

Sociodemographic and clinical characteristics of victimized versus non victimized patients with Schizophrenia: an Egyptian study

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الخصائص الاجتماعية والديموغرافية والإكلينيكية لمرضى الفصام المعرضين للإيذاء مقارنة
بغير المعرضين له: دراسة مصرية

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Abstract

B **background:** Persons with mental disorders living in the community are liable for victimization and are considered as a high-risk group. **Objectives:** To explore the sociodemographic variables and clinical characteristics related to victimization of patients with schizophrenia in comparison to their non victimized counterparts. **Subjects and methods:** One hundred patients were recruited from the inpatient wards and outpatient clinics of the Institute of Psychiatry, Ain Shams University. They were subjected to Structured Clinical Interview for DSM-IV Axis I diagnosis (Clinical Version); Positive and Negative Syndrome Scale (PANSS); Global Assessment of Functioning (GAF); Clinical Global Impression (CGI); designed extensive questionnaire to elicit demographic data; inquiry about drug compliance and Victimization Questionnaire. **Results:** 70 patients of the studied sample were non victimized and 30 patients were victimized. Victimized patients were significantly younger, living mainly in urban areas, had less frequent history of bullying at school. They were exposed significantly to higher frequency of family domestic violence and childhood abuse. They scored higher for all subscales and in total PANSS scores and they were less compliant on medication than did their non victimized counterparts. **Conclusion:** Studies of victimization of mentally ill did not draw the attention of researchers and clinicians in Arab world. This study proves that victimization is not uncommon among patients with schizophrenia; Clinicians should include assessment for victimization of their patients as a routine work. The current study provides preliminary data for clinicians and policy makers to consider strategies to protect patients with various mental illnesses from being victimized.

Keywords: Victimization, schizophrenia, sociodemographic, severity.

Declaration of Interest: None

Introduction

Persons with mental disorders, especially those with severe mental illness, living in the community are liable for crime victimization and are considered as high-risk group^{1, 2}. Victimization is largely operationally defined as either covert/relational victimization or overt/physical victimization, in which a person is threatened with or dealt corporeal damage³. Criminal victimization is a serious and pervasive problem for people who are homeless and seriously mentally ill⁴. Chuang and colleagues⁵ found that patients with schizophrenia were three times more likely to be victims of violent crime than persons who did not have a mental illness. Teplin et al.,² estimated that 25% of mentally ill are victimized in comparison to 3% of the general population. Walsh et al.,⁶ estimated that 16% of patients with psychosis were violently victimized over one year. Choe et al.,⁷ have concluded in his study that 2% to 13% of mentally ill had perpetrated violence in the past six months of his study to three years, compared with 20% to 34% who had been violently victimized; indicating that victimization of mentally ill is of greater importance than perpetration of violence by mentally ill.

Individuals who have schizophrenia have been said to represent a potentially vulnerable population that is at risk of significant victimization in the community⁸. Brekke et al.,⁹ studied 172 outpatient clients with schizophrenia, they found that 38% of patients had been victimized within the preceding 3 years; 91% of the incidents were violent. They are at increased risk of victimization, both of the violent and non-violent type¹⁰; violent victimization includes rape and sexual assault, robbery, and physical assault¹¹. Moreover, Lam and

Rosenheck⁴ concluded past victimization has a significant impact on two important areas of client outcome; it had a significant impact on clinical outcomes in terms of increased homelessness and decreased quality of life, and moreover it is predictive of future victimization. They viewed that victimization perpetuates homelessness, lowers self-rated quality of life, and decreases the likelihood of employment.

Walsh et al.,⁶ showed that those who have been victimized were significantly more likely to feel threatened and unsafe than others and consequently it is more likely that they will engage in violence themselves. It is therefore conceivable that victimization and violence in severe mental illness share a common pathway and that the occurrence of one or both outcomes will be determined by complex interactions between these factors across the life cycle, indicating that an individual's own violence may only explain a proportion of violent victimization in the sample. Furthermore, the link between severe mental illness and violent victimization has

Many causes were attributed to the increased risk of victimization of mentally ill, such as impaired reality testing, disorganized thought processes, impulsivity, poor planning and problem solving can compromise one's ability to perceive risks and protect oneself^{13; 14, 15}. On the other hand, several predictors of victimization among homeless persons were identified: severe psychiatric symptoms, substance abuse^{4; 9}, Concurrent personality disorder⁶, lack of meaningful daily activities¹⁰, poor financial support¹⁶, conflicted social relationships, poverty, and homelessness are factors correlated with victimization^{17; 18; 19}. Moreover, individual risk for victimization varies according to demographic and psychosocial characteristics. Most

important among these risk factors are sex, race, employment status, social environment, economic status, poor physical health, criminal history and history of victimization⁴. Regarding employment; Lam and Rosenheck,⁴ have found that the relationship between employment and victimization is noteworthy. The more days a client had worked in the past month, the more likely he or she was to have been a recent crime victim. This association may be due to the fact that workers are more likely to be carrying money and thus to be targets of crime. Hiday²⁰ posited a theoretical model whereby social disorganization and poverty phenomena are common among many persons with severe mental illness increasing persons' vulnerability to victimization and their propensity to perpetrate violence. Repeated victimization may lead to suspicion and mistrust, which in turn may lead to conflictive and stressful situations in short, a cycle of victimization and perpetration.

Finally, Lam and Rosenheck,⁴ concluded that the most severe psychiatric symptoms, substance abuse problems and criminal histories are caught in a vicious, reinforcing cycle of victimization and homelessness. The effect of violence goes beyond the physical consequences and includes "psychological demoralization and the ever-present fear and distrust of others frequently reported by homeless people".

Aim: The aim of this study was to explore the sociodemographic variables and clinical characteristics including severity of symptomatology and level of functioning in patients with schizophrenia who were victimized in comparison to their non victimized counterparts.

Subjects and methods

Site of 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 about the third of Greater Cairo. It serves both urban and rural areas, including areas around Greater Cairo as well.

Participants

The sample was a convenient one; males and females patients were included, aged 18 years or older. They are fulfilling the diagnosis of schizophrenia according to DSM-IV as a primary diagnosis not secondary to substance misuse. Subjects had to have been ill for more than one year with absence of organic brain damage. The researchers interviewed potential participants and explained the details of the research goals, ensured that the obtained data will be confidential and that participants could withdraw from the study at any time, and those who refused to participate or withdraw during the interview were excluded (n=18). The recruitment continued until we had 100 patients with different types of schizophrenia included. The research including the pilot study was performed during the period from June 2008 till the end of January 2010.

Preparation and pilot study

Prior to the pilot study, the research team prepared the Victimization questionnaire to collect data from patients about being victimized. It was adapted from the Criminal Victimization Questionnaire Package²¹ and the Juvenile Victimization Questionnaire "JVQ"²². The questionnaire included questions about conventional crime like: personal theft, robbery, burglary, vandalism, assault with or without weapon, attempted assault, biased physical and verbal assault, kidnapping, threatening, blackmailing, sexual harassment either verbal or physical, emotional abuse, financial abuse or any type of physical abuse. The overall Cronbach α for the JVQ for respondents answering all 34 items is .80, which is very good²². The questionnaire was translated to Arabic and back translated to English and was applied on 30 patients with different psychiatric disorders; the language was readjusted to fit to the Egyptian culture according to patients' comprehension. The research team was trained on the use of tools prior to the study; the team included both junior and senior psychiatrists who were responsible for data collection.

The main study

Following a pilot study, interviewing for the main study was performed in the assessment office in the inpatient department or the outpatient clinics. The average time needed to complete the patient interview was about 90 to 120 minutes; sometimes divided in two sessions according to the levels of cooperation from patients.

Tools

1. Structured Clinical Interview for DSM-IV Axis I diagnosis Clinical Version²³: a semistructured diagnostic interview based on an efficient, but thorough clinical evaluation administered by an experienced trained bilingual researcher to match Arabic speaking patients. SCID-I was used in previous Egyptian studies^{24, 25, 26, 27}.
2. Positive and Negative Syndrome Scale (PANSS) used for measuring symptom severity of patients with schizophrenia²⁸. The PANSS was used in research on Egyptian population²⁹.
3. Global Assessment of Functioning (GAF) is a numeric scale (0 through 100) to rate subjectively the social, occupational, and psychological functioning of adults, e.g., how well or adaptively one is meeting various problems in living³⁰. The GAF had been used on Egyptian patients³¹.
4. Clinical Global Impression (CGI)³²: is a 7-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. There already has been a study with Egyptian patients using this measure³¹.
5. Designed extensive questionnaire to elicit demographic, other information and inquiry about drug compliance.

Also we used the Fahmi and El Sherbini Scale ³³ for social class determination.

- A victimization questionnaire was developed by the researchers.

Ethical issues

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. It was stated that the participation in the study was voluntary and they would have the freedom to withdraw from the assessment at any time.

Statistical analysis

Data analysis was done using Statistical Package for Social Sciences Version-15 (SPSS-15). Student's *t* test was used for comparison between means of the different groups. Pearson Chi-Square Test (χ^2) was used for comparison between qualitative variables. P value was used to indicate the level of significance where $P \leq 0.05$ is considered significant (SIG), $P \leq 0.01$ is highly significant (HS), $P \leq 0.001$ is (VHS) very highly significant. A logistic regression analysis was used, which is for prediction of the probability of occurrence of an event by fitting data to a logistic curve.

Results

Sociodemographic variables:

The studied sample consisted of 60 male and 40 female patients labeled with the diagnosis of schizophrenia

according to the DSM-IV classification. It was found that 70 patients of the whole population were non-victimized and 30 patients were victimized (Figure 1) hence the studied group was divided into: the non-victimized group (mean age 35 ± 9.1) and the victimized group (mean age 30 ± 6.2). Data in Table 1 revealed that the victimized patients were significantly younger ($p=0.028$), living mainly in urban areas ($p=0.004$), and had less frequency history of bullying at school ($p=0.017$) than their non-victimized counterparts although the majority of victimized patients were exposed to bullying. There was no statistical difference between the two groups as regard gender, marital status, occupational status, type of work, educational attainment and social standards (Table 1).

Figure 1: Rates of victimization among patients with schizophrenia

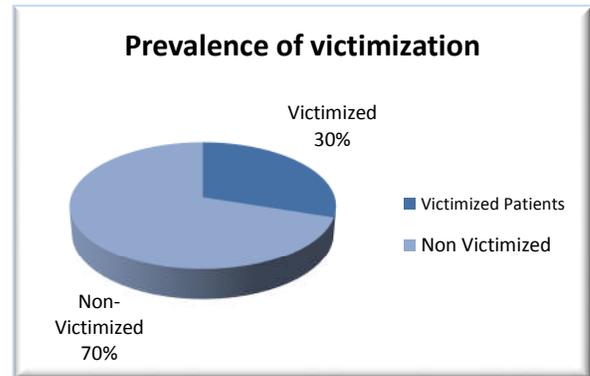


Table 1: Sociodemographic characteristics: victimized versus non-victimized patients

		Non -Victimized N=70	Victimized N=30	test	p- value
	Mean Age	35±9.1	30±6	t= 2.23	0.028 (Sig)
Gender	Male	44 (62.9%)	16 (53.3%)	df=1 X ² = 0.794	0.373 (NS)
	Female	26 (37.1%)	14 (46.7%)		
Marital status	Single	52 (74.3%)	22 (73.3%)	df=3 X ² =2.574	0.462 (NS)
	Married	12 (17.1%)	6 (20%)		
	Separated	4 (5.7%)	0 (0%)		
	Widowed	2 (2.9%)	2 (6.7%)		
Place of living	Rural	16 (22.9%)	0 (0%)	df=1 X ² =8.163	0.004 (HS)
	Urban	54 (77.2%)	30 (100%)		
Bullying at school	Negative	16 (22.9%)	14 (46.7%)	df=1 X ² =5.669	0.017 (Sig)
	Positive	54 (77.1%)	16 (53.3%)		
Stability at work	unemployed	40 (57.1%)	12 (40%)	df=2 X ² =2.575	0.276 (NS)
	Regular	18 (25.7%)	10 (33.3%)		
	Irregular	12 (17.1%)	8 (26.7%)		
Social class	High	38 (54.3%)	16 (53.3%)	df=3 X ² =1.66	0.646 (NS)
	Middle	8 (11.4%)	2 (6.7%)		
	Low	8 (11.4%)	6 (20%)		
	Very Low	16 (22.9%)	6 (20%)		
Education	Illiterate	4 (5.7%)	2 (6.7%)		
	Primary	2 (2.9%)	0 (0%)		

Victimized versus non victimized patients with Schizophrenia

Preparatory	4	(5.7%)	0	(0%)	X 2= 11.092 df = 6	0.086(NS)
Secondary	14	(20%)	12	(40%)		
Technical	14	(20%)	4	(13.3%)		
University	22	(31.4%)	12	(40%)		
Post Graduate	10	(14.3%)	0	(0%)		

Exposure to violence:

According to data displayed in Table 2, victimized patients were exposed significantly to higher frequency of family domestic violence (p=0.005). Surprisingly in the victimized group, violence towards father was found in 20% while towards mother was in 13.3% compared to only 2.9% and 5.7% towards father and mother respectively in the non-victimized group.

According to the definition of child abuse by the WHO (34) which referred to all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child’s health, survival, development or dignity in the context of a relationship of responsibility, trust or power.” Inquiry

about child abuse in our research, we found that there were statistical differences between the two groups of study (p=0.000). Victimized patients reported having been exposed to more emotional and physical abuse in their childhood than non-victimized patients.

Neither history of parental separation by divorce or early parent’s death nor the age at the time of separation had an affect later on victimized or non-victimized patients (Table 2).

Family history of psychiatric disorders was encountered more significantly in the non-victimized group (34.3%) compared to (13.3%) in the victimized patients (p=0.048). On the other hand, no significant differences were found between the studied groups as regards family history of drug and alcohol abuse (p=0.087) (Table 2)

Table 2: Family Characteristics: victimized versus non-victimized patients

		Non-victimized N=70		Victimized N=30		p-value	
Parental separation	Negative	46	(65.7%)	20	(66.7%)	df=3 X ² =5.685	0.128 (NS)
	Divorced	8	(11.4%)	4	(13.3%)		
	Early death	16	(22.9%)	4	(13.3%)		
	Working abroad	0	(0%)	2	(6.7%)		
Age of separation		5.06±8.423		8.27±12.292		t= - 1.512	0.134(NS)
Family domestic violence	Negative	64	(91.4%)	20	(66.7%)	df=2 X ² =10.771	0.005 (HS)
	To mother	4	(5.7%)	4	(13.3%)		
	To father	2	(2.9%)	6	(20%)		
Child abuse	Negative	66	(94.3%)	18	(60%)	df=3 X ² =18.685	0.000 (VHS)
	Emotion.	2	(2.9%)	8	(26.7%)		
	Physical	2	(2.9%)	4	(13.3%)		
F.H of psych. illness	Negative	46	(65.7%)	26	(86.7%)	df=3 X ² =6.085	0.048 (Sig)
	1 st degree	14	(20%)	4	(13.3%)		
	2 nd degree	10	(14.3%)	0	(0%)		
F.H of drug/alcoh. abuse	Negative	58	(82.9%)	24	(80%)	df=3 X ² =4.878	0.087 (NS)
	Abuse	12	(17.1%)	4	(13.3%)		
	Depend.	0	(0%)	2	(6.7%)		

Clinical Profile

Severity of illness was assessed by PANSS and revealed that victimized patients scored higher than non-victimized group in all subscales as well as in the total PANSS score (p=0.000). They had more significant positive symptoms (including delusions, conceptual disorganization,

hallucinatory behavior, excitement, grandiosity, suspiciousness and hostility), negative symptoms (including blunted affect, emotional and social withdrawal, difficulty in abstract thinking), and they obtained also significant higher scores on general psychopathology (including presence of anxiety and depression, poor attention, disorientation, lack of

judgment, poor impulse control). Data in (Table 3) indicates that the more severity on PANSS scores, the more, the likelihood of being victimized.

It was noticed that the Global Assessment of Functioning "GAF" scores of victimized group that were slightly lower than the non-victimized group; however, there were no statistical difference between both groups.

Compliance to medication was obtained by asking the patient to self-rate their compliance. It was found that victimized patients were less compliant than those who were not victimized with a high statistical significant difference between both groups (Table 3).

Table 3: Mean scores of PANSS, GAF and compliance rates: victimized versus non-victimized patients

PANSS	Non-victimized	Victimized	95% Confidence Interval	p-value
	mean±SD	mean±SD		
Positive symptoms	20.14 ±7.897	26.80±7.797	-10.064; -3.250	0.000(HS)
Negative symptoms	23.97 ±10.562	28.57±10.637	-9.917; -0.012	0.049(Sig.)
General psychopathology	26.29 ±13.886	35.03±10.692	-14.387; -3.108	0.003(HS)
Total PANSS scores	70.26 ±25.096	90.43±24.517	-30.970; - 9.382	0.000(HS)
GAF	32.8±7.44	31.23±7.016	-4.666; 1.523	0.316 (NS)
Compliance rate	60.29±29.11	40±33.83	7.03; 33.532	0.006(HS)

CGI: Clinical global Improvement

Assessment of the whole group by the Clinical Global Impression "CGI" revealed that the degree of severity was found to be statistically significant (p=0.011) as the victimized group was evaluated to be more among severely ill or extremely ill than the non-victimized group. Although

the degree of improvement did not differ statistically (p=0.714) between the two groups, yet it was noticed that the victimized patients showed higher non-statistical significant minimal improvement (26.7%) in comparison to (20%) of the non-victimized group (Table 4).

Table 4: Clinical global improvement: victimized versus non-victimized patients

	Non Victimized		Victimized		Test	P-value
	N	%	N	%		
CGI severity						
Moderately ill	14	20%	0	0%	X 2= 11.111 df = 3	0.011 significant
Markedly ill	0	0%	2	6.7%		
Severely ill	52	74.3%	26	86.7%		
Extremely ill	4	5.7%	2	6.7%		
Total	70	100%	30	100%		
CGI Improvement						
Not assessed	2	2.9%	0	0%	X 2= 11.363 df = 3	0.714 Non significant
Very much improved	16	22.9%	6	20%		
Much improved	38	54.3%	16	53.3%		
Minimally Improved	14	20%	8	26.7%		
Total	70	100%	30	100%		

CGI: Clinical global improvement

Concerning putative risk factors associated with victimization of patients with schizophrenia; Logistic regression analysis was performed to explore these risk factors. It was found, as displayed in Table 5, that the greatest risk was the place of living, (being in an urbanized place) followed by low scores on the level of functioning as measured by GAF; then comes the higher exposure to child abuse followed by the greater severity of illness as measured by the total scores of PANSS. Other factors were not found to be significant risk factors.

Table (5): Putative risk factors found to be significant for victimization (Regression analysis)

Risk factors	t—value	p-value	Significance
Place of living	3.616	0.001	HS
GAF	3.156	0.002	HS
Childhood abuse	3.105	0.003	HS
PANSS-total score	2.413	0.018	Sig
Family domestic violence	2.150	0.035	Sig

N.B.: other studied variables were found to be non significant risk factors

Discussion

Patients with schizophrenia are at increased risk of being victims of violent and non-violent crime,³⁵ Teplin et al.,² stated that the incidence of violent crime was four times greater among persons with severe mental illness than the incidence reported in general population. The disturbed behavior in schizophrenia is sometimes culturally attributed to acts of possession by spirits, jinni, sorcery, or envy-eye³⁶. This in itself can predispose to a unique type of physical abuse since families with such beliefs usually take their patients to traditional healers who hit them, or even suffocate them in order to get rid of the evil spirit or jinni³⁷.

Sociodemographic variables

The current study assessed the sociodemographic variables related to victimization of patients with schizophrenia to identify factors which potentiate victimization of those patients and assess the severity and clinical profile of victimized patients versus non victimized patients. We found that 30 out of 100 patients with schizophrenia were victimized (30%). The recorded rate in our study (despite the sample not being a representative one) was considered average relative to the prevalence found in previous studies done by Brekke et al.,⁹ who found that 38% of 172 patients were victimized; and Teplin et al.,² who recorded that 25.3 % in his study were victimized. Lower rates were found by Walsh et al.,⁶ (16% to 18%); Brunette and Drake,³⁸ (18.3 %) and Hiday et al.¹ (10%). Differences in the recorded rates may be attributed to differences in the sampling methods, tools of assessment and definition of victimization.

In the current study, we found that victimized patients were significantly younger than non-victimized patients. Similar results were found in a study by Walsh et al.,⁶ Brekke et al.,⁹ and Lehman and Linn³⁹. Hiday et al.,¹⁴ studied a sample of patients with severe mental illness in different age groups from 19 years old to 65 years; they found that the prevalence of exposure to violent and non-violent crimes was higher in patients with ages ranging from 18-29 years followed by those ranging from 30-44 years. They found that the lowest prevalence was among those above 65 years of age, which was attributed to the tendency of older patients to stay at home more than younger persons thus reducing their exposure to crime from strangers outside their homes^{36, 37}. On the other hand, younger patients were exposed to threatening condition both outside and inside their homes.⁴⁰ Conversely, Fitzgerald et al.,¹⁰ did not find a significant difference between the age of victimized and non-victimized patients in his sample.

In the current study, more men (53.3%) than women (46.7%) were victimized, however, no significant statistical differences were found in comparison to non-victimized patients. Hiday et al.,¹⁴ found that more men were exposed to violent crime; however, more females were exposed to non-violent crime. Also, Lam and Rosenhech,⁴ found that women were more likely than men to have been victims. This

difference could be explained in the context of the cultural background of the Egyptian society which may consider violence against women, especially from strangers outside home, as a shameful experience. In our study, marital status was not found to be a risk factor for being victimized compared to other studies which stated that living without a partner or spouse may expose patients with schizophrenia to the threat of being victimized Walsh et al.,⁶ and Fitzgerald et al.,¹⁰.

Living in urban rather than rural areas is one of the most important risk factors related to the exposure of patients with schizophrenia to victimization. According to previous findings which stated that many people with mental illness in villages in the developing world are better accepted, less stigmatized, less victimized and more likely to find work in the subsistence agricultural economy or to engage in meaningful labor^{42, 43, 44, 45}. In contrast, patients with schizophrenia in urban regions were significantly exposed to stigmatization, discrimination and victimization^{46, 47}. In an interesting study in Al Mansoura University, Egypt, Fawzy and his colleagues⁴⁸ found that paranoid schizophrenia was more common in urban than rural men because those experiencing the condition were more prone to stressful reactions such as loss of sympathizing relations with neighbors, friends and relatives, as well as loosening of family ties. These factors start to threaten the psychic stability and make one lose trust in others. In western communities, there are controversial findings, while Honkonen et al.,¹⁵ revealed no urban – rural difference found among his victimized patients with schizophrenia, Castalano,⁴⁹ and Hiday et al.,¹⁴ reported that patients living in urban areas were more exposed to victimization.

Our research did not demonstrate a link between the level of education and being victimized. It was observed that around 80% of victimized patients were undertaking either secondary or university education. Some researchers found that having higher educational level increased victimization¹⁴; contrary to the expected inverse association. Previous research has found a similar relationship between level of education and perceptions of coercion⁵⁰. It was noticed in our study that working pattern was not found to differ statistically between the two groups. Moreover, it was noteworthy that the victimized patients in the current study were enrolled in regular jobs more often than the non-victimized. This finding (despite being surprising) could be explained by the extreme need of the victimized patient to earn money having possibly experienced rejection by their relatives; in addition to the possibility of exposure to threatening circumstances outside their homes and work places.

Exposure to violence

A statistically significant difference was found regarding history of bullying at school. It was observed that 53.3% of victimized patients had a positive history of bullying at school. This finding was consistent with previous findings which concluded that being a victim of bullying is associated with internalizing problems including affective disorder, anxiety disorder or psychotic disorder^{51, 52, 53}.

In our study, exposure to family domestic violence was one of the risk factors of being victimized ($p=0.035$). Surprisingly, we noticed that among the victimized group, we found that violence towards fathers (20%) exceed that directed towards mothers (13.3%). This finding could reflect the lack of patient's development within a normal family having two adequate parental figures, and the development of skewed relationships between the patient and his parents who are a defective one (may be the father) and domineering demanding one (may be the mother). This leads to unsatisfactory parenting model and interpersonal relationship⁵⁴.

We agreed with the statement that being victimized in childhood will lead to victimization in adulthood⁵⁵. Our study emphasized that exposure to child abuse is one of the important putative risk factors for being victimized ($p=0.003$). Coid et al⁵⁵ concluded that childhood maltreatment increased the risk of adulthood revictimization; in other words domestic violence and victimization are interrelated and potentiating each other. He added that child abuse, bullying at school, self-abuse by psychoactive substances, expressed emotions by relatives or employers are intermingled factors in producing victimization.

Family history of psychiatric illness

Non-victimized patients had a more significant family history of psychiatric illness than victimized patients. This finding may reflect that families with psychiatric illnesses have more tolerance to mental symptoms of their offspring⁴². Family climate plays an important role in the inter-personal relationship in families with schizophrenia. In this respect, the concept of expressed emotions has gained ground in the field of psychiatry. It includes five component; criticism, hostility, emotional over involvement, warmth and positive remarks⁵⁶. In the Egyptian community, unexpectedly, many reports found high values of warmth among families of patients with schizophrenia which may cause better enhancement of their psychosocial adjustment^{57, 58}. Moreover, Okasha et al⁵⁹, concluded that criticism is an accepted and acceptable component of interpersonal relations in Egyptian culture and that it might well reflect an element of care. It is also possible that criticism and over involvement are intertwined and that warmth might act as a key protective factor.

Clinical Assessment

The current study revealed that the victimized patients were more likely to have severe symptom levels, according to PANSS, in positive, negative and general psychopathology; other studies found similar results^{6, 9, 10}. Shomerus et al.,³⁵ found that the level of positive symptoms was associated with the experience of victimization indicating that the more disturbed the patient the more vulnerability of being victimized. Fitzgerald and colleagues,¹⁰ stated that patients with positive symptoms such as persecutory delusions could report victimization events that have not actually occurred; falsely elevating the rates of reported victimization. The current study proved that a greater severity of clinical

symptoms as measured by the Clinical Global Improvement scale "CGI" was associated with a higher probability of being victimized. This was confirmed in previous studies in this field^{1, 6, 9, 60, 61}.

Level of functioning

The level of functioning of the studied group was estimated using the Global Assessment of Functioning scale "GAF"; data revealed that no statistical differences were found between both groups despite the difference in severity. Although Fitzgerald and colleagues, (10) found that the major predictors of victimization in their studied sample was among those who had no substantial daily activities and those with high degree of psychosocial disability.

Compliance to medication

Compliance to medication was found to be lower in victimized group than non-victimized with a high statistical significant difference. Previous studies revealed that non adherence is also associated with poor social outcomes, including greater risk of arrest, violence, victimization, and substance use and poorer mental functioning and life satisfaction^{62, 63, 64}. Hiday et al.,¹ reported 74.9% of a sample of patients with schizophrenia who were exposed to crime victimization during the year following their discharge from hospital to be non compliant. Also, Torrey⁶⁵ concluded, based on previous study by Hiday et al.,¹⁴ that there is a direct relationship between medication noncompliance and criminal victimization, which could be observed anecdotally among patients. Medication adherence can be expected to reduce symptoms of severe mental illness and thus reduce victimization¹. Psychotic symptoms and bizarre behavior can lead to tense and conflictual situations²⁰, which, in turn, may result in a patient's victimization either because others become violent toward the patient or because the patient lashes out physically and others react with stronger violence. By facilitating adherence and ensuring more consistent follow-up, outpatient commitment may lead to reduced symptoms, better functioning in social relationships, and improved judgment⁶⁶. This finding enlightens the interrelation which could be present between severity of illness, compliance and victimization. In other words, lack of compliance will lead to more severity of illness hence increasing exposure to victimization; also being victimized especially by family members reveal negligence and rejection hence non compliance will be more pronounced.

Conclusion

Studies examining the victimization of mentally ill have not drawn the attention of researchers and clinicians in Arab world. The current study demonstrated that victimization was not uncommon among patients with schizophrenia within the cohort studied; being more pronounced in those who have more severe symptomatology and non compliance to medication. Patients who were exposed to victimization were male, single and living in urban area. Domestic violence, history of child abuse and bullying at school were among variables correlated with current victimization. The presence

of family history of psychiatric illness was not associated with victimization. Clinicians should include assessment for victimization of their patients as part of their routine work. The current study provides preliminary data for clinicians and policy makers to consider strategies to protect patients with various mental illnesses from being victimized.

Strength and Limitations

To the best of our knowledge, the current study was the first Egyptian study done to estimate prevalence of victimization in a sample of patients with schizophrenia and to examine their sociodemographic and clinical characteristics.

However, some limitations in our study must be acknowledged and taken into account. As the sample was convenient, the result of our study could not be generalized; however, findings should be considered as preliminary results. Future studies involving a larger sized random sample could provide further important information. Moreover, correlation to specific symptomatology should be considered in further studies. The victimization questionnaire being specially designed for this research, we relied on the reliability and validity of the original tools from which it was derived, however, the need of future use for standardization on Egyptian population is recommended. Studies of other categories of mental and psychiatric disorders are highly recommended to provide data about victimization of mentally ill patients in Egyptian community and in various Arab Countries.

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المخلص

إن هذا البحث يهدف إلى استكشاف المتغيرات الاجتماعية والديموجرافية والخصائص الإكلينيكية المرتبطة بإيذاء مرضى الفصام مقارنة مع نظرائهم من غير الضحايا. وقد اشتملت هذه الدراسة على مائة مريض مصاب بالفصام من المرضى المترددين علي العيادات الخارجية و المحجوزين بالمستشفى في مركز الطب النفسي - جامعة عين شمس، وقد تم بالفعل عمل المقابلة النفسية والتشخيص باستخدام دليل المقابلة الإكلينيكية المبنية على الدليل الأمريكي SCID I، كما تم تقييم شدة الأعراض الذهانية باستخدام مقياس بانز PANSS تقييم شامل للأداء (GAF)، الإنطباع الإكلينيكي الشامل (CGI)، وتم أيضا تصميم استبيان للحصول على البيانات الديموجرافية والاستبيان عن الإيذاء البدني والمعنوي واللفظي؛ حيث وجد أن 70 مريضا لم يتعرضوا للإيذاء و 30 مريضا قد تعرضوا للإيذاء، وكان المرضى المعرضين للإيذاء أصغر سنا و يعيشون في مناطق حضر به و لديهم تاريخ للتعرض للإيذاء في المدرسة. كما كانوا أكثر تعرضا للعنف المنزلي تجاه الوالدين، وإساءة المعاملة في الطفولة. و قد سجل المرضى المعرضين للإيذاء أعلى الدرجات في مقياس PANSS وكانوا أقل طواعية للعقاقير عن نظرائهم. الخلاصة: لم يتطرق الباحثون والأطباء في العالم العربي من قبل لعمل دراسات خاصة عن التعرض للإيذاء بين المصابين بأمراض عقلية، وقد أثبتت هذه الدراسة أن مرضى الذين يعانون من الفصام معرضين للإيذاء، وبالتالي لا بد أن يشتمل تقييم المرضى عما إذا كانوا قد تعرضوا للإيذاء من قبل أو لا. والدراسة الحالية توفر بيانات للأطباء وصانعي السياسات عند وضع الاستراتيجيات اللازمة لحماية المرضى المصابين بأمراض عقلية مختلفة من الوقوع كضحايا للإيذاء.

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