

Literature Review





The use of the young schema questionnaire - long version (YSQ-L3): a systematic review of literature on interventions

Abstract

Schema Therapy is an approach that was initially used to treat personality disorders. However, over time, studies have shown that its use could also be extended to acute disorders. One way to investigate its effectiveness is by using the Young's Schema Questionnaire (YSQ), which investigates the Early Maladaptive Schemas (EMSs) of individuals. Through a Systematic Review of articles published from 2003 to 2019, this article proposes the investigation of interventions in Schema Therapy using the YSQ- Long Version (YSQ-L3). The bases investigated were SCOPUS, Pubmed and Psycinfo. Interventions were found in personality, mood and personality disorders. The studies were carried out both on individuals individually and in groups, but most of them were mixed. In all studies there was a decrease in psychopathological symptoms and EMSs. This denotes the importance of instrument validation studies and adaptation of protocols based on Schema Therapy for use in Brazil.

Keywords: systematic review, young scheme questionnaire, schema therapy esquemas

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Introduction

Personality can be defined as behavior patterns and typical attitudes of an individual, so that personality traits differ from one individual to another, being, however, relatively constant and stable in each person.¹ Personality is formed throughout life, based on the social environment and life¹ experiences, taking into account how the individual feels, thinks and acts.² In this sense, it should be noted that several theoretical models have contributed to a better understanding of personality and, from the model based on five factors, there was an impetus and direction, due to the establishment of a consensus in relation to the structure.³ The Five Big Factors model, also known in the literature as Big Five, is an explanatory and predictive theory of personality, originated through a set of researches, developed by McDougall, with the intention of analyzing the language of the population.⁴

Schema Therapy (ST) contributed in a robust way to studies about personality. The theory, which was developed by Jeffrey Young and collaborators, 5 is an integrative approach, which, initially, was directed towards patients resistant to the psychotherapeutic process. The treatment combines elements of several approaches, such as cognitive-behavioral therapy, Gestalt theory, object relations theory, constructivism and psychoanalysis. 6

Also, according to the ST, personality is formed by temperament, which includes genetically inherited characteristics, and by experiences lived in childhood and early adolescence. Temperament is a biological determinant, which establishes the ideal dose of emotional needs to be met at different stages of development. Altogether, there are five fundamental emotional needs for all individuals: the need for secure attachments, autonomy and competence, realistic limits, freedom of expression and spontaneity, and leisure. These emotional needs, when not met, may generate mental schemas called Early Maladaptive Schemas (EMSs). 8

It is important to point out that EMSs are rigid beliefs that guide how individuals encode, interpret and respond to stimuli in their environments.⁹ EMSs are stable, enduring and affect the subject's way of thinking, feeling, behaving and communicating. Because they are elaborated mainly during childhood and developed throughout the individual's life, they are dysfunctional to a significant degree.¹⁰ Furthermore, they are developed in the presence of traumatic or negative experiences, usually involving the family of origin or the main caregivers.¹¹ The effects of these harmful patterns affect many areas of life, including relationships, self-esteem, careers and goal achievement.⁶

In this sense, 18 EMSs were proposed, framed in five different domains, related to basic emotional needs. To assist in the investigation, the Young's Schema Questionnaire was developed. This instrument contains two versions, a long version (YSQ-L3) and a short version (YSQ-S3). 10,12-14 The YSQ is currently the most used instrument to assess maladaptive schemas, both in clinical practice and in research, and makes it possible to distinguish between individuals in the clinical and non-clinical groups. 15 The objective of this article is to carry out a systematic review, with the aim of describing intervention research using Young's Schema Questionnaires - long version (YSQ-L3). In addition, the article also aims to identify the main studies that evaluate psychopathologies using this instrument.

Method

The present study is a systematic review and, for its accomplishment, the SCOPUS, PubMed and Psycinfo electronic databases were consulted. The descriptors "Schema Therapy" AND "Young Schema Questionnaire" AND "Schema Questionnaire" were used. The selection of articles was performed by pairs, including articles from empirical studies of interventions, published in English, using the YSQ-L3 and studies ranging from 2003, the year of development of the scale, to 2019. Duplicate studies were excluded. unavailable and research without the ST theme. For data analysis, the PRISMA method of systematic reviews was used. The sample description was characterized by year of publication, authors, database, country of origin, design, sample size and sample characterization, as shown in Table 1.



Table I Papers Characterization

	Year	Authors	Database	Country	Outline	Sample Size	Sample characterization
ı	2010	Cockram, D. M.; Drummond D. & Lee, W.	Scopus; Pubmed & Psycinfo	Australia	Correlational Study and Outcome Research	N= 220	Male war veterans, M with and without PTSD;
2	2012	Seavey, A. & Moore, T. M.	Scopus	United States	Case Study	N= I	Male, with unspecified Personality Disorder and Major Depressive Disorder, 18 years old, Chinese- American.
3	2013	Shorey, R. C.; Stuart, G. L.; Anderson, S. & Strong D. R.	Scopus & Psycinfo	United States	Search Results	N= 97	Male individuals hospitalized for alcohol and/or opioid use disorder
4	2014	Maloggianis, I., Spyprolou, A., Arntz, A. & Tsartsara, E.	Scopus; Pubmed & Psycinfo	Greece	Cases Series	N=12	Female Individuals diagnosed with Chronic Depression
5	2014	Leppännen, V. Krärki, A., Saariaho, T., Lindeman, S. & Hakko, H.	Scopus; Pubmed & Psycinfo	Finland	Randomized Clinical Trial	N=45.	45 participantes diagnosed with Borderline Personality Disorder
6	2016	Schaap, G. M & Westerhof, F. C. G. G.	Scopus & Psycinfo	Nederland	Prospective cohort study and discourse analysis	N=42	30 female and 12 male individuals with personality disorder.

Results

The way the articles were choosen can be seen in Figure 1. The studies were carried out in Australia, United States, Germany, Greece, Finland and the Netherlands. Article 1 shows off two studies. The purpose of their first study was to explore the relationship between childhood parenting experiences, EMSs, and Post Traumatic Stress Disorder-PTSD. The second study in this article aimed to evaluate the effectiveness of an intervention with Schema Therapy in Vietnam war veterans with PTSD.¹⁷ Article 2 describes the application of ET in a patient with Depression and Unspecified Personality Disorders. 18 Study 3 objective was to evaluate the effectiveness of the 12-step program adapted with ST. 19 In study 4, the purpose was to test the effectiveness of ST for patients with Chronic Depression.²⁰ Article 5 aim was to verify the effectiveness of combined treatment with ST and Dialectical Behavior Therapy (DBT) for Severe Borderline Personality Disorder.⁶ Finally, article 6 evaluates the effectiveness of group ST for patients with personality disorder in hospital, with previous unsuccessful psychotherapeutic treatments.²¹

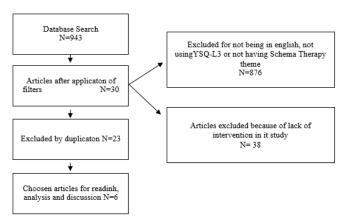


Figure I Item identification flowchart.

It should be noted that the intervention sites were varied. Chakhssi & Westerhof²¹ carried out the intervention in an inpatient hospital for patients with personality disorders. Shorey et al.,¹⁹ also entered

a hospital for their intervention, but the focus was detoxification. Leppännen et al.,6 used mental health and social assistance centers in the city of Oulu. The article by Cockram et al.¹⁷ denotes two studies, the first is carried out in a non-face-to-face manner, by email and telephone, while the second study doesn't indicates a place of intervention. Both articles by Seavey & Moore (2012), and Malogiannis et al.²⁰ were performed in outpatient clinics.

With regard to the forms of selecting the participants, it is noteworthy that these were varied. In studies by Shorey et al.¹⁹ and Chakhssi & Westerhof,²¹ selected patients were in psychiatric hospitalization when recruited for their respective interventions; Malogiannis et al.²⁰ selected outpatients from a clinic for women. Leppännen et al.,⁶ and Seavey & Moore,¹⁸ recruited individuals from the local mental health service. In the article by Cockram et al.,¹⁷ veterans of the Vietnam War were selected via email, pamphlets and the internet with the help of the Department of Veterans Affairs.

With regard to the duration of the interventions, it should be noted that these were also varied. The treatment program by Shorey et al. 19 was conducted for 28 to 30 days. Seavey & Moore's 18 case study had a course of 68 sessions, conducted weekly for 1 hour. In the intervention applied by Cockram et al. 17 there were 15 group sessions of 90 minutes duration, with follow-up measured after 3 months. Schaap & Westerhof²¹ conducted psychotherapeutic groups twice a week for 12 months, lasting 75 minutes per session, with 1 follow-up session after 6 months. In the latter, in addition to ET, patients were also offered 75 minutes a week of art therapy, music therapy, movement therapy, psychodrama, 30 minutes of social services, psychopharmacological treatment, including 30 minutes a week of psychoeducation about medication.

In the analysis by Leppännen et al.⁶ patients had weekly individual sessions of 45 to 60 minutes each, for 12 months. The professionals had 2 hours a week of joint discussions about the cases during this 1 year of treatment. In addition, there was also group treatment, in which each session lasted 90 minutes, conducted over 40 weeks, concomitantly with individual treatment. A follow-up was performed. In the article by Malogiannis et al.²⁰ the therapy protocol consisted of 60 sessions of 50 minutes duration, the first 55 were conducted

weekly and the next 5 every 15 days. Treatment lasted for 20 months, with a follow-up after 6 months.

It stands out, regarding the part of psychological intervention in Schema Therapy, that this was given by psychologists. However, it is noteworthy that there was also the participation of other health professionals, such as nursing teams, psychiatrists and unspecified professionals in extra interventions offered by the places. In the case study by Seavey & Moore, 18 the diagnostic interview was conducted by a 4th year student, while the therapy was conducted by a professional trained 2 years ago, under the supervision of a licensed psychologist.

In the surveys by Cockram et al. ¹⁷psychologists and psychiatrists authorized and accredited by the Department of Veterans Affairs participated. In the study by Shorey et al. ¹⁹ a multidisciplinary group participated in the intervention, which included a licensed psychologist, a psychiatrist, a general practitioner and a substance use counselor. In the article by Leppännen et al. ⁶ the professionals who participated received, in the year before the intervention, open lectures on borderline personality, schema therapy, attachment theory and dialectical behavioral therapy. It should be noted that the professionals were all specialists from the Mental Health Service of the city of Oulu. The professionals who administered the therapeutic groups were 2 psychiatric nurses and 1 occupational therapist, with experience in conducting groups. In addition to having access to a psychotherapist during working hours, psychiatrists were trained outside of these hours to assist patients via telephone.

In turn, Malogiannis et al.²⁰ denote the participation of 4 psychotherapists in their study, who had a master's degree and advanced training in the Greek Society of TE program. Schaap & Westerhof²¹ refer that the group sessions were taught by 3 psychotherapists, 2 of them certified with experience in CBT and ST and with intensive training with Jeffrey Young. Both received monthly supervision from a therapist certified by the International Society of ST. The third psychotherapist had experience in CBT and ST and was supervised by one of the participants in this study.

In this sense, the themes used in the interventions were not mostly just about ST, since some were applying more than one theory. The research presented evaluation and identification of EMSs, modes, coping styles and childhood origin and applied emotion regulation techniques.^{6,17–21} Shorey et al.¹⁹ provided feedback on each patient's relevant EMSs and suggested reading the book Reinvent Your Life. In addition, patients completed the first 5 steps of the 12-step treatment, including family and/or couple therapy sessions, daily group therapy, physical therapy, and cohesion building groups. It should be noted that the themes of intervention were explained in the article by Schaap and Westerhof,²¹ strengthening the healthy adult and autonomy of patients, encouraging the abandonment of destructive relationships of the past. There were also, as themes of focus, the conceptualization of the case, motivation for psychotherapy and establishment of limits.²¹ It is also noteworthy that the themes of cognitive restructuring; 17,21 experiential techniques through reframing memories, limited reparenting; 18,20,21 interpersonal skills training and crisis management via behavioral techniques^{6,17,20} were common in several studies. Cockram et al. 17 also worked with anxiety and depression management and exposure therapy, since their sample had a diagnosis of PTSD.

With regard to the results of the interventions, despite the difference in duration of some interventions, all showed positive effects in reducing symptoms and intensity of patients' EIDs. In the article by Cockram et al.¹⁷ the first study showed a significant relationship between adverse parental relationships, EMSs and PTSD.

In this sense, the research found that individuals with EMSs with higher valence had a greater tendency to PTSD diagnosis and symptoms. Furthermore, it pointed out that the EMSs with the greatest association were Vulnerability; Emotional Inhibition; Social isolation; Insufficient self-control; Mistrust/Abuse; Negativity/Pessimism; and Abandonment. In the second study of the article, ST proved to be effective in reducing EMSs, symptoms of depression and anxiety in war veterans with PTSD, with better results than CBT, the usual treatment. In the 3-month follow-up, it was possible to verify that in the treatment with TE there was also a better maintenance of the treatment in relation to CBT. However, it is noteworthy that both were effectives.

In the case study by Seavey and Moore, ¹⁸ it was clear that, at the end of treatment, the patient denoted all EIDs with levels considered low by the YSQ-L3 questionnaire. It is noteworthy that of the 7 EIDs activated clinically, 4 had statistically significant changes at the end of the intervention, namely: Emotional Deprivation; Negativity and pessimism; Social isolation; and Punitive Posture. With regard to the 4-week intervention by Shorey et al.¹⁹ it was demonstrated that the participants demonstrated 8 clinically relevant EIDs, finding a significant decrease in all of them in the final outcome of the treatment.

Furthermore, in the analysis by Leppännen et al.⁶ it is found that the ST intervention with DBT structure ended up significantly reducing the EMSs Abandonment; Mistrust and abuse; Social isolation; Dependency; Vulnerability; Arrogation; Insufficient self-control; and Search for Approval. Also, Maloggianis et al.²⁰ show in their study with depressive patients a significant decrease in the activation of EMSs, depressive and anxious symptoms in the participants of the intervention. Despite the aforementioned study, it is also noteworthy that the treatment gains were maintained, as indicated by the 6-month post-intervention follow-up. Schaap & Westerhof²¹ denote that in their intervention there was a significant improvement in the reduction of levels of schematic modes, EMSs, coping styles and general wellbeing of patients. After 6 months of treatment, a follow-up showed that the improvement was maintained. It is also evident that this study, likewise, shows EMSs and Moods as predictors of psychological suffering.

Discussion

This review aimed to carry out a systematic review, with the aim of describing intervention research using Young's Schema Questionnaires - long version (YSQ-L3). This review contains 2 United States's studies and other 4 studies from Europe and Australia. This corroborates the fact that, despite being developed in the US, the spread of ST ends up being greater outside of it, especially in Europe.²² The variety of countries and languages of the populations studied in the articles also shows us the importance of validating and adapting the instruments for their respective countries.²³

It is also pointed out that although all studies have used the YSQ-L3, the literature only mentions the partial psychometric validation of the instrument for the Italian population.²⁴ It is noteworthy that all studies in this review showed good results. However, it is important to emphasize that the clinical trial by Leppännen et al.⁶ demonstrated a detailed protocol, with potential for replication in other populations. Such data corroborate with the search for the expansion of science to more different cultures and contexts and, thus, with the possible adaptability of the protocols.

With regard to the intervention format, it can be seen that there were individual interventions^{18,20} group interventions,^{17,21} individual interventions mixed with group⁶ and individual mixed with group and

family. 19 The literature notes that ST ends up being expensive and not accessible to all patients, which makes the use of group ST something more viable and profitable. Other advantages of using this model are the satisfaction of the group's utility, increased self-confidence, recognition of others' problems faster than their own, so that patients can validate, support, confront and advise each other.

In this sense, it was also possible to observe that patients' responses can often be seen as more genuine than coming from a therapist. 25,26 Even with such advantages, it is perceived that Individual Therapy still provides a greater possibility of flexibility in the subjects of the sessions, effective results and lower dropout rate. 25,27

ST was developed for the treatment of personality disorders and refractory cases.⁸ In studies by Cockram et al.¹⁷ and Shorey et al.¹⁹ it is noticed the expansion of the use of ST for disorders such as PTSD and Substance Use Disorder, denoting interventions with positive results. This increased use of ST with effectiveness is observed in analyzes with other acute disorders such as Eating Disorders, Generalized Anxiety Disorder, Obsessive-Compulsive Disorder and Social Anxiety.²⁷⁻³¹

With regard to the duration of the intervention, it is clear that only the study with patients hospitalized for substance use disorder by Shorey et al.¹⁹ was the only brief treatment. Although ST was developed to be a long-term therapy, the use of reduced treatments has shown success. Roediger et al.³² inferred better results in the use of ST, in relation to conventional CBT for couples, showing greater effects of improvement in the mood and proximity of both partners.

Roper et al.,33 in turn, in intervention with patients with alcohol use disorder, used a brief ST and obtained a decrease in symptoms of anxiety, depression and in the valence of 6 EMSs. About the limitations of the studies, it is observed that the low sample number and sample profile, which denote difficulty in generating generalizations, were the most common among the authors. 6,17-21 Furthermore, the lack of a control group, 19-21 difficulty in finding specific mechanisms of change in therapy^{18,19} failure to assess specific severity of disorders, such as severity of disorders, 17,19 failure to perform follow-up; 6,18,19 Cockram et al. 17 also claim that despite good post-treatment results, moderators and confounding variables such as relief of physiological symptoms, prolonged exposure, skills training and improvement in social relationships, had no clarified effects. It also reports that the failure to measure factors such as combat intensity and reactions to combat stress are variables to be explored in future studies with this population. Another factor that limited the studies was the failure to evaluate additional therapies offered by the intervention sites. 19,21

Despite being cited as an instrument of clinical preference and not research, due to its size, the studies did not find negative notes on the use of the instrument.⁷ Still, Lepännen et al.⁶ point out that for better detection of EMSs, a qualitative interview could be performed, since the YSQ-L3 does not have complete validity studies. Malogiannis et al.²⁰ suggest that more randomized clinical trials be carried out, to better strengthen evidence of interventions with chronic depression. In addition, it points out the importance of groups with and without psychotropic drugs.

The findings by Shorey et al.¹⁹ suggest that more studies be carried out with the effect variables that modify the EMSs. In addition, they also point out the importance of future studies measuring EMSs in a context outside of hospitalization, thus, there may be the possibility of tracking behaviors and triggers that trigger them in the real world. Schaap and Westerhof²¹ point out the importance of studies on hospitalizations, as these are decreasing despite the good results

shown in research. The results of this review are in line with another Systematic Review on Schema Therapy carried out by Taylor, Bee and Haddock,³⁴ denoting a decrease in symptoms and EMSs in anxiety, depression, personality and substance use disorders.

Final considerations

The present study reported interventions in which Schema Therapy and the YSQ-L3 instrument were used. The results pointed out by the studies show the decrease of negative symptoms of patients in several disorders and in their EMSs. Although the origin and most of the studies are still focused on Personality Disorders, the expansion of the use of ST in other areas is presented. This review also shows that ST can be used in different environments, such as hospitalizations and outpatient clinics, and in a mixed way, as well as different formats, such as group, individual, showing that there can be positive results in short and long interventions.

The limitations of this article are due to the use of studies with a specific ST instrument, which has not been fully validated, in addition to the different environments of the studies, since there were no studies in continents such as South America and Africa. The present study reiterates the importance of validating instruments and adapting protocols on this subject for the national territory, since studies in this line may be aimed at interventions and prevention of mental disorders.

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Conflicts of interest

The authors declare no conflicts of interest.

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