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Empirical evidence for Schema Therapy (as of 03th May 2012)

Source	Year	Sample	Kind of study ¹	Result, information, conclusion
Arntz, A. (2008). Schema-focused therapy for borderline personality disorder: effectiveness and cost-effectiveness, evidence from a multicenter trial. <i>European Psychiatry</i> , 23, Suppl. 2, S65-S66.	2008	N=86 borderline personality disorder	MRCT	SFT was about twice as effective as Transference-Focused Psychotherapy in terms of recovery from BPD and was superior to TFP on all other measures. SFT was superior in cost-effectiveness with respect to recovery and equivalent when quality-of-life was considered.
Arntz, A. (2012). Imagery Rescripting as a Therapeutic Technique: Review of Clinical Trials, Basic Studies, and Research Agenda. <i>Journal of Experimental Psychopathology</i> , 3(2), 189-208.	2012	-	Review	It is concluded that although research into Imagery Rescripting is still in its infancy, and many studies have their methodological limitations, results are promising. Therefore a research agenda is sketched, suggesting the next steps in both clinical and fundamental research.
Arntz, A., Klokman, J., & Sieswerda, S. (2005). An experimental test of therapy schema mode model of borderline personality disorder. <i>Journal of Behavior Therapy and Experimental Psychiatry</i> , 36, 226-239.	2005	N=54 (f) 18 BPD patients, 18 cluster-C personality disorder patients, 18 controls	Other: CT with Cross- over	Trait as well as state versions indicated that BPD patients were indeed characterized by the hypothesized 4 maladaptive modes. BPD patients were lowest on the Healthy Adult mode. The stress induction induced negative emotions in all groups, but the BPD group was unique in that the Detached Protector mode increased significantly more than in both control groups.
Arntz, A., Tiesema, M., & Kindt, M. (2007). Treatment of PTSD: a comparison of imaginal exposure with and without imagery rescripting. <i>Journal of Behaviour Therapy and Experimental Psychiatry</i> , 38, 345-370.	2007	N=67 PTSD	RCT	Treatment reduced severity of PTSD symptoms in comparison to waiting list. In this term, there was no difference between the IE and IE+IR, but the combination was more effective for anger control, externalization of anger, hostility and guilt. Therapists tended to favor IE+IR as it decreased their feelings of helplessness compared to IE. Results suggest that the addition of rescripting to IE makes the treatment more acceptable for both patients and therapists, and leads to better effects on non-fear problems like anger and guilt.
Asselt, A. D. van, Dirksen, C. D., Arntz, A., Giesen-Bloo, J. H., van Dyck, R., Spinhoven, P., van Tilburg, W., Kremers, I.P., Nadort, M. & Severens, J.L.	2008	N=86 borderline personality	MRCT	The SFT intervention was less costly and more effective for recovery than TFP. Despite the initial slight disadvantage in costs per quality-adjusted life-year, there is a high probability that compared with TFP, SFT is a cost-

(2008) . Outpatient psychotherapy for borderline personality disorder: cost-effectiveness of schema-focused therapy v. transference-focused psychotherapy. <i>British Journal of Psychiatry</i> , 192, 450-457.		disorder		effective treatment for borderline personality disorder.
Ball, J., Mitchell, P., Malhi, G., Skillecorn, A. & Smith, M. (2003) . Schema-focused cognitive therapy for bipolar disorder: reducing vulnerability to relapse through attitudinal change. <i>Australian and New Zealand Journal of Psychiatry</i> , 37(1), 41-48.	2003	Bipolar disorder	System. review	There is a need for psychological treatments which reduce the risk associated with poor functionality in patients with bipolar disorder. SFCT specifically targets the temperament, developmental experiences and cognitive vulnerabilities that determine adjustment to illness. This proposed treatment, combined with pharmacotherapy, may offer new psychotherapeutic options for the future.
Ball, S.A., Cobb-Richardson, P., Connolly, A.J., Bujosa, C.T., & O'Neil, T.W. (2005) . Substance abuse and personality disorders in homeless drop-in center clients: symptom severity and psychotherapy retention in a randomized clinical trial. <i>Comprehensive Psychiatry</i> , 46, 317-379.	2005	N=51 personality disorder, substance abuse (homeless)	RCT	There was greater utilization of individual dual-focus schema therapy (DFST) than standard group substance abuse counseling (SAC). Clients with more severe personality disorder symptoms demonstrated better utilization of SAC than DFST.
Ball, S.A., MacCarelli, L.M., Lapaglia, D.M., & Ostrowski, M.J. (2011) . Randomized trial of dual-focused vs. single-focused individual therapy for personality disorders and substance dependence. <i>Journal of Nervous and Mental Disease</i> , 199, 319-328.	2011	N=105 substance-dependence, partial personality disorder	RCT	Individual drug counseling resulted in more sustained reductions than did dual-focus schema therapy in several symptoms for several personality disorders.
Bamber, M. (2004) . 'The good, the bad and defenceless Jimmy' – A single case study of schema mode therapy. <i>Clinical Psychology and Psychotherapy</i> , 11, 425-438.	2004	N=1 agoraphobia	Single case study	The results indicate that Schema Mode Therapy may be an effective form of therapy for certain types of complex case, for which more traditional approaches have been unsuccessful.
Baranoff, J., Oei, T. P. S., Cho, S. H., & Kwon, S.-M. (2006) . Factor structure and internal consistency of the Young Schema Questionnaire (Short Form) in Korean and Australian samples. <i>Journal of Affective Disorders</i> , 93, 133–140.	2006	N=1104 (non-clinical)	EFA, CFA	The results showed that YSQ-SF with 13 factors has good psychometric properties and reliability for South Korean and Australian University students. Korean samples had significantly higher YSD scores on most of the 13 subscales than the Australian sample. However, limitations of the current study preclude the generalisability of the findings to beyond undergraduate student populations.

<p>Blair, M. (2009). Comparison of the Young Schema Inventory to the Millon Adolescent Clinical Inventory: A validation study using adolescents in a substance abuse residential treatment facility in Northeast Texas. Dissertation Abstracts International Section A: Humanities and Social Sciences, 70 (5-A), 1566.</p>	2009	N=269 (adolescents, chemical dependency)	Other: V	Statistical significance and practical significance were found between the selected Early Maladaptive Schemas and the MACI scores. The effect size varied with each hypothesis. Each of the Early Maladaptive Schema combinations showed a relationship between the EMSs and the MACI Personality Patterns. There was a covariance between the entire EMS and MACI Personality Patterns selected except between the first hypothesis EMSs (dependence/incompetence, abandonment, enmeshment/undeveloped self, and subjugation) and the MACI, however, not all Beta values were significant.
<p>Brewin, C.R., Wheatley, J., Patel, T., Fearon, P., Hackmann, A., Wells, A., Fisher, P., & Myers, S. (2009). Imagery rescripting as a brief stand-alone treatment for depressed patients with intrusive memories. Behaviour Research and Therapy, 47, 569-576.</p>	2009	N=10 major depressive disorder (intrusive memories)	NCT	7 patients showed reliable improvement, and 6 patients clinically significant improvement. These gains were achieved entirely by working through patients' visual imagination and without verbal challenging of negative beliefs. Spontaneous changes in beliefs, rumination, and behavior were nevertheless observed.
<p>Cecero, J. J., Nelson, J. D., & Gillie, J. M. (2004). Tools and Tenets of Schema Therapy: Toward the Construct Validity of the Early Maladaptive Schema Questionnaire—Research Version (EMSQ-R). Clinical Psychology and Psychotherapy, 11, 344–357.</p>	2004	N=292 (non-clinical)	Other: FA, R, V	11 EMS scales were found to have adequate reliability, and 14 hypothesized EMS factors emerged during factor analysis. Findings provided support for the underlying tenets of Schema Therapy, by demonstrating correlations between EMS and measures of both adult attachment and childhood trauma. Future clinical and research directions are discussed.
<p>Cockram, D. M., Drummond, P. D., & Lee, C. W. (2010). Role and Treatment of Early Maladaptive Schemas in Vietnam Veterans with PTSD. Retrieved May 2, 2012, from www.interscience.wiley.com</p>	2010	<p>1. N=220 Veterans with PTSD</p> <p>2. N=54 Veterans with PTSD</p> <p>3. N=127 Veterans with PTSD</p>	<p>CT</p> <p>NCT</p> <p>CT</p>	<p>1. Veterans diagnosed with PTSD scored higher on the Young Schema Questionnaire and had higher scores on the Measure of Parental Style than veterans not diagnosed with PTSD. The results suggest that early maladaptive schemas have an important role in the development or maintenance of PTSD in Vietnam veterans.</p> <p>2. Scores on the PTSD Checklist, the Hospital Anxiety and Depression Scale, and 17 schemas decreased significantly after treatment.</p> <p>3. Pre-treatment measures were similar in both groups. Nevertheless, PTSD and anxiety improved more significantly for the schema-focused therapy group. Together, these findings support the feasibility of schema-focused therapy to assist veterans with PTSD.</p>

Farrell, J.M., Shaw, I.A., & Webber, M.A. (2009). A schema-focused approach to group psychotherapy for outpatients with borderline personality disorder: A randomized controlled trial. <i>Journal of Behavior Therapy and Experimental Psychiatry</i> , 40, 317-328.	2009	N=32 borderline personality disorder	RCT	Significant reductions in BPD symptoms and global severity of psychiatric symptoms, and improved global functioning with large treatment effect sizes were found in the SFT-TAU group. At the end of treatment, 94% of SFT-TAU compared to 16% of TAU no longer met BPD diagnosis criteria. This study supports group SFT as an effective treatment for BPD that leads to recovery and improved overall functioning.
Giesen-Bloo, J., Dyck, R. van, Spinhoven, P., Tilburg, W. van, Dirksen, C., Asselt, T. van, Kremers, I., Nadort, M., & Arntz, A. (2006). Outpatient psychotherapy for borderline personality disorder, randomized trial of schema-focused therapy vs transference-focused psychotherapy. <i>Archives of General Psychiatry</i> , 63, 649-658.	2006	N=86 borderline personality disorder	MRCT	Three years of SFT or TFP proved to be effective in reducing borderline personality disorder–specific and general psychopathologic dysfunction and measures of SFT/TFP concepts and in improving quality of life; SFT is more effective than TFP for all measures.
Glaser, B.A., Campbell, L.F., Calhoun, G.B., Bates, J.M., & Petrocelli, J.V. (2002). The early maladaptive schema questionnaire-short form: a construct validity study. <i>Measurement and Evaluation in Counseling and Development</i> , 35, 2-13.	2002	N=188 outpatient	Other: V	This study examines the construct validity of scores from the 75-item version of the Early Maladaptive Schema Questionnaire-Short Form. In the current abstract, results are not reported.
Grunert, B.K., Weis, J.M., Smucker, M.R., & Christianson, H.F. (2007). Imagery rescripting and reprocessing therapy after failed prolonged exposure for post-traumatic stress disorder following industrial injury. <i>Journal of Behavioral Therapy and Experimental Psychiatry</i> , 38, 317-328.	2007	N=23 PTSD(failed to improve with PE)	NCT	18 of 23 clients showed a full recovery from their PTSD symptoms. It was noteworthy that non-FEAR emotions were found to be predominant for all 23 Prolonged exposure (PE) failures examined in this study, suggesting that a simple habituation model (on which PE is based) is not sufficient to address non-FEAR emotions in PTSD. By contrast, IRRT, a cognitive restructuring treatment, was much more effective in PTSD symptom reduction for these clients.
Gude, T., & Hoffart, A. (2008). Change in interpersonal problems after cognitive agoraphobia and schema-focused therapy versus psychodynamic treatment as usual of inpatients with agoraphobia and Cluster C personality disorders: health and disability. <i>Scandinavian Journal of Psychology</i> , 49,	2008	N=42 Panic disorder, agoraphobia	Quasi experi- mental study	Patients in the cognitive agoraphobia and schema-focused therapy program showed greater improvement in interpersonal problems than patients in the treatment as usual condition (psychodynamic principles).

195-199.				
Hahusseau, S., & Pélissolo, A. (2006). Young's schema-focused therapies in personality disorders: a pilot study [Thérapies comportementales et cognitives ciblées sur les schémas de young dans les troubles de la personnalité : étude pilote sur 14 cas]. <i>Encephale</i> , 32, 298-304.		N=14 Personality disorder	Pilot study	The primary efficacy criterion selected was the Social Adaptation Scale (SAS-SR, Weissman) score, showing a significant improvement at the end of the therapy. This favorable evolution was confirmed by the other scales used, assessing anxious, depressive and general psychopathology symptomatology. Conclusion: Schemas therapies represent a rich and complete psychotherapeutic approach, in particular for personality disorders.
Hawke, L. D. & Provencher, M. D. (2012). The Canadian French Young Schema Questionnaire: Confirmatory factor analysis and validation in clinical and nonclinical samples, <i>Canadian Journal of Behavioural Science</i> , 44(1), 40-49. doi: 10.1037/a0026197	2012	N=173 (74 with bipolar disorder, 99 mixed clinic. Controls) bipolar	Other: V	Participants with bipolar disorder demonstrate elevated scores on most Early Maladaptive Schemas (EMSs), many at an intermediate position between nonclinical and mixed clinical control groups. When controlling for depression, participants with bipolar disorder exceed those with unipolar depression on Approval-Seeking/Recognition-Seeking and Entitlement/Grandiosity. Bipolar group membership is predicted by high scores on Approval-Seeking/Recognition-Seeking and low scores on Emotional Inhibition and Abandonment.
Hawke, L. D., & Provencher, M. D. (2011). Schema theory and schema therapy in mood and anxiety disorders: A review. <i>Journal of Cognitive Psychotherapy</i> , 25(4), 257-276, doi: 10.1891/0889-8391.25.4.257	2011	-	Review	The literature suggests that people with mood and anxiety disorders present high levels of early maladaptive schemas, some of which would appear to reflect the characteristics of the individual disorders. Preliminary research suggests that schema therapy may be successfully extended to mood and anxiety disorders.
Hawke, L. D., & Provencher, M. D. (2012). The Canadian French Young Schema Questionnaire: Confirmatory Factor Analysis and Validation in Clinical and Nonclinical Samples. <i>Canadian Journal of Behavioural Science</i> , 44(1), 40-49.	2012	N=1069 (973 non-clinical, 96 clinical Axis I disorder)	Other: CFA, V	Confirmatory factor analysis supports the EMSs but fails to support the schema domains. Expected scores for Axis I patients and confirmed nonclinical respondents are presented. As a whole, the French-Canadian version of the YSQ-S3 is a solid tool for the self-report measurement of EMSs. However, caution should be used in using and interpreting domain scores.
Heilemann, M.V., Pieters, H.C., Kehoe, P., & Yang, Q. (2011). Schema therapy, motivational interviewing, and collaborative-mapping as treatment for depression among low income, second generation Latinas. <i>Journal of Behavior Therapy and Experimental Psychiatry</i> , 42, 473-480.	2011	N=8 depression	NCT	The treatment significantly decreased BDI-II scores during the course of treatment. Resilience scores significantly increased after treatment completion and remained high a tall follow-up visits through 1 year. Thus, this short term, customized intervention was both feasible and effective in significantly decreasing depression and enhancing resilience for this sample with effects enduring one year after treatment.

Hoffart, A., Sexton, H., Hedley, L. M., Wang, C. E., Holthe, H., Haugum, J. A., Nordahl, H. M., Hovland, O. J., & Holte, A. (2005). The Structure of Maladaptive Schemas: A Confirmatory Factor Analysis and a Psychometric Evaluation of Factor-Derived Scales. <i>Cognitive Therapy and Research</i> , 29(6), 627–644.	2005	N=1037 (patients and non-patients)	Other: FA, R	The results slightly favored a correlated four second-order factor model over one also including a third-order global factor. The four factors or schema domains were Disconnection, Impaired Autonomy, Exaggerated Standards, and Impaired Limits. Scales derived from the four higher-order factors had good internal and test–retest reliabilities and were related to DSM-IV Cluster C personality traits, agoraphobic avoidance behavior, and depressive symptoms.
Lachenal-Chevallet, K., Mauchand, P, Cottraux, J., Bouvard, M., & Martin, R. (2006). Factor analysis of the schema questionnaire-short form in a nonclinical sample. <i>Journal of Cognitive Psychotherapy</i> , 20, 311-318.	2006	N = 263 non-clinical (French)	Other: FA	The results of the factor analysis revealed 14 interpretable factors, including 13 of the 15 schema subscales proposed by Young. These 14 subscales demonstrated moderate to good internal consistency. These results are in part consistent with previous results based on the English version of the SQ-SF and provided support for the cross-cultural validity of the SQ-SF.
Lee, C.W., Taylor, G., & Dunn, J. (1999). Factor structure of the Schema-Questionnaire in a large clinical sample. <i>Cognitive Therapy and Research</i> , 23, 441-451.	1999	N = 433 clinical (Australian)	Other: FA	In accordance with an earlier study, 16 factors, including 15 of the original scales proposed by Young, emerged as primary components. A higher-order factor analysis was also found to closely resemble the classification system proposed by Young. This solution is shown to fit well with existing models of psychopathology.
Lobbestael, J., Vreeswijk, M.F. Van, Spinhoven, P., Schouten, E., & Arntz, A. (2010). Reliability and validity of the short Schema Mode Inventory (SMI). <i>Behavioural and Cognitive Psychotherapy</i> , 38, 437-458.	2010	N = 863 non-clinical	Other: R+V	Results indicated a 14-factor structure of the short SMI, acceptable internal consistencies of the 14 subscales, adequate test-retest reliability and moderate construct validity. The psychometric results indicate that the short SMI is a valuable measure that can be of use for mode assessment in SFT.
Long, M.E., Hammons, M.E., Davis, J.L., Frueh, B.C., Khan, M.M., Elhai, J.D., & Teng, E.J. (2011). Imagery rescripting and exposure group treatment of posttraumatic nightmares in veterans with PTSD. <i>Journal of Anxiety Disorders</i> , 25, 531-535.	2011	N=37 PTSD (and nightmares)	NCT	Findings indicated that the intervention significantly reduced frequency of night mares and PTSD severity, as well as increased hours of sleep. Unlike the few open trials examining treatment of nightmares in Veterans, effect sizes in this study were similar to those that have been found in the civilian randomized controlled trial. These preliminary findings suggest that a nightmares treatment can be adapted to successfully reduce distress associated with combat Veterans' chronic nightmares.
Morrison, N. (2000). Schema-focused cognitive therapy for complex long-standing problems: a single-case study. <i>Behavioural and Cognitive</i>	2000	N=1	Single case study	A single case study of a schema-focused cognitive therapy approach to treatment of a young woman with long-term interpersonal relationship problems and affective instability is described. There have been few

Psychotherapy, 28, 269-283.				accounts of this type of therapy that have incorporated outcome measures. Measures of mood and of schema have been taken throughout treatment and results would appear to offer some support for schema-focused cognitive therapy.
Nadort, M., Arntz, A., Smit, J.H., Giesen-Bloo, J., Eikelenboom, M., Spinhoven, P., van Asselt, T., Wending, M., & van Dyck, R. (2009 b). Implementation of outpatient schema therapy for borderline personality disorder with versus without crisis support by the therapist outside office hours: A randomized trial. Behaviour Research and Therapy, 47, 961-973.	2009	N=62 borderline	RCT	After 1.5 years of ST 42% of the patients had recovered from BPD. No added value of therapist telephone availability (TTA) was found on the BPDSI score nor on any other measure after 1.5 years of ST. Conclusions: ST for BPD can be successfully implemented in regular mental healthcare. No additional effect of extra crisis support with TTA outside office hours ST was found.
Napel-Schutz, M.C. ten., Abma, T.A., Bamelis, L, & Arntz, A. (2011). Personality disorder patients' perspectives on the introduction of imagery within schema therapy: A qualitative study of patients' experiences. Cognitive and Behavioral Practice, 18, 482-490.	2011	N=10 personality disorders	MRCT qualitative study	The experiences have been compared with Young, Klosko, and Weishaar's (2003) ST manual. The results show that early imagery techniques in ST are considered a valuable method. However, patients emphasize that more attention should be paid to the emotional impact of this specific technique. They report lacking information, communication, and support during the initial phases of imagery work. Furthermore, patients mention that the duration of the imagery exercises is unpredictable; this creates feelings of uncertainty and fear.
Nordahl, H.M., & Nysaeter, T.E. (2005). Schema therapy for patients with borderline personality disorder: a single case series. Journal of Behavior Therapy and Experimental Psychiatry, 36, 254-264.	2005	N=6 Borderline personality disorder	single case series	From baseline to follow-up improvement was large, as indicated by large effect sizes, and improvement was clinically meaningful for 5 of the 6 patients included. 3 of the 6 patients did not any longer fulfill the criteria for BPD by the end of the treatment.
Oei, T.P.S., & Baranoff, J. (2007). Young schema questionnaire: review of psychometric and measurement issues. Australian Journal of Psychology, 59, 78-86.	2007	-	Review	Although the YSQ-Long Form has been subjected to psychometric evaluation, no consistent factor structures have emerged. The YSQ-Short Form has endured comparatively fewer investigations, although similar findings have been yielded. In addition, it appears that specific schemas possess predictive validity for depression. At present, the YSQ-LF and YSQ-SF are primarily research tools, and further work needs to be conducted on their psychometric properties. Thus, they should be utilized with caution and their relevance to the specific emotional disorder must be considered.
Rijkeboer, M. M., & Bergh, H. van de	2006	N=334	Other:	Data support the 16-factor structure as originally hypothesized by Young.

<p>(2006).Multiple group confirmatory factor of the Young Schema-questionnaire in a Dutch clinical versus non-clinical sample. <i>Cognitive Therapy and Research</i>, 30, 263-278.</p>		<p>(172 clinical, 162 non-clinical)</p>	<p>CFA</p>	<p>Results suggest factorial similarity across both samples. Best fit was found for a model in which inter-factor correlations and factor loadings were specified as invariant across samples while error variances were allowed to vary. An additional finding was that the YSQ can be split into two parallel parts.</p>
<p>Rijkeboer, M. M., Bergh, H. van de, & Bout, J. van de (2005). Stability and discriminative power of the Young Schema-Questionnaire in a Dutch clinical versus non-clinical sample. <i>Journal of Behavior Therapy and Experimental Psychiatry</i>, 36, 129-144.</p>	<p>2005</p>	<p>N=334 (172 clinical, 162 students)</p>	<p>Other</p>	<p>Results suggest adequate rank order stability. But mean scores tended to drop systematically over time, most likely caused by transient error. Therefore, to assess progress in therapy, the alternate utilization of the parallel parts is advised. Findings from discriminant analysis suggest high sensitivity of the YSQ and its subscales in predicting the presence or absence of psychopathology.</p>
<p>Rijkeboer, M.M., & de Boo, G.M. (2010). Early maladaptive schemas in children: Development and validation of the schema inventory for children. <i>Journal of Behavior Therapy and Experimental Psychiatry</i>, 41, 102-109.</p>	<p>2010</p>	<p>N=578 (non-clinical multi-ethnic, 8-13 years)</p>	<p>Other: V</p>	<p>Confirmatory factor analyses yielded satisfying fits for a modified model that included 8 of the original 15 schemafactors, as well as 3 new factors, each containing a theoretically meaningful combination of 2 or 3 original schema factors. SIC item loadings were moderate to good, and all factors showed adequate discriminant validity. However, factor reliability estimates were mediocre, but in most cases still acceptable. Furthermore, results suggest adequate stability for all SIC scales. Strong relations between most of the SIC scales and measures of psychopathology were found.</p>
<p>Rijkeboer, M.M., Bergh, H. Van den, & Bout, J. Van den (2011). Item bias analysis of the Young Schema-Questionnaire for psychopathology, gender, and educational level. <i>European Journal of Psychological Assessment</i>, 27, 65-70.</p>	<p>2011</p>	<p>N=546 (272 outpatients, 274 non-clinical; Dutch population)</p>	<p>Other: V</p>	<p>None of the items of the YSQ exhibited differential item functioning (DIF) for gender, and only one item showed DIF for educational level. Furthermore, item bias analysis did not identify DIF for the presence or absence of psychopathology in as much as 195 of the 205 items comprising the YSQ. Ten items, however, spread over the questionnaire, were found to yield relatively inconsistent response patterns for patients and nonclinical participants.</p>
<p>Samuel, D. B., & Ball, S. A. (2012). The Factor Structure and Concurrent Validity of the Early Maladaptive Schema Questionnaire: Research Version. Retrieved May 2, 2012, from http://www.springerlink.com/content/p466427341530823/</p>	<p>2012</p>	<p>N=908 Substance use and personality pathology</p>	<p>Other: CFA, EFA, V</p>	<p>In contrast with previous research, we concluded that the schemas do not have a replicable lower-order structure. However, we did retain a four-factor solution for the scales that demonstrated significant correlations with expected variables and provided partial support for the higher-order structure of EMSQ-R.</p>

<p>Schmidt, N. B., Joiner, T. E., Young, J. E., & Telch, M. J. (1995). The Schema Questionnaire: Investigation of Psychometric Properties and the Hierarchical Structure of a Measure of Maladaptive Schemas. <i>Cognitive Therapy and Research</i>, 19(3), 295-321.</p>	1995	N=1564	Other: FA, R, V	<p>In study 1 (students), factor analysis revealed 13 primary schemas. A hierarchical factor analysis revealed 3 higher-order factors. In study 2 (patients), factor analysis revealed 15 primary schemas. The patient and student samples produced similar sets of primary factors which also closely matched the rationally development schemas and their hypothesized hierarchical relationships. The primary subscales were found to possess adequate test-retest reliability and internal consistency. In study 3 (students), the SQ was found to possess convergent and discriminant validity with respect to measures of psychological distress, self-esteem, cognitive vulnerability for depression, and personality disorder symptoms.</p>
<p>Sheffield, A., Waller, G., Emanuelli, F., Murray, J., & Meyer, C. (2006). Links Between Parenting and Core Beliefs: Preliminary Psychometric Validation of the Young Parenting Inventory. <i>Cognitive Therapy and Research</i>, 29(6), 787–802.</p>	2006	N=422 Non-clinical students	Other: FA, R, V	<p>Factor analyses demonstrated that a shorter version of the questionnaire (YPI-R) could be developed to represent coherent and meaningful perceptions of each parent. The YPI-R consists of nine scales. Each scale had good test–retest reliability and adequate internal consistency. Significant associations between the YPI-R scales and negative core beliefs (as measured by the YSQ-S) indicated partial construct validity. At this preliminary stage, it can be concluded that the YPI-R has an acceptable level of psychometric utility. However, the hypothesized parenting-negative core belief links were not all substantiated.</p>
<p>Simpson, S., Morrow, E., van Vreeswijk, M., & Reid, C. (2010). Group schema therapy for eating disorders: a pilot study.</p>	2010	N=8 Eating Disorder	Pilot study	<p>Eating disorder severity, global schema severity, shame, and anxiety levels were reduced between pre- and post-therapy, with a large effect size at follow-up. Clinically significant improvement in eating severity was found in 4 out of 6 completers. Group completers showed a mean reduction in schema severity of 43% at post-treatment, and 59% at follow-up. By follow-up, all completers had achieved over 60% improvement in schema severity.</p>
<p>Soygüt, G., Karaosmanoglu, A., & Çakir, Z. (2009). Assessment of Early Maladaptive Schemas: A Psychometric Study of the Turkish Young Schema Questionnaire-Short Form-3. Retrieved May 2, 2012, from http://www.turkpsikiyatri.com/C20S1/en/75-84.pdf</p>	2009	N=150-1071 students	Other: FA, R, V	<p>Principal components analysis with equamax rotation was carried out and 14 definable factor structures emerged. Higher-order factor analysis supported 5 schema domains: Impaired autonomy, disconnection, unrelenting standards, other-directedness, and impaired limits. Test-retest and internal consistency analysis revealed statistically significant correlation coefficients, which can be interpreted as evidence of the reliability. As to convergent validity, correlational analysis of theoretically-</p>

				related variables (SCL-90-R) showed statistically significant coefficients and the direction of the relationships were congruent with theoretical expectations. Furthermore, in a pilot study, we examined the discriminant validity of the scale. Accordingly, t-test analysis that compared the YSQ-subscale scores of clinical and normal populations yielded statistically significant differences in some schemas and schema domains. Conclusion: As preliminary evidence, our findings show that the factor structure of the Turkish YSQ-SF3 is generally consistent with previous studies and that it has acceptable levels of reliability and validity.
Stallard, P., & Rayner, H. (2005). The development and preliminary evaluation of a Schema Questionnaire for Children (SQC). <i>Behavioural and Cognitive Psychotherapy</i> , 33, 217-224.	2005	N=47 (for concurrent validity)	Other	Face validity of the questionnaire items was good. Concurrent validity: Significant correlations with the Young's Schema Questionnaire short form were obtained for 10 of the 15 schemas, with a further two approaching statistical significance. Although some of the correlations were modest, these initial results suggest that the SQC may be a valid quick and developmentally appropriate way of assessing Young's maladaptive schema in children.
Thimm, J. C. (2010). Personality and early maladaptive schemas: A five-factor model perspective. <i>Journal of Behavior Therapy and Experimental Psychiatry</i> , 41, 373-380.	2010	N=147 outpatients	NCT	Correlational analyses showed a substantial overlap between EMS and the FFM, neuroticism in particular. EMS predicted depressive symptoms above and beyond the FFM personality dimensions. Implications of these findings are discussed.
Weertman, A., & Arntz, A. (2007). Effectiveness of treatment of childhood memories in cognitive therapy for personality disorders: A controlled study contrasting methods focusing on the present and methods focusing on childhood memories. <i>Behaviour Research and Therapy</i> , 45, 2133–2143.	2007	N=21 Axis II disorder	RCT	Results indicate that CT methods focusing on childhood memories produce good outcomes, comparable to those of methods focusing on the present. There was no significant effect of order, but both patients and therapists preferred the past-present order. Total effects of the package were large and were maintained till one-year follow-up. Experience of the therapist with CT for personality disorders was related to better outcome.
Welburn, K., Coristine, M., Dagg, P., Pontefract, A., & Jordan, S. (2002). The Schema-Questionnaire-short form: Factor analysis and relationship between schemas and symptoms. <i>Cognitive Therapy and Research</i> , 26, 519-530.		N=203 (pat. in a psychiatric day treatment program)	Other: FA	The factor analysis supported the 15-schema subscales proposed by Young. These 15 subscales demonstrated good internal consistency. The present study also examined the relationship between the SQ-SF subscales and psychiatric symptomatology. Results provided support for the construct validity of the SQ-SF, suggesting the importance of maladaptive schemas in the development and maintenance of psychiatric symptoms.

¹ Kind of study:

- CT = controlled trial
- RCT = randomized controlled trial
- MRCT = multicenter randomized controlled trial
- NCT = non-controlled trial
- Other = validity-study for diagnostic or therapeutic assumptions of Schema Therapy (e.g. testing the validity of questionnaires, intervention studies)
 - o CFA = confirmatory factor analysis
 - o EFA = exploratory factor analysis
 - o FA = factor analysis
 - o R = reliability
 - o V = validity, validation