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A Critical Analysis and a Suggested Reform of Psychiatric Curricula in Medical Faculties During Syrian Crisis

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Abstract: Recent research shows that secondary consequences of war on family, social, and economic life are important predictors of psychological outcomes. Post traumatic stress disorders PTSDs have been found to increase dramatically during war as they are psychological responses to intense traumatic events, particularly which threaten life. Syria is facing a serious health problem since the number of outpatients with somatic symptoms and related disorders has increased as well as the number of inpatients with psychiatric emergencies, has also risen during Syrian crisis. The WHO emphasizes that mental health should be viewed as an integral part of public health and social welfare programs, and not as a specialist activity set apart. The Syrian society is in critical need for young medical doctors, who are specifically trained to handle psychiatric complex situations and who, are culturally attuned to their requirements, problems of peace, and human rights. It has been of critical importance to assess the current psychiatric curricula, related to stress disorders, which are delivered in Syrian medical schools. This paper presents a critical analysis to the current psychiatric curricula in Syrian Universities and suggests a new psychiatric curricula and training that need to be delivered in order to produce health professionals who are able to provide psychological first aid, problem-solving counseling, relaxation training, and manage acute behavioral emergencies in countries that suffer from conflicts and crisis. This would be of critical importance to design community-based and culturally sensitive programs and also to design recovery-oriented programs that can promote mental health and psychosocial wellbeing of people affected by crisis.

Keywords: Psychiatric Curricula, Crisis, Syria, Emergency, Curriculum Reform

1. Introduction

It is well established that anxiety and depressive disorders are on the rise in countries that suffer from crises and disasters. The effect of war on mental health has been well demonstrated [1]. Investigators, from the Middle East and the former Yugoslavia, have recorded a high rate of post-traumatic stress disorders PTSDs [2], and other mental health problems. High rates of PTSDs were recorded in Kuwaiti and Kurdish children after the Gulf war [3, 4, 5]. These rates were especially prominent in children who had been displaced from their community, such as in the conflicts in Croatia and Bosnia [6]. War and disasters are associated with several psychiatric problems as they cause several disorders

that are associated with stress and have somatic related symptoms [7]. Research investigating families exposed to civil war or other forms of political violence, such as in Burma and south Sudan has reported similar findings [8, 9]. Palestinian children exposed to bombardment and home demolition had more symptoms of post-traumatic stress ($P=0.0008$) and fear ($P=0.002$) than controls [1].

In addition, stress and PTSDs have been found to associate with increased cases of substance abuse by many investigators. McCauley and coworkers (2012) found that PTSDs and substance use disorders (SUDs) frequently co-occur [10]. The co-occurrence of the psychiatric and substance use disorders is clinically important, in which comorbidity can have a negative impact on the course, treatment outcome, and prognosis of both disorders.

Researchers reported that 17.5 million adults in the United States with serious mental illness, and individuals using illicit drugs are twice as likely to have serious mental illness compared with those who do not use illicit drugs [11]. Preliminary results from integrated psychotherapy approaches for the treatment of patients with both disorders show promise [11].

Previous studies have found that the most common psychiatric disorders seen in individuals with substance use disorders are affective and anxiety disorders, attention-deficit disorder, and personality disorders. They have reported that depression and anxiety symptoms commonly occur together and are often masked by somatic symptoms or medical illness. Therefore, they suggested that clinicians should have a high index of suspicion for affective or anxiety disorders when a patient complains of unexplained vague physical symptoms or sleep disturbance, does not respond to usual treatments, admits to substance misuse, or has a family history of psychiatric or other substance use disorder [11].

To date, studies have linked traumatic stress exposures and PTSD to conditions such as cardiovascular disease, diabetes, gastrointestinal disease, fibromyalgia, chronic fatigue syndrome, musculoskeletal disorders, and other diseases [12].

During Syrian crisis, the number of outpatients in psychiatric clinic, with somatic symptoms and related disorders has increased. In addition, the severity and the type of psychiatric disorders, number of inpatients cases with psychiatric emergencies; have also risen during Syrian crisis with no exact data to determine the real problem.

Given the circumstances of the war in Syria, it has been of critical importance to assess the current curricula, related to stress disorders, which are delivered in medical schools in Syria to undergraduate medical students, to define topics related to stress disorders that need to be covered by psychiatric departments in medical schools during Syrian crisis.

2. The Current Psychiatric Curriculum Delivered in Medical Faculties in Syria

The current situation in Syria demands producing professionals, at a higher level of competency, to meet the needs of population and provide the best appropriate urgent care.

There are five public and two private medical faculties in Syria. Assessing the current curricula delivered in medical faculties in Syria, has provided evidence that teaching psychiatry during Syrian crisis does not meet the challenges of war and population needs since topics such as acute stress disorders, are not fully covered and psychiatric clinical training is not considered in most faculties. Teaching psychiatry in the Faculty of Medicine at Damascus University is in the first semester of the fifth year with 40 hours allocated for theoretical knowledge and thirty hours allocated for clinical training. PTSDs and psychiatric disorders which are related to trauma and stress are

accounted for 15 per cent of the theoretical and clinical curriculum in Psychiatry. However, all topics related to crisis are covered briefly in which medical graduate, for instance, is not familiar with principles of psychotherapy. Similarly, teaching Psychiatry in the Faculty of Medicine at the University of Aleppo is in the second semester with 32 hours allocated, in the fifth year, for theoretical knowledge but not for clinical training. PTSDs and psychiatric disorders which are related to stress are accounted for 8 per cent of the theoretical curriculum in Psychiatry. However, not all psychiatric problems related to crisis are taught to medical students. In addition, there is no department for psychiatry that could be responsible for clinical training and this consequently would negatively affect the diagnosis and management skills of students. Moreover, Teaching Psychiatry in other public universities including Teshreen University, Al- Baath University and Al-Furat University is in the first semester of the fifth year and limited to 35 hours allocated for providing theoretical knowledge but not for clinical training. PTSDs and psychiatric disorders which are related to stress are accounted for 8-10 per cent of the theoretical curriculum in Psychiatry. All problems related to crisis are taught briefly to medical students. For instance, focus in the curriculum is on depressive disorders rather than on topics related to somatic symptom disorders, bereavement or Grief.

Similar Psychiatric curricula have been delivered in Syrian private universities. Teaching Psychiatry at the Faculty of Medicine of the University of Kalamoon is in the first and the second semester of the fifth year, with 32 hours allocated for teaching. Topics such as PTSD and stress related disorders which will face general practitioners in their daily practice during Syrian crisis are accounted for 7 per cent of the theoretical and clinical curriculum.

On the other hand, teaching Psychiatry in the Syrian Private University is achieved through allocating 36 hours in the second semesters of the fifth year. Only principles of psychotherapy and psychopharmacology are covered with psychiatric clinical training is being undertaken in outpatient clinics.. However, all topics related to crisis such as PTSD and stress related disorders are covered briefly and accounted for 10 per cent of the psychiatric curriculum.

3. A Suggested Psychiatric Curriculum That Should be Addressed in Emergency

The Psychiatric curriculum in emergency situations should enable medical graduates to do the following:

1. Demonstrate understanding of normal life adjustments and transitions, recognize the differences between mental illness and the range of normal responses to stress and life events.
2. Evaluate the psychiatric status of the patient through comprehensive assessment.
3. Examine the current mental state of the patient and

- specify signs and symptoms related to trauma- and stressor-related disorders.
4. Provide diagnosis of mental disorders and distinguish them from natural psychological features in society.
 5. Provide diagnosis for psychiatric emergencies and define specialized cases that need referral.
 6. Define differential diagnosis of PTSD appropriately according to international diagnostic criteria (DSM V...).
 7. Select the optimal treatment from different therapeutic approaches (psychological and cognitive behavioral, pharmacological).
 8. Prescribe psychotropic medication (if appropriate) safely, effectively and economically and identify indications and contraindications, dosages, drug interactions and complications of psychiatric medications (tranquillizers antidepressants, antipsychotics, stimulants, mood stabilizers...),
 9. Educate patient and the family and estimate the impact of social and psychological state on the professional performance of the patient.
 10. Demonstrate ability to solve clinical problems and to work part of the team, develop communication skills with patients, their families and colleagues.
 11. Demonstrate adherence to ethical principles and values that affect how a patient acts towards a health professional; and how the professional feels about a patient.

Medical students, before graduation, should have the required essential knowledge, skills and attitude about all disorders that are caused by crisis. Table 1 presents these disorders that should create about 35per cent of the psychiatric curriculum in emergency. For instance, medical students should demonstrate knowledge about prevalence, the course of PTSD, psychotherapy and psychopharmacology and should have essential skills to provide diagnosis and treatment of PTSD.

Similarly, disorders that can be increased during crisis should be addressed in about 35per cent of psychiatric

curriculum. Table 2 presents disorders that could be increased during crisis and should be taught to medical undergraduate students such as neurodevelopment disorder, communication disorders, autism spectrum disorder, specific learning disorder, attention deficit/hyperactivity disorder, anxiety disorders. Graduates should be familiar with prevalence, comorbidity, development of the course, and functional courses of these disorders. They should have knowledge about the etiology, diagnostic and prognostic features, should demonstrate knowledge about psychopharmacology and be competent at providing psychotherapy to all common disorders during crisis. In addition, graduates should be competent at providing diagnosis of substance-related and addictive disorders, defining symptoms of intoxication and withdrawal and be familiar with principles of psychopharmacology.

Moreover, Table 3 presents all topics related to management that should be addressed in psychiatric curriculum. Medical students should have essential knowledge and skills about psychopharmacology, psychotherapy and psychosocial interventions in order to manage psychiatric disorders. They should have knowledge about antipsychotics, antidepressants, anxiolytics/ hypnotics, and mood stabilizers in which they should demonstrate knowledge about indications, mechanism of action, functions, side effects, and termination. They should be able to provide psychological first aid, Problem-solving counseling, relaxation training, and should be able to manage acute behavioral emergencies. However, it should be emphasized that there are other topics that should be addressed in 30per cent of the psychiatric curriculum and be taught to medical undergraduate students such as abuse and neglect conditions, housing and domestic violence, economic problems, neurocognitive disorders, elimination disorders, sexual dysfunctions-paraphilic disorders - gender disorders, medication-induced movement disorders, and other effects of medication (Table 4).

Table 1. Disorders that are caused by the crisis.

Subject matter	Be competent at	Have knowledge of	Be familiar with
post-traumatic stress disorders	Provide Diagnostic	Etiological Factors biological, psychological and socio-cultural	Prevalence
Acute Stress Disorder	Psychotherapy		Co morbidity
Adjustment Disorders	And Psychopharmacology	Differential Diagnosis Risk and Prognostic Factors	
Somatic Symptom and Related Disorders:		Suicide Risk	Functional Consequences
Somatic symptom disorder	Multidisciplinary teamwork	Development and Course.	
Illness anxiety disorder conversion disorder			
Bereavement and Grief	Multidimensional Assessment of Normal Grief	Bereavement and PTSD Differentiating Bereavement from Major Depression	Complicated Grief Causes of Death

Table 2. Disorders that increased during crisis and should be taught to medical undergraduate students.

Neurodevelopment disorder
Communication disorders (language...)
Autism spectrum disorder
Specific learning disorder
Attention-deficit/hyperactivity disorder
Stereotypic movement disorder, tic disorders
Anxiety disorders
Separation anxiety disorder
Social anxiety disorder
Panic disorder, agoraphobia
Generalized anxiety disorder
Substance/medication-induced anxiety disorder...
Obsessive-compulsive and related disorders
Obsessive-compulsive disorder
Body dysmorphic disorder- trichotillomania
Bipolar and related disorders
Bipolar i+ ii disorder
Cyclothymic disorder
Substance/medication
Manic episode
Depressive disorders
Major depressive disorder major
Premenstrual dysphoric disorder
Substance/medication-induced depressive disorder
Depressive disorder due to another medical condition
Delusional disorder
Brief psychotic disorder
Schizophrenia
Schizoaffective disorder
Substance/medication-induced
Psychotic disorder
Catatonia
Dissociative disorders
Dissociative amnesia
Depersonalization, derealization disorder
Insomnia disorder
Hypersomniolence disorder, narcolepsy
Nightmare, sleep behaviour disorder
Substance/medication-induced sleep disorder
Disruptive, impulse-control, and conduct disorders
Oppositional defiant disorder
Intermittent explosive disorder
Personality disorders
Feeding and eating disorders
Anorexia nervosa, bulimia nervosa
Substance-related and addictive disorders:
Alcohol-caffeine- tobacco
Cannabis- hallucinogens
Inhalants-opioids
Sedatives, hypnotics, and anxiolytics
stimulants- cocaine

Table 3. Management topics that should be covered in the curricula of medical schools during crisis.

Psychopharmacology	Be competent at	Have knowledge of	Be familiar with
Antipsychotics	Haloperidol Chlorpromazine Fluphenazine - long-acting	Mechanism of action Monitoring people on antipsychotic Medication Terminating Treatment Side effects	Function of the main neurotransmitter systems in the CNS Discontinuation of antipsychotic
Antidepressants	clinical indications: selective serotonin reuptake inhibitors information on tricyclic initiating antidepressant monitoring people on antidepressant medication	Mechanism of action, Terminating antidepressant medication Side effects	Other medication
Anxiolytics/hypnotics	clinical indications: benzodiazepine: diazepam lorazepam-bromazepam initiating benzodiazepine short treatment	Mechanism of action, Monitoring people on benzodiazepine Terminating Treatment Side effects	Other medication
Mood stabilizers	clinical indications: lithium, valproate, carbamazepine	Maintenance treatment of bipolar disorders Side effects of medications	Choosing a mood stabilizer
Psychotherapy	Be competent at	Have knowledge of	Be familiar with
Psychosocial Interventions	Psychological first aid Problem-solving counselling Relaxation training Psycho-education	Cognitive behavioural therapy behavioural therapy Eye movement desensitization and reprocessing (EMDR)	Family therapy Family counselling Identifying Psychosocial Stressors Social skills therapy
Management of psychiatric emergencies	Be competent at	Have knowledge of	Be familiar with
Acute Agitation Agressions	Provide immediate care in psychiatric emergencies Management of acute agitation Agressions	Causes of acute Agitation Agressions, psychiatric emergencies	Violence Risk
behaviorally disturbed	Management of acute behavioural emergencies	Differential diagnosis of behavioural disturbances	Malingering
Suicide	Asses imminent risk of self-harm / suicide Suicidal attempt-ideation	Advice and Treatment	Risky behaviour Prevention of suicide

Table 4. Other topics that should be addressed in Psychiatric curriculum.

Abuse and Neglect Conditions. Housing and domestic violence. Economic Problems. Neurocognitive disorders (Dementia, Alzheimer's disease, Delirium, Amnestic). Elimination Disorders (inappropriate elimination of urine or feces). Sexual dysfunctions- Paraphilic disorders - Gender disorders. Medication-Induced Movement Disorders. Other adverse effects of Medication (Neuroleptic Malignant Syndrome, Dystonia, Acute Akathisia,...).
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4. Discussion

The Syrian crisis which has been for five years, has led to a large negative impact on all aspects of life including mental health. The most important risk factor during crisis is psychological stress.

High rates of posttraumatic stress reactions reported in primary school children in Iraq who had experienced bombardments of their schools as war trauma [13]. High rates and severe PTSD reactions were reported in Iraqi children who had chronic exposure to war violence and trauma as a result of living as refugees, displaced, or immigrants or as a result of losing family members, friends

or bombarded homes [13].

Somatic presentations such as headaches, non-specific pains or discomfort in torso and limbs, dizziness, weakness, and fatigue are central to the subjective experience and communication of distress brought by war in which somatic complaints reflects traditional of help seeking and reflect psychological problems they have[14].

Recent research shows that secondary consequences of war on family, social, and economic life are important predictors of psychological outcomes [15]. It is well documented that the major protective factor is the presence of a community which is able to provide mutual support and nurture problem solving strategies [15].

The WHO emphasizes that in developing countries mental health should be viewed as an integral part of public health and social welfare programs, and not as a specialist activity set apart [14]. The WHO recognizes that health professionals in crisis such as in Zimbabwe and Cambodia can be healers of survivors until the end of the war. Long-term studies of veterans have demonstrated that there is a frequent pattern of delayed onset PTSD, confirming the reality of the prolonged risk arising from combat exposure [16].

Rates of PTSD are higher among veterans and others whose vocation increases the risk of traumatic exposure (e.g.,

police, fire fighters, emergency medical personnel). Highest rates (ranging from one-third to more than one half of those exposed) are found among survivors of rape, military combat and captivity [17].

In Canada, it is estimated that up to 10 per cent of war zone Veterans—including war-service Veterans and peacekeeping forces—will experience a PTSDs, while others may experience at least some of the symptoms associated with this condition [18]. PTSDs have been found to increase dramatically during war as they are psychological responses to intense traumatic events, particularly which threaten life. It can affect people at any age, culture or gender.

In the present study, a critical analysis of the current psychiatric curriculum has been undertaken. The current psychiatric curriculum is traditional in that it is teacher-centered, discipline- and hospital-based. Clinical experience can be obtained through attending, practicing psychiatry in hospital in one Syrian University. However, practice in community or outreach clinics is only available for medical students in one Syrian university. Problem-based learning (PBL) and clinical problem solving approaches are not strongly emphasized and critically appraised topics (CAT) are not part of the curriculum. It is essential to reinforce the role of medical students during Syrian crisis, and to improve the learning environment for the student attainment of better knowledge and clinical skills. At university level, there are various ways of promoting a culture of mental health through further integrating psychiatry into medical curriculum. First, Posttraumatic Stress disorder modules could be included in existing courses. Psychiatric emergencies could appear as a module in the course and could be mounted to address targeted problems related to aggressive behavior, to protect other patients and the patient him- or herself, to rule out any etiology for a patient's behavior that might be life threatening or increase medical morbidity.

As mentioned earlier, Syrians experience a wide range of mental health problems related to exacerbations of pre-existing mental disorders, new problems caused by conflict related violence, displacement and multiple losses, as well as issues related to adaptation to the post-emergency context [19], and are in critical need for young medical doctors who have been specifically trained to handle psychiatric complex situations and who, are culturally attuned to their requirements, problems of peace, and human rights. New psychiatric curricula should be adopted by Syrian universities in which medical students should be trained to inculcate the values and attitudes that foster tolerance, create respect for cultural, ethnic and religious diversity as well as human rights, and encourage peace. They should be able to educate about PTSD and related conditions, and also have strategies to manage the symptoms and provide trauma-focused therapy [20]. It is well recognized that current efforts are focused on training of staff and community members to recognise acute mental health symptoms, use psychological first aid, and establish referral systems into specialist care. However, the current call of WHO is to include community-based and culturally sensitive programs

that enhance functionality and coping strategies of affected populations and protect future generations [20]. The suggested new curricula would help designing recovery-oriented programs that can provide community and family-focused psychosocial interventions that would increase understanding of symptoms, trauma effects and complicated grief, and can reduce stigma [20]. It is hoped that such curricula would consequently promote mental health and psychosocial wellbeing of affected Syrians by crisis.

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