to help with housework (partly and always) more often than the study group children (χ^2=10,383; df=2; *P*=0,006). Children from the study group missed school significantly less than children from the controlled group (χ^2=6,056; df=2; *P*=0,048, Table 5).

Discussion

We found that wives of veterans with PTSD experienced depression more frequently than wives from the control group, while children older than 18 years did not differ in depression compared to controlled children. It is obvious that living with traumatized persons significantly influences other family members, especially wives, who are expected to be empathic and to provide the greatest support to their ill husbands (15). Previous research showed that close and long-term contact with an emotionally disturbed person may cause chronic stress. In time, this may lead to various emotional problems, such as higher levels of depressive symptoms and anxiety, problems in concentration, emotional exhaustion, pain syndromes and sleeping problems to the person providing the help (15). In the controlled group, more family members were employed than in the study group. This corresponds to the findings of Davidson and Mellor (12), who studied veterans and their children compared to civilian adult men and their children. They found that a large number of veterans were retired and not in the labor force (35%); and both veterans and their children were more likely to be unemployed (10% vs. 0% for the adults; 12% vs. 10% for the children) than their civilian counterparts. In our study, despite the fact that families with fathers who did not develop PTSD had more people employed in their families, the total family income did not differ significantly. Therefore, the total family income did not affect the relationship between husbands and wives. More wives from the study group thought that their relationship with their husbands and the relationship between the husband and their children depended on the mood of the father. According to the literature value over 70% of the PTSD veterans and their partners reported clinically significant levels of relationship distress compared to only 30% of the non-PTSD couples (16). The degree of the relationship distress was correlated with the severity of veterans' PTSD symptoms, particularly symptoms of emotional numbing (16). The relationships have been characterized by increased levels of conflict and violence, and decreased levels of self-disclosure, sociability, affection, intimacy and cohesion (9). The depression scores, obtained with the Hopkins symptoms questionnaire, did not differ between surveyed children. Data from the General Health Questionnaire showed no difference in answers between tested and controlled groups in children younger than 18 years of age. Our results were surprising, because we expected more father's influence on offspring. Results from HSQ might be explained by the fact that children older than 18 years have other interests such as attending universities, sports, music, etc., that protect them from the levels of distress. GHQ did not show differences, however answers to individual questions from the survey differed significantly. Mothers, who filled the questionnaire form, reported that children with fathers who had PTSD experienced stomach pain more often, as well as eating problems and breathing problems, than children with fathers without PTSD. This can be related to the fact that these children are somatising their psychological problems. Children whose fathers had PTSD were upset more easily, were more often worried, which could be associated with the decreased level of frustration tolerance. They were more aggressive towards other children, presumably because these children use their fathers as a role model in social behaviour. The controlled group of children who wanted to help with the house work was larger than the studied one. Children from the study group were not often in a good mood, and they did not help in the household and gardening work. This finding might be connected to the transfer of bad relations from their homes. More children from the controlled group missed school than children from the studied group. This result might be explained by the fear that tested children have of their fathers, who might react violently towards them if they find out about missing school classes. Our results show that children in the age group under 18 years have problems associated with behaviour and health, which is in line with the data of Beckham et al. (17), who reported problems with separation and individuation, pathological identification with their traumatized parents, depression, guilt, and characteristic PTSD symptoms. In addition, our findings agree with reported data: children of Vietnam veterans with PTSD were significantly more likely to have

behavioural difficulties (as reported by their mothers) than children of veterans without PTSD reported from (10); children of the veterans reported significantly higher levels of conflict in their families; families of veterans with PTSD experienced more problems in parenting as well as marital relationships (18), and children of veterans with PTSD showed more behavioural problems including aggression, delinquency, hyperactivity and difficulty in developing and maintaining close friendship than children of veterans without PTSD (11). Although we did not find such behavioural problems, our findings suggest that some behavioural problems do exist in children who have fathers diagnosed with PTSD. This study has a few limitations. It analyzed the influence of father's PTSD on family members more than 10 years after the conflict had ended. PTSD symptoms can either increase or decrease over a number of years (20). The data on the level of manifestation of fathers' PTSD symptoms are not known, as well as if the differences in symptoms had any implications on other family members. Furthermore, the data was not available regarding the direct exposure of the family members to the war activities and if that fact had any influence on the results of the study. Further studies should include the effect of direct exposure of family members to the war activities on manifestation of depression and disorders related to altered behaviour in children.

Conclusion

In conclusion, the influence of secondary traumatization of wives is significant. There are more women in the tested group with expressed symptoms of depression. Although we did not find significant differences in depression in children older than 18 or differences in behaviour in younger children, we found that children whose fathers had PTSD were upset more easily, were more often worried, they were somatising their psychological problems, and they were more aggressive towards other children. This fact did not have any importance to our study, but it could be important to follow these children in the future and research possible cumulative impact on the psychical health pattern.

APPENDIX 1:

Please answer truly and in accordance with your experience on the given questions. Circle the letter in front of the answer which is applied to you.
In the questionnaire there are no correct or false answers.
After you answer all the questions, please return he questionnaire by mail on an address which is on the envelope, at the expense of the author.
We are thankful for you cooperation.

1. MAN	How many children do you have					
2. MAN	You are living with:	a husband and .....children (please state the number of children)				
3. MAN	Did you live in Mostar even before the war?	yes			no	
4. MAN	Where do you live?	flat	with parents		rented flat	
5. MAN	Did you have a solved housing problem before the war?	Yes	We've lived with parents		No	
6. MAN	Number employed in family?	None	Only husband	Husband and a wife	All adults	Wife and one of the children
7.MAN	Please state total income in your family	without	<500KM	500-1000KM	1000-1500KM	>1500KM
8. MAN; WOMAN	How old are you?	25 - 35		35 - 55	over 55	
9. MAN	Please state the level of your education?	Elementary		Secondary	College	
10. MAN	Please state your religion?	Catholic	Muslim	Orthodox	Others	
11.MAN; OLD CHILD.	Do you smoke?	yes			no	
12. MAN; OLD CHILD.	Do you drink alcohol?	Yes		No	Sometimes	
13. MAN; OLD CHILD.	Have you ever tried any kind of drugs?	No	Yes, I've just tasted	Yes, during the war	Still using it	
14. MAN	Do you take some sort of benzodiazepines?	yes			no	
15. MAN	Were you an active participant in a war?	Yes_____ (How much timedid you spend in the war?)			No	
16. MAN	From the given trauma experiences please circle all of them that you have been exposed to during the war	Injured	Captured	Witness of many deadly injured people	Surrounded for more than 24 hours	

		Lost in a mine field	Was exposed to a heavy artillery fire or a sniper shooting	Banished and separated from family for along period of time		Without food or water for a long period of time
17. MAN	Do you have flash-backs of war images?	Yes, everyday	Yes, sometimes		Rarely	Never
18. MAN	Do you have trouble with sleeping?	Yes, I fall asleep with difficulty?	Yes, I fall asleep easy, but during the sleep I woke up a lot		Sometimes, I have nightmares	No problems during sleep
19. MAN	Do you have any problems with your wife?	Yes, she's making me nervous	Sometimes there are problems just like any other marriage			We don't have any problems
20. MAN	Do you think your illness has any influence on your child?	Yes	No		Don't know	
21. MAN	If the answer on a previous question is Yes, please tell in which way you have effect on your child (you can circle more than one answer)	Preoccupied with my health problems	Very often I feel run down	It's very hard to answer all the questions which they ask		
		Sometimes they're making me too nervous so I lose control	Considering my condition I'm trying not to influence negatively on my kids		I'm trying to positively influence my kids	
22. MAN	What kind of influence does all this have on your child?	He /she is afraid of me and rarely speaks with me	When a problem appears he /she goes to his mother		I don't have any problem in communicating with my children	
23. WOMAN	How long have you been married?	less than 10 years	10 – 20 years		more than 20	
24. WOMAN	Are you religious?	Yes, regularly pray	Yes, but I don't pray regularly		No, I'm not religious	
25. WOMAN	How does your marriage function?	good	we function, but we have problems		bad	
26. WOMAN	Do you think that his condition affects on your marriage?	yes	sometimes		no	
27. WOMAN	Are you satisfied with your sexual life?	Yes	No		We do not have any sexual life	
28. WOMAN	What's he like in a relationship with you?	Very well, he is careful	Depend by his mood	Not well, we quarrel	Bad, he sometimes hits me	
29. WOMAN	What's he like with the kids?	Caring and responsible father	Depends on his mood	Not satisfied with his relationship	He is not interested	
30. CHILD	In which school you go to and in which grade are you?	Primary school _____ grade			High school _____ grade	
31. CHILD	What are your results in school?	Excellent	Very good	Good	Sufficient	Insufficient
32. CHILD	Do you like to play or being in company with other child?	yes, I have a lot of friends	yes, I have a best friend and only with him I like to be	yes, but I don't have anyone special	no, I love to be all by myself	
33. CHILD	Do you have problems with some of the children?	no, never	sometimes		rarely	often
34.OLD CHILD.	Do you live a solitary life?	yes, I like to be alone	yes, sometimes I like to be alone		no, I don't like to alone	
35. OLD CHILD.	Do you think that the war has left marks on your dad?	No	maybe some		yes, he's a different person	
36. OLD CHILD.	Do you think that father's condition has had an influence on you?	no, I don't think that my dad is ill	no, even though he's nervous sometimes		yes, he's nervous a lot	yes, when ever we talk, we quarrel
37. OLD CHILD.	Do you think that your parents have problems?	No	no, but sometimes they do quarrel	They do, they quarrel a lot	Their relationship is poor	

Acknowledgments:

Dr. John A Geddes BSc, MSc, MD, CCFP; Assistant Professor, Department of Family Medicine, Queen's Universtiy, Kingston, Ontario, Canada; Queen's University Family Medicine Development Program in Bosnia and Herzegovina.

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