Comparative study of victimized Egyptian patients with schizophrenia, bipolar disorder, and major depression

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Background
Patients with severe mental disorders living in the community are liable to victimization and are considered a high-risk group. However, there is a lack of identification of victimization rate and factors associated with its occurrence among mentally ill patients.
Objectives
To explore the sociodemographic variables and clinical characteristics related to victimization of patients with schizophrenia, bipolar disorder, and depression.
Patients and methods
This was a cross-sectional comparative study that included 300 patients (100 patients for each disorder) who were recruited from the inpatient wards and outpatient clinics of the Institute of Psychiatry, Ain Shams University. They were subjected to the following: a designed questionnaire to obtain demographic data, Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders, 4th ed., Axis I diagnosis (SCID I-CV), Global Assessment of Functioning (GAF), Clinical Global Impression (CGI), and the Victimization Questionnaire (VQ).
Results
Overall, 43.3% of our sample reported being victimized in the past 12 months, with high victimization rate among depressed patients. It was found that all victimized patients were subjected to emotional victimization; however, patients with schizophrenia were exposed to higher rates of physical victimization (93.3%) and miscellaneous victimization (73.3%) in comparison with other groups. It was also found that 33% of patients with bipolar disorder and schizophrenia had been victimized by their parents, whereas 77% of depressed patients had been victimized by their spouses. Depressed women were the most likely to be victimized followed by male patients with bipolar disorder and patients with schizophrenia. Pattern of victimization was different among the study groups. Depressed patients were mainly perpetrated by their spouses, whereas patients with schizophrenia and bipolar disorder were mainly victimized by their parents. None of the patients reported the victimization events to police, friends, family members, or their physicians.
Conclusion
Our findings suggest that victimization is common among patients with severe mental illness, with high rates in depressed patients through their spouses. The clinicians should inquire about victimization during their routine assessment and should follow strategy to minimize revictimization of their patients.

Keywords:
bipolar disorder, depression, Egyptian, schizophrenia, victimization

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Introduction

Violence toward people with mental disorders appears to be a neglected area in research as well as in clinical practice. This stands in contrast to the well-investigated link between mental disorders and violence perpetration (Silver *et al.*, 2005).

In a comprehensive review of studies from North America on violent behavior by and toward people with mental disorder, Choe *et al.* (2008) argued that victimization of the mentally disordered should be of greater public health concern than their violent behavior toward others.

Individuals with severe mental illness are particularly susceptible to violent crimes such as assault, rape, mugging, robbery, and murder (Elbogen and

Johnson, 2009). The term 'severe mental illness' refers to a subset of psychiatric disorders – psychotic disorders and major affective disorders – which are characterized by severe and persistent cognitive, behavioral, and emotional symptoms that reduce daily functioning (Choe *et al.*, 2008).

Among patients with mental disorders, victimization may lead to serious consequences such as the exacerbation of pre-existing psychiatric symptoms, increase in the usage of mental health services, including psychiatric hospitalization, and substantially diminished quality of life (Marley and Buila, 2001). Moreover, victimization may increase the likelihood of revictimization and perpetration of violence in this population (Khalifeh *et al.*, 2016).

Walsh *et al.* (2003) estimated that 16% of patients with psychosis were violently victimized over 1 year. However, White *et al.* (2006), in their study on the relationship between bipolar disorder and victimization in the past 6 months, reported that one-third of the patients had been subjected to victimization, and women were almost twice as likely to have been victimized compared with men. Furthermore, in a meta-analysis of 18 studies, Golding (1999) found that the weighted mean prevalence of depression among abused adults was 47.6% compared with lifetime rates of 18.6% in the general population. Moreover, as shown in a meta-analysis conducted by Devries *et al.* (2013), intimate partner violence was found to affect depression rates for both men and women and have an effect on suicide attempts for women.

One of the reasons behind the greater vulnerability of those with severe mental illness to violent crimes is the significant impairment of their cognitive functions. Severe mentally ill patients present impaired reality testing, disorganized thought processes, greater impulsivity, and poor planning and problem solving (Hodgins *et al.*, 2007; Kamperman *et al.*, 2014). Furthermore, this group presents high prevalence of poverty, social isolation, unemployment, substance abuse, conflicted relationships, and lack of secure environments (Latalova *et al.*, 2014).

Routine psychiatric examination fails to uncover victimization of mentally ill patients, and there is scant attention to study the victimized Egyptian patients having major mental disorders. This study is the fifth part among a larger study exploring victimization of the mentally ill Egyptian patients (Fekry *et al.*, 2012; El Missiry *et al.*, 2014, 2019a, 2019b).

In the current study, we aimed at comparing the frequency, type, and profile of victimization among three groups of Egyptian patients with schizophrenia, bipolar disorders, and unipolar depression.

Patients and methods

Site of the study

Patients were recruited from the inpatient wards and outpatient clinics of the Institute of Psychiatry, Ain Shams University. The institute is located in Eastern Cairo and serves a catchment area of approximately a third of Greater Cairo. It serves both urban and rural areas, including areas around Greater Cairo as well.

Participants

A convenient sample of 100 patients diagnosed as having schizophrenia, 100 patients as having bipolar disorder, and 100 patients as having major depression according to the Diagnostic and Statistical Manual of Mental Disorders, 4th ed., criteria of diagnosis, with age ranging from 18 to 55 years old, including both males and females, was included. Patients had to have been ill for more than 1 year with absence of organic brain damage. The researchers interviewed potential participants, explained the details of the research goals, and ensured that the obtained data will be confidential. The voluntary nature of participation was made clear, and participants were informed that they could withdraw from the study at any time, and those who refused to participate or withdraw during the interview were excluded.

Ethical issue

Ethical approval of the protocol of research was obtained by the authority of Ain Shams University Ethical and Research Committee. The researchers described the study to the patients, ensured the confidentiality of information, and obtained their informed consent for participation.

Tools

The following tools were used in the study:

(1) Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders, 4th ed., Axis I diagnosis Clinical Version (First*et al.*, 1995): a semistructured diagnostic interview based on an efficient but thorough clinical evaluation administered by an experienced trained bilingual researcher to match Arabic speaking patients. We used the Arabic version (El Missiry, 2003).
(2) Global Assessment of Functioning (GAF) is a numeric scale (0 through 100) to rate

subjectively the social, occupational, and psychological functioning of adults, for example, how well or adaptively one is meeting various problems in living (Jones*et al.*, 1995). The GAF had been used on Egyptian patients (Awad, 2001).

(3) Clinical Global Impression (CGI) (Guy, 1976) is a seven-point scale that requires the clinician to rate the severity of the patient's illness at the time of assessment, relative to the clinician's past experience with patients who have the same diagnosis. Considering total clinical experience, a patient is assessed on severity of mental illness at the time of rating. A previous study on Egyptian patients had been used before (Awad, 2001).
(4) Designed extensive questionnaire to elicit some demographic data and inquire about drug compliance.
(5) Patients' medical record review, which provided clinical data regarding numbers of episodes, medication used, etc.
(6) Victimization Questionnaire (VQ) developed by El Missiry*et al.*(2011). It includes inquiry about being victim of one or more of the following: personal theft, robbery, burglary, vandalism, assault with or without a weapon, attempted assault, biased physical and verbal assault, kidnaping, threatening, blackmailing, verbal or physical sexual harassment, emotional abuse, financial abuse, or different types of emotional victimization. We inquired about frequency of perpetration in the past 12 months, type of perpetration, reporting, and reasons for not reporting.

This questionnaire is derived from the Criminal Victimization Questionnaire package 2009 and the Juvenile Victimization (Finkelhor *et al.*, 2005), but it was modified to fit the Egyptian culture.

Statistical analysis

Data analysis was done using statistical package for the social sciences, version 15 (SPSS Inc., Chicago, Illinois, USA). Analysis of variance (*f*) was used for comparison between means of the different groups. Pearson χ^2 test was used for comparison between qualitative variable. *P* value was used to indicate the level of significance, where $P = 0.05$ is considered significant.

Results

Description of the sample

The whole sample included 300 patients, where 48% were males and 52% were females. Overall, 130 (43.3%) were victimized. Their mean age was 34.29 ±10.4 years.

Rates of victimization

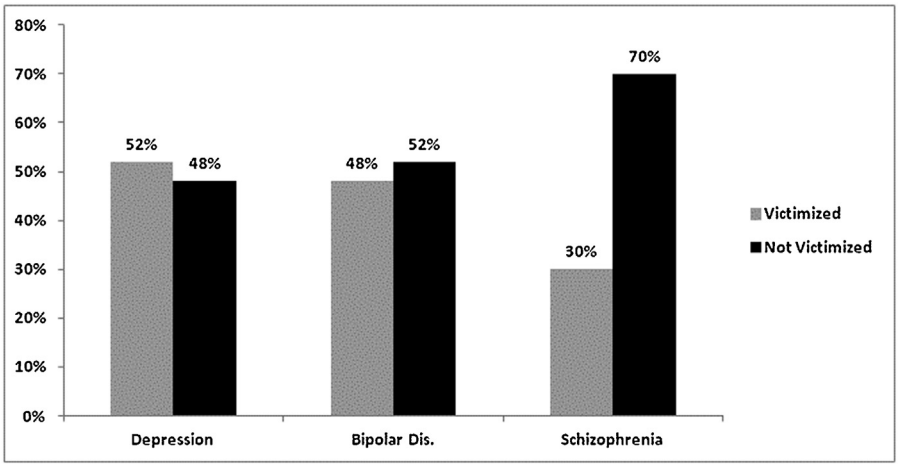
Depressed patients were the most frequently victimized among the three studied groups (52%) followed by patients with bipolar disorder (48%) and then patients with schizophrenia (30%).

The difference between the rates of victimization in the previous 12 months among the three groups was not statistically significant (*P*=0.06) (Fig. 1).

Profile of victimization

All patients in the three groups were exposed to emotional victimization, as shown in Table 1. Patients with bipolar disorder were exposed to excessive blaming and saying bad names; patients

Figure 1



Rates of victimization among the study groups (χ^2=0.06).

Table 1 Profile of victimization

	Bipolar disorders (*N*=48) [*n* (%)]	Schizophrenia (*N*=30) [*n* (%)]	Depression (*N*=52) [*n* (%)]	*P* value
Emotional victimization	48 (100)	30 (100)	52 (100)	No test
Physical	28 (58.2)	28 (93.3)	32 (61.5)	0.67
Miscellaneous	32 (66.7)	22 (73.3)	16 (30.8)	0.161
Types of perpetration				
Emotional				
	Locking in doors	Dehumilization	Dehumilization	
	Saying bad names	Locking indoors	Saying bad names	
	Blaming	Criticism	Devaluation	
		Kick out of home	Telling others	
Physical				
	Hitting	Hitting	Hitting	
	Slapping	Beating	Slapping	
	Pushing	Slapping	Boxing	
		Boxing	Kicking	
		Kicking	Pushing	
Miscellaneous				
	Biased verbal assault	Vandalism	Sex harassment	
	Personal theft	Threat of violence	Vandalism	
	Sex harassment	Burglary	Personal theft	
	Unwanted sexual activity	Assault without weapon	Assault without weapon	
Frequency of victimization last year (mean±SD)	5.42±4.05	4.86±5.14	9.7±3.4	0.000
Mean perpetrator number (mean±SD)	2.16±0.8	1.26±0.45	7±5.16	0.000
Perpetrators				
Parents	16 (33.3)	10 (33.3)	0 (0)	
Spouse	24 (50)	4 (13.3)	40 (77)	0.00
Sons or daughters	4 (8.3)	0 (0)	0 (0)	
Acquaintance/strangers	4 (8.3)	20 (66.6)	12 (23)	
Siblings	20 (41.6)	10 (33.3)	0 (0)	

Perpetrator percentage in each group is more than 100% because the patients were perpetrated by more than one.

with schizophrenia had been blocked indoors or kicked out of home together with excessive criticism, whereas patients with depression were humiliated, devaluated, and called with bad names.

Overall, 93.3% of patients with schizophrenia were physically victimized in the form of beating, hitting, slapping, boxing, kicking, and punishing. Moreover, 61.5% patients with depression and 58.2% of patients with bipolar disorder were also exposed to physical victimization. Patients with schizophrenia also exposed to higher rates of miscellaneous victimization (73.3%), in the form of vandalism, threat, burglary, assault without a weapon.

Overall, 66.7% of patients with bipolar disorder experienced miscellaneous victimization in the form of biased verbal assault, theft, and sexual harassment, whereas patients having depression were the least who experienced miscellaneous victimization in the form of sexual harassment, theft, and assault without a weapon.

Being victimized more than one time in the past 12 months was reported by all participants. The mean frequency of repeated victimization was significantly higher in patients with depression (9.7±3.4) than the other two groups, whereas the mean frequencies of reported victimization incidents by patients with bipolar disorder and schizophrenia were 5.42±4.05 and 4.86±5.14, respectively (*P*=0.00), as shown in Table 1.

The mean number of perpetrators was more than one in schizophrenic victims, more than two in patients with bipolar patients, and nearly seven in patients with depression (*P*=0.000), as shown in Table 1.

Victim-perpetrator relationship differs significantly in the three groups, as approximately 33% of patients with bipolar disorder and schizophrenia had been victimized by their parents; however, none of the depressed patients reported that event (*P*=0.000). Moreover, 77% of depressed patients had been victimized by their spouses compared with 13.3% of patients with schizophrenia and 50% of patients with bipolar disorder.

In addition, 23% of patients with depression reported that acquaintances were their perpetrators; however, they denied being victimized by siblings.

Table 2 Demographic characteristics of the victimized patients

	Bipolar disorders (*N*=48) (mean±SD)	Schizophrenia (*N*=30) (mean±SD)	Depression (*N*=52) (mean±SD)	*P* value
Age[a]	31.58+8.94	30.6+6.2	38.92+10.58	0.000
Years of education[a]	11.75±4.52	15.00±5.34	11.85±6.34	0.02
Sex[b] [*n* (%)]				
Male	28 (58)	16 (53)	4 (7.7)	0.000
Female	20 (42)	14 (47)	48 (92.3)	
Marital status[b] [*n* (%)]				
Single	12 (25)	22 (73)	0 (0)	
Married	20 (42)	6 (20)	48 (92)	
Separated	4 (8)	0 (0)	0 (0)	0.000
Divorced	12 (25)	0 (0)	0 (0)	
Widow	0 (0)	22 (7)	4 (8)	
Current living address[b] [*n* (%)]				
Family house	28 (58)	18 (60)	0 (0)	
Marital house	20 (42)	6 (20)	52 (100)	0.000
Alone	0 (0)	4 (13)	0 (0)	
With friend	0 (0)	2 (7)	0 (0)	
Work[b] [*n* (%)]				
No job	20 (42)	12 (40)	36 (69)	
Regular job	24 (50)	10 (33)	8 (15.5)	>0.05
Irregular job	4 (8)	8 (27)	8 (15.5)	

[a]Test used *f*. [b]Test used χ^2.

Overall, 33.3% of patients with schizophrenia had been victimized by their brothers and sisters and 66.6% by acquaintance and strangers. None of the patients reported the victimization events to police, friends, or family members.

Tendency to not report was explained by that this issue is a matter that did not concern the police. Moreover, they were embarrassed and shameful when they attempt to reported to their friends or other family members.

Demographic and clinical characteristics

Victimized depressed patients, as shown in Table 2, were significantly older compared with patients with bipolar disorder and schizophrenia. The patients with schizophrenia had received significant more years of education compared with the other groups (*P*=0.02). Depressed women were the most likely to be victimized (92.3%) followed by male patients with bipolar disorder and patients with schizophrenia (58 and 53%, respectively). There is striking difference in the marital status among the three groups; although 92% of the depressed patients were married, only 73% of patients with schizophrenia were single, whereas 42% of bipolar patients were married (*P*=0.000). The highest rate of divorce was encountered among patients with bipolar disorder (25%).

All victimized patients with depression live in their marital house, whereas approximately 60% of patients with schizophrenia or bipolar live in their parent's houses (*P*=0.00). Enrollment in a job or being housewives or jobless shows nonsignificant differences between the study groups, as shown in Table 2.

Depressed patients showed the highest rates of being exposed during childhood to physical abuse (30.8%) and sexual abuse (7.7%). Patients with schizophrenia recorded the highest rate of exposure to emotional abuse when they were children 26.7%. The difference among the three groups is statistically significant, as shown in Table 3.

Divorce was more encountered in the families of depressed victimized patients (30.8%), whereas patients with bipolar disorder had the highest record of death of one or both parents (25%) compared with others. Patients with bipolar disorder showed nonstatistically significant highest rates of both positive family history of psychiatric illness and substance abuse among the first-degree or second-degree relatives, as shown in Table 3.

As shown in Table 4, patients with bipolar disorder started their illness significantly earlier than the other two groups; their mean age was 20.17±3.6 years compared with patients with schizophrenia, with 23.2±4.5 years, whereas patients with depression started their illness at the age of 28.69 years (*P*=0.0). The longest duration of illness was in bipolar group at 11.5 years followed by the

Table 3 Family circumstances of the victimized patients

	Bipolar disorders (*N*=48) [*n* (%)]	Schizophrenia (*N*=30) [*n* (%)]	Depression (*N*=52) [*n* (%)]	*P* value
Exposure to child abuse				
No	40 (83)	18 (60)	28 (53.8)	
Emotional	0 (0)	8 (26.7)	4 (7.7)	0.033
Physical	8 (17)	4 (13.3)	16 (30.8)	
Sexual	0 (0)	0 (0)	4 (7.7)	
Parental separation				
No separation	36 (75)	20 (66.7)	32 (61.5)	
Divorced parents	0 (0)	4 (13.3)	16 (30.8)	0.031
Death of one or both parents	12 (25)	4 (13.3)	4 (7.7)	
Work abroad	0 (0)	2 (6.7)	0 (0)	
Family history of psychiatric illness) [*n* (%)]				
No +ve family history	24 (50)	26 (87)	36 (69.2)	
1st degree relatives	12 (25)	4 (13)	8 (15.4)	0.159
2nd degree relatives	12 (25)	0 (0)	8 (15.4)	
Family history of substance abuse				
No +ve family history	32 (66.7)	24 (80)	40 (77)	
1st degree relatives	8 (16.7)	4 (13)	8 (15)	1.58
2nd degree relatives	8 (16.7)	2 (7)	4 (8)	

Test used χ^2.

Table 4 Clinical data of the victimized patients

	Bipolar disorders (*N*=48) (mean±SD)	Schizophrenia (*N*=30) (mean±SD)	Depression (*N*=52) (mean±SD)	*P* value
Age of onset[a]	20.17±3.6	23.2±4.5	28.69±12.88	0.01
Duration of illness[a]	11.50±1.2	6.40±5.71	8.09±9.509	0.00
GAF[a]	50.25±17.11	31.23±7.016	54.08±11.53	0.000
Comorbidity with psychiatric disorder[b] [*n* (%)]				
No	28 (58)	30 (100)	44 (85)	0.002
Yes	20 (42)	0 (0)	8 (15)	
Comorbidity with substance abuse[b]				
No	36 (75)	24 (80)	52 (100)	0.05
Yes	12 (25)	6 (20)	0 (0)	
Clinical global impression[b]				
Mildly ill	4 (8.3)	0 (0)	4 (7.7)	
Moderately ill	16 (33.3)	2 (6.7)	36 (69.2)	0.000
Severely ill	28 (58.3)	26 (86.7)	0 (0)	
Extremely ill	0 (0)	2 (6.7)	2 (23.1)	
Self-rated compliance[b]	88%	40%	70%	0.000

GAF, Global Assessment of Functioning. [a]Test used *f*. [b]Test used χ^2.

depression group and then the schizophrenia group (*P*=0.000).

Functioning

The mean score of GAF among the schizophrenia group was 31.23±7.016, and it was lower than the other two groups, with a statistically significant difference among them (*P*=0.000).

Victimized patients with bipolar disorder showed the highest frequency of comorbidity with either psychiatric or substance disorders (*P*=0.002 and *P*=0.05, respectively) compared with the other groups.

Assessment of the studied groups by the CGI revealed that the degree of severity was found to be statistically significant (*P*=0.000) in patients with schizophrenia (86.7%).

Compliance to medication was obtained by asking the patient to self-rate their compliance; it was found the victimized patients with schizophrenia were less compliant than the bipolar and depressed groups, with a highly statistically significant difference among the studied groups (*P*=0.000).

Discussion

Victimization is a serious and prevalent problem in individuals with mental illnesses (Choe *et al.*, 2008; Khalifeh *et al.*, 2016). In fact, psychiatric patients are at a higher risk of being victimized than the regular

population (Khalifeh *et al.*, 2016). Maniglio *et al.* (2009) reported this risk to be 2.3–14.4 times higher than that in the general population, which makes victimization a greater public health concern (Maniglio, 2009). Several risk factors for victimization have been proposed including demographic and psychosocial characteristics, as well as clinical factors related to mental illness (Silver *et al.*, 2005; Fekry *et al.*, 2012; El Missiry *et al.*, 2014, 2019a, 2019b).

The current study aimed to compare three groups of patients with major psychiatric disorders regarding their victimization pattern and to explore the clinical and psycho-demographic profile, including the severity of symptoms and their level of functioning.

Prevalence of victimization among different psychiatric diagnoses

The prevalence of victimization in our participants was 43.3%; however, the rates in the previous studies of victimization among people with severe mental illness vary from 8.2 to 48% (Hiday *et al.*, 1999; Cusack *et al.*, 2004; Choe *et al.*, 2008; Crisanti and Frueh, 2011). Another study examined the incidence of violent victimization in a randomly selected sample of people with severe mental illness and found the incidence of violent victimization among people with severe mental illness to be more than four times higher than in general population (Teplin *et al.*, 2005). The reasons for the large variation in rates among the different studies may be attributed to several factors, for example, variety of methods, the population studied, different settings, types and definitions of victimization, and sociocultural and clinical variables.

In specific psychiatric diagnoses, although the difference between the rates of victimization in the previous 12 months among the three groups was not statistically significant (P=0.06), yet the victimization rate was found to be higher among depressed patients (52%) as compared with bipolar (48%) and schizophrenic group (30%). There are a number of potential mechanisms that may underlie this high rate, for example, psychological problems, impaired social skills, interpersonal and intrapersonal problems, cognitive dysfunction, and emotional dysregulation (Silver *et al.*, 2005; Mericle and Havassy, 2008; Silver *et al.*, 2011; Crisanti *et al.*, 2014).

Type of victimization among the victimized group

Emotional victimization is the most prevalent type of victimization among the three groups. This may be attributed to the emotional overinvolvement of Egyptian families, besides the high emotional expression, including excessive blame, criticism, and sometimes overprotection (Okasha *et al.*, 2000).

Although all patients were exposed to emotional abuse, the type of this emotional victimization differed among patients with different disorders according to their psychopathological background. Patients with bipolar disorder experienced excessive blaming and saying bad names, which could be explained by their impulsivity and risk taking behavior (Fekry *et al.*, 2012; Feki *et al.*, 2016). On the contrary, patients with schizophrenia were locked in-doors or kicked out of home and excessively criticized (Iversen *et al.*, 2018). Depressed patients experienced humiliation, devaluation, and calling with bad names. Similar findings were reported by Elison (2005) and El Missiry *et al.* (2019a, 2019b).

Previous studies have shown that highest rate of victimization was in the form of physical abuse (McFarlane *et al.*, 2006), whereas in our study, physical victimization was highest among patients with schizophrenia (93.3%). Meanwhile, they were also exposed to higher rates of miscellaneous victimization (73.3%), whereas patients having depression were the least ones who experienced miscellaneous victimization in the form of sexual harassment, theft, and assault without a weapon.

In a study of 583 Egyptian women with different psychiatric illnesses to detect the rate and type domestic violence, the authors found that 86.6% were subjected to physical abuse, 87.7% had been abused emotionally, and 4.8% had been abused sexually (Ragheb *et al.*, 2009).

The frequency of victimization and perpetration

Our study revealed that the mean frequency of repeated victimization was significantly higher in patients with depression (9.7±3.4) than the other two groups. This is consistent with previous studies (Coker *et al.*, 2002; Follingstad, 2007; Koopman *et al.*, 2007; Tiwari *et al.*, 2007).

Victim-perpetrator relationship differs significantly in the three studied groups. In this study, 33% of patients with bipolar disorder and schizophrenia had been victimized by their parents and siblings. This is because in some Egyptian families, according to specific cultural beliefs, beating and other forms of physical abuse are sometimes used as a form of behavioral reforming whenever acts deviating from the traditional norms are encountered. However,

77% of depressed patients had been victimized by their spouses. In consistent with our results, Krug *et al.* (2002) stated that the lifetime prevalence of intimate partner violence against women ranges from 10 to 69% as reported in 48 population-based surveys worldwide. Higher rate was reported by Humphreys and Campbell (2004).

None of the victimized patients had reported the occurrence of the victimization act to either police, friends, or family members; on further analysis of the cause of nonreporting, we found that tendency to not report was explained by that this issue is a matter that did not concern the police. Moreover, they were embarrassed and shameful when they attempted to report to their friends, other family members, or their physicians. In another culture, mentally disordered victims may be less likely to report assaults to the police because they fear their allegations will not be taken seriously (Link *et al.*, 1999). Reduced access to the protection of law may leave people with mental disorders vulnerable to be revictimized from assailants (Silver *et al.*, 2005).

Sociodemographic and clinical characteristics of the victimized patients in the three groups

In this study, significant factors were found to be associated with higher levels of victimization in the three psychiatric disorders; depressed women were the most likely to be victimized (92.3%) followed by male patients with bipolar disorder and schizophrenia (58 and 53%, respectively). Previous studies have reported that depressed women are more likely to be victimized than men (McFarlane *et al.*, 2006; Van Weeghel *et al.*, 2009; El Missiry *et al.*, 2019a, 2019b).

In a previous study done on victimized patients with schizophrenia, the authors reported that 53.3% of men and 46.7% of women had been subjected to victimization (El Missiry *et al.*, 2014), which is very similar to another study on victimized patients with bipolar disorders (Fekry *et al.*, 2012). In another community, the authors reported a higher percentage of men, compared with women, as being victims of violent crimes (Hiday *et al.*, 2002).

In term of age, we found that victimized patients with schizophrenia were significantly younger than the other two groups of patients. Similarly, some previous studies that were done on different age groups revealed that the prevalence of exposure to violent and nonviolent acts were higher in younger age (Brekke *et al.*, 2001; Walsh *et al.*, 2003). Other authors did not find significant difference between age of victimized and nonvictimized patients in their sample (Klaus, 2000; Fitzgerald *et al.*, 2005).There was no significant relation between years of education received or occupational function, and the possibility of being victimized. However, their marital status and living place were significant factors as 92% of the victimized depressed patients were married and live in their marital house and 42% of bipolar patients in our sample were married and live in their parent's houses versus 73% of the victimized patients with schizophrenia were single.

Family characteristics

It was found that 30.8% of the victimized depressed patients reported divorce in their families; in addition, 25% of bipolar patients had an early death of one or both parents. Both conditions reflect the dysfunctional familial backgrounds which may affect their social development, social skills, and problem-solving abilities (Fekry *et al.*, 2012).

Overall, 30% of the victimized depressed group has been significantly exposed to physical and sexual abuse during childhood, whereas patients with schizophrenia recorded the highest rate of exposure to emotional abuse. In agreement with our results, previous studies concluded that different types of childhood abuse may negatively affect parent–child or peer relationships and one's ability to form secure attachments, which may in turn adversely affect mental health and increase the risk of being victimized in adulthood (Teplin *et al.*, 2005; McFarlane *et al.*, 2006; Chapman *et al.*, 2007; Meade *et al.*, 2009).

Level of functioning

The current study proved that a greater severity of clinical symptoms as measured by the CGI scale was associated with a higher probability of being victimized. This was confirmed in previous studies in this field (Bloom *et al.*, 2000; Brekke *et al.*, 2001; Walsh *et al.*, 2003).

Conclusion

Our study pointed to high rates of victimization among the three groups of patients having schizophrenia, bipolar disorder, and major depression, which often passed unnoticed and undocumented in the clinical record. The rate and profile of victimization is different according to the type of mental illness, which necessitates that the inquiry about the incident should be taken in consideration in the clinical settings.

Moreover, patients should be monitored to reduce the likelihood of revictimization. On the contrary, authority figures in the field of mental health should consider the importance of support networks made available to help those miserable patients.

Strength and limitation

The strength of this study relied on that it is one of few studies done for the first time in Egypt to highlight the problem of victimization rate and pattern among three groups of patients with major mental illness. However, there are number of limitations, including the use of a self-report, which limits the reliability and validity of the data. In addition, our results cannot be generalized as our sample was a convenient one, and yet, they should be considered as preliminary results looking for future large randomized samples, which may be more informative.

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Conflicts of interest

There are no conflicts of interest.

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