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Prevalence of Violent Victimization and Associated Factors among Psychiatric Outpatients

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Abstract

Background: Victimizations, coupled with the existing political and socioeconomic instability in East Africa, poses unbearable burden on people with mental illness.

Methods: Six hundred twenty nine psychiatric patients were interviewed by trained psychiatry clinicians consecutively to study prevalence, and associated factors of victimization by using interviewer administered standard international crime victim survey questions. Analysis was done by using SPSS version 20. Adjusted odds ratio with 95% confidence interval and p-value =<0.05 were used to declare the statistical significance.

Results: Lifetime and past year prevalence of victimization were 57.4% and 27.4% respectively. Majority of men were perpetrated by Strangers and acquaintances where as majority of women by near family members. In Binary Logistic Regression analysis: factors such as being female; history of psychiatric admission, suicidal attempt, previously cigarette smoking, khat chewing; criminal history and violent perpetration had significant association with victimization.

Conclusion: The study identified high prevalence of victimization on people with mental illness which is potential for the formation of stress strain reaction as well as violation of legal rights of that population. Cooperation between law enforcers and mental health clinicians is needed.

Keywords: Victimization; Ethiopian police university; Forensic psychiatry; Specialize hospital

Introduction

People with mental illness have unmet needs towards the healthcare system and criminal justice system seeking for special legal protection and medical care. The unprotected legal right exposes them to be a victim of physical, sexual or property violence [1]. According to Ethiopian context, the legal system guarantees the rights of people with disabilities including people with mental illness. The law clearly stipulated their right to equal recognition before the law, access to justice, adequate standard of living and social protection, freedom from torture or cruel, inhuman or degrading treatment or punishment however, practices shows in the contrary [2,3].

Minor assaults such as pushing and shoving that result in no physical harm; aggravated assaults including intentionally stabbed, punched, kicked, pushed, jostled; sexual injuries such as being raped or attempted to be raped and property crimes such as personal theft, robbery, vandalisms of properties and burglary with entry are commonly offending incidents among the society and among People with mental disorders too [5,6], however researches show People with mental disorders have been victim of crime more than general population [1,7,8].

Victimization leads to the development of emotional distress [8], decreases life satisfaction [9], precipitates, exacerbates, and perpetuates mental illness [10-12], damages fundamental rights of citizens [2], increases healthcare costs, service utilization and scarcity of hospital bed to the victim and the public at large [13].

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Prevalence of victimization among People with mental disorder has been higher in low & middle income countries. In Africa, samples from general population, it ranges from 34%-63% Mozambique 58%, Zambia 46%, Tanzania 63%, Nigeria 42%, Uganda 47%, Zimbabwe 63%,

Lesotho 34%, Swaziland 63%, Botswana 34%, Namibia 48%, Egypt 36%, South Africa 48%, Tunisia 54% and in Ethiopia among people with mental disorder was 61% [7].

Previous studies had identified some of the factors that predispose to be a victim of violence in general population as well as in people with mental illness. In low and middle income countries, Poor socioeconomic status, immature legal system, political unrest and uneven distribution of wealth were identified [18,19]. According to testimonies by eye witness, from areas where civil war was ongoing in Ethiopia; people with mental disorders are being killed as a result of suspecting them as spy of Government. Being female by sex, homelessness [20], lifetime history of alcohol and other substance abuse [21], history of arrest, poorer social and occupational function, severity of mental illness [22] and young age at the onset of illness were factors that had association with victimization of people with mental illness [23,24].

Scientific information about prevalence of victimization, place of incident, relationship with the offender, frequency and concurrence of violent incidents, whether the victim reported crimes to police and contributing factors for occurrence of victimization; are vital to prevent crimes as well as mental health sequel resulted from violent traumas. It is also vital in planning rehabilitation program to crime victims.

Victimization is a preventable, universally disseminated problem that affects all humans. Epidemiological study models like Crime Victim Surveys have been developed by criminologists to produce comprehensive, reliable, and timely information on magnitude, distribution and determinants of crimes among every segment of population. Survey results have been used to develop, manage, and evaluate criminal justice policies; crime reduction strategies; to forecast future developments and trends of crime; to facilitate research; to inform the public, to create and develop efficient, effective, and equitable administration of justice [11,25,26]

The aim of this study was to assess the prevalence of violent victimization, where it occurs, frequency of being a victim, victim's relationship with perpetrator, and practice of reporting incidents and associated factors among psychiatric patients with follow up in a mental specialized Hospital in Ethiopia

Methods

Study Area and Setting

The study was conducted at Amanuel Mental Specialized Hospital in Addis Ababa city, Ethiopia. It is a Tertiary Mental Health care center that renders comprehensive outpatient, inpatient and specialized psychiatry services such as neurology, old age, and rehabilitation from substance addiction. The hospital was organized by 8 case teams. Two of them were dedicated to serve patients with schizophrenia and other related psychotic disorders, bipolar and related disorder or depressive disorders that were the theme of this study.

Study Design and Period

The study was intended to describe the frequency and distribution of victimization by time, place and person so an institution based quantitative, Cross-sectional descriptive study design was chosen. Data were collected from May 16, 2018, to June 22, 2018.

Population Source Population

The source population was psychiatric patients who were attending treatment in Amanuel Mental Specialized Hospital outpatient departments.

Study Population

The study population was psychiatric patients who were attending treatment in Amanuel Mental Specialized Hospital outpatient departments during the study period.

Inclusion and Exclusion Criteria

Psychiatric patients on follow up with full symptom remission, age greater than or equal to 18 years, who themselves appeared on the appointment date and who had two or more follow up dates were included. Patients with first visit and those who deemed to have difficulties in memory, concentration, and abnormal behavior at the time of the interview and those who suspected to provide irrelevant information were excluded as per the judgment of data collectors.

Sample Size Determination

The minimum sample size required for this study was determined by using single population proportion formulas with the assumption of 61% prevalence of victimization in Ethiopia (found from previous study [7], confidence level (Z)= 95%, margin of error (α)= 5%, precision (d)= 0.04 and 10% of the calculated sample size was added for the anticipated non- response rate as shown below

$$.n = [z^2] \times P[1-P] n = \frac{\{(1.96)^{2]\times 0.61[1-0.61]}\}}{0.04^2} + 10\% n = 571.12 + 57.2 = 629$$

Participant Selection and Sampling Technique

A total of 7045 psychiatric patients were attended at Mood and Psych OPD's of Amanuel Mental Specialized Hospital during a one month data collection period. Among them 3475 were actual patients and the rest 3570 visits were by representative family members. From the 3475 actual patients two thousand seven hundred patients had at least one previous visit and 775 of the patients were first visit for the Hospital.

Participants were selected at waiting areas of Card room and physician office. Patients who were available at the time of calling and having at least one previous visit were guided to data collectors at card room and OPD for selection to be interviewed. A systematic sampling technique was employed for the selection of the sampling units from available participants. Every 3rd patient, were requested for interview consecutively until the required sample size was reached. The first participant was selected from the first three patients by lottery method at each data collection sites.

As shown in Figure 1 below, 629 patients were selected from 2160 patients for the interview. Seven (1.1%) of them were excluded due to difficulties in memory, concentration or abnormal

behavior at the time of the interview. Only 622 were eligible for the study. Of those eligible participants12 (1.93%) refused to be interviewed. Data was collected from 610 participants

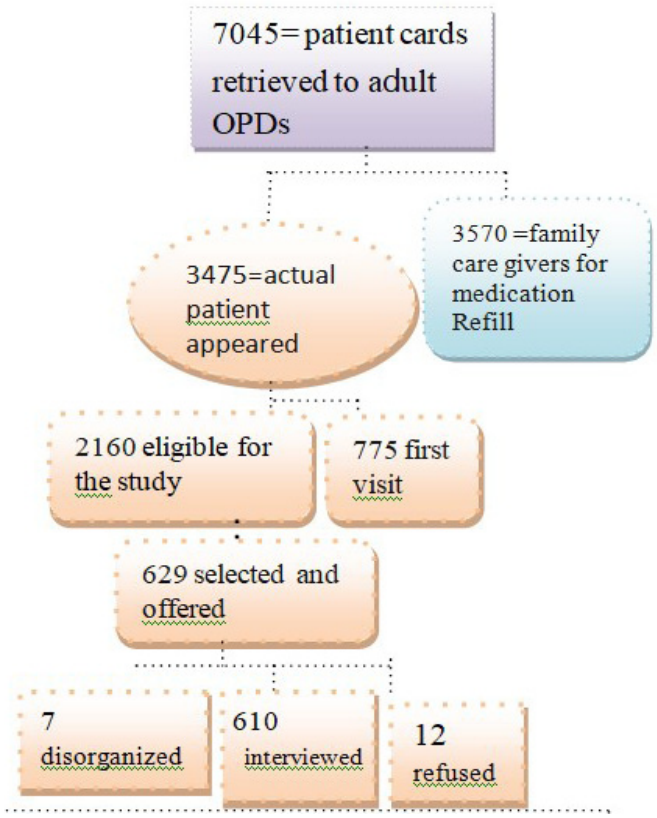

Figure 1: Participant selection and Sampling procedure to study victimization among people with mental illness in Amanuel Mental Specialized Hospital.

Variables and Measurement

Outcome variable: Victimization status was determined when participants respond at least one "yes" for questions that asked if they had suffered from Simple assault, aggravated assault, kidnapping, rape or attempted rape, attempted robbery, personal theft or vandalism of property. Standard International Crime Victim Survey (ICVS) questions and proposed Indicators of Violence questions were used to explore the occurrence of those sufferings within the participant's life. The ICVS questions were designed to assess circumstances surrounding the incident such as time frame for the incident, (life time or previous 12 months), frequency of incidence, the offender who performed the incident, the place where the incident was happened, whether the sufferer reported and for whom reported the incident; and how much she/he satisfied by the response of reported body, likelihoods of future victimization and perception of safety and security [25-27].

Certain modifications were done to make the questions acceptable, understandable by people with mental disorder and relevant to time frame of their mental illness status. For example, under "Perceptions of Safety and Violence" participants had found difficult to forecast future likelihood of being a victim in the next 12 months and the feeling of safety while they are walking down the street after dark in the area where they live. So, those questions were omitted during the actual data collection. "Life time prevalence" was modified into "since you become mentally ill" to exclude incidents of victimization before the illness (telescoping). The phrase "in health care institution" was added under place of incidence and "**health professional"** under perpetrator of victimization to explore the presence of violent acts against people with mental disorders in the health care settings by heath care professional.

Predictor Variables

Demographic related variables such as participants' sex, current age, residence, marital status, religious affiliations, educational level, occupational status and housing ownership were assessed in order to determine their association with victimization. Mental illness related variables such as type of Mental illness**,** Number of Hospital Admissions, duration of mental illness and age at first onset of mental illness were assessed. And behavior related variables such as current & life time use of alcoholic beverages; chewing khat (a green leaf containing amphetamine like substance); smocking cigarette; violent acts; criminal history and suicidal behaviors were also assessed.

Substance use was assessed using questions adapted from the Alcohol, Smoking and Substance Involvement Screening Test" questions [28]. Participants were considered violent perpetrators if they had caused property damage, physical injury or sexual assaults [29] and criminal history was assessed by asking if they have had accused by police, arrested or jailed. Psychological distress following suffering from violence was assessed by asking the following question adapted from Greek study. "How much did this incident affect your mood or change your life? And they were requested to rate their feeling (mood) as High, Moderate or Low [8]. Suicidal behavior such as suicidal thought, plan and attempt were assessed by the following questions adapted from "Screening Tool for Assessing Risk of Suicide (STARS) [30]. Have you thought about suicide/ending your life? Have you ever made a plan in the past? Have you tried to end your life?

Data Collection Procedure

Data was collected by psychiatry clinicians who were assigned at psych and mood case teams by using semi structured interviewer administered questionnaire at card room and examination rooms. Questions were read and explained to every participant after their consent was obtained. Data collectors were strictly following psychiatry risk assessment procedure throughout the interview and they had recorded all responses provided by each participant.

All questions were pretested in 29 patients at Amanuel Mental Specialized Hospital one week prior to actual data collection. One day training was given to data collectors about the questions and the whole purpose of the research work. Overall activities during data collection were supervised by senior psychiatry professional with Master's Degree in Integrated Clinical and Community Mental health and principal investigator.

Method of Data Analysis

Data were collected from 610 participants and analyzed by using SPSS statistical packages version 20 for Windows. Descriptive analyses were carried out to explore the socio-demographic characteristics of participants and prevalence of violent victimization. A new data set was created from the main data set based on participants' victimization status to examine circumstances surrounding violent incidents. Multi variable Binary logistic regression model was used to examine associated factors while odds ratio was used to measure the strength of the association between overall victimization and independent variables and 95% CI and p-value= 0.05 test were taken to de-

termine the significance of the association.

Results

Socio-Demographic Characteristics of Participants

From a total of 622 eligible participants 610 (98%) had responded to the questionnaire however, there are number of missing values at individual question level. The mean age of participants was 36 (±10.8) years and 59.3% were male by sex. Based on Occupation 45.8% were jobless and 36.8% had income through employment, trade or farming. Nearly 20% joined tertiary level education and majority (58.9%) were "never married" based on their marital status See (Table 1).

Table 1: Socio-demographic and victimization status distribution of participants.

Variables	Category	Number	Percent (%)
Sex	Male	362	59.3
	Female	248	40.7
Residence	Urban	477	78.3
	Rural	132	21.7
Regional State	Addis Ababa	306	50.2
	Oromia	171	28.0
	Southern Ethiopia	79	13.0
	Amhara	44	7.2
	Other Regions	10	1.6
Religion	Orthodox	328	53.8
	Muslim	179	29.3
	Protestant	93	15.2
	Others	10	1.6
Occupation	Jobless	279	45.8
	Daily Worker & House Maid	82	13.5
	Student	24	3.9
	Employee, Merchant Or Farmer	224	36.8
Education	No Formal Education	84	13.8
	Elementary	194	32.0
	Secondary	209	34.4
	Post-Secondary	120	19.8
Marital Status	Never Married	359	58.9
	Married	156	25.6
	Separated/Divorced/ Widowed	94	15.41
Housing	Homeless (Cohabit Or Street)	307	50.3
Arrangement	Institution or Employer House	14	2.3
	Has Own House	289	47.4

Note: the inconsistency in number of respondents between items was due to missing value

Prevalence of Victimization

By aggregating all violent incidents into a new variable [any victimization] the overall score of life time and previous year victimization were 350(57.4%) and 168 (27.5%) respectively. (Table 2) below presents the number and proportions of patients exposed to victimization resulted from different categories of violent acts. Of the 350 victimized, 201(33%) suffered from property crimes such as attempted or complete theft of Property and vandalism of property other than car vandalism; 231 (37.9%) inflicted by physical violence such as being kidnapped, kicked or bitten with stick, severely injured that were potential to cause bone fracture tooth loss and 57 (9.3%) suffered from sexual violence such as rape.

Table 2: Prevalence of violent incidents by category and time frame distribution.

Victimization status by category		T 12 month		ime Frame Illness (Life) time	
Any victimization	Yes	Number 168	% 27.5	Number 350	% 57.4
	No	442	72.5	260	42.6
Any property violence	Yes	92	15.1	201	33.0
	No	518	84.9	409	67.0
physical violence (Serious +	Yes	116	19.0	231	37.9
minor injury)	No	494	81	379	62.1
Robbery	Yes	22	3.6	42	6.9
	No	588	96.4	568	93.1
Vandalism of property	Yes	14	2.3	24	3.9
	No	596	97.7	586	96.1
Property stolen	Yes	76	12.5	178	29.2
	No	534	87.5	432	70.8
Minor Physical injury	Yes	107	17.5	213	34.9
	No	503	82.5	397	65.1
Seriously physical injury	Yes	25	4.1	47	7.7
	No	585	95.9	563	92.3
Kidnap	Yes	7	1.1	11	1.8
	No	603	98.9	599	98.2
Rape	yes	23	3.8	57	9.3
	No	587	96.2	553	90.7

Life time prevalence of victimization was higher in comparison with two USA studies 25% and 35.0% [1,31]; three UK studies 40%, 23% and 16% [23,32,33]; a Dutch multisite epidemiological survey 47% [34]; an Australian study 17.9% [24] and a Taiwan study 16.8% [21]. It was also higher compared to studies done by using designs other than cross sectional [22,35,36]. But it was lower than two remote studies done using samples from inpatients settings [11,37]; and a study done in rural areas of Ethiopia (61%) [7]. The difference could be emanated from differences in definition of crime, sample size, area & settings of data collection and measurement tool. Studies shows that People with little or no close relation may motivate to beat, insult, cheat, harass, degrade, or sexually abuses due to wrong perception about mental illness and perceiving people with mental illness as dangerous, worthless and numb [11].

Circumstances Surrounding Violent Incidents

Participants with positive history of any form of victimization were selected by using "select" menu and a filter variable from main data set in Spss data sheet to analyze circumstances surrounding violent events; a data set containing 350 participants was created. Missing value analysis was done to evaluate the participants' response to those specific questions. The smallest and highest percentage of missing value was observed on variable Psychological disturbance following the incident (6.3%) and satisfaction by the response of incident reported

body (63.1%) respectively. Female participants reported their perpetrator, place of incident and frequency of violent incident more than male, whereas male have reported violent Incidents to relevant body and satisfied by the response of report receiving body more than female, see (Table 3).

Out of 350 victimized patients 119(34%) had suffered from at least two categories of violent incidents, 191(56%) of them had victimized at least two times in their illness time, 32.6% were perpetrated at their home, 31.14% were victimized by their near family and 69.9% reported high psychological distress during the incident. In most cultures of Ethiopia, beating with stick, slapping, insulting and degrading in the form of punishment by parents and elder siblings towards minors are normative (not be deemed as violence). By this scenario patients who were victimized by their family members might not recognized their sufferings as violent acts.

Table 3: Participants' response to questions related to circumstance surrounding violent incidents.

Circumstances	Partici-pant's	action	Sex
on questions	Total n (%)	Male n(%)	Female n(%)
Perpetrator Responded	319 (91.1)	181(88.3)	138 (95.2)
Missing	31(8.9)	11.70%	4.80%
Place of incident Responded	323(92.3)	185(90.2)	138(95.2)
Missing	27(7.7)	9.80%	4.80%
Frequency of incidents Responded	325(92.9)	85(90.2)	140(96.6)
Missing	25 (7.1)	9.80%	3.40%
Incident report to relevant body Responded	136(38.9)	81(39.5)	55(37.9)
Missing	214 (61.1)	60.50%	62.10%
Satisfaction by the response of Responded	129(36.9)	78(38)	51(35.2)
reported body Missing	221(63.1)	62.00%	64.80%
Psychological disturbance Responded	328 (93.7)	190(92.7)	138(95.2)
following the incident Missing	22(6.3)	7.30%	4.80%

Table 4: Circumstances surrounding violent incident by sex association with sex difference.

Circumstances		Total		Sex		Sig	OR	95% C.I. for OR	
		N=350	%	Male	Female			Lower	Upper
No of violent	Three categories	16	4.6	3	13	0.03	6.53	1.2	35.67
acts by category	Two categories	103	29.4	60	43	0.61	1.26	0.51	3.1
	Only one category	231	66	142	89			Reference	
Frequency of incident	3 times & above	125	35.7	73	52		0.47	0.16	1.32
	Two times	66	18.9	45	21		0.31	0.1	1.01
	Once	159	45.4	87	72			Reference	
Place of incidence	At home	114	32.6	40	74		8.31	2.852	24.21
	Work site & school	43	12.3	32	11	0.34	1.78	0.548	5.75
	Health facility, worship	11	3.1	8	3	0.39	2.83	0.268	29.92
	On travel	155	44.3	105	50			Reference	
Victim's relation with perpetrator	Family member	109	31.1	43	66		3.18	1.48	6.83
	Health worker	18	5.1	11	7		2.15	0.55	8.38
	Stranger & acquaintance	192	54.9	127	65			Reference Adjusted for female	
	Health worker	18	5.1	11	7		3.07		8.8
	Stranger & acquaintance	192	54.9	127	65		3		4.88
	Family member	109	31.1	43	66			Reference Adjusted for male	
Reporting violent incident	Not reported	188	53.7	106	82	0.14	3.13	0.68	14.36
	To other bodies	33	9.4	17	16	0.34	1.67	0.586	4.74
	To Police	102	29.1	63	39			Reference	
Satisfaction by reported body Psychological distress	Satisfied	58	16.6	32	26				
	Not satisfied	59	16.9	39	20				
	Don't know	29	8.3	16	13				
	Highly distressed	228		128	100	0.68	1.27	0.41	3.99
	Moderate	48		28	20	0.93	1.08	0.24	4.8
	Low distress	52		34	18			Reference	

Note: *categories of violent incidents- (1) against property (robbery, theft, and vandalism) (2) sexual: rape or attempted rape (3) physical violence: simple assault or rigorous assault.

Eg. 3 categories = property + sexual+ physical violence, 2 categories= physical + sexual or against property

The study also revealed the presence of violent acts against psychiatric patients in health care institution (1.8%) and place of worship (1.71%). It shouldn't be over-look since those places expected to be peaceful and safe**.** Of those violently victimized participants 38.6% reported their case to police or other relevant body which is lower compared to England and Wallace study (45%). The lower rate of reporting violent incidents was observed. in the current study might be due to incomparable socio economic status of Ethiopia and England which can affect quality of police service in terms of accessibility and infrastructure and this might also be due to low sample size in England and Wallace (350) compared to the current study (610) [41].

Factors Associated with Victimization

In Bivariate and multivariable binary logistic regression analysis; factors such as being female, age at the onset of mental illness 26 years and below; previously hospitalized, suicidal attempt, substance use such as alcohol, cigarette and or khat (a green leaf containing amphetamine like substance); criminal history and history of perpetrating violence had significant association with any victimization compared to their counter parts such as; male sex, first onset of mental illness 36 years and above, no hospital admission, no suicidal attempt, no history of using alcohol ,cigarette or khat, having no history of violent act against others, and no police record see (Table 5).

Table: 5 shows that Participants who had accused by police, arrested or jailed were nearly three times more likely than those no police record to have victimized with any category of offences (AOR: 2.59 95%CI=1.49, 4.49). Those individuals who smoked cigarette but never chewed khat or drink alcohol had 4.30 times (AOR: 4.30 95%CI= 1.21, 15.09) and those who were Chewing Khat at any situation (khat alone or associated with drinking and smoking, called "chebsi" in Ethiopia") 1.88 times AOR:1.88 95% CI= 1.14, 3.09) victimized than who never used any substances in their life But there was no significant relation between victimization and life time use of smoking cigarette &alcohol (p=0.31), alcohol only and illegal drugs use.

The association between substance use and victimization has been identified by different researchers and different research designs. For example, In USA among 99 women with severe mental illness, substance abuse had contributed a unique predictive power(β=0.25) [46]. In another study by the same author, recent victimization among women and men with severe mental illness who had comorbid alcohol and drug use disorders was nearly 3 times more than without [31]. In Australian study, victimization amongst people with psychosis was nearly 3 times more among substance users than non-users [24]. In a Taiwan study victimization among patients with history of alcohol abuse was almost 4 times more than no history of alcohol use [21] and in Finland among schizophrenia patients the likelihood of victimization among those who used alcohol was 5.44 times more than non- users [22]. Suicidal attempt was 2.13 times more among victimized patients than non-victimized patients AOR: 2.13 95%CI= (1.40, 3.31).

Table 5: Multi Variable Binary Logistic Regression Analysis to identify Factors Associated with any category of victimization.

Variable	Category	N	sig.	OR (95% C.I.)	Sig.	AOR (95% C.I.)
Illness (Life) time substance use	Khat at any situation	136	<.001	2.10(1.40, 3.19)	0.01	1.88 (1.14,3.09)
	Cigarette only	19	0.024	3.65(1.19, 11.20)	0.02	4.30 (1.21,15.09)
	Alcoholic only	70	0.023	1.86(1.09, 3.18)	0.05	1.83 (0.99,3.34)
	Alcohol+ cigarette	4	0.36	2.9(.30, 28.31)	0.31	3.61 (0.30,43.07)
	Illegal drugs	22	0.95	0.97 (0.41, 2.30)	0.42	0.68 (0.26,1.75)
	Never used	359			Reference	
Occupation	Jobless	280	0.1	0.74(.52, 1.06) 0.03 0.61 (0.39,0.96)		
	Daily work	82	0.91	1.03(.61,1.73)	0.45	0.80 (0.44,1.44)
	Student	24	0.32	1.60(0.64,4.02)	0.67	1.25 (0.44,3.53)
	Permanent income	224			Reference	
Housing arrangement	Homeless & dependent	307	0.52	1.11(.80, 1.54)	0.48	1.17 (0.76,1.79)
	Institution or employer house	14	0.26	1.99(0.61, 6.48)	0.46	1.63 (0.44,5.97)
	Privately own	289	0.053		Reference	
Onset at age of illness	26 years &below	379	<.001	2.51(1.52, 4.13)	0.01	2.10 (1.18,3.76)
	26-35 years	154	0.08	1.65(0.95, 2.87)	0.29	1.39 (0.76,2.57)
	36 years & above	77			Reference	
Inpatient care	Impatient care	236	<.001	2.10(1.49, 2.96)	0.003	2.03 (1.26,3.25)
	No admission	374	0.84		Reference	
Criminal history	Yes	144	<.001	3.70 (2.38, 5.76)	0.001	2.59 (1.49,4.49)
	No	466	0.78		Reference	
Violent behavior	Yes	187	<.001	2.80(1.92, 4.09)	0.052	1.60 (0.99,2.56)
	No	423	0.96		Reference	
Suicidal Attempt	Yes	153	<.001	2.62(1.75, 3.93)	0.001	2.13 (1.37,3.31)
	No	457	0.43		Reference	

Sex	Female	248	0.65	1.08(0.78, 1.50)	0.003	1.87 (1.25,2.81)
	Male	362	0.012		Reference	
Duration	Duration of illness		0.734	0.99(.98, 1.02)		0.33 (0.97,1.01)
Admission	No. of hospital admissions					0.75 (0.85,1.13)

Women were 1.87 times more likely victimized than male AOR: 1.87 95%CI= 1.25, 2.81) (table 5). On a logistic regression analysis of separated victimized patients, Women were 6.53 times more likely than men to experience multiple types of violent acts such as simple to rigorous assaults, sexual assault and property violence (AOR: 6.53 95%CI=1.20, 35.67) experiences violent traumas at their home OR (8.31: 95%CI 2.52, 24.21) and perpetrated by their near family members OR (3.18:**95**%CI= 1.48, 6.83) (See table 4). On the other hand male were nearly thiree times more likely victimized than female OR: 3.00 95%CI= 1.84**,** 4.88) see (Table 4).

Discussion

Victimization creates adverse emotional reactions which are potential to worsening of psychiatric symptoms, decrease life satisfaction which leads to poor health outcomes, poor physical and psychosocial functioning, those can affect cognition and judgment [50]. Victimization as a source of stress can also be responsible in developing, precipitating and perpetuating psychiatric symptoms. Previous Studies showed that psychiatric symptoms were associated with prolonged stress [16,17]**.**

An epidemiological longitudinal study in Italy showed high stress had an increased adjusted risk of developing metabolic syndrome and abnormal elevation of Triglyceride Cholesterol which is a risk factor for cardiovascular disease [15]. Another experimental voxel based morphometry study in the same country also showed the relationship between stressful life events and change in brain structures [14] which may be the cause of mental illness.

Due to Impairments in areas of cognition, emotion regulation, behavioral control, and judgment and communication ability People with mental illness may perpetrate violence and engagement in criminal activities that might result in reverse attacks in response to their actions. Police officers might cause victimization in response to disagreement during seizure, search or interrogation whenever the police have little awareness about mental illness [43,44]. The association between patients with criminal history and being a victim might be due to their mental illness status. A study in South Africa people with mental illness had more contact with police than non-mental illness [42].

Previous researchers also noted that people with mental illness use substances more than non- mentally ill and associated with victimization. Psychoactive substance use coupled with mental illness might led them to maladaptive behaviors such as begging, deceiving or steeling and increase the risk of victimization or decreasing one's ability to perceive risk or avoid victimization as a result of impaired decision making. Some of the reasons mentioned were using a substance as a coping mechanism or a self-medication for their physical or emotional discomfort and pain that result from mental illness or traumatic life events, to relieve feelings of intense cravings for an addictive substance [43,45].

Suicide has been a major public health problem which is mainly associated with mental illness [47,48]. Victimization fuels up suicidal behavior due to two reasons. Victimization creates adverse emotional reactions which are potential to suicide by worsening psychiatric symptoms, decrease life satisfaction which leads to poor health outcomes, poor physical and psychosocial functioning, those can affect cognition and judgment [50]. On the other hand, those who are violent towards themselves may also be violent towards to others. In this scenario, they may be victimized in response to their action [4].

Reporting violent incidents to the police or other concerned bodies such as religious leaders, elders, family head, and governmental offices or women associations have been universally accepted norms in order to get relief from psychological pain resulted from victimization. On the other hand, failing to report sufferings resulted from violent traumas was high (56.6%) in the current study. Some of the reasons for failure to report might be to protect the perpetrator, reluctance to discuss unpleasant memories and fear of future violence [32,38]. Other factors for non-reporting could also be fear of a negative response from the police; a blame for causing the incident, not being believed or taken seriously, feelings of shame or embarrassment or feeling too overwhelmed, distressed or being confused in the aftermath of the crime [26,41].

Limitations

The research is limited by its cross-sectional design which restricts the researcher to indicate direction of causal relationship. The research also failed to use standardized tool to identify type of mental illness during data collection. No control data was collected from general population or found central data base to compare burden of victimization on psychiatric patients and general population. The study measured only contact (personal) crimes experienced by participants. But there are other categories of offenses such as burglary, consumer fraud, corruption related and emotional abuses by those the respondents of this study might be Suffered.

Conclusion and Recommendations

The study identified higher prevalence of victimization which indicates the presence of unmated needs of legal protection among persons with mental disorders. The main factors associated with victimization were being female, young age, life time cigarette smoking, chewing khat, taking alcoholic drinks, previous hospitalization, history of perpetration of violence, engagement in criminal activity and suicidal attempt those are potential to precipitate & perpetuate mental illness to patient, pose burden on police activities and mental healthcare facilities. Systematic Collaborative relationship is recommended between those public bodies. Nationwide crime victim surveys are recommended to compare victimization rate among special population with general population as well as to use it as a warning alarm to prevent crimes.

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