Associating personality disorders in fathers with substancerelated disorder and their index child behavioral problems: a cross-sectional study

Samah H. Rabei^a, Mohamed H. El-Din^b

^aNeuropsychiatry Department, Faculty of Medicine, Helwan University, Helwan, ^bPsychiatry, Neuropsychiatry Department, Faculty of Medicine, Ain Shams University, Cairo, Egypt

Correspondence to Samah H. Rabei, MD, MRCPsyc, Neuropsychiatry Department, Faculty of Medicine, Helwan University, Helwan, 11727, Egypt. 01003866785; e-mail: samahrabe@yahoo.com

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Background

Paternal comorbid personality disorder among fathers with substance-related disorder may directly throw its effect on child monitoring and disciplinary practices or indirectly through its impact on the interparental relationship on their children and adolescents.

Objective

The objective of this study was to illustrate the pattern of behavioral problems of children and adolescents of substance-related disorder fathers with comorbid personality disorder, and to explore the association between these behavioral problems of children and adolescents.

Patients 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 a structured clinical interview for *Diagnostic and Statistical Manual of Mental Disorders*-IV Axis I diagnosis (clinical version), SCID-II and child behavior checklist. **Results and conclusion**

Depressive, paranoid, passive aggressive, narcissistic, and antisocial personality disorders in fathers with substance-related disorder have the worst impact on child behavioral problems..

Keywords:

behavioral problems, children and adolescents, personality disorders, substance-related disorder

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Introduction Operational definitions

- (1) Externalizing behavior problems: a group of behavior problems that are manifested in children's outward behavior and reflect the child negatively acting on the external environment (such as disruptive, hyperactive, and aggressive behaviors) (Eisenberg*et al.*, 2001).
- (2) Internalizing behavior problems: a grouping of behavior problems that more centrally affect the child's internal psychological environment rather than the external world (such as withdrawn, anxious, inhibited, and depressed behaviors) (Eisenberg*et al.*, 2001).
- (3) Substance use disorder: the recurrent use of alcohol and/or drugs that causes clinically and functionally significant impairment, such as health problems, disability, and failure to meet major responsibilities at work, school, or home. The diagnosis of substance use disorder is based on evidence of impaired control, social impairment, risky use, and pharmacological criteria (DSM-5, 2013).
- (4) Personality disorder: an enduring pattern of inner experience and behavior that deviated markedly

from the expectations of the individual's culture, pervasive, inflexible, stable over time, starting in adolescence and leading to distress or impairment (DSM-5, 2013).

The family remains the primary source of proper attachment, nurturing, and socialization. Each family member is uniquely affected by the parental disorders, but not limited to having unmet developmental needs, impaired attachment, economic hardship, legal problems, emotional distress, and sometimes violence being perpetrated against him or her. For children there is also an increased risk of developing disorders themselves (Zimic and Jakic, 2012).

Children internalize experiences with their caregivers and form 'working models' to guide their interactions with the world around them (Dixon *et al.*, 2005). Less nurturing parenting may disrupt children's sense of

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security and increase the risk for later depression (Hale *et al.*, 2006).

Poor parenting may allow children to have deviant peers who maintain children's externalizing behaviors following parent's recovery (Dishion and Owen, 2002). Child's age affects internalizing problems (Hussong *et al.*, 2008).

Psychiatric disorders and problem behavior scores were compared in preadolescent children of fathers with substance-related disorder SD and antisocial personality disorder ASP (SD+/ASP+), children whose fathers had substance dependence without ASP (SD+/ASP-), and children whose fathers were without either disorder (SD-/ASP-). The separate analyses of the lifetime prevalence of specific psychiatric disorders and the dimensional ratings of problem behaviors generated by mothers and teachers converge to support the notion of increased internalizing and externalizing psychopathology in children of antisocial substance-dependent fathers (Moss et al., 2010).

Patients and methods Type of study

Observational study.

Site of study

The 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.

Duration of the study

The research was performed during the period from June 2017 till the end of January 2018.

Participants

The sample was a convenient one.

The recruitment continued until we had 100 children and adolescents

Inclusion criteria

- (1) Index child.
- (2) Men and women.
- (3) Children and adolescents were included, aged 6–18 years.

- (4) Biological fathers who fulfill the diagnosis of current substance use disorder according to *Diagnostic and Statistical Manual of Mental Disorders*, fifth-criteria). Urine toxicological screening from all fathers with substance use disorder is taken at the start of the treatment program.
- (5) Fathers should be living with their spouse and parenting at least one child between the age of 6 and 18 years.

Exclusion criteria

- (1) Axis I psychiatric diagnosis of fathers was made according to SCID-1 enrolling those with current substance use disorder and excluding those with comorbid neuropsychiatric disorders or nicotine dependence
- (2) Families with both fathers and mothers with substance use disorder. The mother of the study participants completed the SCID-1 excluding those with current or lifetime substance use disorder diagnosis.

Ethical considerations and consent

The researchers explained the details of the research goals to the fathers and mothers, ensured that the obtained data will be confidential and that the participants could withdraw from the study at any time, and those who refused to participate or withdraw during the interview were excluded (n=19). Participants gave informed consent for participation. We requested participant permission to contact their spouses who shared parenting responsibilities.

Ethical approval of the protocol of research was obtained by the authority of Ain Shams University Ethics and Research Committee.

Tools

- (1) SCID-II is a semi-structured diagnostic interview based on an efficient but thorough clinical evaluation administered by an experienced, trained bilingual researcher to match Arabic speaking patients. SCID-II was used in previous Egyptian studies.
- (2) Child behavioral check list: is designed to be completed by the parents or caregivers of children between the ages of 6 and 18 years (mothers of the study participants completed the Child Behavior Checklist – reporting the index child). It provides rich clinical data concerning the functioning of the child in several domains: social

competence, total problems, and internalizing and externalizing syndromes. Scores are broken down into clinical range, subclinical range, and normal range for each domain. There are a total of 113 problem items that the parents must answer. It is used to create syndrome scales. The eightsyndrome scale can be divided into internalizing syndromes (anxious/depressed, withdrawn/ depressed, somatic and complaints), and externalizing syndromes (rule breaking behavior and aggressive behavior). The child behavior checklist score is calculated according to the Tscore range, in which a T-score range from 70 to 100 suggests higher risk for a certain disorder and a T-score of 65-70 range for subclinical risk. We tested an internalizing construct that included raw scores on the withdrawn, anxious/depressed, and somatic complaint syndromes and an externalizing construct that included raw scores on the delinquent and aggressive behavior syndromes plus scores on the attention problem syndrome.

Mothers also were inquired about their index child scholastic achievements.

Statistical analysis

Data analysis was done using the statistical package for the social sciences, version-22 (SPSS-22). Student's *t*-test was used for comparison between the means of different groups. Pearson χ^2 -test was used for comparison between qualitative variables. Exact test was used instead when the expected frequency is less than 5. *P* value was used to indicate the level of significance, where *P*=0.05 is considered significant, *P*=0.01 is highly significant, *P*=0.001 is very highly significant. All statistical calculations were done using computer program IBM statistical package for the social sciences (SPSS; IBM Corp., Armonk, New York, USA) release 22 for Microsoft Windows.

Results

Among children studied 56% are males, 77% are being educated with 50% satisfactory scholastic achievement. Children's age range is from 6-18 years old. Fathers' age range is from 20-60 years. 65% of fathers are employed and 38% of them are poly-substance abusers. 51% have been abusing substance for 11-20 years. On CBCL, 43% of children have affective problems, 26% have anxiety problems, 21% have conduct problems, 16% somatic problems, 11% have oppositional problems and 7% have ADHD problems. Some children have problems in more than one domain. As to father's personality disorder, 57% have passive aggressive, 55 % have

Table 1	Description	of sample	e demographics
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Sociodemographics	Category	Ν
Educational level	Uneducated 0	23
	Educated 1, 2	77
Child's scholastic achievement	Unsatisfactory	50
	Satisfactory	50
Child's sex	Male	56
	Female	44
Child's age	6-11 years	53
	12–18 years	47
Father's occupation	Unemployed	35
	Employed	65
Father's substance abuse duration (years)	0–10	10
	11–20	51
	21–30	39
Type of substance abused	Poly-substance	38
	Heroin	11
	Tramadol	17
	Alcohol	34
Father's age (years)	20–40	72
	41–60	28

Table 2 Description of children's child behavior checklist

DSM-oriented scales	Normal	Positive	Borderline
Total problems	47	20	33
Conduct problems	58	21	21
Oppositional problems	72	11	17
ADHD problems	85	7	8
Somatic problems	79	16	5
Anxiety problems	54	26	20
Affective problems	32	43	25

Table 3 Description of father's personality disorders

Personality disorder	Ν
Avoidant	41
Dependent	55
Obsessive compulsive	4
Passive aggressive	57
Depressive	40
Paranoid	31
Schizotypal	15
Schizoid	18
Histrionic	22
Narcissistic	28
Borderline	21
Antisocial	32

dependent, 41% have avoidant, 40% have depressive, 32% have antisocial, 31% have paranoid, 28% have narcissistic, 22% have histrionic, 21% have borderline, 18% have schizoid, 15% have schizotypal and 4% have obsessive compulsive personality disorders. Some fathers have multiple personality disorders.

Paranoid personality disorder in father is significantly associated to anxious/depressed, withdrawn/depressed,

Table 4 Associating child bel	avior che	cklist to	o como	rbid personality	disorder i	n father b	y mul	tiple logistic re	gression							
Child behavior checklist		Obsessi	ve com	pulsive		Sch	hizoid			Sch	zotypa	al		Par	anoid	
	-2 Log	χ^2	d.f.	Significance	-2 Log	χ^2	d.f.	Significance	-2 Log	χ^2	d.f.	Significance	-2 Log	χ^2	d.f.	Significance
Anxious/depression	3.819	3.819	2	0.148	5.334 ^b	1.588	2	0.452	4.655 ^b	0.908	2	0.635	45.426	43.80	2	0.000
Withdrawn/depression	0.000 ^b	0.000	0	1.00	3.747 ^b	0.000	2	1.00	3.747 ^b	0.000	N	1.00	48.384	46.76	2	0.000
Somatic	6.491 ^b	6.491	N	0.039	3.747 ^b	0.000	N	1.00	3.747 ^b	0.000	N	1.00	44.542	42.92	N	0.000
Social	0.000 ^b	0.000	C)	1.00	3.747 ^b	I	N	I	3.747 ^b	0.000	N	1.00	50.423	48.80	N	0.000
Thought	0.000 ^b	I	0	I	9.833	6.086	0	0.048	3.747 ^b	I	N	I	1.622 ^b	I	N	I
Attention	0.000 ^b	0.000	N	1.00	3.747 ^b	0.000	2	1.00	3.747 ^b	I	0	I	1.622 ^b	0.000	N	1.00
Internalize	3.819	3.819	C)	0.148	9.382	5.635	N	0.060	4.655 ^b	0.908	N	0.635	42.000	40.37	N	0.000
Rule break	0.000 ^b	Ι	C)	I	3.747 ^b	0.000	N	1.00	3.747 ^b	0.000	N	1.00	54.478	52.85	N	0.000
Aggressive	0.000 ^b	0.000	C)	1.00	3.747 ^b	0.000	N	1.00	3.747 ^b	0.000	N	1.00	1.622 ^b	0.000	c)	1.00
Externalize	0.000 ^b	Ι	C)	I	3.747 ^b	0.000	2	1.00	3.747 ^b	0.000	N	1.00	49.868	48.24	c)	0.000
Total child behavior checklist	0.000 ^b	0.000	N	1.00	3.747 ^b	0.000	N	1.00	3.747 ^b	0.000	N	1.00	1.622 ^b	I	N	I
Conduct	0.000 ^b	I	N	I	3.747 ^b	0.000	N	1.00	3.747 ^b	I	N	I	58.642	57.02	N	0.000
Oppositional	0.000 ^b	0.000	ო	1.00	3.747 ^b	0.000	ო	1.00	3.747 ^b	I	ო	I	39.698	38.07	ო	0.000
ADHD	0.000 ^b	0.000	N	1.00	3.747 ^b	0.000	N	1.00	3.747 ^b	0.000	N	1.00	47.055	45.43	N	0.000
Somatic	0.000 ^b	0.000	N	1.00	3.747 ^b	0.000	N	1.00	3.747 ^b	I	N	I	1.622 ^c	0.000	N	1.00
Anxiety	3.819 ^b	3.819	N	0.148	7.566 ^b	3.819	N	0.148	9.132 ^b	5.385	N	0.068	1.622 ^b	0.000	N	1.00
Affective	0.000 ^b	I	N	I	8.107 ^b	4.360	N	0.113	4.655	0.908	N	.635	1.622 ^b	0.000	N	1.00
Child behavior checklist		A	voidant			Depe	ndent			Depre	essive			Passive a	aggres	sive
	-2 Log	χ^2	d.f.	Significance	-2 Log	χ^2	d.f.	Significance	-2 Log	χ^2	d.f.	Significance	-2 Log	χ^2	d.f.	Significance
Anxious/depression	65.250	5.083	0	0.079	73.327	5.021	N	0.081	59.114	55.36	2	0.000	8.595 ^b	8.595	N	0.014
Withdrawn/depression	63.030	2.863	N	0.239	60.909	1.603	N	0.449	52.462	48.71	N	0.000	10.628 ^b	10.628	N	0.005
Somatic	62.962	2.795	N	0.247	83.443	15.13	N	0.001	51.257	47.51	N	0.000	3.537 ^b	3.536	N	0.171
Social	64.230	4.063	N	0.131	75.110	6.805	N	0.033	71.354	67.60	N	0.000	65.064	65.064	N	0.000
Thought	65.981	5.814	0	0.055	72.309	4.004	0	0.135	52.645	48.89	2	0.000	9.554 ^c	9.554	N	0.008
Attention	65.030	4.863	N	0.088	69.828	1.522	N	0.467	54.125	50.37	0	0.000	0.000 ^b	0.000	N	1.00
Internalize	62.409	2.242	N	.326	69.501	1.195	N	0.550	5.563 ^b	1.816	N	0.403	3.819 ^c	3.819	N	0.148
Rule break	64.898	4.731	N	0.094	70.184	1.879	N	0.391	45.861	42.11	2	0.000	1.824 ^b	1.824	N	0.402
Aggressive	64.710	4.543	N	0.103	69.387	1.082	N	0.582	37.029	33.28	N	0.000	60.578	60.578	N	0.000
Externalize	60.444	0.277	N	0.871	71.251	2.946	N	0.229	49.262	45.51	0	0.000	36.064	36.064	N	0.000
Total child behavior checklist	73.999	13.83	N	0.001	68.367	0.062	N	0.970	46.899	43.15	0	0.000	32.448	32.448	N	0.000
Conduct	60.910	0.743	N	0.690	75.274	6.969	0	0.031	3.747 ^b	I	N	I	0.000 ^b	0.000	N	1.00
Oppositional	89.534	29.36	ю	0.000	75.600	7.295	ю	0.063	49.690	45.94	ო	0.000	6.491 ^b	6.491	ო	060.0
ADHD	65.954	5.787	N	0.055	70.901	2.595	N	0.273	48.583	44.83	N	0.000	49.876	49.876	N	0.000
Somatic	60.810	0.643	N	0.725	75.444	7.139	N	0.028	54.685	50.93	N	0.000	0.000 ^d	I	N	I
Anxiety	67.198	7.031	N	0.030	78.221	9.916	N	0.007	73.886	70.13	N	0.000	12.547 ^b	12.547	N	0.002
Affective	63.983	3.816	c)	0.148	71.625	3.319	2	0.190	53.252	49.50	2	0.000	2.773 ^b	2.773	N	0.250

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Child behavior checklist		Hist	rionic			Narci	ssistic			Borc	lerline			Antis	ocial	
	-2 Log	χ^2	d.f.	Significance	-2 Log	χ^2	d.f.	Significance	-2 Log	χ^2	d.f.	Significance	-2 Log	χ^2	d.f.	Significance
Anxious/depression	0.000 ^b	0.000	N	1.00	34.560	31.15	N	0.000	0.000 ^b	0.000	N	1.00	35.957	35.957	N	0.000
Withdrawn/depression	46.711	46.71	2	0.000	11.37 ^b	7.972	2	0.019	0.000 ^b	I	2	I	0.000 ^b	0.000	2	1.00
Somatic	0.000 ^b	0.000	2	1.00	3.407 ^b	I	2	I	32.843	32.84	2	0.000	0.000 ^b	0.000	2	1.00
Social	0.000 ^b	0.000	2	1.00	3.407 ^b	I	0	I	0.000 ^b	0.000	2	1.00	0.000 ^b	0.000	2	1.00
Thought	2.773 ^b	2.773	2	.250	3.407 ^b	I	0	I	6.745 ^b	6.745	2	0.034	37.706	37.706	2	0.000
Attention	0.001 ^c	0.001	2	1.00	3.407 ^b	I	2	I	0.000 ^b	0.000	2	1.00	0.000 ^b	0.000	2	1.00
Internalize	0.002 ^c	0.001	2	0.999	7.938 ^b	4.531	2	0.104	0.000 ^b	I	2	I	3.819 ^c	3.819	2	0.148
Rule break	8.318 ^b	8.318	2	0.016	33.598	30.19	0	0.000	0.000 ^b	0.000	2	1.00	0.001 ^b	0.001	2	1.00
Aggressive	0.000 ^b	0.000	2	1.00	54.594	51.18	2	0.000	0.026 ^b	0.026	2	0.987	34.195	34.195	2	0.000
Externalize	0.000 ^b	0.000	2	1.00	37.579	34.17	N	0.000	27.518	27.51	2	0.000	45.772	45.772	N	0.000
Total child behavior checklist	0.000 ^b	0.000	2	1.00	6.769 ^b	3.362	2	0.186	0.000 ^b	0.000	2	1.00	0.000 ^b	0.000	2	1.00
Conduct	0.000 ^b	0.000	2	1.00	42.251	38.84	2	0.000	0.000 ^b	0.000	2	1.00	0.000 ^b	0.000	2	1.00
Oppositional	0.000 ^b	0.000	ო	1.00	48.627	45.22	ო	0.000	0.000 ^b	0.000	ო	1.00	39.948	39.948	ო	0.000
ADHD	0.000 ^b	0.000	2	1.00	55.675	52.26	2	0.000	0.000 ^b	0.000	2	1.00	0.000 ^b	0.000	2	1.00
Somatic	2.773 ^b	2.773	2	0.250	3.407 ^b	I	2	I	0.000 ^b	I	2	I	2.773 ^b	2.773	N	0.250
Anxiety	0.000 ^b	0.000	2	1.00	3.407 ^b	I	N	I	0.000 ^b	0.000	2	1.00	0.000 ^b	0.000	N	1.00
Affective	32.485	32.48	2	0.000	3.810 ^b	0.403	2	0.818	5.407 ^b	5.407	2	0.067	0.000 ^b	0.000	2	1.00
Bold value statistically significar	٦t.															

somatic, social problems, rule breaking, conduct, oppositional and ADHD problems in their index children. Passive aggressive personality disorder in father is significantly associated to withdrawn/ depressed, social problems, aggressive, ADHD and anxiety problems in their index children. Depressive personality disorder in fathers' is associated to almost all domains of CBCL in their index child. Narcissistic personality disorder in father is significantly associated to anxious/depressed, rule breaking, aggressive, conduct, oppositional and ADHD problems in their index children. Antisocial personality disorder in father is significantly associated to anxious/depressed, thought, aggressive, oppositional problems in their index children (Tables 1–4).

Discussion

This study shows that antisocial personality disorder in fathers with substance-related disorder is associated with oppositional, aggressive, externalizing, anxious/ depressed, and thought problems of their index children. This agrees with Moss et al. (2010) who show that SD+/ASP+ children showed elevated rates of major depression, conduct disorder, attentiondeficit hyperactivity disorder, oppositional defiant disorder, and separation anxiety disorder when compared with SD+/ASP- and SD-/ASP- children. externalizing These internalizing are and psychopathology in children of antisocial substancedependent fathers.

This study shows that histrionic personality disorder in fathers with substance-related disorder is associated with withdrawn/depressed index children. Also, it shows that borderline personality disorder in fathers with substance-related disorder is associated with somatic and externalizing problems of their index children. This partially agrees with Bartlett (2000) who states that externalizing behaviors in children of mothers with borderline personality disorder were clearly observed; however, some significant internalizing behaviors were seen as well.

This study shows that histrionic personality disorder in fathers with substance-related disorder is associated with withdrawal and affective problems in their index children.

This study shows that narcissistic personality disorder in fathers with substance-related disorder is associated with attention-deficit hyperactive, oppositional, conduct, rule breaking, aggressive, externalizing problems, and anxious/depressed index children. This partially agrees with Rappoport (2005) who introduced the term 'conarcissism' in children of narcissistic parents. Low selfesteem creates a desire to please others unable to penetrate their parents' self-absorption.

This study shows that paranoid personality disorder in fathers with substance-related disorder is associated with a majority of problems in their index children; and that depressive personality disorder in fathers with substance-related disorder is associated with almost all problems of their index children. Also, it shows that passive aggressive personality disorder in fathers with substance-related disorder is associated with withdrawal, social, externalizing, total problems of their index children; and that avoidant personality disorder in fathers with substance-related disorder is associated with oppositional problems of their index children; in addition to the finding that dependent personality disorder in fathers with substance-related disorder is associated with somatic problems of their index children. This partially agrees with He et al. (2019), who explored in a cross-sectional survey the associations between parental type D personality (TDP), parent-child interactive activities, and children's hyperactive behaviors, provided by 47 648 parent-child dvads using multiple regression analysis. TDP is a stable personality construct that refers to a combination of two traits: negative affectivity and social inhibition. Parental TDP was negatively associated with the frequency of parent-child interactive activities and was positively associated with children's hyperactive behaviors.

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Conflicts of interest

There are no conflicts of interest.

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