Schema Therapy's Efficacy on Obsessive Symptoms among Patients with Obsessive-Compulsive Disorder

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Abstract:

Background: *Obsessive- Compulsive Disorder (OCD) global prevalence is 1.8%. Untreated OCD is associated with significant educational, familial, and social dysfunctions and increased risk for other psychological and psychiatric disorders. Sadock BJ, (Sadock V.; 2016. Lack C, Storch E, Keeley M, Geffken G, Ricketts E, Murphy TK et al. 2009). For patients with obsessive compulsive disorder (OCD)., Cognitive Behavioral Therapy (CBT) has been described as the first line of treatment. To improve outcomes new targets of intervention have been suggested (Veale et al., 2015).* ***Aim of study*** *Examine the efficacy of Schema Therapy on obsessive symptoms among patients with obsessive-compulsive disorder.* ***Research hypothesis:*** *Patients with obsessive-compulsive disorder who attend Schema Therapy sessions exhibit lower level of obsessive symptoms compared to those scored before attending the schema therapy sessions.* ***Setting****: The study was conducted in the psychiatric outpatient clinics of the Main University Hospital, which is affiliated to the Faculty of Medicine, Alexandria University. The clinics provide free treatment services for patients suffering from neuro-psychiatric disorders.* ***Sampling:*** *The G*Power Windows. 3.1.9.7 Program was used to estimate the sample size using the following parameters: about 30 outpatients with OCD per 3 months, effect size f = 0.50, α err. prob. =0.01, Power (1-β err. prob.) = 0.99, number of groups=1 and number of measurements= 4. The program revealed a sample size of 10 patients minimum and 12 patients maximum.* ***Results****: It can be noticed that the mean score of the severity level of OCD in the study group significantly decreased from 32.38±5.84 at the first measurement before the intervention to 18.07±3.70 after implementing the schema therapy with a statistically significant difference (F=55.04, P=0.000), with effect size of 82.1%.* ***Conclusions:*** *The previous results reveal the efficacy of schema therapy for patients suffering from obsessive compulsive disorder. This intervention helps these patients learn new skills and use more adaptive strategies to deal with early maladaptive schemas, to gain awareness about those early maladaptive schemas and how to control emotions associated with them.* ***Recommendations****: Discharge plan for patients with obsessive compulsive disorder should include health teaching about early maladaptive schemas and how to respond to those emotion that are related to each schema as well as connect those early maladaptive schemas to associated symptoms, and consequently foster rehabilitation and adaptation to community.*

Keyword: Schema therapy, obsessive-compulsive disorder.

Introduction

For the publication of DSM-5, OCD was the subject of significant revisions to its

classification and diagnostic criteria. One of these significant changes was the removal of OCD from the "anxiety disorders" and placing it as a standalone category entitled "Obsessive-Compulsive and Related Disorders (OCRDs)." This group of conditions now includes OCD, body dysmorphic disorder (BDD), trichotillomania (TTM; hair-pulling disorder), excoriation (skin-picking) disorder, hoarding disorder, substance/medication-induced OCRD, OCRD due to another medical condition, and other specified OCRDs. So obsessive-compulsive disorder (OCD) has been introduced as an independent category in the fifth edition of the diagnostic and statistical manual of mental disorders (DSM-5). OCD is characterized by obsessive thoughts and unwanted repetitive behaviors (i.e., compulsions). According to the World Health Organization (WHO), the fourth most common psychiatric disorder after depression, social phobia, and substance abuse is obsessive-compulsive disorder (WHO, 2019). (DSM-V, 2013). Leckman, J. et al,2010); Van Ameringen, M., Patterson, B., & Simpson, W. (2014)

Its global prevalence is 1.8%. Untreated OCD is associated with significant educational, familial, and social dysfunctions and increased risk for other psychological and psychiatric disorders. *Sadock BJ, (Sadock V.; 2016. Lack C, Storch E, Keeley M, Geffken G, Ricketts E, Murphy TK et al. 2009. Bolton D, Perrin S. 2008)* For patients with obsessive compulsive disorder (OCD)., Cognitive Behavioral Therapy (CBT) has been described as the first line of treatment. (Abramowitz, Franklin, Schwartz, & Furr, 2003; Rufer, Fricke, Moritz, Kloss, & Hand, 2006; Tolin, Maltby, Diefenbach, Hannan, & Worhunsky, 2004). Cognitive Behavioral Therapy (CBT)is a common type of psychotherapy that looks at how beliefs, emotions, and behaviors interact. Its goal is to assist people in overcoming emotional issues by educating them about automatic thoughts and how they affect the way they feel and act. It focuses on improving people's mindsets to change their moods. As an extension of CBTs, schema therapy was developed as one of the third-generation CBTs. This therapy focuses on early life experiences, which form memories and schemas that are re-activated in different situations. These schemas are formed due to the unfulfillment of basic childhood emotional needs such as the needs for safety, free need expression, recreation, spontaneity, and realistic limits. These schemas are persistent and include abnormal patterns that significantly contribute to symptom development. Schema therapy deals with creating psychological awareness about these schemas and modifying them through cognitive and experiential techniques. The main focus of schema therapy is on therapist-patient relationship as well as the use of those cognitive and experiential techniques that magnify the effects of CBTs (Young J, Klosko J, Weishaar M. 2014)

Significance of the study:

Researchers indicated the importance of conducting more research to confirm and enhance the role of Schema Therapy and to identify people who could benefit from it, as there is a lack of standardized studies that focus on the effectiveness of this type of treatment on clinical symptoms and neurological disorders in general. (Hawke, L. & Provencher, M. (2011) The studies that have been conducted are still in their beginning and require more research efforts, this justifies the choice of this study to test the efficacy of schema therapy on patients with OCD patients in the Egyptian culture.

In this study, evidence-based techniques and strategies that were used by Young et al (2003) in his therapy were applied. This was done after translating the diagnostic tools into Arabic language and modifying them to be consistent with the Egyptian culture. Hoping that the application of these

interventions may help the Egyptian OCD sufferers.

This research may provide a scientific and practical reference and an important database for researchers and psychiatric practitioners. This thesis presents a detailed study in theory and practice of a therapeutic theory, which is one of the theories emerging from the most important modern therapeutic trends; CBTs, that is characterized by accurate, clear, and learnable strategies and techniques.

Aims of the Study

This study aims to examine the efficacy of Schema Therapy on obsessive symptoms among patients with obsessive-compulsive disorder.

Research Hypothesis:

Patients with obsessive-compulsive disorder who attend Schema Therapy sessions exhibit lower levels of obsessive symptoms compared to those scored before attending the schema therapy sessions.

Materials and Method

Materials

Research Design

A quasi-experimental repeated measures research design will be followed in this study.

Settings

The study will be conducted in the psychiatric outpatient clinics of the Main University Hospital, which is affiliated to the Faculty of Medicine, Alexandria University. The clinics provide free treatment services for patients suffering from neuro-psychiatric disorders. These services include psychiatric examination, diagnosis, and dispensing medications and psychotherapy for some patients.

The clinics work 4 days/week (Sunday, Monday, Tuesday and Thursday), from 8 am to 2 pm.

Subjects: Based on the outpatient's records of the above-mentioned setting, the number of patients diagnosed with OCD who visit the psychiatric outpatient clinics per week ranges between 1 to 4 patients; 4-16 patients per month, and 12-48 patients / 3 months (the psychiatric outpatient clinics records of the Main University Hospital 2019/2020).

The G*Power Windows. 3.1.9.7 Program was used to estimate the sample size using the following parameters: about 30 outpatients with OCD per 3 months, effect size f = 0.50, α err. prob. =0.01, Power (1-β err. prob.) = 0.99, number of groups=1 and number of measurements= 4. The program revealed a sample size of 10 patients minimum and 12 patients maximum. Accordingly, the study subjects will comprise a convenience sample of 12 patients diagnosed with OCD according to the DSM-5, with no comorbidity.

Tools: Three tools will be used to collect the data:

First tool: ***Socio-demographic and Clinical Data Structured Interview Schedule for Patients with OCD***

This tool will be developed by the researcher to elicit data about the studied patients such as age, sex, marital status, educational level, occupation, living situation and area of residence. It will also cover clinical data such as duration of illness, date of starting treatment, medications presently taken and medication compliance to medication.

Second tool: Yale-Brown Obsessive-Compulsive Scale (Y-BOCS)

The Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) was developed by Goodman et al, (1989). The scale is regarded as the gold standard in the

measurement of obsessive-compulsive disorder symptoms severity and treatment response. It is a semi-structured interview that consists of 10 core items. Five items measure time occupied by obsessive thoughts, interference distress associated with obsessive thoughts, resistance against obsession and degree of control over obsessive thoughts, and the other 5 items measuring compulsions. The items are rated on a 5-point Likert scale ranging from 0 (no symptoms) to 4 (severe symptoms) and yield a global severity score ranging between 0 to 40, with 2 items (5^{th} item in obsessions subscale and 5^{th} item in compulsions subscale) having negative scores (Goodman et al., 1989). The total score between 0 and 7 is subclinical. A score from 8 to 15=mild OCD; 16–23=moderate; 24–31=severe; and 32–40=extreme OCD (Goodman et al., 1989).

Method

- Approval from the Ethical Research Committee, Faculty of Nursing-Alexandria University, was obtained.
- Written permissions for conducting the study were obtained from the responsible authorities.
- Before starting this study, the researcher undergoes an online training on schema therapy by the team of the International Society of Schema Therapy, and CBT, and license was delivered. Follow the link below: https://schematherapyaustraliaonline.teachable.com/p/schema-therapy-online-course-1-the-basic-model-methods-and-techniques51
- The researcher undergoes training on Schema Therapy with Dr. Tarek Abd El-Salam El-Saeed as one of the thesis supervisors. He has PhD in Clinical Psychology, and he is a licensed clinical psychologist and psychotherapist at the Ministry of Health.
- Tool 1 (Socio-demographic and Clinical Data Structured Interview Schedule for Patients with OCD) was developed by the researcher.
- Tools 2 (Y-BOCS) was translated into Arabic language by the researcher.
- Tools 2 was tested for content validity by a jury of five experts in the field of psychiatric nursing.
- A pilot study was carried out on 3 outpatients with OCD in order to assess and ensure the clarity of the tools and identify any obstacles that may hinder the data collection. Those patients were excluded from the actual study subjects.
- Reliability of tool 2 was tested using the Cronbach's alpha method on 5 outpatients who met the inclusion criteria.
- Patients' records were reviewed to ensure patients' diagnosis and identify subjects who met the predetermined inclusion criteria.
- Patients were interviewed individually to establish rapport, explain the purpose of the study, assess OCD symptoms and identify early maladaptive schemas using the study tools.
- The thesis supervisor, Dr. Tarek Abd El-Salam El-Saeed, supervised the data collection process.

Ethical considerations:

- Informed written consent was obtained from the recruited patients or their accompanying persons after explaining the aim of the study.
- Data confidentiality was assured and respected.
- Patient's privacy was considered and respected.
- Patient's voluntary participation and the right to withdraw was respected.

Statistical analysis of the data

Data were coded, computerized, and then analyzed using the Statistical Package for Social Science (SPSS) software package version 16.0. following data entry, checking

and verification processes were carried out to avoid any errors during data entry.
Number and percentage were used for describing and summarizing qualitative data.
Minimum and maximum were used for describing and summarizing quantitative data.
Mean (X) was used to measure central tendency in statistical tests of significance.
Standard deviation (SD) in an average of deviations from the mean. It was used for measuring the degree of variability in a set of scores**.**

Results

I. Distribution of the studied subjects according to their socio-demographic characteristics:

Table (I) presents the distribution of the studied subjects according to their socio-demographic characteristics. The total number of subjects for this study were 13 patients. The percentage of male patients constituted 46.2% of the subjects, and female patients constituted 53.8%.

The age of the studied subjects ranged between 23 and 39 years. Patients aged from 20 to 30 years constituted 84.6 % of the total subjects and patients aged from31 to 40 years constituted 15.4 %. In relation to marital status, single subjects reached 92.3% of the total; married subjects amounted to 7.7%.

Regarding the studied subjects' educational level, patients who had a university level of education represented 92.3 %, while those with a secondary level of education constituted 7.7 % of the total studied subjects. As regard subjects' occupation, 69.2% of the total subjects were unemployed, and 31.2% were employed. Concerning the place of residence, 100% of the subjects were living in urban areas. Moreover, 62.5% of the total subjects were middle children. While 30.8 % were last child and 7.7% were first child.

Subjects' family size ranged from one to more than six. Size of families ranging from 3 to 6 was 76.9%, and 23.1% range from 1-3. It was found that 23.1 % of the total subjects had insufficient income. As for subjects' cohabitation, 100 % of total subjects were living with their families.

II. Distribution of the total subjects according to their clinical characteristics:

Table (II) presents the distribution of the studied subjects according to their clinical characteristics. The duration of illness among the studied subjects ranged between 1-10 years. It was found that 76.9% of the total subjects had a duration of illness of less than 5 years. For 23.1% of the subjects, the duration of illness ranged between 5 to 10 years. The majority of subjects (92.3%) had no previous hospitalization.
Regarding positive family history of mental illness, the table reflects that 92.3% of the total subjects had negative family history of mental illness.

Speaking about their support system all the subjects reported having family support. Regarding the type of family support provided, it was financial and psychological for all studied patients**.**

III: Distribution of the studied subjects according to their treatment modalities:

Table (III) presents the distribution of the studied subjects according to their received treatment modalities. The table reflects that 100% of total subjects received both pharmacotherapy and psychotherapy as treatment modalities, and none of them received ECT. Patients receiving pharmacological treatment amounted to 100% of patients. Out of these, 23.07% received one type of antipsychotics only, 7.69% received two types of antipsychotics, and 53.84% received antidepressants as well as antipsychotics, about 15.38% received antidepressants only.

In relation to patients' compliance with medications, 100% of the subjects were compliant with their medications.

Table (IV) presents descriptive comparative analysis of the studied subjects according to obsessive compulsive symptoms severity

From this table it can be noticed that the mean score of the severity level of OCD in the study group significantly decreased from 32.38±5.84 at the first measurement before the intervention to 18.07±3.70 after implementing the schema therapy with a statistically significant difference (F=55.04, P=0.000), with effect size 82.1%.

Discussion

The mentally debilitating condition known as obsessive-compulsive disorder affects a large number of people in the world today. Obsessive-compulsive disorder, sometimes known as OCD, is a common and persistent mental health problem that is linked to a significant impairment in everyday life. The DSM-5 now classifies 'obsessive-compulsive and associated disorders,' an example of which is the well-known condition known as obsessive-compulsive disorder (OCD). If a person suffers from obsessions and/or compulsions, then it is possible to diagnose them with obsessive-compulsive disorder (OCD). Obsessions are recurrent and disturbing patterns of thought, image, impulse, or drive, and anxiety is a common factor that leads to the development of obsessions. It is not unusual for individuals to acquire compulsions as a means of protecting themselves from the negative consequences of focus. Compulsions are characterized as mental or behavioral routines that are based on rituals or rules and that a person feels they need to participate in in order to feel "complete."

The treatment known as schema therapy is an example of third-generation cognitive behavioral therapy. The concept that an individual's formative years may act as a trigger for cyclical patterns of thinking and behavior is given special attention in this approach. This hypothesis was developed by psychologist Erik Erikson. These patterns of thought and behavior are the result of unfulfilled emotional needs in infancy, such as the need for a secure environment, the freedom to express oneself, opportunities for play, improvisation, and boundaries. These needs were not met during infancy, and as a result, these patterns of thought and behavior were formed. Despite the fact that these schemas may survive for a long time, they can display irregular patterns that significantly contribute to the maturation of symptoms.

As a result, the purpose of this research was to investigate the effects that Schema Therapy had on the severity of OCD sufferers' obsessions as well as the progression of their maladaptive thinking patterns (such as emotional inhibition, emotional deprivation, sensitivity to pain or sickness, and failure schemas).

This study demonstrates that the severity of OCD in the study group decreased from a score of 32.38±5.84 at the first measurement before the intervention to a score of 18.07±3.70 after the implementation of the schema therapy, with a difference that was statistically significant (F=55.04, P=0.000), an effect size of 82.1%, and stability of significance after the 4th measurement. [This] Since there were either no modifications to the drug at all or just minor adjustments, particularly for 10 out of 13 of the responders, it may be deduced that the improvement in symptoms is not related to the use of pharmacotherapies. If the patient is made aware of early maladaptive schemas and the links between those schemas and formative events in infancy, then the patient's current behavior in reaction to obsessive notions may be seen as a defensive strategy against the beginnings of anxiety. This is the case if the patient is made aware of the links between those schemas and formative events.

The patient's heightened awareness serves as a diversion from the obsessive activity by acting as a distraction when the

patient's anxiety level falls, the patient spends less time ruminating on their ideas, and the patient gradually stops engaging in the habit. Experiential approaches, such as those used in schema therapy, have been shown to be effective in reducing obsessive symptoms experienced by OCD patients (Young et al., 2003). Recent empirical research demonstrates that (Thiel et al., 2016)

Conclusion

Evidence revealed that patients with obsessive compulsive disorder use early maladaptive schemas as emotional inhibition schemas, emotional deprivation schemas, failure schema, vulnerability to harm or illness schema. Accordingly, pharmacotherapy should be associated with other forms of therapies to manage severity of those early maladaptive schemas among these patients. The previous results reveal the efficacy of schema therapy for patients suffering from obsessive compulsive disorder. This intervention helps these patients learn new skills and use more adaptive strategies to deal with early maladaptive schemas, to gain awareness about those early maladaptive schemas and how to control emotions associated with them. It also helps patients understand origin of the current behavior and associated symptoms, decrease the frequency of unwanted behaviors (obsessions and compulsions), decrease level of severity of each one of early maladaptive schemas namely emotional inhibition, emotional deprivation, failure, vulnerability to harm or illness schemas.

Recommendations

In line with the findings of the study, the following recommendations are suggested:

-Patients with obsessive compulsive disorder should gain awareness about their own early maladaptive schemas, and how those schemas are linked to their obsessive-compulsive symptoms. These skills would begin with assessment of their early maladaptive schemas and followed with promoting the awareness about them, and how those schemas affect their response to everyday life situations.

-Discharge plan for patients with obsessive compulsive disorder should include health teaching about early maladaptive schemas and how to respond to those emotion that are related to each schema and connect those early maladaptive schemas to associated symptoms, and consequently foster rehabilitation and adaptation to community.

-Family psychoeducational interventions should be developed to increase families' awareness of child rearing problems that occur and foster development of early maladaptive schemas, and consequently affect future response and behavior of the individual**.**

Limitations of study

The main limitation of this study is that the possibility of generalizing the results is limited because of the sample size. Therefore, it is recommended to repeat the study on an even larger sample.

Table (1): Table (I): Distribution of the studied subjects according to their socio-demographic characteristics:

Patients' socio-demographic Characteristics	Total subjects: 13	
	No	%
Sex		
Male	**6**	**46.2**
Female	**7**	**53.8**
Age (years)		
20-30	**11**	**84.6**
31-40	**2**	**15.4**
Marital status		
Single	**12**	**92.3**
Married	**1**	**7.7**
Level of education		
Secondary	**1**	**7.7**
University	**12**	**92.3**
Work status		
Un-employed	**9**	**69.2**
Employed	**4**	**30.8**
Place of Residence		
Urban	**13**	**100**
Birth order		
First child	**1**	**7.7**
Middle child	**8**	**61.5**
Last child	**4**	**30.8**
Family size		
1 – 3	**3**	**23.1**
4 – 6	**10**	**76.9**
Income		
Not enough	**3**	**23.1**
Enough	**10**	**76.9**
Cohabitation (with family)		
With husband /wife	**3**	**23.1**
With father and mother	**10**	**76.9**

Table (II): Distribution of the total subjects according to their clinical characteristics:

Patients' clinical characteristics	Total subjects: 13	
	No	%
Duration of illness		
Less than 5 years	10	76.9
More than 5 years	3	23.1
Min. – Max	1-10	
Mean ± SD.	3.4615±2.9612	
Previous admission		
Yes	1	7.7
No	12	92.3
Family History		
Positive	1	7.7
Negative	12	92.3
Family Support		
Yes	13	100
If yes	No =13	
Type of Support Received		
Financial and Psychological	13	100

Table (III): Distribution of the studied subjects according to their treatment modalities:

Patients' treatment modalities	Total subjects: 13	
	No	%
Type of treatment		
Medication only	0	0
Medication and psychotherapy sessions	13	100
ECT	0	0
Compliance		
Compliance	13	100
Non-compliance	0	0
Medication used		
Aripiprazole (Antipsychotic)	3	23.07
Clozapex. Aripiprazole (Antipsychotic)	1	7.69
Faverin or Philozac, aripiprazole (antidepressants, Antipsychotic)	7	53.84
Philozac (antidepressants)	2	15.38

Table (IV): Descriptive comparative analysis of the studied subjects according to obsessive compulsive symptoms severity and early maladaptive schemas scores in four repeated measures. and effect size (within subjects) of schema therapy on OCD level of severity, Emotional inhibition schema level of severity, Emotional deprivation schema level of severity, Failure schema level of severity, Vulnerability to harm or illness schema level of severity.

- ***Test of Significance used is Sphericity Assumed, computed using alpha = .05.***

Variable (study subjects: 13)	1st measure Mean ± SD.	2nd measure Mean ± SD.	3rd measure Mean ± SD.	4th measure Mean ± SD.	F	p	Partial Eta Squared	Partial Eta Squared %
OCD level of severity	**32.38±5.84**	**27.07±6.99**	**20.54±5.13**	**18.08±3.71**	**55.04**	**.000***	**.821***	**82.1%**

- **** Statistically significant at p ≤ .05***
- **** Partial Eta Squared is statistically significant at p ≥ 0 .50***
- **** Partial Eta Squared % is statistically significant at p ≥ 50%***

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