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PTSD, Pain Medication and Addiction of Refugees in Iraq

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Abstract

The relationship of pain medication uses with posttraumatic stress disorder (PTSD) diagnosis was investigated among a sample of 213 Kurdish outpatients in refugee camps in Kurdistan-Region in Northern Iraq. One hundred twenty-four (58%) of the participants met DSM-V PTSD criteria. Those with PTSD had significantly higher use of pain medication (82%), as compared with non-PTSD patients (47%). Female (54%) with a Posttraumatic Stress Disorder had higher use than male (4%) of pain medication. For the effective treatment of trauma in relation to chronic pain and medication use, it is necessary to have a multi-modal, interdisciplinary and culture-sensitive approach when treating.

Keywords

PTSD; Pain medication; Addiction; Culture; War; Refugee

Introduction

As a result of the increasing ethical, religious and political crisis and wars numbers of people forced to leave the environment and lives with traumatic events in huge refugee camps like in Syria and Iraq. Doctors, therapists and social workers in conflict areas are reporting that traumatized people from family-oriented societies such as Syria and Iraq in addition to mental complaints caused by traumatization complain of different body pain and used more pain medication than patients from the western world [1,2]. Patients from traditional cultures believe that psychotherapy is not very suitable on its own and think that medication would be the better course of treatment [3]. In addition to flashbacks, intrusions, fears etc. body pain (psychologically and physically) is at the forefront and this indicates a different perception and processing of traumatic experiences [4].

People from traditional communities experience life is part of a social system. They think, feel and act within this system. Everyday reality is in the family and is always linked to the "others"; the "collective thought" outweighs and influences their thoughts and actions. Concepts relating to the "ego" are not individualist as in western thinking. The western society puts impetus on "individualism". The traditional family-oriented society is "collectivistic" and in that it promotes interdependence and co-operation, with the family forming the focal point of this social structure. The traditional family-oriented society families like in Syria, Iraq, Turkey, Afghanistan etc. and some part of south European countries are therefore, far more involved in caring of its members, and also suffer greater illness burden than their western counterparts.

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In traditional societies, the mention of psychotherapy can create the feeling that they are "mad" in a certain way, while the medication is recognized as the art of healing. The pain medication is supposed to "rest the body" and alleviate the pain. Another reason for the rejection of psychotherapy is collective thinking, in which the family is to be "protected". The family should not worry and other families should not regard their collective family as inferior. For this reason, personal feelings and inner mental symptoms are often not expressed; adaptation to the social environment is considered a sign of personal maturity [5]. From the perspective of traditional medicine of traditional societies, the human body may become ill, which is why both physical and psychological complaints about the body are expressed. At the beginning of an examination, it is therefore sometimes difficult to determine whether the patient suffers from a physical or mental illness or both.

The criteria for PTSD are determined by the diagnosis of mental disorders by ICD-10 and DSM-V. It is assumed that people after one or more traumatic experiences show comparable stresses and reactions. This is, however, not substantiated by clinical experience and the findings of transcultural psychiatry [6,7].

The correlation between PTSD, chronic pain, and somatoform pain disorders have been proven in numerous studies. Villano et al. [8] found that 46% of psychiatric outpatients met the criteria for PTSD, 40% reported chronic pain and 24% of patients were diagnosed with both. The comorbidity rate for PTSD in war veterans with chronic pain was 66% [9]. Other studies with war veterans showed that in some cases well over 80% of those returning from war met the criteria for both diseases [10]. One of the extensive Study in Canada with 36,984 Participants (Canadian Community Health Survey Cycle) shows that 46% of PTSD patients suffered from chronic back pain (compared to 20.6% of patients without PTSD) and 33% from a migraine (compared to 10% without PTSD) [11].

Otis et al. [9] assume that the prevalence of pain among PTSD patients is 34%-80% significantly higher than the other way round, where the PTSD prevalence among pain patients is 10%-50%. This discrepancy can be partly explained by the fact that traumatic experiences are often associated with physical pain and that these are a kind of post-traumatic disorder [4].

In a Study with patients at a trauma center at the University of California, Dunmore et al. [12] were able to show that pain immediately after the traumatic event is a risk factor for the development of PTSD. According to the authors, the combination may be the result of a more negative assessment of trauma memory as a result of the pain and increased stress associated with the trauma [13]. In another study, Kizilhan [14] was able to show that Turkish women who had become victims of sexualized violence complained more about physical complaints and in some cases developed a cleaning compulsion than German women who had also become victims of sexualized violence.

Psychological problems after trauma manifest themselves, among other things, in the form of physical complaints that correspond to the cultural imprint of the person [15]. When Nigerians speak of anxiety and depression, they use words such as "a feeling of heat" in their heads, or "twisting maggots" in their bodies and a "biting feeling" throughout their bodies [15]. In China, for example, 46% expressed

their Depression through physical expression and associated with "weak nerves", fatigue, headaches, dizziness and gastrointestinal disorders [14,16]. Many people from South America and the Mediterranean respond to psychological stress with headaches and muscle pains, heat sensations and needles in the feet, heart problems, back pains and stomach complaints [17]. In some parts of India and the Middle East, rheumatic and rheumatic pains are called "black wind" or generally "wind pains". "Wandering" pain is also reported, which spreads every day in a different part of the body.

Patients from traditional family societies, especially from rural Turkey, Iraq, Syria or Afghanistan, report significantly more frequently on various pain diseases, which are always physically stressed than Western patients, which explains the high number of pain diagnoses [6] in connection with the use of painkillers. Many traumatized patients who believe that only painkillers can reduce their trauma increasingly take painkillers and consequently develop drug dependence [18]. Subjective suffering can be expressed symbolically through fatigue, screaming, walking with aids, etc. Patients believe they are broken and weak inside, see themselves as listless and tired people and therefore see their mental disorders as a physical disorder [19]. Due to the high co-morbidity between chronic pain diseases and PTSD, we therefore assume that pain medications are used more frequently in patients with PTSD than in patients without PTSD in an outpatient study group.

Method

Participants

The research was conducted at the Institute for Psychotherapy and Psychotraumatolgy at the University of Duhok in the Kurdish Region of Iraq. Male and female participants were randomly recruited from refugee camps presenting for routine outpatient treatment by the Institute for Psychotherapy and Psychotraumatology. The study was limited to traumatized refugees because of 1) there are no studies examining PTSD among Kurdish refugee in the camps after a flight from so-called "Islamic State"; 2) these samples are understudied, and 3) this minority group comprises the vast majority of patients at this clinic. We approached 290 patients, of whom 213 completed our survey. The patients were since April 2017 as outpatients in psychotherapy served by the Institute for Psychotherapy and Psychotraumatology at the University of Duhok. For subjects in our study, the average number of monthly Psychotherapy was 3.2. The sample comprised female and male between the ages of 18 and 58 years (N=213; M=43.72, SD=4.62) at the time of the interview. The women were aged between 18 and 52 years, 50% were married before the IS attack and 17.6% were widowed while in IS captivity because their husbands were killed by IS.

The male was aged between 18 and 58 years, 60% were married before the IS attack and 27.6% were missed her wife because there are in IS captivity or being killed. Education level by male and female attained varied widely among those interviewed with a range of 0 to 12 years of school completed (M=6.8, SD=2.61). Male (M=8.51, SD=2.77) had attended more school than older females M=5.18, SD=2.26), t (468)=−5.62, p<.01. Participants from cities (M=8.79, SD=2.27) had attained higher education levels than those who were living in villages (M=5.0, SD=2.36), U=291.5, p<.05.

Ethics

It was approved by the Institute of Psychotherapy and Psychotraumatology at the University of Duhok Ethical Review Board.

Procedure

Of the 213 patients screened, 176 had full pharmacy and treatment records and are included in this study. Selection criteria included being in psychotherapy for 12 months, age 18 years or older, being a refugee, and able to understand Kurdish. Exclusion criteria included mental retardation already documented by the psychiatrist from a Psychiatry Hospital Azadi.

All adolescents were interviewed by Kurdish-speaking well experienced clinical psychologists individually in four the refugee camps close to the City of Duhok. Each interview lasted approximately 2 h and was conducted in Kurdish, the national language and the native language of the Kurds. The attendees were guaranteed anonymity.

The interviews were done verbally and the investigators promptly transcribed the answers using the English version instruments (paper and pencil). It was also ascertained that the interviewer had no personal interest in the outcome of the study and that they did not know any of the women who participated in it.

Data were collected from October 2017 to April 2018.

Measures

Instruments: After providing informed consent, each participant was interviewed about her individual experiences (trauma events) and use of medications.

Demographic questionnaire: Information regarding age, sex, living situation, ethnicity, religion, and education was obtained with this self-report instrument. In addition to demographic data, this questionnaire contained questions about support received at any time during the 3 years since the flight from their homeland, e.g., who delivered the aid and what kind of support (emotional, social, material) the participant received.

Structured clinical interview: The Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders (DSM; SCID) is a widely used semi-structured interview intended to determine whether an individual meets criterion for any DSM disorder [20].

The Structured Clinical Interview was performed to determine the consequences of violation on the mental health of survivors (American Psychiatric Association 2013). This allowed us to diagnose mental disorders of survivors according to the DSM-IV classification [20].

PTSD standardized instrument: The PTSD standardized instrument (Verger et al.) with 22 items is based on DSM-IV criteria (Verger et al.) [20]. Frequencies of PTSD standardized instrument item responses were determined, and the prevalence of probable PTSD was calculated according to a cut-off score of 50 (diagnostic efficiency=0.91, sensitivity=0.73, specificity=0.88).

Patients records: Patients' records and documents which did by psychiatrists, physicians and psychotherapists were reviewed and abstracted to determine current psychiatric diagnoses and medications use in the past 12 months.

Data analysis: The data collected was computed with the SPSS 22.0 program for Windows (2016), while graphs and tables were compiled in SPSS 22.0 and Excel 2016 from Microsoft Office. Descriptive data was illustrated as mean values of the standard deviation, and categorical parameters as percentages.

Factors associated with PTSD were investigated with univariate logistic regression followed by multiple logistic regression analyses. The Hosmer and Lemeshow were used for the goodness-of-fit test and the c-index to evaluate the fit of the resulting model.

Results

Prevalence of PTSD

Regarding the prevalence of PTSD, 58% met the criteria of a PTSD (Table 1). Participants reported re-experiencing the event (32%) and avoidance of reminders of the event (34%) and hyperarousal (58%), respectively. About 54% reported preceding symptoms one month or longer and 54 % reported about the effects of the symptoms in their daily life.

PTSD and association of pain medication use

In addition to a significant increase in the overall PTSD result for people with and without pain medication, significant effects with intrusive and hyperarousal symptom values and number of symptoms (2.88; [95% CI=1.21-4.78]) were also observed. Interestingly, although there was a near-significant trend in the same direction, the Intrusive and number of Intrusive symptoms did not quite reach significance (1.73; [95% CI=0.64-4.68]).

These data suggest that the symptom cluster of intrusion may be the least associated, whereas that of hyperarousal may be the most associated with pain medication use (Table 2).

Pain medication use

One hundred twenty-two (82%) of the total sample (N=213) were used pain medications in last three years preceding the study assessment (Table 3). Beside the pain medication patients used antidepressant (47%) and neuroleptics medications (24%).

82% of patients with PTSD were use pain medications, versus 47% of patients without PTSD ($\chi^2[1]=6.53$; p=0.02; Table 3). 47% of patients with a diagnosis of PTSD were use antidepressant medications, versus 48% of those without PTSD ($\chi^2[1]=5.88$; p=0.03; Table 3). 24% of patients with PTSD were used neuroleptic medications, versus 21% of those without PTSD ($\chi^2[1] = 6.87$; p=0.01).

This increase in pain medication (Ibuprofen, Aspirin, Diclofenac, Morphine, Tramadol, etc.) use among subjects with PTSD appears to be relatively selective among prescribed medications [21]. Numbers of all other classes of medications, including total number of psychiatric

Table 1: Psychological symptoms and the frequency of DSM-IV PTSD, (a) According to DSM-IV criteria, PTSD is present after exposure to a traumatic event when each of the five criteria listed in the table are present; each of the first three criteria is considered present when the sub criteria reach a specified number, (b) 95% CI=38.5-58.5.

Posttraumatic stress disorder (PTSD)	**N=213**	
Intrusive	69	32.4
Avoidance of reminders of the event and numbness of feelings	73	34.3
Hyperarousal	112	52.6
Duration of preceding symptoms 1 month or longer	124	58.2
Repercussions of the preceding symptoms on activities of daily living	114	53.5
Meets criteria for PTSD	124	58.2 b

Table 2: Factors Associated with PTSD Diagnosis (N=213) at a 2017 Follow up Assessment, [a]Hosmer and Lemeshow goodness-of-fit test: 0.84; c-index: 0.81 *p<0.05.

PTSD Total (N=124) Factor	**PTSD Female**		**PTSD Male**		**PTSD**	**Univariate Logistic Regression**		**Multiple Logistic Regression[a]**
	N (80)	**%**	**N (44)**	**%**	**Odds Ratio**	**95% CI**	**Odds Ratio**	**95% CI**
PTSD								
Overall	48	60.0	16	36.4	2.88*	1.2-4.78	3.77*	1.29-7.67
Intrusive	33	41.3	12	27.3	1.73	0.64-4.68	2.64	0.79-7.52
Avoidance	35	43.8	10	22.7	2.81*	1.24-4.31	2.96	1.06-5.72
Hyperarousal	75	52.5	22	45.5	3.85*	1.26-6.44	4.99*	1.05-8.44
Medical Treatment general	54	67.5	18	40.9	2.92*	1.19-4.5		

Table 3: PTSD Diagnosis and Medication Use.

PSTD Diagnosis					
	PTSD		**No PTSD**		
	N (124)	**%**	**N (58)**	**%**	**χ^2**
Pain medication (analgesics)					$\chi^2[1] = 6.53$; p= 0.02
Yes	102	82	27	47	
No	22	18	31	53	
Antidepressive medication					$\chi^2[1] = 5.88$; p= 0.03
Yes	58	47	28	48	
No	66	53	30	52	
Neuroleptics					$\chi^2[1] = 6.87$; p= 0.011
Yes	30	24	12	21	
No	94	76	46	79	

medications, including antidepressant (Fluoxetine, Trimipramine, Citalopram, Mirtazapin, Sertraline etc.) and neuroleptic medications (Risperidone, Haldol, Olanzapine, Clozapine, Haloperidol) or nonpsychiatric medications, were not different between those with and without PTSD ($p>0.05$).

Discussion

In this study, we found that PTSD symptoms and diagnosis were significantly related to a higher likelihood of pain medication use in a random sample of refugee outpatients with a PTSD in the Kurdish Region of Iraq (Northern Iraq). At the same time, patients prescribed analgesic medication showed significantly higher PTSD symptom severity scores, with psychiatric patients having the highest scores. The finding that PTSD diagnosis was associated with the use of antidepressant and neuroleptic medications lends preliminary support to the thesis suggesting dysregulation of the psychiatric medications in PTSD [22].

Because of the possibility that any differential use of pain medications between patients with and without PTSD may be attributable to physical pain directly related to the traumatic experience, we looked at a time since the traumatic experience.

Patients suffering from post-traumatic stress disorder (PTSD) often abuse substances. In our study, pain medication was taken as a form of self-medication. Over time, the dose of pain medication usually increases and as a result, there is an abuse of dependence. This also leads to maintenance of the psychological disorders and substance use disorder [23]. Limitations of this study were the small sample and the retrospective design. Records of the use of pain medication were not always very detailed. This also has to do with the difficult situation in refugee camps with few doctors. Moreover, the prescription data are not always synonymous with drug intake. Nevertheless, it seemed that patients with PTSD always demanded pain medications from the doctors at first.

The antidepressant and neuroleptic medication were more likely to be prescribed by doctors. The drugs weren't always prescribed by psychiatrists. The aim was very often to calm the patients and not to provide targeted psychopharmacological treatment. In summary, these data provide evidence that pain medication use may be greater in patients with PTSD than in those without. These data raise the possibility that there may be a dysregulation of the endogenous pain medications system in subjects with PTSD, although this needs to be tested more directly in prospective studies.

Future research should focus on the collection of longitudinal data and mechanisms of association between the experience of trauma and pain. Such studies may prove quite interesting and provide a novel approach to treating some aspects of PTSD symptomatology. The discussion and research of other substances such as morphine and marijuana must also be pursued further, among other things to alleviate the sympathy of PTSD and to avoid drug dependence [22]. Future studies investigating the pain response in traumatised patients could provide a further understanding of pathophysiology and new treatment approaches for PTSD [23]. At the same time, it is known that people from family-oriented societies quickly access pain medication for mental illnesses. Your psychological complaints are seen as physical complaints. Disease perception and understanding in people from other cultures in connection with pain medication and psychiatric medication should be further investigated [19].

In general a culture-sensitive approach to the treatment of traumatised individuals with pain and physical ailments from family-oriented societies is indicated when the patient is severely restricted and needs medical help; when psychological factors influence his perception of pain and this impairment can be verified in the diagnosis; when conventional treatment does not work sufficiently well on the patient due to his different understanding of illness and how to cope with trauma and pain.

Interdisciplinary and culturally sensitive treatment is important, whereby doctors and psychotherapists should work together with other professional groups (sports therapists, physiotherapists, etc.) and consider the cultural background of the patient as "state of the art".

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