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RESEARCH ARTICLE

Early maladaptive schemas and symptoms of psychopathology in children in residential care

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ABSTRACT

According to schema theory, early maladaptive schemas (EMS) contribute to the onset and development of psychopathology. Given that research on EMS in children is limited, the contribution of the present study is that it investigates the role of EMS in psychopathology in children living in residential care. Participants of the present study were children who lived in residential care and were referred for assessment to the Day Center "The House of the Child" run by the Organisation "The Smile of the Child". The study sample comprised of 75 children (35 boys, 40 girls), mean age 12.7 years old. The Greek version of the Achenbach Child Behavior Checklist was completed by the child's caregiver, whereas the Greek version of the Schema Questionnaire for Children was administered to children. The research questions were explored by implementing both variable-focused (multiple regression) as well as person-focused (cluster analysis) techniques. The Confirmatory Factor Analysis conducted in the Schema Questionnaire for Children showed acceptable goodness of fit indices. The Vulnerability schema was found to be the highest scoring schema. Social isolation was a strong predictor for most indicators of psychopathology (internalizing and externalizing). Strong predictor for the Symptoms of Withdrawal, Anxiety/Depression, Social Problems and Thought Problems was the EMS of Failure. Hierarchical cluster analysis on schemas revealed two strong clusters, one with low scores and one with high scores in most EMS. In the cluster with high levels of EMS, Emotional deprivation, Failure, Defectiveness, Social isolation and Abandonment showed the highest scores. In this cluster, children presented statistically significant burdened indicators in externalizing psychopathology. Our hypotheses that EMS and, especially, schemas related to the domains of Disconnection/Rejection and Impaired Autonomy/Performance would be predictive indicators of psychopathology were confirmed. Cluster analysis confirmed the above findings and highlighted the role of schemas Emotional deprivation and Defectiveness in the emergence of psychopathology symptoms. The results of the current study highlight the importance of assessing EMS in children who live in residential care and could inform the development of appropriate intervention programs in this population to prevent the establishment of psychopathology.

KEYWORDS: Early maladaptive schemas, psychopathology, children, residential care.

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Introduction

Early maladaptive schemas (EMS) have been found to associate with the onset and maintenance of psychopathology,¹ including depressive and anxiety symptoms,² attachment issues,³ and personality disorders.⁴ EMS develop early in life as a result of the interaction between the child's temperament and adverse early experiences with parents/caregivers. When parents or carers are sources of insecurity and fear throughout development, internalized dysfunctional patterns for self and others are transferred to adulthood.⁵ According to research in children and infants living in residential care, 66%⁶ to 85%⁷ of the infants showed disorganised attachment to their caregivers with an average estimate of 72.8%,⁸ while 25% of children growing up in a non-institutional context displayed disorganised attachment style.⁶ Children with attachment difficulties, especially those with a disorganised bond, tend to demonstrate higher rates of psychopathology⁹ and significant difficulties in therapeutic interventions.¹⁰ The study of Ford, et al.¹¹ found that at least 60% of children in residential care have mental health problems and 72% of those have been diagnosed with a mental health disorder/ condition. A recent Greek study conducted by Andreopoulou et al.¹² showed that children in residential care had higher rates of clinical/borderline range symptoms in internalizing and externalizing problems than their counterparts rearing at home. Adults raised as children in institutional care tend to have more health problems, lower educational attainment and more social problems compared to the rest of the adult population etc.¹³⁻¹⁴

At this point, we will elaborate on schema theory and present results of studies that have investigated schemas in children in various settings focusing on children who have had traumatic experiences. According to Malogiannis et al.,¹⁵ schema theory integrated elements from attachment theory and developed the concept of schema, shifting from the organizational and information processing function of schema, to a definition that emphasizes the developmental origin and the early onset of schemas.

Schema theory¹ suggests that internalized dysfunctional models developed as a result of exposure to childhood adversity are expected to adversely affect interpersonal relationships in later life through the emergence and establishment of Early Maladaptive Schemas (EMS). According to Young et al.,¹ they are broad, pervasive patterns comprised of memories, emotions, sensations and cognitions, concerning the self and relationships with others that are formed in childhood or adolescence and develop further throughout an individual's lifetime through new experiences.¹ Therefore, in addition to the family or the caregiver, other resources, such as peers and school, constitute important factors in the establishment and/or modification of schemas. As suggested by Reinecke et al.,¹⁶ there is little empirical evidence available regarding the developmental / dynamic dimension of EMS.

As suggested by Young et al.,¹ the domain of disconnection and rejection involves schemas related to violations of the basic universal needs for security, safety, stability, nurturance, empathy, sharing of feelings, acceptance, and respect. 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). The domain of Impaired Autonomy and Performance (Dependence/Incompetence, Vulnerability to Harm or Illness, Enmeshment/Undeveloped Self, Failure) is related to expectations about oneself and the environment that interfere with one's perceived ability to separate, survive, function independently, or perform successfully. Research into the presence of schemas in children is limited.¹⁶⁻¹⁸ Regarding construct validity in children, a few studies found similar factor structure to that obtained with adults.¹⁹⁻²⁰ Differences in EMS between non-clinical and clinical group were found in a few studies.^{17,21} A few studies have investigated the relationship between early adverse experiences, EMS, and

psychopathology in both clinical²²⁻²³ and community²⁴⁻²⁶ samples of children. Children who are victimized within their family develop patterns of Vulnerability to harm and Distrust/Abuse. Emotional abuse in children was related to higher scores on Vulnerability to harm, Defectiveness/Shame and Social isolation/Alienation.¹ According to Calvete,²⁴ neglect is related to higher scores on EMS

The current study is the first study, to our knowledge that attempts to investigate the relationship between EMS and psychopathology indicators in a sample of children and adolescents in residential care. We expect higher scores on Vulnerability to harm and Distrust/abuse schemas. We also expect EMS to be predictive factors of Internalizing (Anxious/depressed, Withdrawn-depressed, and Somatic complaints) and Externalizing symptoms (Rule-breaking and Aggressive behavior). Higher-order EMS of Disconnection/Rejection and Impaired Autonomy and Performance will be predictive indicators of psychopathological symptoms specifically in this sample of children from residential care homes.

Materials and methods

Participants

Children and adolescents who were referred to the Day Center "The House of the Child" of the organisation "the Smile of the Child" for diagnostic evaluation or/and treatment, participated in the study. The Day Center provides customized mental health services to children victims of abuse and neglect.²⁷ All participants lived in childcare facilities (Homes) of "the Smile of the Child". Seventy-five children participated, 35 of which (46.7%) were boys and 40 (53.3%) were girls. Their age ranged from 8 to 18 years with an average age of 12.77 years (SD = 2.49). The questionnaires completed by both children and their caregivers were part of the diagnostic assessment process and were completed during the diagnostic evaluation phase.

Measurements

The Schema Questionnaire for Children (SQC), developed by Stallard and Rayner,²⁸ has been administered to community and clinical samples¹⁷ and aims to investigate and evaluate the EMS. The SQC, translated in Greek language by Zafiropoulou et al.,²⁹ assesses 15 early maladaptive schemas as proposed by Young. A single item is used to assess each schema. Children were asked to use a thought thermometer to rate, on a 1–10 scale, how strongly they agreed with each statement. In previous studies, the SQC showed acceptable face and convergent validity,^{17,28} and satisfactory index of internal consistency,²⁸ and in the present study Cronbach's α was 0.8.

The Child Behavior Checklist is a screening questionnaire assessing emotional and behavioural problem areas as reported by the parent. Greek version of the CBCL is a reliable and valid instrument for the assessment of psychological symptoms in youth.³⁰⁻³² In our study, subscales Cronbach's α presented acceptable internal consistency indices and the range was between 0.6-0.9. Each item is rated on a 0–1–2 scale for how truly/accurately is described by the child (0 = does not apply; 1 = occasionally; 2 = very true). For research purposes, as suggested by Van Vlierberghe and Braet,³³ we worked with raw scale scores.

Procedure

The data collection took place from January 2017 to December 2019. This is a retrospective study as it was conducted on already available data collected as part of routine diagnostic evaluation. Written informed consent was obtained by the person who had the legal custody of the minor at the point of the assessment process (before the minor was assessed). Recognising the need for ethical clearance for such a retrospective analysis, the researchers

were concerned with whether there was more than minimal risk for harm to the participants. No risk was identified and the authors/researchers obtained approval from the President of the “Smile of the Child” who has the legal custody for all/ the majority of the participants. Moreover, researchers ensured that privacy and confidentiality were maintained at all times by using unlinkable anonymized data, storing the data in an anonymised or a de-identified database and extracting them securely.

Results

Confirmatory Factor Analysis

A Confirmatory Factor Analysis was conducted in the Schema Questionnaire for Children to ensure the statistical appropriateness of the measurement model. The analysis showed acceptable goodness of fit indices in the determination of the underlying structure ($\chi^2 = 97.38$, $df = 81$, $p = 0.104$, $\chi^2/df = 1.20$, $TLI = 0.93$, $CFI = 0.95$, $RMSEA = 0.05$, $SRMR = 0.08$. (see **Figure 1**).

Descriptive statistics

Regarding EMS, the highest scores were observed in Vulnerability to harm, Unrelenting standards/Hypocriticalness and Dependence/Incompetence while the lowest scores were noted in Emotional deprivation and Failure (see Table 1). More data about descriptive statistics and the number of items per indicator are presented in **Table 1**.

Demographic factors, EMS and indices of psychopathology

Pearson r was used to estimate the correlations among age, EMS and indices of psychopathology. Age was correlated (inversely) with Subjugation and with symptoms of withdrawn. Independent t tests were used to estimate gender differences on EMS and symptoms of psychopathology. Males reported statistically significant higher scores on social problems, thought problems, attentions problems, delinquent behavior and aggressive behavior in comparison to females (see **Table 2**).

Prediction of factors of psychopathology by EMS

A series of multiple regression analyses (using stepwise method) were performed in order to investigate whether EMS predict indices of psychopathology (see Table 3). Anxious/Depressed symptoms were predicted by Social Isolation and Failure. Withdrawn symptoms were predicted by Failure, Dependence/ Incompetence and inversely by Abandonment and Subjugation. Somatic complaints symptoms were predicted by Social Isolation. Social problems symptoms were predicted by Failure. Thought problems were predicted by Entitlement, Failure and Abandonment. Attention problems symptoms were predicted by Social Isolation and Entitlement. Delinquent behavior symptoms were predicted by Social Isolation and Subjugation (inversely). Aggressive behavior symptoms were predicted by Social Isolation, Emotional Deprivation and Vulnerability to harm (inversely) (see **Table 3**).

Profile of children based on EMS

A cluster analysis (using Ward's method) was conducted to identify groups of children in terms of EMS. The cluster with high levels of EMS included 11 (14.7%) children and the cluster of low levels of EMS included 64 (85.3%) children. **Figure 2** below presents the z scores displayed by the children of the two clusters in the EMS.

According to the results, in the cluster with high scores in EMS, a pattern appears with highest scores in EMS: Emotional deprivation, Failure, Defectiveness, Social isolation and Abandonment.

Differences in psychopathology based on EMS profile

A series of Mann–Whitney tests indicated that children in cluster with high levels of EMS reported higher scores in Thought problems, Attention problems, Delinquent behavior, Aggressive behavior and a tendency for higher scores in Anxious/Depressed symptoms in comparison to the cluster with lower scores in EMS (see **Table 4**).

Discussion

The present study aimed at investigating whether Young's schema theory constitutes a comprehensive framework to understand psychopathology in youth, especially in residential care. This is the first study, to our knowledge, that explored EMS and psychopathology in a clinical and residential care sample. As expected, higher scores were found in Vulnerability to harm and moderate scores in Mistrust / Abuse. Our findings are in line with previous findings in a clinical sample of children.¹⁷ The pattern of Vulnerability to harm has been linked to the onset of depression¹ in adulthood. Relatively high scores in the Unrealistic standards were also observed in our sample. Unrealistic standards have been linked to emotional abuse and particularly to the effort of individuals to meet very high standards in order to either avoid disapproval / shame or feel worthy of the love of others.¹ Innovation of the present study is that research questions were explored by implementing both variable-focused as well as person-focused techniques. More specifically, we investigated both the predictive power of each EMS (regression analysis) on psychopathology but also the co-occurrence of EMS (cluster analysis) regarding psychopathological parameters. Our hypotheses that a) EMS would be predictive indicators of psychopathology and b) that schemas related to the higher-order factors Disconnection/Rejection and Impaired Autonomy/Performance were confirmed. Through cluster analysis, the role of EMS Emotional deprivation and Defectiveness was also highlighted.

Regarding the predictive power of EMS on psychopathology symptoms, higher R^2 was observed for externalization symptoms (Rule-breaking and Aggressive behavior) as well as for internalization symptoms (Anxiety/Depression) and thinking problems. The strongest factor in predicting the symptoms of psychopathology was Social isolation/Alienation that is related to the sense of being different from or not fitting into the larger social world outside the family.¹ Social isolation could be related to previous victimization but also to social stigma attached to children living in residential care. A previous study,²³ found that Social isolation related to internalizing symptomatology, However, in our study it was an important predictor of externalizing symptomatology as well. Overall, robust predictors of psychopathological symptoms were Social isolation, Abandonment (domain: Disconnection and Rejection) and Dependence/Incompetence and Failure (domain: Impaired Autonomy and Performance). It is noteworthy that EMS of Mistrust/Abuse was not a statistically significant predictor of psychopathology. Corresponding findings have been found in the study of Van Vlierberghe and Braet,³³ while in a subsequent study only a low correlation with internalizing problems was observed.³⁴ Findings may be related to bonding difficulties (e.g. disorganized attachment) and, as suggested by Tsouvelas et al.,²⁷ it could be assumed that EMS of Mistrust/Abuse is subject to a developmental process; there may be a pattern that develops over the course of life through accumulated experiences of betrayal and insecure attachment in relationships with caregivers and friends. Therefore, it would be useful that subsequent research investigate the relationship between Mistrust/Abuse and psychopathology through longitudinal studies.

No gender differences were observed on EMS. Corresponding findings have been found in relevant studies.^{17,35} However, Calvete et al.²⁵ found that adolescent girls scored higher than boys on EMS referring to the other-directedness domain. In terms of gender differences and psychopathology symptoms, boys were more burdened than girls in Externalizing problems (Rule-breaking and Aggressive behavior) as well as symptoms related to Social, Thoughts and

Attention problems. Regarding externalization symptoms of psychopathology, our finding agrees with findings of similar studies in non-clinical samples.³⁶ Regarding age, younger children showed higher scores in Subjugation. There are not enough studies in children that have investigated the effect of age on EMS. Relevant studies¹⁷⁻³⁷ identified no significant differences in age. The observed correlation between age and Subjugation in younger children may be related to the feeling of helplessness and a more functional way of adapting to institutional care.

The present study attempts to shed light on the link between EMS and symptoms of psychopathology in a clinical sample of children residing in child care homes, with the aim of helping to develop effective and helpful interventions for this population. By focusing on specific EMS in therapy, we could intervene early on in order to both establish more functional beliefs and address pre-existing EMS-related difficulties. Therefore, as Wright et al.³⁸ suggest, early intervention is particularly important to help children modify their internalized working models. However, in order for any therapeutic interventions to be effective, the complexities of the residential system need to be considered. Intervening at an organisational/institutional level could involve raising awareness to residential care staff on trauma and promoting a trauma-informed approach to care. Similar interventions for staff have been proposed and implemented by programs, including the SafePath that is based on Schema Therapy principles³⁹ and the Fairy Tale model⁴⁰ that draws upon research evidence on the common factors.

The present study has some limitations that need to be acknowledged. It should be noted that the selection of participants does not meet the criteria for random sampling. Furthermore, limitations of the present study concern the nature of the cross-sectional design (which does not permit a causal relationship to be established between the variables) and the possibility of information bias when the caregivers filled out the questionnaires. The SQC scale evaluates each EMS through a single item which may not adequately reflect the multiple dimensions encapsulated within the schemas.²⁸ It is suggested that future studies administer the Schema Inventory for Children (SIC, a commonly used scale for children, and investigate whether our findings would be confirmed.³⁷ Subsequent longitudinal studies, using larger samples, should examine symptoms of EMS and psychopathology across the spectrum of childhood and adolescence and shed more light on the causal relationships. It is also suggested that further studies investigate the mediating role of attachment and Adverse Life Experiences.

Children in residential care are at increased risk for developing psychopathology both in childhood/ adolescence and in adulthood. Psychopathological indices predicted by EMS and especially by domains of Disconnection/Rejection and Impaired Autonomy/Performance. Through cluster analysis, the role of Emotional deprivation and Defectiveness EMS in psychopathology in our residential sample was also highlighted. The present study offers an initial attempt to examine the relationship between Young schemas and internalizing and externalizing symptoms in youth in residential care. Through appropriate interventions, children in residential care could be empowered and equipped to prevent victimization as they grow up (e.g., peer problems, sexual violence) and overcome adversities when they occur.

References

1. Young JE, Klosko JS, Weishaar ME. *Schema therapy: A practitioner's guide*. Guilford Press, New York, 2003

2. Welburn K, Coristine M, Dagg P, Pontefract A, Jordan S. The Schema Questionnaire—Short Form: Factor analysis and relationship between schemas and symptoms. *Cognit Ther Res* 2002, 26:519-530
3. Stopa L, Thorne P, Waters A, Preston J. Are the short and long forms of the Young Schema Questionnaire comparable and how well does each version predict psychopathology scores? *J Cogn Psychother* 2001, 15:253-272
4. Bach B, Simonsen E, Christoffersen P, Kriston L. The Young Schema Questionnaire 3 Short Form (YSQ-S3). *Eur J Psychol Assess* 2017, 33:134–143, doi: 10.1027/1015-5759/a000272
5. Haydon KC, Collins WA, Salvatore JE, Simpson JA, Roisman GI. Shared and distinctive origins and correlates of adult attachment representations: The developmental organization of romantic functioning. *Child Dev* 2012, 83:1689-1702, doi: 10.1111/j.1467-8624.2012.01801.x
6. Vorria P, Papaligoura Z, Dunn J, Van IJendoorn MH, Steele H, Kontopoulou A, Sarafidou Y. Early experiences and attachment relationships of Greek infants raised in residential group care. *J Child Psychol Psychiatry* 2003, 44:1208-1220, doi: 10.1111/1469-7610.00202
7. Juffer F, Series WA. The effects of early social-emotional and relationship experience on the development of young orphanage children. *Monogr Soc Res Child Dev* 2008, 73:294-295, doi: 10.1111/j.1540-5834.2008.00483.x
8. Bakermans-Kranenburg MJ, Steele H, Zeanah CH, Muhamedrahimov RJ, Vorria P, Dobrova-Krol NA, et al. Attachment and Emotional Development in Institutional Care: Characteristics and Catch-Up. *Monogr Soc Res Child Dev* 2011, 76:62-91, doi: 10.1111/j.1540-5834.2011.00628.x
9. Green J, Goldwyn R. Annotation: attachment disorganisation and psychopathology: new findings in attachment research and their potential implications for developmental psychopathology in childhood. *J Child Psychol Psychiatry* 2002, 43:835-846, doi: 10.1111/1469-7610.00102
10. O'Connor, TG, Zeanah CH. Attachment disorders: Assessment strategies and treatment approaches. *Attach Hum Dev* 2003, 5:223-244, doi: 10.1080/14616730310001593974
11. Ford T, Vostanis P, Meltzer H, Goodman R. Psychiatric disorder among British children looked after by local authorities: comparison with children living in private households. *Br J Psychiatry* 2007, 190:319-325, doi: 10.1192/bjp.bp.106.025023
12. Andreopoulou O, Skiadopoulos S, Drakou Z, Gourzis P. Behavioural and emotional profile of children in residential care in Greece. *Psychiatriki* 2020, 31(4):321–331
13. McAuley C, Davis T. Emotional well-being and mental health of looked after children in England. *Child Fam Soc Work* 2009, 14:147-155, doi: 10.1111/j.1365-2206.2009.00619.x
14. Vinnerljung B, Sallnäs M. Into adulthood: a follow-up study of 718 young people who were placed in out-of-home care during their teens. *Child Fam Soc Work* 2008, 13:144-155, doi: 10.1111/j.1365-2206.2007.00527.x
15. Malogiannis IA, Aggeli A, Garoni D, Tzavara C, Michopoulos I, Pehlivanidis A, Kalantzi-Azizi A, Papadimitriou GN. Validation of the greek version of the Young Schema Questionnaire-Short Form 3: Internal consistency reliability and validity. *Psychiatriki* 2018, 29:220-230, doi: 10.22365/jpsych.2018.293.220
16. Reinecke MA, Dattilio FM, Freeman AE. *Cognitive therapy with children and adolescents: A casebook for clinical practice*. The Guilford Press, New York, 2003
17. Stallard P. Early maladaptive schemas in children: Stability and differences between a community and a clinic referred sample. *Clin Psychol Psychother* 2007, 14:10-18, doi: 10.1002/cpp.511
18. Tsouvelas G, Chondrokouki M, Antoniou X, Nikolaidis G. Polyvictimization and Early Maladaptive Schemas in children in residential care. *J Hell Child Adolesc Psychiatry* 2021, 9:2-17

19. Beckley K. *Factor structure of the Young Schema Questionnaire (short form) in a non-clinical adolescent sample*. Unpublished Doctoral Dissertation, Southampton University, 2002
20. Güner O. Psychometric properties and normative values of early maladaptive schema questionnaires set for children and adolescents (SQS). *Clin Psychol Psychother* 2017, 24:534-554, doi: 10.1002/cpp.2049
21. Cooper MJ, Rose KS, Turner H. Core beliefs and the presence or absence of eating disorder symptoms and depressive symptoms in adolescent girls. *Int J Eat Disord* 2005, 38:60-64
22. Lumley MN, Harkness KL. Specificity in the relations among childhood adversity, early maladaptive schemas, and symptom profiles in adolescent depression. *Cognit Ther Res* 2007, 31:639-657, doi: 10.1007/s10608-006-9100-3
23. van Vlierberghe L, Braet C, Goossens L. Dysfunctional schemas and eating pathology in overweight youth: A case-control study. *Int J Eat Disord* 2009, 42:437-442, doi: 10.1002/eat.20638
24. Calvete E. Emotional abuse as a predictor of early maladaptive schemas in adolescents: Contributions to the development of depressive and social anxiety symptoms. *Child Abuse Negl* 2014, 38:735-746, doi: 10.1016/j.chiabu.2013.10.014
25. Calvete E, Orue I, Hankin BL. A longitudinal test of the vulnerability-stress model with early maladaptive schemas for depressive and social anxiety symptoms in adolescents. *J Psychopathol Behav Assess* 2015, 37:85-99, doi: 10.1007/s10862-014-9438-x
26. Muris P, Mayer B, Meesters C. Self-reported attachment style, anxiety, and depression in children. *SBP* 2000, 28:157-162, doi: 10.2224/sbp.2000.28.2.157
27. Tsouvelas G, Chondrokouki M, Nikolaidis G, Shapiro E. A vicarious trauma preventive approach. The Group Traumatic Episode Protocol EMDR and workplace affect in professionals who work with child abuse and neglect. *DCNMH* 2019, 2:130-138. doi: 10.26386/obrela.v2i3.123
28. Stallard P, Rayner H. The development and preliminary evaluation of a schema questionnaire for children (SQC). *Behav Cogn Psychother* 2005, 33:217-224, doi: 10.1017/s1352465804001912
29. Zafiropoulou M, Avagianou PA, Vassiliadou S. Parental bonding and early maladaptive schemas. *J Psychol Abnorm Child* 2014, 3:1-6, doi: 10.4172/2329-9525.1000110
30. Motti-Stefanidi F, Tsiantis J, Richardson SC. Epidemiology of behavioural and emotional problems of primary schoolchildren in Greece. *Eur Child Adolesc Psychiatry* 1993, 2:111-118
31. Roussos A, Karantanos G, Richardson C, Hartman C, Karajiannis D, Kyprianos S, Lazaratou H, Mahaira O, Tassi M, Zoubou V. Achenbach's Child Behavior Checklist and Teachers' Report Form in a normative sample of Greek children 6-12 years old. *Eur Child Adolesc Psychiatry* 1999, 8:165-172
32. Tsiantis J, Motti-Stefanidi F, Richardson C, Schmeck K, Poustka F. Psychological problems of school-age German and Greek children: A cross-cultural study. *Eur Child Adolesc Psychiatry* 1994, 3:209-219
33. van Vlierberghe L, Braet C. Dysfunctional schemas and psychopathology in referred obese adolescents. *Clin Psychol Psychother* 2007, 14:342-351, doi: 10.1002/cpp.546
34. van Vlierberghe L, Braet C, Bosmans G, Rosseel Y, Bögels S. Maladaptive schemas and psychopathology in adolescence: On the utility of young's schema theory in youth. *Cognit Ther Res* 2010, 34:316-332, doi: 10.1007/s10608-009-9283-5
35. González-Jiménez AJ, del Mar Hernández-Romera M. Early maladaptive schemas in adolescence: A quantitative study. *Procedia Soc Behav Sci* 2014, 132:504-508, doi: 10.1016/j.sbspro.2014.04.344

36. Maughan B, Rowe R, Messer J, Goodman R, Meltzer H. Conduct disorder and oppositional defiant disorder in a national sample: developmental epidemiology. *J Child Psychol Psychiatry* 2004, 45:609-621
37. 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, 41:102-109
38. Wright MO, Crawford E, Del Castillo D. Childhood emotional maltreatment and later psychological distress among college students: The mediating role of maladaptive schemas. *Child Abuse Negl* 2009, 33:59-68, doi: 10.1016/j.chiabu.2008.12.007
39. van Wijk-Herbrink MF, Bernstein DP, Broers NJ, Roelofs J, Rijkeboer MM, Arntz A. Internalizing and externalizing behaviors share a common predictor: The effects of early maladaptive schemas are mediated by coping responses and schema modes. *J Abnorm Child Psychol* 2018, 46:907-920
40. Greenwald R, Siradas L, Schmitt TA, Reslan S, Fierle J, Sande B. Implementing trauma-informed treatment for youth in a residential facility: First-year outcomes. *Resid Treat Child Youth* 2012, 29:141-153, doi: 10.1080/0886571x.2012.676525

Table 1. Descriptive statistics of EMS and psychopathology indices

	Number of items	M	SD
Vulnerability to harm	1	6.23	3.31
Unrelenting standards/hypercriticalness	1	4.39	3.59
Dependence/Incompetence	1	4.12	3.44
Emotional inhibition	1	4.10	3.46
Self-sacrifice	1	3.90	3.17
Social isolation/Alienation	1	3.60	2.96
Subjugation	1	3.54	2.86
Enmeshment	1	3.51	2.90
Entitlement	1	3.46	3.43
Mistrust/Abuse	1	3.14	2.95
Self-control/self-discipline	1	2.99	2.95
Defectiveness/Shame	1	2.80	2.49
Abandonment	1	2.45	2.92
Emotional deprivation	1	1.95	2.06

Failure	1	1.86	2.07
Aggressive behavior	18	12.88	9.30
Social problems	11	6.32	3.60
Attention problems	10	6.28	4.23
Anxious/Depressed	13	5.85	3.67
Delinquent behavior	17	5.73	5.00
Withdrawn	8	5.05	3.98
Thought problems	15	2.98	2.80
Somatic complaints	11	1.25	1.81

Table 2. Person *r* correlations with age and independent *t* test for gender differences

	Age	Gender		<i>t</i>	<i>d</i>		
		Male	Female				
	Pearson <i>r</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Unrelenting standards/hypercriticalness	0.01	4.52	3.68	4.28	3.55	0.29	0.07
Social isolation/Alienation	-0.06	4.11	3.23	3.15	2.67	1.41	0.33
Mistrust/Abuse	0.03	3.53	3.10	2.80	2.79	1.07	0.25
Abandonment	-0.01	2.37	2.93	2.53	2.94	-0.23	-0.05
Dependence/Incompetence	-0.07	4.56	3.63	3.75	3.26	1.02	0.23
Vulnerability to harm	0.23	6.05	3.20	6.40	3.44	-0.46	-0.11
Emotional deprivation	-0.05	2.13	2.50	1.79	1.60	0.71	0.17
Subjugation	-0.25*	3.60	3.16	3.49	2.61	0.16	0.04
Defectiveness/Shame	0.09	3.17	2.63	2.48	2.35	1.21	0.28
Entitlement	-0.06	3.93	3.79	3.05	3.08	1.10	0.26
Self-sacrifice	0.22	3.36	3.16	4.36	3.14	-1.37	-0.32
Emotional inhibition	0.01	4.09	3.69	4.10	3.29	-0.01	0.00

Enmeshment	-0.13	3.98	3.23	3.11	2.56	1.30	0.30
Self-control/self-discipline	-0.05	3.27	3.29	2.75	2.64	0.76	0.18
Failure	-0.05	2.18	2.65	1.58	1.34	1.21	0.30
Anxious/Depressed	0.13	6.36	4.18	5.40	3.15	1.13	0.26
Withdrawn	0.25*	5.43	4.32	4.73	3.77	0.76	0.17
Somatic complaints	0.22	1.08	1.48	1.40	2.07	-0.77	-0.18
Social problems	0.15	7.49	3.40	5.29	3.48	2.76**	0.64
Thought problems	0.01	3.75	2.66	2.29	2.77	2.33*	0.54
Attention problems	-0.03	7.91	4.16	4.85	3.79	3.33***	0.77
Delinquent behavior	0.03	7.43	5.62	4.24	3.85	2.82**	0.67
Aggressive behavior	0.02	16.19	10.19	9.97	7.41	2.98**	0.71

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3. Multiple regression (stepwise method) for the prediction of symptoms of psychopathology by EMS

	Anxious/Depressed		Withdrawn		Somatic complaints		Social problems		Thought problems		Attention problems		Delinquent behavior		Aggressive behavior	
	Step (ΔR^2)	B	Step (ΔR^2)	B	Step (ΔR^2)	B	Step (ΔR^2)	B	Step (ΔR^2)	B	Step (ΔR^2)	β	Step (ΔR^2)	β	Step (ΔR^2)	β
Unrelenting standards/ypercriticalness																
Social isolation/ Alienation	1(0.26)	0.39***			1(0.12)	0.35***					1(0.18)	0.39***	1(0.26)	0.50***	1(0.33)	0.55***
Mistrust/Abuse																
Abandonment			2(0.06)	-0.33**					3(0.06)	0.26**						
Dependence/ Incompetence			4(0.04)	0.22*												
Vulnerability to harm															2(0.04)	-0.25**
Emotional deprivation															3(0.03)	0.20*
Subjugation			3(0.05)	-0.27*									2(0.09)	-0.30***		
Defectiveness/Shame																
Entitlement									1(0.25)	0.32**	2(0.06)	0.25**				
Self-sacrifice																
Emotional inhibition																
Enmeshment																
Self-control/self-discipline																
Failure	2(0.07)	0.30***	1(0.14)	0.42***			1(0.14)	0.36***	2(0.06)	0.35***						
R^2	0.33		0.29		0.12		0.14		0.44		0.24		0.34		0.41	

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4. Differences in clusters of EMS regarding indices of psychopathology

	Low EMS	High EMS	U	z
	Mdn	Mdn		
Anxious/Depressed	6.00	7.00	223.50	-1.93 [†]
Withdrawn	4.00	3.57	325.00	-0.41
Somatic complaints	1.00	1.00	296.00	-0.87
Social problems	6.00	9.00	240.50	-1.67
Thought problems	2.00	7.00	110.50	-3.64 ^{***}
Attention problems	5.00	8.00	194.50	-2.36 [*]
Delinquent behavior	4.00	8.12	221.50	-1.96 [*]
Aggressive behavior	11.00	21.58	157.00	-2.92 ^{**}

Note: [†] p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001

Figure 1. Confirmatory factor analysis for Schema Questionnaire for Children

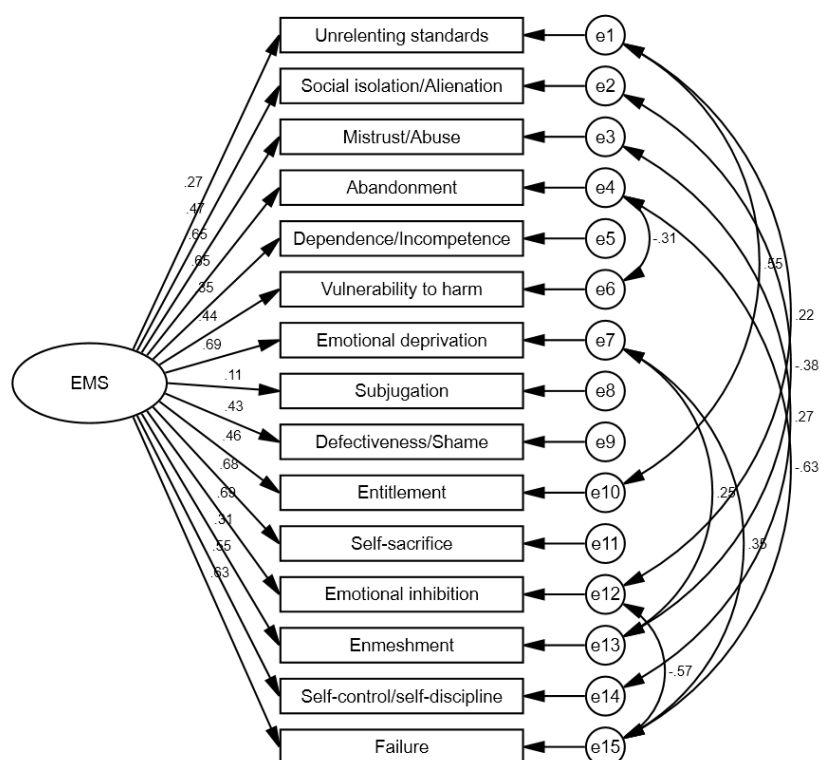
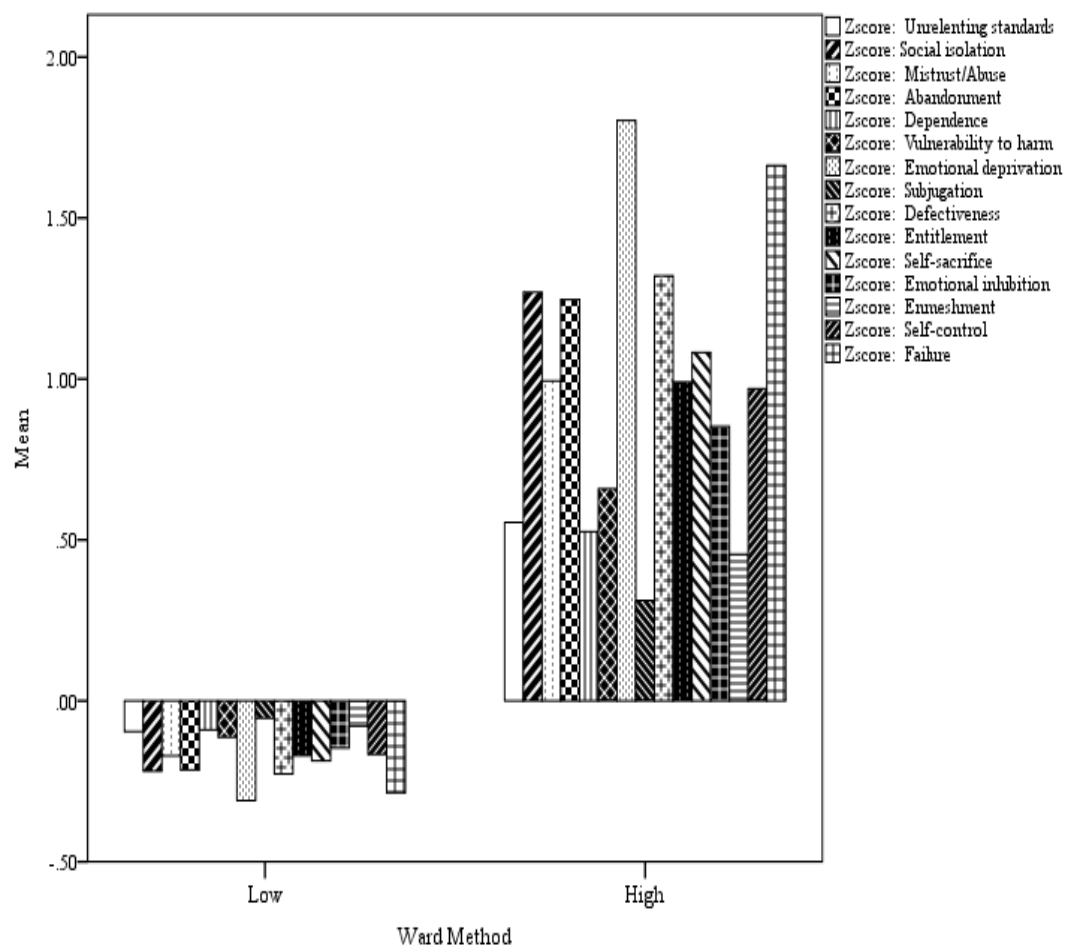


Figure 2. Hierarchical cluster analysis of EMS



ΕΡΕΥΝΗΤΙΚΗ ΕΡΓΑΣΙΑ

Πρώιμα δυσλειτουργικά σχήματα και συμπτώματα ψυχοπαθολογίας σε παιδιά που διαμένουν σε δομές παιδικής φιλοξενίας

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ΠΕΡΙΛΗΨΗ

Σύμφωνα με τη θεωρία σχημάτων, τα πρώιμα δυσλειτουργικά σχήματα (ΠΔΣ) συμβάλλουν τόσο στην εκδήλωση όσο και στην εγκαθίδρυση της ψυχοπαθολογίας. Η έρευνα στα ΠΔΣ στα παιδιά είναι περιορισμένη και η συμβολή της παρούσας μελέτης έγκειται στο ότι διερευνά το ρόλο των ΠΔΣ στην εμφάνιση ψυχοπαθολογίας σε παιδιά που διαμένουν σε πλαίσια φιλοξενίας. Οι συμμετέχοντες στην παρούσα μελέτη είναι παιδιά που διαμένουν σε δομές παιδικής φιλοξενίας και παραπέμφθηκαν για κλινική και διαγνωστική εκτίμηση στο Κέντρο Ημέρας «το Σπίτι του Παιδιού» του Συλλόγου «το Χαμόγελο του Παιδιού». Στη μελέτη συμμετείχαν 75 παιδιά (35 αγόρια και 40 κορίτσια) με μέση ηλικία τα 12,7 έτη. Χορηγήθηκαν η ελληνική έκδοση της κλίμακας Achenbach Child Behavior Checklist, η οποία συμπληρώθηκε από τους φροντιστές των παιδιών, και η κλίμακα Schema Questionnaire for Children, η οποία συμπληρώθηκε από τα παιδιά. Τα ερευνητικά ερωτήματα διερευνήθηκαν με συνδυασμό τεχνικών εστιασμένων τόσο στις μεταβλητές (πολλαπλή παλινδρόμηση) όσο και στα άτομα (ιεραρχική ανάλυση συστάδων). Η Επιβεβαιωτική Ανάλυση Παραγόντων για την κλίμακα Σχημάτων για παιδιά (SQC) εμφάνισε αποδεκτούς δείκτες καλής προσαρμογής. Αναφορικά με τα ΠΔΣ, το σχήμα της Ευαλωτότητας στον κίνδυνο εμφάνισε τους υψηλότερους μέσους όρους. Το ΠΔΣ Κοινωνικός αποκλεισμός ήταν ο ισχυρότερος προβλεπτικός δείκτης για την ψυχοπαθολογία (εσωτερικευμένη και εξωτερικευμένη). Σημαντικός προβλεπτικός παράγοντας για τα συμπτώματα Απόσυρσης, Άγχους/Κατάθλιψης, Κοινωνικών προβλημάτων και Προβλημάτων Σκέψης βρέθηκε να είναι το ΠΔΣ της Αποτυχίας. Η ιεραρχική ανάλυση συστάδων ανέδειξε δύο ισχυρές συστάδες, μία με χαμηλές και μία με υψηλές τιμές στα περισσότερα ΠΔΣ. Στη συστάδα με τα υψηλά επίπεδα στα ΠΔΣ, οι υψηλότερες τιμές εμφανίστηκαν στη Συναισθηματική Στέρηση, στην Αποτυχία, στη Μειονεξία, στον Κοινωνικό αποκλεισμό και στην Εγκατάλειψη. Τα παιδιά που εντάχθηκαν σε αυτή τη συστάδα εμφάνισαν στατιστικώς σημαντική επιβάρυνση σε δείκτες προβλημάτων εξωτερικευσης. Οι ερευνητικές μας υποθέσεις ότι τα ΠΔΣ και ειδικά οι τομείς Αποσύνδεση/Απόρριψη και Ανεπαρκής Αυτονομία/Επίδοση θα αποτελούσαν προβλεπτικούς δείκτες για την ψυχοπαθολογία, επιβεβαιώθηκαν. Μέσα από την ανάλυση συστάδων, επιβεβαιώθηκαν τα παραπάνω ευρήματα και επισημάνθηκε παράλληλα και ο ρόλος των σχημάτων Συναισθηματική στέρηση και Μειονεξία στην εμφάνιση συμπτωμάτων ψυχοπαθολογίας. Τα ευρήματα της παρούσας μελέτης υπογραμμίζουν τη σημαντικότητα της αξιολόγησης των ΠΔΣ σε παιδιά που διαμένουν σε πλαίσια φιλοξενίας και θα μπορούσαν να συμβάλλουν στη

διαμόρφωση κατάλληλων και εστιασμένων παρεμβάσεων σε αυτό τον πληθυσμό με στόχο τόσο την πρόληψη εμφάνισης αλλά και εδραίωσης ψυχοπαθολογίας.

ΛΕΞΕΙΣ ΚΥΡΕΤΗΡΙΟΥ: Πρώιμα δυσλειτουργικά σχήματα, ψυχοπαθολογία, παιδιά, πλαίσια ιδρυματικής φροντίδας.

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