Relationship between religiosity and substance dependence among a sample of Egyptian patients

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Background
Religious and spiritual beliefs appear to be important factors associated with drug use and have protective effects against substance use and abuse.
Aim
To assess the relationship between religiosity and substance use disorder.
Patients and methods
This case–control study included 60 addicts and 60 cross-matched healthy volunteers from the patients' families. Each participant was assessed through the following tools: (a) demographic data sheet, (b) the socioeconomic status scale, (c) addiction severity index, and (d) the religious values and associated social behavior value scales.
Results
High percentages of addicts have disturbance in medical status, employment status, drugs, family status, and social relationship on the addiction severity index. The total mean score of religious value in addicts is a significantly lower than that of controls. Moreover, the total mean score of associated social behaviors in addicts is significantly lower than that of controls.
Conclusion
Addicts have a significantly lower level of both religious values and associated social behavior values than controls.

Keywords:
Egyptian patients, religious, substance dependence

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Introduction

Substance abuse is one of the most social and psychological serious problems in the world. It is estimated that 246 million people, or one of 20 people between the ages of 15 and 64 years used an illicit drug in 2013 [1]. Egypt is no exception. Indeed, substance abuse in Egypt represents a serious problem [2].

The most recent global report by the United Nations Office on Drugs and Crime estimated that 6–8% of Egypt's population aged 15–64 years use cannabis. Moreover, the prevalence of the use of tobacco and illegal drugs is increasing, particularly among youth [3].

From several cultural factors, religious and spiritual beliefs appear to be important factors associated with drug use [4].

The role of religion, in supporting a healthy lifestyle, has important potential for preventing disease. Studies have revealed a protective effect of religiosity against substance use and abuse in adolescence [5].

Aim

The aim was to assess the relationship between religiosity and substance use disorder among a sample of patients recruited from the inpatient unit and outpatients clinics at Assiut University Hospital.

Patients and methods

Methodology

A convenient sample of participants, including 60 addicts, aged ~15–55 years old, who attended the addiction management clinics and inpatient unit of Department of Neurology and Psychiatry of Assiut University Hospitals, and 60 cross-matched healthy volunteers from patients families, was recruited for the study.

The study was performed during the period from March 1, 2016 till the February 28, 2017.

Each participant was assessed through the following tools.

Demographic data sheet of all patients and control healthy group

It included name, sex, age, occupation, marital status, address, and education level.

The socioeconomic status scale to detect socioeconomic status [6]

It assesses the family status according to the seven-item scoring system. It includes father's education and work, mother's education and work, monthly income, crowding index, and sanitation. This classified participants to high, middle, low, and very low level.

Addiction severity index [7]

This is a semistructured clinical interview designed to provide a multidimensional assessment of problems presented by patients with substance use disorders to guide initial treatment planning and to allow monitoring of patient progress over time.

It gathers information on seven functional areas of behaviors often affected by drug use: medical status, employment and support, drug use, alcohol use, legal status, family/social status, and psychiatric status.

The religious values and associated social behaviors values scales [8]

This scale has been prepared by Dr. Siham Ahmed Al-Azab, Department of Sociology and Social Service in King Abd-Elaziz University in Saudi Arabia and aims to measure religious values as a metaphor and measure the actual act which reflects the same values that were measured on the scale of religious values.

The religious value scale consists of 48 phrases, whereas the associated social behavior scale consists of 46 phrases. It assesses them according to nine items, including the following:

(1) Well-mannered speech (score range, 9–15).
(2) Devotion (4–12).
(3) Modesty of God (1–9).
(4) Knowledge (4–8).
(5) Mercy (18–24).
(6) Humility (10–21).
(7) Gratefulness (4–12).
(8) Cooperation (2–13).
(9) Honesty (5–12).

Ethical aspects

The study was approved from the ethical committee in the Faculty of Medicine, Assiut University. Approval Number: 17100914. Patient's relatives were informed about the nature and steps of the study, and consent was obtained from each patient.

Statistical analysis

The data were tested for normality using the Anderson–Darling test and for homogeneity variances before further statistical analysis. Categorical variables were described by number and percent, whereas continuous variables were described by mean and SD. χ^2 test and Fisher exact test were used to compare between categorical variables, whereas comparison between continuous variables was done by independent sample t test. A two-tailed P value less than 0.05 was considered statistically significant. All analyses were performed with the IBM SPSS 20.0 software (IBM, International Business Machines Corporation).

Results

A total of 120 participants (60 addicts and 60 controls) were included in the present study (Tables 1 and 2).

It was noticed that a high percentage of addicts have levels that were mild for medical status problem (81%), moderate for employment status problem (45%), moderate for drugs problem (43, 4%), mild to moderate for family status problem (38, 5% for each), and moderate for social relationship problem (43, 4%) (Tables 3–5).

A positive correlation was noticed between sociodemographic variables and some items of religious values and associated social behavior, such as modesty of God, humility, and gratefulness. Negative correlations between socioeconomic status scores and other items of religious values and associated social behavior such as mercy and cooperation were noticed (Table 6).

It was noticed that there were significant negative correlations between total religious value score and composite scores of drugs problem, legal status problem, family history, and social relationship problem. Moreover, significant negative correlations between total social behaviors score and composite scores of employment status problem, drugs problem, legal status problem, family history, and social relationship problem were noticed.

Discussion

The purpose of this study was to understand different areas pertaining to the relationship between religiosity and substance use disorder and how religious values and associated social behaviors interact with drug use.

In the present study, most of the study populations were older than 25 years, graduated from technical school and secondary school, and recruited from middle and low socioeconomic level. Moreover, most of them were

Table 1 Demographic characteristic of addicts and controls

Demographic scale	Addicts (*n*=60) [*n* (%)]	Controls (*n*=60) [*n* (%)]	χ^2	*P*
Age (years)				
14-≤25	16 (26.7)	10 (16.7)	1.768	0.184
>25	44 (73.3)	50 (83.3)		
Range	16-60	18-55	0.215	0.830
Mean±SD	34.77±11.17	34.37±9.13		
Residence				
Rural	29 (48.3)	31 (51.7)	0.133	0.715
Urban	31 (51.7)	29 (48.3)		
Education level				
Illiterate or can read and write	18 (30.0)	15 (25.0)		
Technical school or secondary school	24 (40.0)	28 (46.7)	0.609	0.737
University education	18 (30.0)	17 (28.3)		
Occupation				
Not working	10 (16.7)	5 (8.3)		
Not skilled worker	13 (21.7)	14 (23.3)		
Skilled worker	13 (21.7)	12 (20.0)	3.283	0.512
Student	6 (10.0)	4 (6.7)		
Employee	18 (30.0)	25 (41.7)		
Marital state				
Married	28 (46.7)	28 (46.7)		
Single	28 (46.7)	29 (48.3)	0.351	0.950
Divorced	2 (3.3)	1 (1.7)		
Widow	2 (3.3)	2 (3.3)		
Religious				
Christian	10 (16.7)	8 (13.3)	0.145	0.799
Muslim	50 (83.3)	52 (86.7)		
Socioeconomic status				
Level				
Very low	7 (11.7)	6 (10.0)		
Low level	18 (30.0)	18 (30.0)	2.223	0.527
Middle level	27 (45.0)	22 (36.7)		
High level	8 (13.3)	14 (23.3)		
Total score				
Range	16-39	15-38	0.397	0.692
Mean±SD	27.55±5.94	27.97±5.53		

There are no significant differences among addict group and control group as regard all demographic characteristic.

married. In addition, high percentages of them were employees, skilled and nonskilled workers.

These findings are consistent with other studies such as a community-based study, which studies the prevalence of substance use disorder and abuse in different Egyptian governorates. It found higher prevalence among young and middle aged males, less educated persons, and working in technical or commercial jobs. It differed with our results regarding that divorced and living in urban areas were more prevalent in addicts of their results [9].

Similar observations were reported by Mohamed *et al*. [10], who reported that 43% of the addict participants were from the middle socioeconomic level, 28% were from the high socioeconomic level, and 24% were from the low socioeconomic level.

These criteria represent risk factors for substance abuse, as these show more susceptibility for irregular incomes, losses, droping out of school, and financial and social insecurity, which poses more stresses on this special population, so directed them to the use of substance, with a wrong belief to increase their work abilities and productivity, given them feeling of pleasure, or help them to coping with their problems [11].

In the present study, a high percentage of addicts have disturbance in employment status, drugs, family status, and social relationship. These findings are frequently reported in other research studies, for example, Kosten *et al*. [12] who found that greatest problem among cocaine abusers were drugs, employment, and family/social problems. Moreover, Khalil *et al*. [11] reported that a high percentage had severe family and social problems and occupation problems.

This relationship between substance use and those problems reflects imaging of social stigma associated with addiction, and the fact that this stigma is a source

Table 2 Frequency of levels of severity of different status of addiction severity index scale in addicts

Addiction severity index	Addict patients (*n*=60) [*n* (%)]	Addiction severity index mean scores of each status	Composite scores
Medical status			
No problem	0.0		
Mild	49 (81.6)	0.63±1.3	0.211±0.434
Moderate	7 (11.7)		
Severe	4 (6.7)		
Employment status			
No problem	0.0		
Mild	22 (36.6)	4.13±1.42	0.689±0.237
Moderate	27 (45)		
Severe	11 (18.4)		
Drugs			
No problem	0.0		
Mild	16 (26.6)	4.72±1.54	0.6738±0.220
Moderate	26 (43.4)		
Severe	18 (30)		
Legal status			
No problem	48 (80)		
Mild	10 (16.7)	0.57±1.13	0.283±0.563
Moderate	2 (3.3)		
Severe	0.0		
Family history			
No problem	1.0 (1.6)		
Mild	23 (38.5)	4.2±1.7	0.353±0.143
Moderate	23 (38.5)		
Severe	13 (21.4)		
Social relationship			
No problem	0.0		
Mild	22 (36.6)	4.3±1.35	0.360±0.113
Moderate	26 (43.4)		
Severe	12 (20)		
Psychiatric status			
No problem	42 (70)		
Mild	16 (26.6)	0.85±1.39	0.181±00.295
Moderate	1.0 (1.6)		
Severe	1.0 (1.6)		

Table 3 Comparison between mean scores of different items of religious values among addicts and controls

Religious value	Mean±SD		*t* test	*P*
	Addicts (*n*=60)	Controls (*n*=60)		
Well-mannered speech (9-15)	11.69±2.24	12.73±2.16	2.478*	0.01
Devotion (4-12)	9.08±2.9	10.25±2.51	2.338*	0.02
Modesty of God (1-9)	6.12±2.56	7.28±2.4	2.919**	0.005
Knowledge (4-8)	6.22±1.25	6.24±1.34	0.071	0.94
Mercy (18-24)	20.12±1.58	21.1±1.67	2.984**	0.004
Humility (10-21)	11.96±2.76	13.03±2.94	2.015*	0.04
Gratefulness (4-12)	6.88±2.48	7.95±2.44	2.056*	0.04
Cooperation (2-13)	8.81±2.48	9±2.65	0.395	0.69
Honesty (5-12)	7.23±2.24	8.08±1.96	2.225*	0.03
Total score (74-105)	86.89±7.03	91.31±7.14	3.018**	0.002

It was noticed that the total mean score of religious values in addicts is significantly lower than that of controls (*P*=0.002).

of shame not only to the patients but also to their extended families [11].

In addition, it was found that addicts had significant low level of religious values and associated social behaviors. The present finding is compatible with Salmabadi *et al.* [13], who reported that the religious health of nonaddicts is higher than addicts in Iran. Culture in Iran is similar to culture in Egypt and addiction is considered a maladaptive behavior, so religion is important to prohibit this behavior and help to have better mental health to coping with stress.

In the present study, there is a positive correlation between aging and level of religiosity. Elder addicts showed higher level of religiousness than younger addicts.

Table 4 Comparison between mean scores of different items of associated social behavior values among addicts and controls

Social behavior	Mean±SD		*t* test	*P*
	Addicts (*n*=60)	Controls (*n*=60)		
Well-mannered speech (9-15)	4.98±1.82	5.97±2.08	−2.733**	0.008
Devotion (4-12)	4.60±2.01	5.42±1.73	−2.432*	0.014
Modesty of God (1-9)	6.55±1.92	7.68±2.29	−3.393**	0.001
Knowledge (4-8)	7.22±2.43	6.58±2.04	1.545	0.125
Mercy (18-24)	17.35±2.31	18.13±2.17	−1.769	0.078
Humility (10-21)	9.59±1.44	10.35±1.58	−3.210**	0.002
Gratefulness (4-12)	4.05±1.08	4.68±1.2	−3.163**	0.002
Cooperation (2-13)	8.37±2.15	9.22±2.28	−2.290*	0.026
Honesty (5-12)	4.94±1.74	5.85±1.64	−2.802**	0.007
Total score (55-94)	67.65±7.80	73.88±7.88	−4.456**	<0.001

The total mean score of associated social behavior values in addicts is significantly lower than that of controls (*P*<0.001).

Table 5 Correlation between scores of different items of religious values and associated social behavior values and sociodemographic variables in addicts

	Age		Socioeconomic status scores		Years of education		Age of onset	
	r	*P*	*r*	*P*	*r*	*P*	*r*	*P*
Religious values								
Well-mannered speech (9-15)	−0.003	0.981	−0.111	0.404	0.336**	0.009	−0.141	0.285
Devotion (4-12)	0.121	0.362	−0.020	0.883	0.090	0.500	−0.014	0.916
Modesty of God (1-9)	0.348**	0.006	0.203	0.123	0.235	0.074	0.336**	0.006
Knowledge (4-8)	−0.075	0.573	−0.110	0.405	0.417**	0.001	0.166	0.209
Mercy (18-24)	0.397**	0.002	−0.490**	<0.001	−0.014	0.914	0.277*	0.032
Humility (10-21)	0.383**	0.003	0.234	0.075	0.176	0.183	0.036	0.787
Gratefulness (4-12)	0.153	0.248	−0.008	0.954	0.385**	0.002	0.131	0.323
Cooperation (2-13)	−0.023	0.861	−0.535**	<0.001	0.068	0.608	0.017	0.899
Honesty (5-12)	0.032	0.811	0.267*	0.041	0.140	0.290	0.327*	0.011
Social behaviors								
Well-mannered speech (9-15)	−0.157	0.230	0.094	0.473	0.296*	0.023	−0.109	0.405
Devotion (4-12)	−0.147	0.261	0.109	0.407	0.210	0.107	0.200	0.125
Modesty of God (1-9)	0.315*	0.015	0.296*	0.022	0.232	0.075	0.275*	0.033
Knowledge (4-8)	−0.220	0.091	0.052	0.695	0.363**	0.005	−0.143	0.277
Mercy (18-24)	0.296*	0.023	−0.329*	0.011	−0.021	0.876	0.397**	0.002
Humility (10-21)	0.417**	0.001	−0.049	0.711	−0.121	0.358	−0.044	0.736
Gratefulness (4-12)	0.434**	0.001	−0.111	0.398*	0.045	0.734	−0.028	0.830
Cooperation (2-13)	−0.070	0.596	−0.535**	<0.001	0.076	0.565	0.083	0.531
Honesty (5-12)	0.062	0.636	0.041	0.756	−0.048	0.718	0.235	0.070

Table 6 Correlation between composite scores of addiction severity index items and total religious value scores and total social behaviors scores in addicts

	Total religious values score		Total social behaviors score	
	r	*P*	*r*	*P*
Medical status	−0.088	0.506	−0.241	0.063
Employment status	−0.027	0.836	−0.319*	0.013
Drugs	−0.380**	0.003	−0.348**	0.006
Legal status	−0.277*	0.032	−0.293*	0.023
Family history	−0.385**	0.002	−0.305*	0.018
Social relationship	−0.368**	0.004	−0.257*	0.047
Psychiatric status	0.144	0.271	0.192	0.145

It was compatible with other studies, such as Moreira-Almeida *et al.* [14], which reported that aging are related to higher religious involvement and rated that the highest level of religion's importance.

Moreover, there is a positive correlation between years of education and level of religiousness among addicts. This is compatible with other research studies, such as Smith and Snell [15], which reported that level of religiousness is high among students in collage than people who do not go to college.

In the present, there is a complex relation between religious level and socioeconomic status. It sometimes could be negative, which is similar to other research studies, such as Schieman [16], which found that individuals with high SES report a significantly lower level of religion beliefs compared with their low SES peers.

Sometimes, it could be positive, as the results of other studies, such as Thompson *et al.* [17], which found that people with low socioeconomic status are more likely to believe in religion because these beliefs may compensate for a lack of material resources.

Moreover, we recognized a positive correlation between level of religious and age of onset. Addicts with high

religious level started to initiate substance use later in their life rather than addicts with low level who initiated it early.

Because initiation in substance use at young age is even more important because of how early drug use places an individual at greater risk for later use and could make him resistant to recovery and abstinence [17].

Similar to the present result, there has been a lot of research studies that found religion as a protective factor in the initiation of substance use [18].

Finally, we found a negative correlation between level of religiosity and substance use-related problems among addicts. More religious means more ability to coping with these problems.

This is compatible with Hodge *et al*. [19], who demonstrated that religious activities create a positive peer group that shares beliefs and discourages substance use, and Curtis and Ellison *et al*. [20], who reported that there is a strong positive relationship between religiosity and reduced marital conflict.

Limitations of the study

(1) The sample size is small, and the nature of hospital-based study (Assiut University Hospital) may make difficult to generalize the results of the study.
(2) Another limitation of the study is related to difficulty of involving female sample in the study.
(3) Moreover, we did not include religious awareness in a therapeutic plan to evaluate its therapeutic effect in the recovery state.

Conclusion

Based on the results of the present study, it can be concluded that, there is no significant difference in demographic characteristic between addict and control groups.

Addicts have significantly lower level of religious values and associated social behavior values than controls.

In addict group, there are significant positive correlations between level of religiosity and age, age of onset, and level of education. However, there is a negative correlation with socioeconomic level.

Moreover, in addicts, there are significant negative correlations between level of religiosity and drug use-related problems including employment status problem, drug problem, legal status problem, family history, and social relationship problem.

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Conflicts of interest

There are no conflicts of interest.

References

1 WHO Expert Committee on Drug Dependence, & World Health Organization. (2015). WHO Expert Committee on Drug Dependence: thirty-sixth report (Vol. 991). World Health Organization.
2 Loffredo CA, Boulos DN, Saleh DAA, Jillson IA, Garas M, Loza N, *et al*. Substance use by Egyptian youth: current patterns and potential avenues for prevention. Subst Use Misuse 2015; 50:609–618.
3 Hamdi E, Gawad T, Khoweiled A, Sidrak AE, Amer D, Mamdouh R, *et al*. Lifetime prevalence of alcohol and substance use in Egypt: a community survey. Subst Abus 2013; 34:9.
4 Yeung JW, Chan YC, Lee BL. Youth religiosity and substance use: a meta-analysis from 1995 to 2007. Psychol Rep 2009; 105:255–266.
5 Brown TL, Parks GS, Zimmerman RS, Phillips CM. The role of religion in predicting adolescent alcohol use and problem drinking. J Stud Alcohol 2001; 62:696–705.
6 Fahmy S. Determining simple parameters for social classifications for health research. Bull High Inst Public Health 1983; 13:95–108.
7 McLellan AT, Luborsky L, Woody GE, O'Brien CP. An improved diagnostic evaluation instrument for substance abuse patients: the Addiction Severity Index. J Nerv Ment Dis 1980; 168:26–33.
8 سهام احمد العزب. مقياس القيم الدينية والسلوك الاجتماعى المجسد للقيم الدينيه. 2013; 9789770528020
9 Hamdi E, Sabry N, Sedrak A, Khowailed A, Loza N, Rabie M, *et al*. Sociodemographic indicators for substance use and abuse in Egypt. J Addict Prev 2016; 4:8.
10 Mohamed NR, El Hamrawy LG, Shalaby AS, El Bahy MS, Abd Allah MM. An epidemiological study of tramadol HCl dependence in an outpatient addiction clinic at Heliopolis Psychiatric Hospital. Menoufia Med J 2015; 28:591.
11 Khalil A, Okasha T, Shawky M, Haroon A, Elhabiby M, Carise D, *et al*. Characterization of substance abuse patients presenting for treatment at a University Psychiatric Hospital in Cairo, Egypt. Addict Disord Treat 2008; 7:199–209.
12 Kosten TR, Gawin FH, Rounsaville BJ, Kleber HD. Cocaine abuse among opioid addicts: demographic and diagnostic factors in treatment. Am J Drug Alcohol Abuse 1986; 12:1–16.
13 Salmabadi M, Sadeghbojd MF, Farshad MR, Zolfaghari S. Comparing the spiritual health and quality of life in addicted and non-addicted patients in the city of Birjand, Iran. Int J High Risk Behav Addict 2016; 5:1.
14 Moreira-Almeida A, Pinsky I, Zaleski M, Laranjeira R. Religious involvement and sociodemographic factors: a Brazilian national survey/Envolvimento religioso e fatores sociodemograficos: resultados de um levantamento nacional no Brasil. Rev Psiquiatr Clín 2010; 37:18–26.
15 Smith C, Patricia S. Souls in transition: The religious and spiritual lives of emerging adults. Oxford University Press, 2009.
16 Schieman S. Socioeconomic status and beliefs about God's influence in everyday life. Sociol Relig 2010; 71:25–51.
17 Thompson MS, Thomas ME, Head RN. Race, socioeconomic status, and self-esteem: the impact of religiosity. Sociol Spectr 2012; 32:385–405.
18 Chitwood DD, Weiss ML, Leukefeld CG. A systematic review of recent literature on religiosity and substance use. J Drug Issues 2008; 38:653–688.
19 Hodge DR, Cardenas P, Montoya H. Substance use: spirituality and religious participation as protective factors among rural youths. Soc Work Res 2001; 25:153–161.
20 Curtis KT, Ellison CG. Religious heterogamy and marital conflict: findings from the National Survey of Families and Households. J Fam Issues 2002; 23:551–576.