Psychiatric aspects of children who witness domestic violence

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Background
The presence of domestic violence witnessed by children leads to development of different mental disorders of childhood.
Objectives
This study was aimed to assess the prevalence of psychiatric disorders in children who witness domestic violence.
Patients and methods
A community-based case–control study was designed to assess the prevalence of psychiatric disorder in children who witness domestic violence of both sexes aged 6–18 years old with different socioeconomic classes. Tools of measurement used in the current study were Hurt, Insulted, Threatened with Harm and Screamed tool; socioeconomic scale by El-Gilany; symptoms check list (SCL-90); and Structured Clinical Interview for DSM-IV Childhood Diagnoses for child's interview.
Results
The most common disorders among children witness domestic violence is conduct disorder (15%), major depressive disorder (10%), and attention-deficit hyperactive disorder (8.3%). Children who are not affected among studied families (cases) represented 33.3%. There was a statistically significant difference among cases that witness domestic violence and controls who did not witness it regarding additional signs, loss of appetite, insomniac problems, death ideas, aggressive symptom, and reactive sensitivity symptoms reported as well as global stress indices measured by SCL-90. The most common reason for domestic violence was the financial reasons. Fathers are more responsible for most of the violence incidents.
Conclusions
Ignoring of suffering and the long duration spent with domestic violent atmosphere without seeking help increase the risk for psychiatric disorder in those children. So legal empowerment and aid projects are essential in raising awareness to influence cultural change and put an end to domestic violence.

Keywords:
children, domestic violence, psychiatric disorders

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Introduction

Millions of children all over the world come from aggressive and abusive homes; they witness and are exposed to all types of physical and mental abuses that no child has to deal with (UNODC, 2010). Children raised in homes with violent behaviors may be argued to believe that aggressive behavior is a normal human behavior, so it is crucial to tackle such belief when it presents among abused children (UN Women, 2012). During the mid-1990s, the adverse childhood experiences study suggested that abused children who were raised while exposed to domestic violence and forms of aggressive behaviors had an increased risk of mental and physical health problems (Lazenbatt *et al.*, 2009). Exposure to chronic stress at young age disrupts the homeostasis of stress biology systems, including inflammatory process and hypothalamic–pituitary–adrenal axis hormones, which in turn disrupts normal growth of brain structures, which results in noticeable deficits in stress-exposed individuals, including cognitive functions such as tested learning, memory, and attention capacities (Danese and Mc Ewen, 2012).

In the E-risk longitudinal study of a nationally representative UK birth cohort of 2232 children, general neuropsychological deficit of 4–8 IQ points is present in victimized children with abusive homes (Wilson *et al.*, 2001). Exposure for long periods is important. Another study reported on 1777 children registered with Child Protective Services that children who come from abusive homes chronically across multiple years experience decreased IQs than children who were just situationally maltreated (Jaffee and Maikovich, 2011). Moreover, victimized children have reported to be fearful and inhibited and

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obviously more depressed than other children in safe home situation (Adams, 2006). Apart from internalizing disorders, victimized children also show more externalized behavioral problems such as aggressive and antisocial behaviors (Duncan *et al.*, 2005).

Moreover, children raised in abusive homes can be affected by an increased number of physical symptoms besides other behavioral, psychological, and emotional state of despair. Children may express general pain and aches, such as headaches and stomach aches. They also are exposed to irritable and irregular bowel habits and cold sores, and they may complain of bedwetting. Such symptoms have been linked to depressive disorders in children, which is considered a usual psychological result of domestic abuse. Besides the general complaints of not feeling well, children who witness domestic violence may also appear nervous, and they may also be exposed to symptoms of fatigue and unrelieved exhaustion. Moreover, exposed children may fall asleep in school owing to less sleep hours they have at home, as much of the night may be wasted in witnessing violence at their homes. These children are frequently ill and experience poor personal hygiene; children raised in abusive homes tend to have increased involvement in high-risk play activities, self-abuse, and suicide (Horner, 2005).

A new established fact is that childhood violence victimization is also linked to schizophrenia, psychosis, and psychotic-like symptoms (Varese *et al.*, 2012). Besides the course of illness, a meta-analysis shows that being victimized as a child also predicts a worse course of depression, as measured by number of recurrences. Childhood exposure to domestic abuse also significantly predicts a more severe course of major depressive disorders, anxiety disorders, alcohol-dependence disorders, and drug-dependence disorders. Regarding the response to treatment, a meta-analysis of clinical trials examined the treatment course of depressive disorders and showed that victimized as a child was linked to increased risk of nonresponding or relapse during treatment (Nanni *et al.*, 2012).

This study is aimed to assess the prevalence of psychiatric disorders in children who witness domestic violence.

Patients and methods

This is a community based case–control study.

Patients were selected by a simple randomization method. The study included children and families who represent different sociodemographic classes, aged from 6 to 18 years, in Dakhlia discrete community.

An initial pilot study was done to estimate the exact number of participant children. The pilot study estimated that the proposed number of the study is 120 children, divided into 60 children, as a case group, who have been exposed to domestic violence, and 60 children, as a control group, who have not been exposed to domestic violence.

Children younger than 6 years and adolescents older than 18 years, children with mental retardation disorders, children with autism spectrum disorders, children with and psychiatric disorder owing to general medical conditions were excluded.

Approvals and ethical considerations

Informed consent was taken from each family. The consent contained appropriate details about nature of the study, method, aim of the work, and importance of its futuristic results. All personal information was confidential, and the patients of the study were free to withdraw themselves at any point if they wanted to. The interviews were held at the clinic. The interviewees were contacted to give dates for the interview. The interviewees were reached by the help of lawyers in the family court and by colleagues in the primary health facilities and from Mansoura Sport and Social Club.

Tools of the study

(1) Hurt, Insulted, Threatened with harm and Screamed (Sherin*et al.*, 1998): it is a domestic violence screening tool. It consists of a clinical questionnaire of 10 questions answered by the parents. This questionnaire was answered by the mothers of the case group to identify the severity of exposure of child to violence incidents within the family. Each item is scored from 1 to 5 for four questions, and a score greater than 10 is positive for domestic abuse within the family. This screen test was performed on mothers to identify the case group who scored positive on the test and the control group who scored negative on the test.
(2) Socioeconomic scale by Gilany*et al.* (2012):
This scale was conducted on our sample to classify our sample into different socioeconomic classes, to make sure that we took a heterogeneous sample that represents all classes of Dakhlia discrete community and to identify whether social, economic, and educational status can affect the

Table 1 Prevalence of aggressive behavior in both parents

Aggressive behavior Aggressors	Emotional violence (*N*=25) [*n* (%)]	Both emotional and physical violence (*N*=35) [*n* (%)]	Total (*N*=60) [*n* (%)]	χ^2	*P*
Father	22 (88)	34 (97)	56 (93)	1.9	0.2
Mother	3 (12)	1 (3)	4 (7)		

Table 2 Causes of domestic violence incident in the case group[a]

Causes of domestic violence	Emotional violence [*N*=25 (41%)] [*n* (%)]	Both emotional and physical violence [*N*=35 (59%)] [*n* (%)]	χ^2	*P*
Financial reasons	8 (32)	10 (28.5)	0.1	0.8
Other reasons	17 (68)	25 (71.5)		
Not care for house or children	3 (12)	7 (20)	0.7	0.4
Other reasons	22 (88)	28 (80)		
Asking for divorce	2 (8)	5 (14.2)	0.6	0.5
Other reasons	23 (92)	30 (85.8)		
Addiction	5 (20)	5 (14.2)	0.3	0.6
Other reasons	20 (80)	30 (85.8)		
Refuse to have sex with husband	2 (8)	4 (11.4)	0.7	0.2
Other reasons	23 (92)	31 (89.6)		
EMA and EVE	5 (20)	4 (11.4)	0.8	0.4
Other reasons	20 (80)	31 (89.6)		

[a]Total 60 parents, comprising fathers and mothers. EMA, extramarital affairs; EVE, explosive violent episodes.

outcome for the children who are exposed to domestic violence incidents.

(3) Symptoms check list (SCL-90) (El-Behairy, 1984):
It is a self-report psychometric instrument that consists of 90 items. It consists of nine scores representing symptom dimensions and three scores representing global stress indices. High number of studies proved the reliability and the validity of this instrument. It is used to check the variety dimension of symptoms on both case and control groups. Psychological distress is also measured by the global indices on children of both case and control groups.

(4) Structured Clinical Interview for DSM-IV Childhood Diagnoses (SCID) for Kids (Matzner*et al*., 1997):

To reach *Diagnostic and statistical manual for mental disorders*, 4th ed. (DSM-IV) diagnosis if present, SCID for Kids is used as a diagnostic tool, which is a standard instrument compatible with DSM-IV criteria for attention-deficit hyperactive disorder (ADHD), other disruptive behavior disorders, and substance abuse disorder among children and adolescent.

Statistical analysis

Data were analyzed using SPSS statistical package, version 16 (Version 16, SPSS Inc., Chicago, IL). Descriptive statistics were presented as frequencies and percent. χ^2 was used to test significance between groups. *P* value less than 0.05 was considered statistically significant.

Results

Tables 1 and 2 show that the most common reason for domestic violence was financial reasons, then addiction, then the third cause was neglect of household or children, and then fourth was asking for divorce or refusal to have sex with partner, extramarital affairs, and explosive episodes. Fathers are more responsible for most of the violence incidents (Table 3).

Table 4 shows that the prevalence of psychiatric disorder in the case group of children was 66.7% compared with 35% in the control group of children, which was statistically significant (*P*=0.01). The most common disorders among children witnessing domestic violence is conduct disorder (15%), major depressive disorder (10%), and ADHD (8.3%). Children who are not affected among studied families (cases) represented 33.3%. There were no children affected with tic disorder, phobic disorder, or posttraumatic stress disorder according to SCID for Kids. Mental retardation and autism diagnoses were excluded. Children in the case group had higher scores at the additional symptom domain than children at the control group. There is a statistically significant difference among the cases and controls.

Table 5 shows that there is a statistically significant difference in the severity and type of domestic violence among cases that witnessed domestic violence and diagnosed with psychiatric disorders in comparison with cases not complaining of any psychiatric diagnoses.

Table 3 Sociodemographic data of psychiatric disorders among cases who witnessed domestic violencea

Variables	Without psychiatric disorder (*N*=20) [mean±SD/*n* (%)]	With psychiatric disorder (*N*=40) [mean±SD/*n* (%)]		χ^2	*P*
Age (years)	9±1.7	12+3		*t*=0.000	
Residence					
Urban	5 (25)	15 (75)	20 (100)	0.9	0.3
Sex					
Male	11 (40.7)	16 (59.3)	27 (100)	1.2	0.2
Female	9 (27.3)	24 (12.7)	33 (100)		
SES					
Very low/low	8 (26.7)	22 (73.3)	30 (100)	1.2	0.2
Middle/high	12 (40)	18 (60)	30 (100)		

[a]Total number of the sample=60 children. SES, socioeconomic status of the sample.

Table 4 Prevalence and different diagnoses of psychiatric disorders among cases who witnessed domestic violence and control group

Variables	Case (*N*=60) [*n* (%)]	Control (*N*=60) [*n* (%)]	Total (*N*=120) [*n* (%)]	χ^2	*P*
Without psychiatric disorder	20 (33.3)	39 (65)	59 (45)	12	0.005
With psychiatric disorders	40 (66.7)	21 (35)	61 (55)		
Types of psychiatric disorders					
MDD	6 (10)				
Dysthymia	1 (1.7)				
Mania	3 (5)				
Panic disorder	4 (6.7)				
OCD	4 (6.7)				
Substance abuse	1 (1.7)				
ADHD	5 (8.3)				
Conduct disorder	9 (15)				
Oppositional defiant disorder	2 (3.3)				
Psychotic disorder	5 (8.3)				
Generalized anxiety disorder	0				
Adjustment disorder	0				
Additional psychiatric signs	40 (66.7)	21 (35)	61 (55)		

Additional psychiatric signs, for example, loss of appetite, insomniac problems, and death ideas. ADHD, attention-deficit hyperactive disorder; MDD, major depressive disorder; OCD, obsessive-compulsive disorder.

Table 5 Comparing variant of domestic violence types and severity in relation to psychiatric diagnosis among cases that witnessed domestic violence

Domestic violence	Emotional type [*n* (%)]	Physical and emotional type [*n* (%)]	Total [*n* (%)]	χ^2	Severity			
Psychiatric diagnosis					*P*	Mean±SD	*t*	*P*
Without	12 (60)	8 (40)	20 (40)	4.1	0.04	24.8±3.9	3.6	0.01
With	13 (32.5)	27 (67.5)	40 (60)			20.7±4.5		
Total	25 (41.7)	35 (58.3)	60 (100)					

Table 6 shows that good relation of the child with his father decreases the appearance of psychiatric disorders among the case group. The age of the children who witness violence makes significant difference among cases who are affected and who are not affected with illness.

Table 7 shows that there is a statistical significant difference regarding aggressive symptom domain and reactive sensitivity symptom domain measured by SCL-90. Children in the case group had higher scores at the aggressive symptom domain and reactive sensitivity domain than children in the control group. Children in the case group had higher scores than children at the control group regarding global stress indices (Global Severity Index, Positive Symptom Distress Index, and Positive Symptom Total) measured by SCL-90.

Table 8 explains that there is a highly statistical significant difference among cases and controls regarding school refusal problem and certain social problems, such as multiple fights with classmates and multiple attendances for the parents to the school for their children problems, in comparison with remaining part of the sample.

Table 6 Relation with both parents and its relation to psychiatric diagnosis in the case group

Relation with parents	Group I (*N*=40) [*n* (%)]	Group II (*N*=20) [*n* (%)]	χ^2	*P*
Relation with father				
Good	11 (27.5)	13 (65)	7.8	0.005
Bad	29 (72.5)	7 (35)		
Relation with mother				
Good	33 (82.5)	19 (95)	1.8	0.2
Bad	7 (17.5)	1 (5)		

Group I, case group affected with psychiatric disorder. Group II, case group not affected with psychiatric disorder.

Table 7 Prevalence of aggression and reactive sensitivity and stress indices among cases who witness domestic violence and controls who do not witness domestic violence

Variables	Cases (*N*=60)		Controls (*N*=60)		Mann–Whitey	
	Median	Minimum–maximum	Median	Minimum–maximum	*Z*	*P*
Symptoms						
Aggression	1	0–4.6	0	0–3.6	3.5	<0.0001
Reactive sensitivity	0.9	0–4	0	0–5.3	3	0.003
Stress indices						
GSI	0.6	0.0–1.8	0.2	0.0–1.7	4.4	0.000
PST	45	0.0–8.3	19	0.0–8.3	3.8	0.000
PSDI	1.3	0.0–2.5	0.5	0.0–2.25	4.4	0.000

GSI, Global Severity Index; PST, Positive Symptoms Total; PSDI, Positive Symptoms Distress Index.

Table 8 Academic problem and Social problem in the studied sample

Variables	Cases (*N*=60) [*n* (%)]	Controls (*N*=60) [*n* (%)]	χ^2	*P*
Academic performance				
Low academic performance	23 (38.3)	16 (26.7)	1.9	=0.2
Remaining part of the sample	37 (61.7)	44 (73.3)		
School absence > 1 day per week.	15 (25)	8 (13.3)	2.6	=0.1
Remaining part of the sample	45 (75)	52 (86.7)		
School refusal	20 (33.3)	3 (5)	15.5	<0.0001
Remaining part of the sample	40 (66.7)	57 (95)		
Social problems				
Inability to make friends	23 (38.3)	15 (25)	2.5	=0.1
Remaining part of the sample	37 (61.7)	45 (75)		
Multiple fights with classmates	27 (45)	12 (20)	8.5	=0.003
Remaining part of the sample	33 (55)	48 (80)		
Parents attend school for child problems	18 (30)	8 (13.3)	4.9	=0.03
Remaining part of the sample	42 (70)	52 (86.7)		

Discussion

This current study is a trial to explore the phenomena of domestic violence in Egypt and its relation to presence of psychiatric illnesses among children exposed to such struggling situations. The recent study found that children in the case group have statistically significant higher incidents of psychiatric disorder than the control group, using KID SCID DSM-IV tool for diagnosis of psychiatric disorder. Results found that 40 children of the 60 children in the case group have the diagnostic criteria of a psychiatric disorder, and the numbers were as follows: six (10%) children have met the diagnostic criteria of major depression disorder, one (1.7%) child has dysthymia, three (5%) children have the diagnosis of mood disorder bipolar mania, four (6.7%) children have panic disorder, four (6.7%) children have obsessive-compulsive disorder, one (1.7%) child has substance abuse problem, five (8.3%) children have ADHD, nine (15%) children met the diagnosis of conduct disorder, two (3.3%) children have oppositional defiant disorder, and five (8.3%) of children met the diagnosis of psychotic disorders. For the control group, only 21 children of the control group have met criteria of psychiatric disorder, where ADHD was the commonest psychiatrist disorder in the control group, whereas 39 children were not diagnosed with any psychiatric disorder.

The study results are consistent with other international studies that examine children who are being victimized by domestic violence, which demonstrate that these children often meet the diagnostic criteria of the DSM-IV, for depression, ADHD, oppositional defiant disorder, conduct disorder, anxiety disorders, eating disorders, sleep disorders, communication disorders, separation anxiety disorder, and reactive attachment disorder. Each of these diagnoses is linked to diminished ability of the victimized child's complex self-regulatory and relational impairments and diminished capability of problem-solving skills and cognitive dysfunction that affect the appraisal of different future life incidents (Cook *et al.*, 2005).

Victimized children not only have childhood psychiatric disorders but are more prone to lifelong psychiatric disorders, and these problems may extend from childhood through adolescence and into adulthood. The diagnosis of posttraumatic stress disorder is often present with adults who had a history of domestic violence; depression, addiction, anxiety disorders, self-abuse, and suicide are also present at higher rates in the adult life of children who have a history of domestic violence (Horner, 2005).

In the current study, the case group of children not only had higher prevalence of the complete picture of psychiatric disorders when compared with the control group, which was assessed by Kids SCID, but also the case group ranked much higher scores on the individual symptoms assessed by SCL-90 for symptom severity. The case group had much higher symptoms of severity on anxiety symptoms, aggressive symptoms, and delusional symptoms. This could predict more complicated course and worse prognosis of the psychiatric disorders. The results of the current study are consistent with the international different studies conducted on children raised in abusive homes who can be affected by an increased number of physical symptoms besides other behaviors, psychological, and emotional state of despair. Children may express general pain and aches, such as headaches and stomach aches. They also are exposed to irritable and irregular bowel habits and cold sores, and they may complain of bedwetting. Such symptoms have been linked to depressive disorders in children, which is considered a usual psychological result of domestic abuse. Besides the general complaints of not feeling well, children who witness domestic violence may also appear nervous, and the children may also be exposed to symptoms of fatigue and unrelieved exhaustion. Moreover, exposed children may fall asleep in school owing to less sleep hours they have at home, as much of the night may be wasted in witnessing violence at their homes (Horner, 2005). Regarding the frequency and severity of the violence witnessed by children, they are more likely to develop problems related to witnessing domestic violence if the violence is frequent, and severity of incidents of violence also affects the psychological response of the child (Zuckerman *et al.*, 1995).

Other problems affecting children exposed to domestic violence are social problems. The current study results shows that there is a highly statistical significant difference among cases that witness domestic violence and controls who did not witness it regarding social abilities; children in the case group are less able to make friends, do not engage in the school or sports activity, and tend to have multiple fights with classmates. These results are compatible with the studies which show that children living in violent homes lose the ability to feel empathy for others, are unable to make friends, and are usually withdrawn. On the contrary, many children who witness domestic violence are exposed to role reversal between the child and the parent (usually the mother), as the responsibilities of the victim who is emotionally and psychologically dysfunctional are transferred to the child (UN Women, 2012). Low social abilities of children exposed to domestic violence are explained also by the limited ability of mastering complex self-regulatory functions and relational impairments and less ability of problem-solving skills (Cook *et al.*, 2005).When comparing academic performance between the case and the control group of children, the results reveal that the prevalence of low academic performance in the case group of children was 23% compared with 16% in the control group of children, the prevalence of recurrent school absence in the case group was 20% and only 10% in the control group, the prevalence of school refusal among case group was 25% in comparison with 5% in the control group, and the prevalence of children who do not have academic problem in the case group was 16.7% in comparison with 58.3% in the control group. This is consistent with international studies that have compared maltreated children versus nonmaltreated children and detected deficits in tests of memory, executive functions, attention, and concentration, making these children more prone to less academic performance and having less desire to attended school or study on a regular basis (Jaffee and Maikovich, 2011).

As important as examining the prevalence of psychiatric disorders in victimized children, it is crucial to look for the factors that can affect the outcome of the children victimized by domestic abuse (Maxwell and Maxwell, 2003). Regarding the age as a risk factor for developing psychiatric disorders in victimized children, the youngest age groups appear to exhibit more problems than those in other age groups (Hornor, 2005). Preschool children who face domestic violence incidents commonly show withdrawn attitude and anxiety and fearfulness, and school-age children in the same situations also show change in behaviors, which affects their academic achievements (Hornor, 2005). In the current study results, the age factor had a statistically significant difference, as in the case group, the affected children with psychiatric disorder were 40 children, and the mean age for the affected children was 12 years, whereas the number of the nonaffected children was 21, and the mean age group of them was 9 years. This difference in our study results compared with the results of other international studies is probably owing to the sample collected, which was from age 6 to 18, and at the clinical interview with the children in the case group, it was noticed that the oldest children themselves were more involved in family dispute more than the younger children.

When assessing sex difference a as risk factor in the appearance of psychiatric symptoms in victimized children who attend violence at their homes, both sexes are negatively affected, but the affection nature is different between boys and girls (Becker and Mc Closkey, 2002). Results from several studies suggest that victimization by domestic violence as a child, boys experience externalized behavior problems such as aggressiveness and disobedience, whereas girls are more likely to experience internalized symptoms such as anxiety and depression. However, girls from violent homes are at risk of externalized problems throughout adolescence (Becker and Mc Closkey 2002). This finding is congruent with a study which found that girls of age group 12–18 years of abused mothers showed behavior problems such as aggression and delinquency, whereas adolescent males experience sadness (McFarlane *et al.*, 2003). In the current study results, we found among the examined case group that there was a difference in children affected by psychiatric disorders regarding their sex; among the 40 children who were affected in the case group, it was noticeable that female children are significantly more affected, as 24 of the affected children were female in comparison with only 16 boys.

In current study, from clinical interview of the children in the case group, we tried to investigate why some children witnessing the same circumstances of violence are developing psychiatric disorder whereas other children do not. We found that important moderating factors were the child characteristics itself, coping ability, self-esteem, temperament, academic achievement, and physiological reactivity, which are considered factors that help in protection of the child from developing psychiatric disorders. This is consistent with other research studies that found children who are able to calm themselves with self-talk (cognitively self-soothe) during their parents' conflict have a lower risk of experiencing high levels of stress (Maxwell and Maxwell, 2003). Another moderating factor in the current study, in the appearance of domestic violence in the case group of children is the relation with their parents; in the current study, there is a statistically significant difference among cases that are affected with psychiatric disorders and who are not affected regarding relation with the parents. Good relation of the child with his/her parents decreases the appearance of psychiatric disorders among the case group.

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Conflicts of interest

There are no conflicts of interest.

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