

Predictive Role of Early Maladaptive Schemas in Neurotic Perfectionism in Middle-School Female Students From Kangavar

Borzoo Amirpour^{1,*}

¹Department of Psychology, Payame Noor University, Tehran, IR Iran

*Corresponding author: Borzoo Amirpour, Department of Psychology, Payame Noor University, Tehran, IR Iran. Tel: +98-8372227172, Fax: +98-8372227172, E-mail: borzooamirpour@gmail.com

Received: November 10, 2013; **Revised:** February 10, 2014; **Accepted:** March 3, 2014

Background: Perfectionism is marked by several cognitive biases, including a tendency towards rumination and generalization of failures, strong attention to errors and a tendency to interpret ambiguous feedback as critical or negative.

Objectives: This study investigates the predictive role of early maladaptive schemas in neurotic perfectionism in middle-school female students from Kangavar, Iran.

Materials and Methods: This descriptive-comparative causal study was carried out on 250 female students of a middle-school in Kangavar. Participants were selected according to multistage randomized cluster sampling. The instruments used were the New Measure of Perfectionism and the Early Maladaptive Schema Questionnaire for children. Data were analyzed at the 95% confidence level, using SPSS 18 statistical software.

Results: The study demonstrated that perfectionist students gained significantly higher scores in six out of eleven schemas ($P < 0.05$). There was a significant positive relationship among early maladaptive schemas and perfectionists in the schemas of loneliness, vulnerability, mistrust and abuse, submission, and unrelenting standards. Self-sacrifice predicted neurotic perfectionism in students.

Conclusions: Early maladaptive schema may develop during the earliest years of life. It can be said that identification and diagnosis of early maladaptive schema among students will enable the provision of interventions for psychological disorders related to maladaptive schemas, including neurotic perfectionism.

Keywords: Early Maladaptive Schemas; Perfectionist; Students

1. Background

According to numerous researchers, "perfectionism has been characterized as setting unrealistically high standards, exhibiting perfectionist concerns and tendencies to be overly critical of one's behavior" (1). In psychology, perfectionism is concerned with health and neurology, however it comes with negative consequences; meaning that it may have negative side effects on psychological well-being and mental health. It is a relatively new construct mainly viewed as a pathological personality trait. Hamachek was the first to propose the possibility that perfectionism could be divided into two types, normal and neurotic (2). "Normal perfectionists develop the desire to reach perfection and are motivated by success and accomplishment," (3) while individuals with neurotic perfectionism have different features such as striving for extremely high standards (4), harsh self-scrutiny (5), never being satisfied with their performance (6), concern over mistakes and doubts about actions (7), and tendencies to be overly critical of one's behavior (1).

Schema is a cognitive construct that is useful for the

mind to organize and interpret information, which was initially used by Ansbacher in 1992 (8). Thimm (9) has defined Early Maladaptive Schemas (EMS) as "broad, pervasive theme or pattern, comprised of memories, emotions, cognitions, and bodily sensations, regarding oneself and one's relationships with others, developed during childhood or adolescence, elaborated throughout one's lifetime and dysfunctional to a significant degree".

Young et al. have defined eighteen schemas in five separate domains (10). Domain I is disconnection and rejection where patients are unable to form secure, satisfying attachments to others. They believe that their needs for stability, safety, nurturance, love and belonging will not be met. Typical families of origin are unstable (abandonment, instability), abusive (mistrust, abuse), cold (emotional deprivation), rejecting (defectiveness, shame), or isolated from the outside world (social isolation, alienation). Domain II consists of impaired autonomy and performance. Autonomy is the ability to separate from one's family and to function independently com-

Implication for health policy/practice/research/medical education:

This study investigates the predictive role of early maladaptive schemas in neurotic perfectionism in middle-school female students from Kangavar, Iran.

Copyright© 2014, Health Policy Research Center. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

parable to one's own age. Patients with schemas in this domain have expectations of themselves and the world which interfere with their ability to differentiate themselves from parent figures and function independently. Dependence, incompetence, vulnerability to harm or illness, enmeshment, undeveloped self and failure all belong to this domain. Domain III or impaired limits - patients with schemas in this domain have not developed adequate internal limits with regards to reciprocity or self-discipline. They may have difficulty respecting the rights of others, cooperating, keeping commitments, or meeting long-term goals. These patients often present themselves as selfish, spoiled, irresponsible, or narcissistic. Entitlement, grandiosity, insufficient self-control, self-discipline and discomfort avoidance are a part of this domain. Domain IV is comprised of other-directedness where patients in this domain place an excessive emphasis on meeting the needs of others rather than their own needs. They do this in order to gain approval, maintain emotional connection or avoid retaliation. Subjugation of needs and emotions, self-sacrifice and approval-seeking and recognition-seeking are the schemas of this domain. Domain V or over-vigilance and inhibition is where patients in this domain suppress their spontaneous feelings and impulses. They often strive to meet rigid, internalized rules about their own performance at the expense of happiness, self-expression, relaxation, close relationships, or good health. The typical origin is a childhood that was grim, repressed, and strict where self-control and self-denial predominated over spontaneity and pleasure. Schemas in this domain include negativity, pessimism, emotional inhibition, unrelenting standards and hyper-criticalness. Unrelenting standards typically present as perfectionism and punitiveness (10).

Most previous investigations in the field of schemas therapy and early maladaptive schemas have been conducted on adults. Given the fact that childhood years are very influential in the formation and maintenance of early maladaptive schemas and the key role they have in numerous psychological disorders such as neuroticism (11), obsessive-compulsive disorder (12), eating disorders (13, 14), bipolar (15), perfectionism (2) and numerous other variables,

2. Objectives

This study aims to investigate the predictive role of early maladaptation in neurotic perfectionism in middle-school female students from Kangavar, Iran.

3. Materials and Methods

The present study is a descriptive-comparative causal research. A total of 250 female middle-school students in Kangavar who were chosen via multistage randomized cluster sampling volunteered to participate in the

study. Participants completed two scales; the New Measure of Perfectionism which was developed by Hill et al. (16). It was standardized by Jamshidi et al. (17) and comprised of 8 subscales. This scale was scored using the 5 option Likert scale that ranged from totally agree (5) to totally disagree (1). In their study, the reliability coefficient according to Cronbach's alpha was 90%. This value for the present study was 83%. The Early Maladaptive Schema Questionnaire for children was based on Young's questionnaire designed to measure early dysfunctional schemas. Rijkeboer and Boo (18) designed eleven schemas for measuring early maladaptive schemas in children by combining some of the 18 schemas. In this study, the English version of early maladaptive schemas for 8-13 year-old children was translated, then reviewed by two masters of English, after which it was normalized by the authors. This questionnaire consists of 40 multiple-choice questions scored from completely incorrect (1) to completely correct (4). Early maladaptive schemas measured in the questionnaire are as follows: loneliness, vulnerability, distrust-abuse, defectiveness, failure, subjugation, unrelenting standards, self-sacrifice, involvement, entitlement and insufficient self-control. Cronbach's alpha was appropriate for eleven early maladaptive schemas according to Rijkeboer and Boo (18). In the present study, the reliability coefficient was 84% by Cronbach's alpha. Data was analyzed through descriptive statistics (mean, standard deviation, maximum, minimum, Pearson's correlation coefficient and stepwise regression analysis) and inferential statistics (t-test) with the help of SPSS-18 software at a Confidence Interval of 0.95.

4. Results

Table 1 shows descriptive indices of the research variables. The scores of perfectionist and non-perfectionist students showed appropriate scattering (Table 1). Table 2 shows the difference between the mean scores of the two groups based on the independent t-test. According to the t-test, perfectionist students' mean scores were significantly higher than non-perfectionist students in the schemas of loneliness, distrust-abuse, unrelenting standards and self-sacrifice.

We used Pearson's correlation coefficient to investigate the relationship between early maladaptive schemas and abnormal perfectionism. A correlation matrix result at the 0.01 level showed a significant positive correlation between a number of early maladaptive schemas and perfectionism, such as loneliness (0.22), self-sacrifice (0.19), subjugation (0.19), abuse (0.27), vulnerability (0.19) and unrelenting standards (0.36). Stepwise regression analysis was performed to predict perfectionism through early maladaptive schemas (Table 3). Early maladaptive schemas were entered into the stepwise regression among which loneliness (16%), self-sacrifice (14%), subjugation (13%), abuse (8%), vulnerability (11%) and unrelenting standards (16%) were predictive of perfectionism variables for female students.

Table 1. Descriptive Statistics For The Research Variables Among Study Participants (n = 250)

Variables	Min	Max	Mean ± SD
Perfectionism (total)	307	307	229.20 ± 26.34
Concern over mistakes	40	40	26.51 ± 7.03
High standards for Others	67	67	24.47 ± 5.37
Need for approval	66	66	30.49 ± 5.76
Organization	40	40	33.96 ± 5.39
Pressure perceived parental	40	40	31.04 ± 5.43
Planfulness	35	35	28.54 ± 6.28
Rumination	85	85	26.50 ± 4.48
Striving for excellence	76	76	24.11 ± 3.77
Loneliness	20	20	9.48 ± 3.79
Vulnerability	24	24	13.39 ± 4.08
Mistrust/abuse	12	12	6.94 ± 2.27
Defectiveness	11	11	4.83 ± 1.94
Failure	12	12	4.82 ± 2.04
Submission	19	19	10.85 ± 2.89
Unrelenting standards	12	12	7.45 ± 2.14
Self-sacrifice	12	12	8.47 ± 2.19
Enmeshment	12	12	8.34 ± 2.31
Entitlement	12	12	6.50 ± 2.27
Insufficient self-control	13	13	5.74 ± 2.39

Table 2. Comparison of Perfectionist and Non-Perfectionist Students' Mean Scores Based on Early Maladaptive Schemas

Early Maladaptive Schemas	Mean Scores of Perfectionist Students	Mean scores of Non-Perfectionist Students	Mean for Perfectionist	Mean for non-Perfectionist	P Value
Loneliness	9.68	7.96	3.85	2.87	0.021
Vulnerability	13.56	12.10	4.12	3.59	0.071
Mistrust/abuse	7.09	5.82	2.30	1.62	0.005
Defectiveness	4.89	4.37	1.96	1.97	0.178
Failure	4.86	4.51	2.07	1.88	0.329
Submission	10.98	9.86	2.90	2.72	0.051
Unrelenting standards	7.65	5.89	2.11	1.69	0.001
Self-sacrifice	8.63	7.27	2.18	1.88	0.002
Enmeshment	8.42	7.75	2.24	2.88	0.146
Entitlement	6.57	5.96	2.30	2.02	0.178
Insufficient self-control	5.79	5.37	2.39	2.39	0.378

Table 3. Summary of the Stepwise Regression Model for Early Maladaptive Schemas on Perfectionism

Model	R	R ²	Beta	Change Statistic		
				Df ₁	Df ₂	Sig. F Change
1						
2	0.22	0.16	0.22	1	249	< 0.001
3	0.19	0.14	0.19	1	249	0.002
4	0.27	0.13	0.27	1	249	< 0.001
5	0.19	0.08	0.19	1	249	0.002
6	0.36	0.11	0.36	1	249	< 0.001
7	0.19	0.16	0.19	1	249	0.002

5. Discussion

According to the main finding of this study, among early maladaptive schemas loneliness, self-sacrifice, subjugation, abuse, vulnerability and unrelenting standards had the ability to predict perfectionism.

The importance of childhood in beginning, continuation and consolidation of early maladaptive schema was reported by Wang et al (19), in a study that cited Young's belief about this time of life. "He hypothesized that connectedness, autonomy, worthiness, reasonable expectations and realistic limits are five primary objectives that the child has to fulfill in order to pursue a healthy development. Young proposed that when caregivers make it difficult for a child to achieve one or more of these five objectives, early maladaptive schemas (EMSs) will develop".

The present study was conducted along the same lines. We considered that childhood provided predisposing and maintaining factors for development and amplification of early maladaptive schemas. The current study aimed to investigate the predictive role of early maladaptive schemas in neurotic perfectionism among middle-school female students from Kangavar. The t-test results in Table 2 showed significant differences between neurotic perfectionism and non-perfectionism in early maladaptive schemas of loneliness ($t = 2.31$), mistrust/abuse ($t = 2.85$), unrelenting standards ($t = 2.29$) and self-sacrifice ($t = 3.18$). The results obtained from this study were consistent with the study of Aghayousefi and Amirpour (2) who conducted a study regarding early maladaptive schemas in neurotic perfectionism and non-perfectionist in a sample of 500 middle school students. The lack of previous research in the literature in Iran and abroad caused restrictions for further comparisons. Stepwise regression analysis demonstrated that among early maladaptive schema, loneliness, self-sacrifice, subjugation, abuse, vulnerability and unrelenting standards meaningfully predicted neurotic perfectionism in students (Table 3). In total, approximately 78% of neurotic perfectionism variance was explained through the above mentioned early maladaptive schemas.

Findings of this research revealed the key importance of early maladaptive schemas in neurotic perfectionism. As a result, education specialists, psychotherapists and particularly school counselors should identify and diagnose early maladaptive schemas in order to provide the possibility of intervention and contribute to students' mental health improvement.

The results of the present study can have practical and theoretical implications. Practically, through the identification of early maladaptive schemas, treatments such as schema therapy can be used for to remedy perfectionism and at the theoretical level, the importance of schemas in the formation and persistence of psychiatric disorders are confirmed.

Limitations of the study were the data obtained from self-reported scales that have a lower validity compared

to methods such as interviews. A correlation study prevents causal interpretations. Although the sample size was appropriate, however generalization might have occurred. Finally all subjects were female, thus additional studies could be performed in other populations and among males.

Acknowledgements

We express our appreciation to all study participants. This article was not supported by any specific organization or university.

Funding/Support

The study is self funded.

Financial Disclosure

The author declares no conflict of interest.

References

- Haase AM, Prapavessis H, Glynn Owens R. Domain-specificity in perfectionism: Variations across domains of life. *Pers Individ Differ*. 2013;55(6):711-5.
- Aghayousefi A, Amirpour B. Comparison of early maladaptive schemas in neurotic perfectionism and non-perfectionist middle school students. *Zahedan J Res Med Sci*. 2013.
- Craciun B. The Efficiency of Applying a Cognitive Behavioral Therapy Program in Diminishing Perfectionism, Irrational Beliefs and Teenagers' Stress. *Proc Soc Behav Sci*. 2013;84:274-8.
- Shim SS, Fletcher KL. Perfectionism and social goals: What do perfectionists want to achieve in social situations? *Pers Individ Differ*. 2012;52(8):919-24.
- Radhu N, Daskalakis ZJ, Guglietti CL, Farzan F, Barr MS, Arpin-Cribbie CA, et al. Cognitive behavioral therapy-related increases in cortical inhibition in problematic perfectionists. *Brain Stimul*. 2012;5(1):44-54.
- Boone L, Soenens B, Vansteenkiste M, Braet C. Is there a perfectionist in each of us? An experimental study on perfectionism and eating disorder symptoms. *Appetite*. 2012;59(2):531-40.
- Black J, Reynolds WM. Examining the relationship of perfectionism, depression, and optimism: Testing for mediation and moderation. *Pers Individ Differ*. 2013;54(3):426-31.
- Ansbacher HL. Alfred Adler's concepts of community feeling and of social interest and the relevance of community feeling for old age. *Indivl Psychol*. 1992.
- Thimm JC. Mediation of early maladaptive schemas between perceptions of parental rearing style and personality disorder symptoms. *J Behav Ther Exp Psychiatry*. 2010;41(1):52-9.
- Young JE, Klosko J, Weishaar ME. *Schema therapy: A practitioner's guide*. New York: Guilford Press; 2003.
- bahramizadeh H, Ehsan HB. The Evaluation of Prediction Potential Neuroticism and Extraversion According to Early Maladaptive Schemas. *Procedia - Soc Behav Sci*. 2011;30:524-9.
- Haaland AT, Vogel PA, Launes G, Haaland VO, Hansen B, Solem S, et al. The role of early maladaptive schemas in predicting exposure and response prevention outcome for obsessive-compulsive disorder. *Behav Res Ther*. 2011;49(11):781-8.
- Dingemans AE, Spinhoven P, van Furth EF. Maladaptive core beliefs and eating disorder symptoms. *Eat Behav*. 2006;7(3):258-65.
- Simpson SG, Morrow E, van Vreeswijk M, Reid C. Group schema therapy for eating disorders: a pilot study. *Front Psychol*. 2010;1:182.
- Hawke LD, Provencher MD, Arntz A. Early Maladaptive Schemas in the risk for bipolar spectrum disorders. *J Affect Disord*. 2011;133(3):428-36.

16. Hill RW, Huelsman TJ, Furr RM, Kibler J, Vicente BB, Kennedy C. A new measure of perfectionism: the Perfectionism Inventory. *J Pers Assess.* 2004;**82**(1):80–91.
17. Jamshidi B, Hosseinchari M, Haghighat S, Razmi MR. Validation of new measure of perfectionism. *J Behav Sci.* 2009.
18. Rijkeboer MM, de Boo GM. Early maladaptive schemas in children: development and validation of the Schema Inventory for Children. *J Behav Ther Exp Psychiatry.* 2010;**41**(2):102–9.
19. Wang CE, Halvorsen M, Eisemann M, Waterloo K. Stability of dysfunctional attitudes and early maladaptive schemas: a 9-year follow-up study of clinically depressed subjects. *J Behav Ther Exp Psychiatry.* 2010;**41**(4):389–96.