

Patients' Reports of Traumatic Experience and Posttraumatic Stress in Psychiatric Settings

KK Wu, JP Cheng, J Leung, LP Chow, CC Lee

CME

Abstract

Objective: To determine the prevalence of traumatic experience (TE) among patients in psychiatric settings in Hong Kong and the associations between TE, levels of distress, and anxiety and depressive symptoms.

Methods: 129 patients who have received inpatient psychiatric services were recruited. Their lifetime TE was assessed using the Life Event Checklist (LEC), and TE in psychiatric settings using the Psychiatric Experiences Questionnaire (PEQ). Their level of distress symptoms was assessed using the Impact of Event Scale-Revised (IES-R), and the level of anxiety and depressive symptoms using the Hospital Anxiety and Depression Scale (HADS).

Results: The prevalence of direct and indirect TE was 84.5%, as was the prevalence of TE in psychiatric settings. Common TE in psychiatric settings included witnessing another patient being taken down (61.2%), being put in restraints of any kind (41.1%), and witnessing another patient being physically assaulted by another patient (36.4%). TE in psychiatric settings associated with high prevalence of severe or extreme distress 1 week after the event included being forced to take medication against their will (52.2%), being threatened with physical violence (52.2%), and experiencing a physical assault (50.0%). Lifetime TE (the total number of LEC items reported) was associated with severity of distress, and anxiety and depressive symptoms, whereas TE in psychiatric settings (the total number of PEQ items reported) was associated with severity of distress only. The total number of LEC items reported is the only predictor of levels of distress, and anxiety and depressive symptoms.

Conclusions: Lifetime TE and TE in psychiatric settings are common among patients with SMI. Trauma-informed care is suggested for mental health services.

Key words: *Mental disorders; Mental health; Mental health recovery; Psychological trauma*

Kitty K Wu, PhD, M Soc Sc. (Clin Psy), Kwai Chung Hospital, Hong Kong
Jamie P Cheng, M Soc Sc. (Clin Psy), Kwai Chung Hospital, Hong Kong
Joey Leung, MBChB, MRCPsych, FHKCPsych, FHKAM(Psych), Kwai Chung Hospital, Hong Kong
LP Chow, MBA, RNP, Kwai Chung Hospital, Hong Kong
Chi-chiu Lee, MRCP, FRCPsych, Kwai Chung Hospital, Hong Kong

Address for correspondence: Dr Kitty K Wu, Cluster Coordinator (Clinical Psychology), Kowloon West Cluster, Princess Margaret Hospital, 2-15 Princess Margaret Hospital Road, Kowloon, Hong Kong.
Email: wukykyk@ha.org.hk

Submitted: 14 September 2018; **Accepted:** 8 March 2019

Introduction

Traumatic experience (TE), defined as self-reported exposure to traumatic events, is common and has cross-national variation in prevalence.¹ In the World Mental Health Survey¹ that assessed 68 894 adults in exposure of 29 traumatic event types based on the World Health Organization Composite International Diagnostic Interview², the TE prevalence is estimated to be 82.7% in the United States and 69.7% for all countries that participated, with 30.5% of adults being exposed to ≥ 4 TE. In an epidemiology study of TE and posttraumatic stress disorder (PTSD) in Hong Kong Chinese³ that based on the sample of the Hong Kong Mental

Morbidity Survey,^{4,5} the weighted prevalence of direct TE is 64.8% and increases to 88.7% when indirect TE is included, consistent with another study.⁶

Patients with severe mental illness (SMI) have high prevalence of trauma victimisation (51%-98%) and PTSD (up to 43%).^{7,8} They may have previous TE and are vulnerable to additional TE in psychiatric settings.⁹⁻¹¹ Routine or control procedures such as seclusion and restraint may cause recall of previous TE, leading to highly a distressing experience for the patient.¹²⁻¹⁵ Psychotic symptoms and involuntary commitment may be associated with PTSD.¹⁶⁻¹⁸ Psychotic symptoms are more traumatic than measures used to control them.¹² Psychiatric patients have reported high prevalence of experience of in-situational measures of last resort that include seclusion (59%), restraint (34%), and take-down (29%).¹¹ They prefer psychotropic medication (64%) to seclusion or restraint (36%).¹⁹ Nonetheless, psychiatric nurses consider restraint as appropriate in 98% of cases, compared with 35% by patients.²⁰ Other TE in psychiatric settings include witnessing aggression (57%)²¹ or traumatic events (63%).¹¹

Patients and staff differ in perceiving these events. Staff are more likely to perceive aggression to patient illness and hence changes in medication are needed; whereas patients perceive that improved staff-patient communication

and more flexible rules are needed.²² In psychiatric settings, rates of reported lifetime trauma and potential harmful experiences are high, including physical assault (31%), sexual assault (8%), being around frightening or violent patients (54%), and female patients with a history of being abuse feeling unsafe in mixed-gender units (85%).^{11,23} This indicates associations between TE, SMI, and psychiatric treatment, as well as the impact of trauma on mental health.

According to the National Centre for Trauma-Informed Care of the Substance Abuse and Mental Health Services Administration,²⁴ the recovery model and trauma-informed care (TIC) are important concepts in the treatment of persons with SMI. Recovery is a dynamic, strength-based, and individualised process guided by the patient and the mental health system.²⁵ The centre aims to eliminate the use of seclusion, restraints, and other coercive practices and to develop the knowledge base on TIC. TIC facilitates both patients and mental health professionals to address the effect of SMI-related TE. Training and increasing awareness in TIC for mental health professionals are pivotal for the provision of a safe environment for patients who are affected by TE. The TIC approach is essential in recovery-oriented services for patients with SMI. Mental health professionals have to understand the associations between trauma, SMI, and psychiatric settings that may lead to re-traumatisation. All staff must understand that every interaction concurs with the recovery process and minimises the possibility of re-traumatisation. Integration of knowledge about violence and abuse into the service delivery practices also requires support from administrative staff.²⁶

Mental health service providers in Hong Kong have adopted the recovery-oriented approach.²⁷⁻²⁹ Various recovery programmes have been developed in inpatient, day-care, and outpatient services and in social service provided by non-governmental organisations. Patient involvement in the programmes is increasing, and trained patients can be facilitators and peer-support workers.

This study aimed to determine the prevalence of TE among patients in psychiatric settings in Hong Kong and the associations among TE, levels of distress, and anxiety and depressive symptoms. The findings would facilitate the development of TIC for recovery-oriented psychiatric services by (1) providing empirical evidence on trauma victimisation, (2) identifying risk factors for chronic psychological difficulties in the recovery process, and (3) facilitating early intervention.

Methods

This study was conducted from 2014 to 2017 and was approved by the Kowloon West Cluster Research Ethics Committee (KW/EX-13-128-68-12). Informed consent was obtained from each participant. We recruited adult patients who were able to communicate in Cantonese and had received psychiatric services in the extended-care patients intensive treatment, early diversion and rehabilitation stepping-stone programme under the Community and

Rehabilitation Psychiatric Team of Kwai Chung Hospital. The programme serves patients with stable SMI (typically schizophrenia, recurrent major depressive disorder, or disorders with psychotic symptoms) who were transferred from acute or long-term wards. Participants were asked to complete a battery of self-report instruments that took around 30 minutes.

The Life Event Checklist (LEC)³⁰ was developed for examining criterion A of PTSD and has been translated into Chinese and validated in Hong Kong.³¹ It is a 17-item lifetime trauma exposure inventory to identify five levels of exposure: (1) *happened to me* personally; (2) *witnessed it* happen to someone else; (3) *learned about it* happening to someone close to me; (4) *not sure* if it fits; (5) *doesn't apply* to me. The LEC enables estimation of prevalence associated with both direct and indirect exposure for a specific trauma item. Respondents would feel less embarrassed to report TE in the LEC than in an interview, and more memory priming than answering an opened question.

The Psychiatric Experiences Questionnaire (PEQ) assesses a wide range of traumatic and harmful experiences that may occur in psychiatric settings.¹¹ The PEQ consists of 26 possible experiences and assesses whether these have been experienced, the level of distress after 1 week and since then, and compliance with psychiatric recommendations such as medications and therapy (scores range from 1 to 5, with higher scores indicating greater compliance).

The Chinese version of the 22-item Impact of Event Scale-Revised (IES-R) has been validated for measuring PTSD symptoms.³¹⁻³³ Its correlation coefficients for test-retest reliability ranged from 0.51 to 0.94. Its subscales (avoidance, hyperarousal, and intrusion) had high internal consistency, with Cronbach's alpha of 0.79 to 0.91. Its subscale scores were moderately correlated to the General Health Questionnaire ($r = 0.51-0.68$).³⁴ A mean score of 2 in any subscale indicated a moderate level of distress and was used as the cut-off.

The Hospital Anxiety and Depression Scale (HADS)³⁵ assesses symptoms related to anxiety and depression in general medical outpatients. In the Chinese version, the internal consistency (Cronbach's alpha) for subscales ranged from 0.74 to 0.81. The cutoff score for a moderate-to-severe level of the anxiety or depressive symptoms was ≥ 11 in both subscales.³⁶ The HADS helps to determine the association between PTSD, anxiety, and depression.

The prevalence of TE is affected by whether indirect exposures are included,^{3,6} and whether rates of TE for different levels of exposures are presented. In an epidemiology study of TE and PTSD in Hong Kong,³ both direct and indirect exposures of TE were included for analyses related to correlates. Pearson correlation was used to determine the association among various factors. Multivariate analysis of variance and multiple regression analysis were conducted to determine the predictors of PTSD, anxiety, and depression. Hierarchical multiple regression analyses were conducted to determine the contribution of various predictors for IES-R score and

HADS score. Predictors entered in block 1 were sex and age, and in block 2 were PEQ score and LEC score; whereas IES-R score and HADS score were dependent variables. SPSS (Windows version 19; IBM Corp, Armonk [NY], United States) was used for data analysis.

Results

A total of 68 male and 61 female participants (mean age, 44.30 ± 10.36 years) were recruited from 2014 to 2017, representing 50.9% of all cases in the extended-care patients intensive treatment, early diversion and rehabilitation stepping-stone programme. The primary diagnosis of participants included schizophrenia ($n=107$, 82.9%), bipolar

disorder, recurrent major depressive disorder, or persistent mood disorders ($n=10$, 7.8%), disorders with psychotic symptoms ($n=8$, 6.2%), and other disorders including anxiety disorder and adjustment disorder ($n=4$, 3.1%).

The prevalence of direct TE was 59.7% when the exposure level of *happened to me* was included, whereas the prevalence of direct and indirect TE was 69.0% when *witnessed it* was also included, and 84.5% when *learned about it* was also included. 48.8% had >4 TE when all exposure levels were counted. Common TE types included the sudden death of someone close (51.9%), transportation accident (50.4%), physical assault (48.8%), natural disaster (44.2%), and severe human suffering (41.9%) [Table 1]. More men than women reported physical assault (57.4% vs

Table 1. Prevalence of lifetime traumatic experience (n = 129)

Life Event Checklist item	Prevalence, %*		
	Happened to me	Happened to me or witnessed it	Happened to me, witnessed it, or learned about it
No event	40.3 ± 4.3	31.0 ± 4.1	15.5 ± 3.2
Natural disaster	8.5 ± 2.5	19.4 ± 3.5	44.2 ± 4.4
Fire or explosion	7.0 ± 2.2	17.1 ± 3.3	40.3 ± 4.3
Transportation accident	13.2 ± 3.0	27.1 ± 3.9	50.4 ± 4.4
Serious accident at work, home, or during recreational activity	9.3 ± 2.6	15.5 ± 3.2	31.0 ± 4.1
Exposure to toxic substance	6.2 ± 2.1	9.3 ± 2.6	24.8 ± 3.8
Physical assault	27.1 ± 3.9	34.9 ± 4.2	48.8 ± 4.4
Assault with a weapon	4.7 ± 1.9	8.5 ± 2.5	21.7 ± 3.6
Sexual assault	3.1 ± 1.5	4.7 ± 1.9	20.2 ± 3.5
Other unwanted or uncomfortable sexual experience	8.5 ± 2.5	10.1 ± 2.7	21.7 ± 3.6
Combat or exposure to a war-zone	0.8 ± 0.8	1.6 ± 1.1	19.4 ± 3.5
Captivity	8.5 ± 2.5	10.9 ± 2.7	23.3 ± 3.7
Life-threatening illness or injury	10.9 ± 2.7	17.8 ± 3.4	29.5 ± 4.0
Severe human suffering	24.0 ± 3.8	26.4 ± 3.9	41.9 ± 4.3
Sudden, violent death	9.3 ± 2.6	14.0 ± 3.1	30.2 ± 4.0
Sudden, unexpected death of someone close to you	31.0 ± 4.1	36.4 ± 4.2	51.9 ± 4.4
Serious injury, harm, or death you caused to someone else	6.2 ± 2.1	7.8 ± 2.4	14.7 ± 3.1
Any other stressful event or experience	24.8 ± 3.8	30.2 ± 4.0	40.3 ± 4.3
Total with any item	59.7 ± 4.3	69.0 ± 4.1	84.5 ± 3.2
No. of lifetime traumatic experiences			
1	14.0 ± 3.1	13.2 ± 3.0	11.6 ± 2.8
2	14.0 ± 3.1	10.9 ± 2.7	8.5 ± 2.5
3	10.1 ± 2.7	7.8 ± 2.4	8.5 ± 2.5
4	7.8 ± 2.4	10.1 ± 2.7	7.0 ± 2.2
>4	14.0 ± 3.1	27.1 ± 3.9	48.8 ± 4.4

* Data are presented as mean ± standard error.

Table 2. Prevalence of traumatic experience in psychiatric settings (n=129)

Psychiatric Experiences Questionnaire item	Prevalence, %*	No. of occurrences*	The most distressing event was severely or extremely distressing 1 week after the event*	Usually or always experiencing distress since the event*
Q1: Being handcuffed and transported in a police car	17.1 ± 3.3	1.73 ± 1.28	10 (45.4)	8 (36.4)
Q2: Being ‘taken down’ by police or psychiatric staff	30.2 ± 4.0	2.92 ± 2.52	14 (35.9)	10 (25.7)
Q3: Witnessing another patient being ‘taken down’	61.2 ± 4.3	4.56 ± 4.89	12 (15.2)	8 (10.1)
Q4: Being placed in seclusion	28.7 ± 4.0	2.50 ± 2.88	9 (24.3)	6 (16.2)
Q5: Being put in restraints of any kind	41.1 ± 4.3	4.68 ± 8.70	14 (26.4)	7 (13.2)
Q6: Being strip-searched	22.5 ± 3.7	6.08 ± 15.39	6 (20.6)	4 (13.8)
Q7: Having medication used as a threat or punishment	13.2 ± 3.0	3.94 ± 3.19	8 (47.1)	7 (41.1)
Q8: Having commitment used as a threat or as punishment	21.7 ± 3.6	2.31 ± 2.06	14 (50)	9 (32.2)
Q9: Being forced to take medication against your will	19.4 ± 3.5	20.17 ± 81.06	12 (52.2)	6 (26)
Q10: Experiencing any other form of excessive physical force	10.1 ± 2.7	2.25 ± 1.71	5 (38.5)	4 (30.8)
Q11: Experiencing staff calling you names (‘crazy’, ‘stupid’), badgering, or bullying you in some other verbal way	11.6 ± 2.8	10.42 ± 14.25	4 (26.7)	1 (6.7)
Q12: Witnessing staff calling other patients names, badgering, or bullying others in some other verbal way	19.4 ± 3.5	16.38 ± 28.86	4 (16.7)	1 (4.2)
Q13: Being deprived of adequate food or nutrition	15.5 ± 3.2	10.87 ± 22.53	7 (35.0)	2 (10)
Q14: Not having adequate privacy for bathing, dressing, or using the toilet	21.7 ± 3.6	14.43 ± 27.97	11 (39.3)	5 (17.8)
Q15: Being around other patients who were very violent or fighting in other way	35.7 ± 4.2	14.10 ± 38.40	13 (29.5)	7 (15.9)
Q16: Being threatened with physical violence	17.1 ± 3.3	10.94 ± 23.12	12 (52.2)	4 (17.3)
Q17: Experiencing a physical assault (hit, punched, slapped, kicked, strangled, or burned) by a staff member while in the psychiatric facility	4.7 ± 1.9	2.00 ± 1.55	3 (50)	2 (33.3)
Q18: Experiencing a physical assault (hit, punched, slapped, kicked, strangled, or burned) by another patient while in the psychiatric facility	11.6 ± 2.8	3.50 ± 3.94	5 (33.3)	1 (6.7)
Q19: Witnessing another patient being physically assaulted by a staff member	22.5 ± 3.7	4.33 ± 6.50	3 (10.9)	1 (3.6)
Q20: Witnessing another patient being physically assaulted by another patient	36.4 ± 4.2	5.67 ± 7.99	9 (19.2)	3 (6.4)
Q21: Experiencing unwanted sexual advances while in the psychiatric facility (talking to you about having sex, touching your body)	7.0 ± 2.2	5.63 ± 2.92	4 (44.4)	4 (44.4)
Q22: Experiencing a staff member using pressure, threats, or force to engage in any type of sexual contact with you in the psychiatric setting	0	0	0	0

* Data are presented as mean ± standard error / standard deviation or No. (%) of patients.

Table 2. (cont'd)

Psychiatric Experiences Questionnaire item	Prevalence, %*	No. of occurrences*	The most distressing event was severely or extremely distressing 1 week after the event*	Usually or always experiencing distress since the event*
Q23: Experiencing another patient using pressure, threats, or force to engage in any type of sexual contact with you in the psychiatric setting	0	0	0	0
Q24: Witnessing another patient being sexually assaulted (using pressure, threats, or force to engage in any type of sexual contact) by a staff member	0	0	0	0
Q25: Witnessing another patient being sexually assaulted (pressure, threats, or force to engage in any type of sexual contact) by another patient	1.6 ± 1.1	5.50 ± 7.78	0	0
Q26: Witnessing the death of another person while in the psychiatric setting	10.9 ± 2.7	1.23 ± 0.44	5 (35.7)	2 (14.2)
Q27: Engaging in any type of consensual sexual activity with another patient while in psychiatric setting	1.6 ± 1.1	5.50 ± 6.36	0	0
Q28: Engaging in any type of consensual sexual activity with a staff member while in the psychiatric setting	0.8 ± 0.08	0	0	0
Q29: Witnessing a staff member being physically assaulted by a patient	18.6 ± 3.4	2.92 ± 4.44	4 (16.7)	1 (4.3)
Total with any item	84.5 ± 3.2	-	-	-
No. of traumatic experiences in psychiatric settings		-	-	-
1	10.9 ± 2.7	-	-	-
2	11.6 ± 2.8	-	-	-
3	10.1 ± 2.7	-	-	-
4	4.7 ± 1.9	-	-	-
>4	47.3 ± 4.4	-	-	-

39.3%, $p = 0.04$) and serious accident at work, home, or during recreational activity and physical assault (38.2% vs 23.0%, $p = 0.06$). However, more women than men reported unwanted or uncomfortable sexual experience (29.2% vs 14.7%, $p = 0.04$).

The prevalence of TE in psychiatric settings was 84.5%; 10.9% had one TE and 47.3% had >4 TE (Table 2). The most common TE in psychiatric settings was witnessing another patient being 'taken down' (61.2%), with a mean occurrence of 4.56 ± 4.89 times. Among those with this TE, 12 (15.2%) reported a severe or extreme level of distress 1 week after the event, and 8 (10.1%) reported usually or almost always experienced distress since the event. The second most common TE in psychiatric settings was being put in restraints of any kind (41.1%), with a

mean occurrence of 4.68 ± 8.70 times. Among those with this TE, 14 (26.4%) reported a severe or extreme level of distress 1 week after the event, and 7 (13.2%) reported usually or almost always experienced distress since the event. The third most common TE in psychiatric settings was witnessing another patient being physically assaulted by another patient (36.4%), with a mean occurrence of 5.67 ± 7.99 times. Among those with this TE, 9 (19.2%) reported a severe or extreme level of distress 1 week after the event, and 3 (6.4%) reported usually or almost always experienced distress since the event.

The TE in psychiatric settings associated with high prevalence of severe or extreme level of distress 1 week after the event included: being forced to take medication against their will (52.2%), being threatened with physical

Table 3. Correlation between traumatic experience and psychological symptoms

	Mean ± SD	Impact of Event Scale-Revised (IES-R)				Hospital Anxiety and Depression Scale (HADS)		
		Intrusion	Avoidance	Hyperarousal	Total	Anxiety	Depression	Total
		Pearson correlation coefficient (r)						
Age, y	44.30 ± 10.36	-0.06	-0.01	-0.01	-0.03	0.02	0.03	
Traumatic experience								
Psychiatric Experiences Questionnaire score	5.12 ± 4.57	0.25 [†]	0.17*	0.29 [†]	0.26 [†]	0.14	0.14	0.15
Life Event Checklist score	5.54 ± 4.90	0.30 [†]	0.37 [‡]	0.35 [‡]	0.37 [‡]	0.32 [‡]	0.27 [†]	0.33 [‡]
Psychological symptoms								
IES-R score	3.60 ± 2.54	0.94 [‡]	0.89 [‡]	0.94 [‡]	-			
Intrusion score	1.22 ± 0.95	-						
Avoidance score	1.36 ± 0.90	0.73 [‡]	-					
Hyperarousal score	1.05 ± 0.90	0.88 [‡]	0.74 [‡]	-				
HADS score	12.21 ± 8.21	0.67 [‡]	0.50 [‡]	0.70 [‡]	0.67 [‡]	0.92 [‡]	0.90 [‡]	-
Anxiety score	6.15 ± 4.92	0.69 [‡]	0.48 [‡]	0.72 [‡]	0.68 [‡]	-		
Depression score	6.12 ± 4.20	0.51 [‡]	0.42 [‡]	0.53 [‡]	0.53 [‡]	0.65 [‡]	-	

* p < 0.05

† p < 0.01

‡ p < 0.001

Table 4. Traumatic experience in predicting psychological symptoms

Variable	Impact of Event Scale-Revised			Hospital Anxiety and Depression Scale		
	B	SE B	β	B	SE B	β
Block 1						
Female sex	0.25	0.45	0.05	-1.18	1.50	-0.07
Age, y	0.00	0.02	-0.01	0.04	0.07	0.04
Block 2						
Psychiatric Experiences Questionnaire score	0.09	0.05	0.16	0.07	0.17	0.04
Life Event Checklist score	0.17	0.05	0.31 (p < 0.01)	0.55	0.16	0.32 (p < 0.01)

violence (52.2%), experiencing a physical assault (50.0%), having medication used as a threat or punishment (47.1%), and being handcuffed and transported in a police car (45.4%). The TE in psychiatric settings associated with high prevalence of reporting usually or almost always experienced distress since the event included experiencing unwanted sexual advances (44.4%), having medication used as a threat or punishment (41.1%), being handcuffed and transported in a police car (36.4%), having commitment used as a threat or as punishment, and experiencing any other form of excessive physical force (30.8%). More men than women reported witnessing another patient being physically assaulted by a staff (33.8% vs 10.2%, p = 0.002) and by another patient (54.4% vs 16.9%, p < 0.001).

In IES-R, 15 (11.6%) participants had moderate level of distress (cut-off score of 2) in all three subscales. For the intrusive, hyperarousal, and avoidance subscales, 29 (22.4%), 26 (20.2%), and 35 (27.1%) participants had moderate level of distress, respectively. In HADS, 26 (20.1%) and 17 (13.2%) participants had moderate-to-severe level (cut-off score of ≥11) of anxiety and depressive symptoms, respectively. Total and subscale scores of IES-R and HADS were correlated (r = 0.50-0.72, p < 0.001). Lifetime TE (the total number of LEC items reported) was associated with total and subscale scores of IES-R (r = 0.30-0.37, p < 0.001 to <0.01) and HADS (r = 0.27-0.33, p < 0.001 to <0.01) [Table 3]. TE in psychiatric settings (the total number of PEQ items reported) was associated with

total and subscale scores of IES-R only ($r = 0.17-0.29$, $p < 0.001$ to <0.05 , Table 3).

Hierarchical multiple regression analyses were conducted to determine the contribution of various predictors for IES-R score and HADS score. Sex and age accounted for only 0.2% of the variance in IES-R score and were not significant. When TE was added, the model accounted for 15.6% of the variance ($F(4,117) = 5.22$, $p = 0.001$). The total number of LEC items reported was predictor of IES-R score ($p = 0.01$, Table 4). Similarly, sex and age accounted for only 0.6% of the variance in HADS score and were not significant. When TE was added, the model accounted for 11.4% of the variance ($F(4,117) = 3.65$, $p < 0.01$). The total number of LEC items reported was predictor of HADS score ($p = 0.01$, Table 4).

Discussion

To date, there is no study providing empirical support on TE among patients with SMI in public psychiatric settings in Hong Kong. In the present study, of the 129 participants, 11.6% had moderate-to-severe level of distress in all three IES-R subscales and hence probable PTSD, consistent with 19% reported elsewhere,¹¹ whereas 20.1% and 13.2% had moderate-to-severe level of anxiety and depressive symptoms in the HADS, respectively. The rate of probable PTSD at 1-month post discharge was 6% in patients who had hospitalised for severe acute respiratory syndrome³⁷ and 4% in patients who had treated in intensive care unit.³⁸

Compared with a Western study on TE in psychiatric settings,¹¹ our study had a lower rate of physical assault by another patient (11% vs 26%) but higher rates of witnessing another patient being "taken down" (61% vs 44%) and being put in restraints of any kind (41% vs 34%). Nonetheless in terms of potentially harmful experiences, our study had lower rates of being around other patients who were very violent (35% vs 54%), being called names by staff (11% vs 14%), and having medications used as a threat or punishment (13% vs 20%).

Present findings on patients with SMI are consistent with the World Mental Health Surveys findings that TE is common globally.¹ Compared with a Hong Kong study on community-dwelling adults,³ our study had lower prevalence of having direct TE (ie, *happened to me*) [59.7% vs 64.9%] and lower prevalence of having direct and indirect TE (when exposure types *witnessed it* and *learned about it* were also included) [84.5% vs 88.7%].

Although patient reports of lifetime TE and TE in psychiatric settings were subjective, our findings underscore the importance of TIC in mental health service, the presence of TE in patients with SMI, the risk of TE in psychiatric settings, and monitoring high-risk patients for early intervention. Education, training, supervision, and resources are essential components to enhance awareness and support in psychiatric settings so that patients can feel safe and respected. TIC takes into consideration how an intervention may affect patients in terms of their previous

and present trauma. TIC supports practices that promote a culture of empowerment and healing, with linkage to resilience and focus on generating positive change. It can complement recovery model of care and promote collaborative relationship in the inpatient setting.

According to the Substance Abuse and Mental Health Services Administration,²⁴ TIC is to adopt six principles in provision of care rather than a prescribed set of practices or procedures. These principles include: (1) safety, (2) trustworthiness and transparency, (3) peer support, (4) collaboration and mutuality, (5) empowerment, voice, and choice, and (6) cultural, historical, and gender issues. In addition, trauma-specific intervention programmes recognise the followings: (1) patients need to be respected, informed, and hopeful regarding their own recovery; (2) trauma and symptoms of trauma such as substance abuse, eating disorders, depression, and anxiety are interrelated; and (3) the need to work collaboratively with patients and their family and friends to empower patients.

To facilitate the development of TIC in psychiatric setting, it is important to start with acknowledging the presence of TE among patients and adversities within psychiatric settings. Implementation of TIC may include: (1) adopting the TIC approach as a core component in staff development, (2) conducting routine screening and monitoring of TE for patients with SMI, especially during and after treatment in psychiatric settings, (3) practising TIC via evidence-based trauma assessment and intervention, (4) educating for normalisation of reporting and help seeking, or expressive activities in the recovery programmes or before discharge, and (5) demonstrating commitment and support for adopting the TIC approach in service management (eg, standing committees within the governance structure to develop and oversee the implementation of operation guidelines that encourage timely report and routine review of adverse incidents, implementation of preventive measures, and proactive management of TE within psychiatric settings).

The present findings may serve as the baseline for exploring the value of early identification and intervention for psychological problems related to psychiatric treatment for Chinese. It would be worthwhile to examine the association between TE, recovery-oriented treatment components, and mental health in future studies.

This study has limitations. The TE defined in this study was not the same as the trauma defined for the diagnosis of PTSD (ie, exceptionally threatening or catastrophic nature). The rate of PTSD symptoms could not be taken as the prevalence estimate of the diagnostic condition. Our findings should be substantiated by clinical interviews for PTSD to differentiate PTSD from other diagnoses such as adjustment disorder or depression. In addition, participants were all inpatients from one hospital and may not be representative. They are usually long stay inpatients, and most have schizophrenia and have difficulties in reintegrating into the community. The TE might have contributed to the severity and chronicity of their symptoms and led to their eventual long stay in the

psychiatric hospital. Owing to the long hospitalisation and readiness for discharge, patients' recall of TE might have filtered out or leaned toward the good side. Moreover, we should have taken into account confounding factors such as severity of psychotic symptoms, history and severity of psychiatric condition, circumstances leading to psychiatric admission, medications (depot injections or acute sedation drugs), quality of life, and psychosocial functioning.

Conclusion

Lifetime TE and TE in psychiatric settings are common among patients with SMI. Higher number of LEC items reported is associated with higher levels of distress and anxiety and depressive symptoms. Higher number of PEQ items reported is associated with higher levels of distress only. The total number of LEC items reported is the only predictor of levels of distress and anxiety and depressive symptoms. The present findings highlight the importance of TIC for mental health rehabilitation in psychiatric services.

Acknowledgements

We thank the participants for their courage and trust in sharing their experience in psychiatric settings. We also thank Mr Jack Kwok for his assistance in statistical analysis and Ms Kristy Liu for her advice on the Psychiatric Experiences Questionnaire.

Declaration

The authors have no conflict of interest to disclose.

References

- Kessler RC, Aguilar-Gaxiola S, Alonso J, Benjet C, Bromet EJ, Cardoso G, et al. Trauma and PTSD in the WHO World Mental Health Surveys. *Eur J Psychotraumatol* 2017;8(sup5):1353383. [Crossref](#)
- Kessler RC, Üstün TB. The World Mental Health (WMH) Survey Initiative Version of the World Health Organization (WHO) Composite International Diagnostic Interview (CIDI). *Int J Methods Psychiatr Res* 2004;13:93-121. [Crossref](#)
- Wu KK, Leung PWL, Wong CSM, Yu PMW, Luk BTC, Cheng JPK, et al. The Hong Kong Survey on the Epidemiology of Trauma Exposure and Posttraumatic Stress Disorder. *J Trauma Stress* 2019;32:664-76. [Crossref](#)
- Lam LC, Chan WC, Wong CS, Chen EY, Ng RM, Lee EH, et al. The Hong Kong Mental Morbidity Survey: background and study design. *East Asian Arch Psychiatry* 2014;24:30-6.
- Lam LC, Wong CS, Wang MJ, Chan WC, Chen EY, Ng RM, et al. Prevalence, psychosocial correlates and service utilization of depressive and anxiety disorders in Hong Kong Mental Morbidity Survey (HKMMS). *Soc Psychiatry Psychiatr Epidemiol* 2015;50:1379-88. [Crossref](#)
- May CL, Wisco BE. Defining trauma: How level of exposure and proximity affect risk for posttraumatic stress disorder. *Psychol Trauma* 2016;8:233-40. [Crossref](#)
- Cusack KJ, Frueh BC, Brady KT. Trauma history screening in a community mental health center. *Psychiatr Serv* 2004;55:157-62. [Crossref](#)
- Mueser K, Goodman L, Trumbetta S, Rosenberg SD, Osher FC, Vidaver R, et al. Trauma and posttraumatic stress disorder in severe mental illness. *J Consult Clin Psychol* 1998;66:493-9. [Crossref](#)
- Cohen LJ. Psychiatric hospitalization as an experience of trauma. *Arch Psychiatr Nurs* 1994;8:78-81. [Crossref](#)
- Frueh BC, Dalton ME, Johnson MR, Hiers TG, Gold PB, Magruder KM, et al. Trauma within the psychiatric setting: conceptual framework, research directions, and policy implications. *Adm Policy Ment Health* 2000;28:147-54. [Crossref](#)
- Frueh BC, Knapp RG, Cusack KJ, Grubaugh AL, Sauvageot JA, Cousins VC, et al. Patients' reports of traumatic or harmful experiences within the psychiatric setting. *Psychiatr Serv* 2005;56:1123-33. [Crossref](#)
- Meyer H, Taiminen T, Vuori T, Aijala A, Helenius H. Posttraumatic stress disorder symptoms related to psychosis and acute involuntary hospitalization in schizophrenic and delusional patients. *J Nerv Ment Dis* 1999;187:343-52. [Crossref](#)
- Mohr WK, Mahon MM, Noone MJ. A restraint on restraints: the need to reconsider the use of restrictive interventions. *Arch Psychiatr Nurs* 1998;12:95-106. [Crossref](#)
- McMahon C, McLellan T, editors. *Journalists reporting for duty: resilience, trauma and growth*: Nova Science Publishers; 2008.
- Rogers A, Pilgrim D, Lacey R. *Experiencing Psychiatry: Users' Views of Services*. Basingstoke, NH: MacMillan; 1993. [Crossref](#)
- Frame L, Morrison AP. Causes of posttraumatic stress disorder in psychotic patients. *Arch Gen Psychiatry* 2001;58:305-6. [Crossref](#)
- Shaw K, McFarlane A, Bookless C. The phenomenology of traumatic reactions to psychotic illness. *J Nerv Ment Dis* 1997;185:434-41. [Crossref](#)
- Shaw K, McFarlane AC, Bookless C, Air T. The aetiology of postpsychotic posttraumatic stress disorder following a psychotic episode. *J Trauma Stress* 2002;15:39-47. [Crossref](#)
- Sheline Y, Nelson T. Patient choice: deciding between psychotropic medication and physical restraints in an emergency. *Bull Am Acad Psychiatry Law* 1993;21:321-9.
- Outlaw FH, Lowery BJ. An attribution study of seclusion and restraint of psychiatric patients. *Arch Psychiatr Nurs* 1994;8:69-77. [Crossref](#)
- Fagen-Pryor EC, Haber LC, Dunlap D, Nall JL, Stanley G, Wolpert R. Patients' view of causes of aggression by patients and effective interventions. *Psychiatr Serv* 2003;54:549-53. [Crossref](#)
- Ilkiw-Lavalle O, Grenyer BF. Differences between patient and staff perceptions of aggression in mental health units. *Psychiatr Serv* 2003;54:389-93. [Crossref](#)
- Gallop R, McCay E, Guha M, Khan P. The experience of hospitalization and restraint of women who have a history of childhood sexual abuse. *Health Care Women Int* 1999;20:401-16. [Crossref](#)
- Substance Abuse and Mental Health Services Administration (SAMHSA). *Trauma-Informed Approach and Trauma-Specific Interventions*. Available at: <https://www.samhsa.gov/nctic>. Accessed 8 September 2018.
- Scheyett A, DeLuca J, Morgan C. Recovery in severe mental illnesses: a literature review of recovery measures. *Soc Work Res* 2013;37:286-303. [Crossref](#)
- Elliott DE, Bjelajac P, Fallot RD, Markoff LS, Reed BG. Trauma-informed or trauma-denied: principles and implementation of trauma-informed services for women. *J Comm Psychol* 2005;33:461-77. [Crossref](#)
- Lee CC, Ip G, Chu M, Lo TL, Ip YC. From psychiatric rehabilitation to recovery-focused practice in Kwai Chung Hospital, a mental hospital in Hong Kong. *Asia Pac J Soc Work Dev* 2014;24:17-28. [Crossref](#)
- Tsoi EWS, Lo I, Chan C, Siu K, Siu K, Tse S. How recovery-oriented are mental health services in Hong Kong? Snapshots of service users' perspectives. *Asia Pac J Soc Work Dev* 2014;24:82-93. [Crossref](#)
- Tse S, Cheung E, Kan A, Ng R, Yau S. Recovery in Hong Kong: service user participation in mental health services. *Int Rev Psychiatry* 2012;24:40-7. [Crossref](#)
- Weathers FW, Keane TM, Davidson JR. Clinician-administered PTSD scale: a review of the first ten years of research. *Depress Anxiety* 2001;13:132-56. [Crossref](#)
- Wu KK, Tang CS, Leung EY, editors. *Healing Trauma: A Professional*

- Guide. Hong Kong: Hong Kong University Press; 2011.
32. Weiss DS, Marmar CR. The Impact of Event Scale-Revised. In: Wilson JP, Keane TM, editors. *Assessing Psychological Trauma and PTSD*: New York Guilford Press; 1997: 399-411.
 33. Wu KK, Chan KS. The development of the Chinese version of Impact of Event Scale--Revised (CIES-R). *Soc Psychiatry Psychiatr Epidemiol* 2003;38:94-8. [Crossref](#)
 34. Wu KK, Chan KS. Psychometric properties of the Chinese version of the Impact of Event Scale-Revised (IES-R). *Hong Kong J Psychiatry* 2004;14:2-8.
 35. Zigmond AS, Snaith RP. The hospital anxiety and depression scale. *Acta Psychiatr Scand* 1983;67:361-70. [Crossref](#)
 36. Leung CM, Ho S, Kan CS, Hung CH, Chen CN. Evaluation of the Chinese version of the Hospital Anxiety and Depression Scale. *Int J Psychosom* 1993;40:29-34. [Crossref](#)
 37. Wu KK, Chan KS, Ma TM. Posttraumatic stress after SARS. *Emerg Infect Dis* 2005;11:1297-300. [Crossref](#)
 38. Wu KK, Cho VW, Chow FL, Tsang AP, Tse DM. Posttraumatic stress after treatment in an intensive care unit. *East Asian Arch Psychiatry* 2018;28:39-44.