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Survey of Posttraumatic Stress Disorder (PTSD) With PTSD Checklist-Civilian (PCL-C) Questionnaire on Outpatients at Two Mental Health Clinics in New York City

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Abstract

Objective: To estimate the prevalence of posttraumatic stress disorder (PTSD) among psychiatric outpatients via a questionnaire and compare it to the prevalence recorded in patient's chart.

Method: A total of 62 adult patients were recruited voluntarily from two outpatient clinics in the inner city of New York City. These participants filled out the Traumatic Life Events Questionnaire (TLEQ) and the PTSD Check List Civilian Version (PCL-C) Questionnaire. Then, their charts were reviewed to collect demographic data, traumatic life events, diagnoses, and treatments.

Results: Among these 62 participants, there were significantly more reports of traumatic life events in the survey than in the charts, 86% vs. 22% (P<0.01) and there were more reports of severe PTSD symptoms than in the chart, 61% vs. 11% (P<0.01).

Conclusions: Trauma and PTSD might be under-recognized in outpatient psychiatric care. Psychiatrists should be more vigilant for trauma and PTSD. However, caution has to be taken when extrapolating the results to other populations because the internal validity of this study needs to be verified via the gold-standard method Clinician Administered PTSD Scale (CAPS) and the external validity of this study is limited to the specific population characteristics of this study.

Keywords: Post-traumatic stress disorder; Trauma; PCL-C; Survey

Abbreviations: PTSD: Posttraumatic Stress Disorder; TLEQ: Traumatic Life Events Questionnaire; PCL-C: PTSD Checklist-Civilian; CAPS: Clinician Administered PTSD Scale; MDD: Major Depressive Disorder; DSM-IV-TR: The Diagnostic and Statistical Manual-IV-Text Revision

Introduction

Posttraumatic Stress Disorder (PTSD) is a common disorder in both the general population and psychiatric patients [1]. The reported lifetime prevalence of PTSD ranges from 6 to 62% depending on the populations [2-9]. However, there is evidence indicating that PTSD is under-diagnosed both in primary care and psychiatric outpatient settings. For example, several civilian primary care studies have shown that PTSD is less than 5% among their patients [10]. The reason for the low recognition rate might be due to the overlapping of PTSD symptoms with many other psychiatric diagnoses, patients' attitudes towards trauma, including avoidance of discussing PTSD-related trauma, and repression of traumatic experiences. Another possibility is that general practitioners may not have sufficient knowledge to recognize and treat PTSD. As indicated by the results of one study, only 28% of general practitioners correctly diagnosed and prescribed medications for PTSD, compared to 54% of psychiatrists correctly doing so [11].

Even psychiatrists tend to under-diagnose PTSD: in a study in one psychiatric clinic, traumatic life events were commonly underrecognized, and evaluation and documentation were inadequate even in those cases they had been recognized [12,13] conducted a chart review to assess the documentation of traumatic events in patients of a general psychiatric clinic. The principal findings were that although exposure to traumatic event was documented in 72 (40%) of the 180 charts reviewed, the presence or absence of common symptomatic sequelae of trauma was not recorded in a large majority of these evaluations. Specifically, symptoms of PTSD were assessed and recorded for only eight (11%) of the 72 patients with a history of trauma, and the written treatment plans were deemed adequate in only seven (10%) of the 72 patients. Another study reported that the most common misdiagnosis for PTSD was depression (73%) or psychotic disorders other than schizophrenia (46%) [14]. The consequences of misdiagnosis include patient suffering as well as dramatically increased utilization by as much as 170% of services such as primary care, surgery, diagnostics, emergency, and psychiatric care [15,16]. As a result, accurate diagnosis of PTSD can potentially improve the quality of health care and reduce its cost.

We decided to conduct this study to estimate the prevalence of PTSD in the outpatient population of two psychiatric clinics in New York City through the PTSD Checklist-Civilian Questionnaire or routine clinical encounter. The characteristics of the outpatient population in the two clinics include diverse ethnicity, low income, low social economic status, living in inner city metropolitan areas in New York City Borough of Queens.

The gold standard method for PTSD diagnosis is through the Clinician-Administrated PTSD scale [17]. However, this method requires that the clinicians be trained extensively, it is time-consuming

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Received October 10, 2013; Accepted November 25, 2013; Published November 28, 2013

Citation: Wang B, Vivek S (2013) Survey of Posttraumatic Stress Disorder (PTSD) With PTSD Checklist-Civilian (PCL-C) Questionnaire on Outpatients at Two Mental Health Clinics in New York City. J Depress Anxiety S4: 007. doi: 10.4172/2167-1044.S4-007

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and costly. Hence, it is only suitable for research purposes. There are many questionnaires developed for PTSD screening and many of them are validated with good specificity and sensitivity, but most of these questionnaires are copy-righted products, prohibiting their routine use as screening tools. The Traumatic Life Events Questionnaire (TLEQ) and PTSD Checklist for Civilians Ouestionnaire (PCL-C), both developed by the National PTSD Center, have been validated with good sensitivity (94%) specificity (86%) when the cut-off score was set at 44 as compared with the CAPS [12]. They are easy to use and available to the public for free.

The objectives of the study were to estimate the prevalence of traumatic life events in outpatient psychiatric clinic with The Traumatic Life Events Questionnaire (TLEQ), to estimate the prevalence rate of PTSD in outpatient psychiatric clinic by PCL-C, to compare the prevalence of traumatic life events and PTSD based on the rate derived from routine clinical encounter and TLEQ and PCL-C questionnaires.

Methods

Subjects

Inclusion criteria: Adult patients' currently undergoing treatment at the two outpatient psychiatric clinics in the study.

Exclusion criteria: Patients less than 18 years old; patients with mental retardation or dementia, non-English speaking; inability or unwillingness to provide written informed consent. The protocol was approved by the Internal Review Board of the hospital. The risks for the voluntary subjects were described in the consent form and explained during recruiting process. A total of 62 subjects were recruited due to difficulty in on-site recruiting with time-consuming informed consent process.

Instruments

The PCL-C is a self-report questionnaire with seventeen items for PTSD screening correlating with DSM-IV-TR PTSD symptoms and the respondent rates each symptom on a five-point Liker t-type scale. Studies have shown that this instrument has strong test-retest reliability and internal consistency [18-20]. It has a sensitivity of 94% and specificity of 86% for PTSD recognition (cut-off score of 44) as compared to the gold standard of Clinician-Administrated PTSD Scale (CAPS) [12].

The traumatic life events questionnaire (TLEQ) is a 23-item questionnaire that corresponds to DSM-IV stressor criteria A1 and A2. A study comparing TLEQ with clinical interview inquiring of trauma showed similar results [21].

Procedures

Patients meeting inclusion criteria were asked to participate in the

Demographic Data

Non-PTSD (N=24) Total (N=62) PTSD (N=38) Age, yrs (Mean ± SD) 46.3 ± 13.3 42.8 ± 12.0 12.9 ± 7.6 Education, yrs (Mean ± SD) 12.8 ± 2.8 Ν Percent Ν Percent Ν Percent Sex: Female 40 64% 26 68% 14 58% 22 12 32% 10 Male 36% 42% Ethnicity: Black 26 42% 16 42% 10 42% White 8 13% 3 8% 5 21% 28 45% 19 50% 9 38% Other Employment 9 38% 20 32% 11 29%

Table 1: Demographic Data of PTSD and Non-PTSD Subjects Based on PCL-C Survey.

study. After signing the Informed Consent Form, patients were asked to fill out the TLEQ. If they have positive answers to any of the events listed in the TLEQ, the PCL-C questionnaire was given to assess the possible presence of symptoms of PTSD. Then, patients' charts were reviewed to identify the record of traumatic life events and diagnoses of PTSD. The chart review was focused on the diagnosis at the most recent clinical encounter to correspond with the PCL-C which only assesses the presence of symptoms of PTSD in the past month.

Statistical analysis

Nominal data including traumatic life events, PTSD, other diagnoses were analyzed using the Yates' Chi-square test to compare the results from survey with those derived from chart reviews. The Yates' Chi-square analysis was used to adjust the small sample sizes. Similarly, interval data including age and education were analyzed using Student's t-test to compare the group identified as PTSD versus the group identified as non-PTSD through the PCL-C. The statistical analyses were run with SPSS version 19 (IBM SPSS, Chicago, IL). The critical value of rejecting the null hypothesis was at P equal to or less than 0.05.

Results

Demographic data

Tables 1-3 shows the demographic profiles of the participants of the survey. This demographic profile reflected the population served by the two mental health clinics in the inner city of Queens that is ethnically diverse.

Among all the subjects, the prevalence of substance use was about 22%. Overall, the prevalence of the MDD was 27%. The prevalence of the MDD in the PTSD group was 37% and that in the non-PTSD group was 13% with a p value of 0.07, not statistically significant but very close to the significance level of 0.05. In terms of treatments, 64% of the subjects received SSRIs, among them 74% of the PTSD and 50% the non-PTSD participants were treated with SSRIs with p value of 0.06, very close to the significance level of 0.05.

Figure 1 shows the PTSD identified via chart review and the PCL-C questionnaire. A total of 38 subjects (61%) reported severe PTSD symptoms meeting the criteria of PTSD based on the PCL-C questionnaire, while only 8 subjects (13%) were identified as PTSD during clinical encounters (P<0.01).

Discussions

This study surveyed patients in the two outpatient mental health clinics in Queens, NY. The demographic characteristics of the patients represented the diverse ethnic groups served by the two clinics, mostly

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Diagnoses and treatments among the patients identified as PTSD and non-PTSD via survey

	Total (N=62)		PTSD (N=38)		Non-PTSD (N=24)		Testª	
	N	Percent	N	Percent	N	Percent	Yate's Chi-sq	Р
Diagnosis								
Substance use	14	22%	9	24%	5	21%	0.00	0.96
MDD ^b	17	27%	14	37%	3	13%	3.24	0.07
Schizophrenia	18	30%	9	24%	9	38%	0.78	0.34
Bipolar disorder	20	32%	12	32%	8	33%	0.02	0.88
Treatments: SSRI	40	64%	28	74%	12	50%	3.60	0.06
Antipsychotic	34	54%	20	53%	14	58%	0.19	0.66
Mood stabilizer	19	30%	13	34%	6	25%	0.59	0.44

a: The tests were run to compare the rates between PTSD vs. non-PTSD

b: MDD= major depressive disorder

Table 2: Psychiatric Diagnoses and Treatments of PTSD and Non-PTSD Subjects.

Trauma identified in chart vs. survey

	Total N=62		PTSD (N=38)		Non-PTSD (N=24)		Test ^a	
	N	Percent	N	Percent	N	Percent	Yate's Chi-sq	Р
Chart	14	22%	10	26%	4	17%	0.33	0.57
Survey Natural	12	20%	9	24%	3	13%	0.57	0.45
Accident	24	39%	19	50%	5	21%	4.1	0.04
Attacks	35	56%	29	76%	6	25%	13.7	<0.01
Other	47	75%	36	95%	11	46%	16.6	<0.01

a: The tests were run to compare the rates between PTSD vs. non-PTSD

Table 3: Trauma Identified in Chart vs. Identified by Survey.

The PTSD identified in chart vs. reported in survey



minorities and recent immigrants. As reported by earlier studies, the prevalence of PTSD varies greatly from 6-62% depending on the populations [7], hence caution has to be taken when extrapolating results from this study to other populations in another setting.

Although none of the diagnoses and treatments showed any significant differences, 37% of the PTSD group had major depressive disorder compared with the 13% in the non-PTSD group. It can be expected that if the sample size is increased, the significance level might be reached and showing that more PTSD patients are currently carrying a diagnosis of major depressive disorder. As reported in literature, many PTSD patients are diagnosed with the MDD [14]. The high percentage of the PTSD patients are diagnosed with the MDD

could be due to co-morbidity between the PTSD and the MDD or due to the fact that the PTSD patients are misdiagnosed as the MDD simply because PTSD symptoms have complicated presentations such as poor concentration, irritability, dysphoria, insomnia, suicidality that make it difficult for patients and clinicians to tell the differences between the two diagnoses [22]. In terms of treatments, 64% of all the participants received SSRIs. While 74% of the PTSD participants received SSRIs, only 50% of the non-PTSD participants received SSRIs, the p value of 0.06 was very close to the significance level. Since SSRIs are the first line medication for both the PTSD and the MDD, it is understandable that more SSRIs were used in the PTSD than the non-PTSD group.

There were more participants reported traumatic life events than

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those recognized in chart (88% vs. 22%, P<0.05). The PTSD group reported higher traumatic life events than the non-PTSD group in the survey (P<0.05), suggesting the traumatic life events reported in the survey might be the cause for the reported PTSD symptoms in the PCL-C. It should be pointed out that this study did not conduct clinician-administered interview to verify the results, it is unknown whether the reported traumas were severe enough to meet the A1 and A2 criteria specified by DSM-IV-TR for the diagnosis of PTSD. As reported by Eilenberg et al., [13] traumas were not adequately documented for the diagnosis of the PTSD in the majority of the charts reviewed in their study. Hence, psychiatrists might need to be more vigilant in eliciting both trauma and related PTSD symptoms during patient encounter.

This survey found very high rate of participants meet the PCL-C PTSD criteria, about 61%. This rate is higher than most reports. Most of the reports indicate that PTSD is about 10% in the general population, about 30% in the outpatient psychiatric clinic. The particularly high rate might be explained by selection bias due to the fact that more PTSD patients chose to participate in the survey while those who do not have PTSD chose not to participate in the study. Another possibility might be that more patients have PTSD symptoms but routine psychiatric encounters missed the diagnosis due to the difficulty in differentiating PTSD with other conditions such as the MDD (Campbell et al. 2006). High prevalence of PTSD in specific populations was reported in other studies (Schwartz et al. [14], Marshall et al. [7]). The true prevalence of PTSD of the population studied in this report can be verified in future studies by using the CAPS interview.

Limitations

Since this study did not use the CAPS interview, the gold standard method for the diagnosis of PTSD, the true prevalence of PTSD remains unknown. In addition, even if the data reflects the PTSD prevalence rate in the clinical setting of this study, caution has to be taken when extrapolate the results for other populations.

Conclusions

Traumatic life experiences were under-recognized and PTSD was under-diagnosed in routine psychiatric outpatient clinical encounters. The most common traumas resulting in PTSD were attacks and accidents. There was a trend for more PTSD patients to have a diagnosis of major depressive disorder either due to comorbidity or misdiagnosis and these patients were for the most part pharmacologically treated with SSRIs.

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This article was originally published in a special issue, **Posttraumatic Stress Disorder** handled by Editor(s). Dr. Gautham Ullah, MC Master University, Canada

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