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Parenting and externalising problems in adolescents: results of factor analysis

Roditeljstvo i eksternalizovani problemi adolescenata: rezultati faktorske analize

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Abstract

Background/Aim. Modern conceptualising of parenting in relation to manifesting adolescence externalising problems is based on parent-child two-way communication, mutual trust and parental involvement. A lot of research reports prove independent contribution of parental variables on expressing externalising problems in middle and late adolescence while data about their mutual relationship are missing. The aim of this study was to determine the relationships of parental variables and variables of externalising problems in a common space. Methods. The study included 507 students, both boys and girls, of Belgrade secondary schools, aged from fifteen to eighteen. Parental monitoring was studied using the Parental Monitoring Scale, affective attachment to parents by the Inventory of Parents and Peers Attachment, parenting practices using the Alabama Parenting Questionnaire and externalising problems by the Achenbach System of Empirically Based Assessment, Youth Self-Report. Results. Factor analysis indicated the existence of 4 factors (components) which together accounted for 65.5% of variance. The first factor (positive parenting and affective

attachment to mother) accounted for 38.1%, the second (externalising problems and negative parenting) accounted for 11.26%, the third (affective attachment to father) accounted for 8.93% and the fourth (negative discipline and inadequate affective attachment to mother) accounted for 7.22% of variance. The most important discovery arised from matrix correlation was a negative correlation of the second component with the first (-0.539) and the third (-0.481) one. Conclusion. A positive relationship between parents and adolescents except for a positive parenting practices of parents characterize all the subscales of parental monitoring except for the parental control. Compared to fathers, mothers are generally more involved in life of adolescents and have better mutual relationship with them, but in relation to externalising problems the affective attachment to fathers proved to be very significant even independently of their parenting role.

Key words:

adolescent; parenting; parent-child relations; parents; psychological tests; surveys and questionnaires.

Apstrakt

Uvod/Cilj. Moderna konceptualizacija roditeljstva u vezi sa ispoljavanjem eksternalizovanih problema u adolescenciji bazirana je na dvosmernoj komunikaciji roditelj-dete, međusobnom poverenju i uključenosti roditelja. Obilje istraživačkih nalaza upućuje na dokaze o nezavisnom doprinosu roditeljskih varijabli na ispoljavanje eksternalizovanih problema u srednjoj i kasnoj adolescenciji, dok nedostaju podaci i njihovom međusobnom odnosu. Cilj rada bio je da se ispita odnos roditeljskih varijabli i varijabli eksternalizovanih problema u zajedničkom prostoru. Metode. Ispitivanjem je obuhvaćeno 507 učenika beogradskih srednjih škola uzrasta od petnaest do osamnaest godina, oba pola. Roditeljski

nadzor je ispitivan putem Skale roditeljskog nadzora, afektivna vezanost za roditelje putem Inventara afektivne vezanosti za roditelje, vaspitni postupci roditelja putem Alabama upitnika o roditeljstvu, a eksternalizovani problemi putem Ahenbahovog sistema empirijski bazirane procene. **Rezultati.** Faktori analiza upućuje na postojanje 4 faktora (komponente) koji zajedno objašnjavaju 65,5% varijanse. Prvi faktor (pozitivno roditeljstvo i afektivna vezanost za majku) učestvuje u 38,1%, drugi (eksternalizovani problemi i negativno roditeljstvo) u 11,26%, treći (afektivna vezanost za oca) u 8,93% i četvrti (negativno disciplinovanje i neadekvatno afektivno vezivanje za majku) u 7,22% varijanse. Najznačajniji nalaz proistekao iz matrice korelacije predstavlja negativno korelisanje druge sa prvom (-0,539) i trećom

(0,481) komponentom. **Zaključak.** Pozitivan odnos između roditelja i adolescenata, osim pozitivnih vaspitnih postupaka roditelja, opredeljuju i sve podskale roditeljskog nadzora, sem roditeljske kontrole. Majke su, u odnosu na očeve, generalno uključenije u život adolescenata i ostvaruju bolje odnose sa njima, ali se, u odnosu prema eksternalizovanim

problemima, afektivna vezanost za očeve pokazala veoma značajnom i to nezavisno od njihove vaspitne uloge.

Ključne reči:

adolescenti; roditeljstvo; roditelj-dete odnosi; roditelji; psihološki testovi; ankete i upitnici.

Introduction

Studying family and parenting influences on externalising behavioural problems is mostly associated with childhood and early adolescence. Externalising behavioural problems at a later age are usually interpreted as a consequence of some other environmental or biological factors. Research studies that are investigating risk factors of aggressive behaviour and delinquency have recognised following risk factors as prevalent in middle and late adolescence: parental monitoring, poor involvement of parents, rude and inconsistent discipline, rejection by parents and other below ¹⁻

⁴. Inadequate affective attachment has an impact on externalising problems in middle and late adolescence in combination with other family factors ^{5,6}.

Current conceptualisation of affective attachment to parents which is based on self-reporting of adolescents and presumes the assessment of mutual trust, communication and alienation has served as a good foundation for researching the attachment with externalising behavioural problems ^{7–12}. The trust that adolescents have in their parents and belief that they are obliged to communicate to their parents about their personal problems and relationships with their peers seems to be strongly linked with smaller manifestation of externalising problems in adolescence 10. Adolescents who communicate more about their personal problems and problems with their peers have more trust in their parents. It is indicative that the withholding the private information does not affect the externalising behavioural problems ¹⁰. It can be noticed that there are no differences in correlation between the affective attachment with independent qualities of externalising problems by aggressive behaviour and rule-breaking behaviour ^{8, 13}. Namely, research findings confirmed that adolescents who had lower scores on the subscales of trust and communication and higher scores on subscale of alienation, had higher scores in subsequent measuring both in aggressive behaviour and in rule-breaking behaviour. Furthermore, higher scores on the scales measuring aggressive and rulebreaking behaviour had a feedback effect on the weakening of affective attachment at the third point of measuring 8. It was determined that affective attachment to parents mediates in explaining the influence of parents' negative control on manifestation of externalising problems ¹⁴. Although the mediator significance of affective attachment is being lost at an older age the relationship of positive and negative parenting variables with affective attachment to parents remains relevant in all age groups 14, 15. In a research conducted on the basis of exploring 218 dyadic relations between mothers and adolescents it was found that the parents' confidence in adolescents can mediate in explaining the influence of child disclosure, parental solicitation and different strategies of hiding the information with manifestation of rule-breaking behaviour ¹⁶. The authors confirm correlation of affective attachment to parents and parental monitoring even independently of externalising problems confirming that safe patterns of affective attachment to parents influence a more adequate parents' monitoring and better children and adolescents disclosure ^{15, 17}. Results of the research indicate that affective attachment in the context of delinquency loses its significance with the age in difference to parental monitoring whose relation with delinquency shows stability ^{18–20}. In regard to this the authors point out a principal idea of the theory of affective attachment meaning that style, that is, quality of affective attachment to parents, mediates between parenting and delinquency ^{21, 22}.

Research findings indicate that there are differences in manifestations of externalising problems in relation to affective attachment of adolescent to parental figures of different gender. Affective attachment to mother and general affective attachment to father and mother proved significant for externalising problems in adolescents ²³. Research studies in western societies also reported that the adolescents are statistically more significantly attached to mother than to father what can be associated with smaller involvement of father in their upbringing ^{24, 25}. Regarding the relationship with externalising problems (according to the reports of the teachers) affective attachment to fathers and involvement of fathers explained the highest percent of variance. Furthermore, over 20% adolescents in an American study do not live with their fathers what can have consequences on their less involvement and quality of affective attachment ²⁴. On a sample of Spanish adolescents it was established that poor affective attachment to fathers influences manifestation of aggressive behaviour in adolescents of both gender 15. On the other hand, affective attachment to mother was connected with externalising problems according to reports of the adolescents in all age groups 10-19, while affective attachment to fathers from the age of 12 is gaining significance 14. According to the reports of adolescents one-way relationships were discovered between externalising problems and affective attachment to fathers on one hand and affective attachment to mothers and adolescents externalising problems on the other ²⁶.

Previously discussed research reports suggest that in order to understand adolescents externalising problems it seems essential to understand the relationship between variables of parental monitoring, affective attachment to parents and parenting practices. By discussing studied constructs in common space we presumably attain a more complete and wider picture of the relationship of studied parental variables and externalising problems. It can, therefore, serve as a basis

for further directives in modelling the effects that parental variables can have on externalising problems. Moreover, for affective attachment the gender of parent is important, more than parental monitoring or parenting practices in the context of relationship with externalising problems.

The aim of this study was to determine the mutual correlation between parental variables and variables of externalising problems in common space.

Methods

The research was conducted during the second term of the 2013/14 school year. Research participants were the pupils of six Belgrade secondary schools and they were chosen randomly from one class in each grade (from the first to the fourth grade). The research included three secondary schools and three specialised vocational schools. The sample included 507 pupils of both gender aged from fifteen to eighteen. Pupils' average age was 16.69 (standard deviation = 1.119) years. The sample was equalised according to age, gender and type of school. Data were collected from the pupils by a questionnaire. Questionnaire completion was anonymous. The time needed for completing the questionnaire lasted as one school lesson. The pupils were previoulsy instructed orally and in written form how to fill in the questionnaire.

Instruments

For the assessment of externalising problems, a part of instrumentarium for assessing the emotional, social and behavioural problems of children and adolescents, the Achenbach System of Empiricaly Based Assessment, Youth Self-Report ²⁷ was used. The version of questionnaire used was standardised to suit the children aged between 11 and 18 years. Prevalence and manifestation forms of externalising problems were studied on the basis of the Scale of Aggressive Behavior and the Scale of Rule-Breaking Behavior. The scales are three grade Likert-type scale where respondents give their answers by choosing one of the replies offered starting from 0 – false, through 1 – partly true, and 3 - true. Total score of externalising problems and the scores on the Scale of Aggressive Behaviour and the Scale of Rule-Breaking Behaviour are being obtained by the addition of answers, higher scores implying larger share of externalising behaviour problems. The coefficients of Cronbach's alpha for the Scale of Aggressive Behaviour (0.837) and for the Scale of Rule-Breaking Behaviour (0.824) reflect a good internal consistency and correspond to the findings of other researchers 27.

The Scale of Parental Monitoring ^{28, 29} was used for the assessment of parental monitoring. The scale of parental monitoring consists of four sub-scales titled: Parents' Knowledge, Child Disclosure, Parental Solicitation and Parental Control. The coefficients of reliability, according to the results obtained by studying the Sub-scales of Parental Monitoring, are mainly deemed to be good or acceptable, the coefficients of reliability for Subscale of Parents' Knowledge be-

ing 0.849, Subscale of Parental Control being 0.832, Subscale of Child Disclosure being 0.746, with the exception of Subscale of Parental Solicitation whose reliability is, taking into account the obtained value of 0.676, considered questionable. Compared to the results obtained by some other authors similar values of Cronbach's alpha ²⁹ were established.

The Inventory of Parents and Peer Attachment ^{30, 31}, the section for assessing the affective attachment to mother and father according to the last amendments made by the author ³¹, was used for assessing the affective attachment. The instrument measures the adolescents' perception of positive and negative affective and cognitive dimension of the relationship with parents and close friends – particularly how well they can serve as sources of psychological safety. It was anticipated for ages from twelve to twenty. It contains twenty-five items grouped in three subscales titled: Trust, Communication and Alienation. In conformity with the findings of other authors, a revised version of the Inventory of Parents Affective Attachment used in this research paper, except for the Subscale of Alienation from Mother, has good reliability parameters ³².

The Alabama Parenting Questionnaire (APQ) measures five parenting dimensions that are relevant for aetiology and treatment of externalising problems, the version intended for six to 18-year old children ³³. It contains 42 items grouped in five subscales in a following way: Parental Involvement, Positive Parenting, Poor Monitoring/Supervision, Inconsistent Discipline and Corporal Punishment. The Alabama Parenting Questionnaire 34 has poorer internal consistency as was being reported by some other authors, although within acceptable limits. For the subscales: Positive Parenting of 0.809 and Parental Involvement of 0.792 the value of Cronbach's alpha indicates good, that is, acceptable reliability. However, the coefficients measured for subscales: Corporal Punishment 0.662 and Poor Monitoring/Supervision 0.688, indicate suspicious reliability taken that subscale of Inconsistent Discipline has a poor reliability (0.523).

The scales of parental monitoring, affective attachment to parents and parenting questionnaire are five-grade scales of Likert-type scale, in which the pupils reply by choosing one of the answers offered from 1 – never, 2 – rarely, 3 – occasionally, 4 – often to 5 – almost always. The subscales scores are obtained by addition of the answers, the higher scores on subscales implying a higher share of aforementioned aspects.

Statistical analysis

Data were processed by a SPSS statistical programme package. Instruments reliability was examined by means of Spearman-Brown-Kuder-Richardson-Guttman (Cronbach alfa) test. Exploratory data analysis of major components was carried out by the measures standardised by means of Bloom's algorithm. It was applied in order that in mutual space of all examined variables the factors with maximum share in total variance of original variables should be extracted. A parallel analysis was used for determining the number of isolated components.

Results

Factor analysis of applied instruments was carried out by means of the analysis of the principal components in mutual space of all variables. Random characteristic values with number of variables and a sample size were both generated as parameters by parallel analysis. Randomly generated values were compared to actual ones obtained in the research. The factors with higher internal values than randomly generated ones were retained. Hence, four components whose characteristic values exceed 1 were extracted. Total percent of variance explained by these components was 65.54%, the contribution of the first component being the highest 38.11%, second 11.8%, third 8.93% and fourth 7.24%. The extracted components were then rotated by help of Promax algorithm with Kaiser normalisation (kappa = 4). Table 1 shows the matrix of the structure of extracted components.

Table 1

Matrix of the structure of extracted components (1, 2, 3, 4)

| Variables | Extracted components (randomly generated characteristic values) | | | |
|-------------------------------------|---|--------------|--------------|--------------|
| | 1 (1.328) | 2 (1.264) | 3 (1.212) | 4 (1.170) |
| Empirical characteristic values | 6.478 | 1.916 | 1.519 | 1.231 |
| Parental involvement | 0.987 | | | |
| Comunication mother | 0.876 | | | |
| Parental solicitation | 0.735 | | | |
| Trust mother | 0.706 | | | -0.354 |
| Child disclosure | 0.671 | | | |
| Positive parenting | 0.660 | 0.315 | | |
| Parental knowledge | 0.533 | -0.325 | | |
| Alienation mother | -0.522 | | | 0.371 |
| Agressiveness | | 0.813 | | |
| Rule-breaking | | 0.804 | | |
| Poor monitoring/supervision | | 0.709 | | -0.448 |
| Inconsistent discipline | | 0.676 | | |
| Trust father | | | 0.903 | |
| Communication father | | | 0.899 | |
| Alienation father | | | -0.836 | |
| Parental control | | | | 0.807 |
| Corporal punishment | | | | 0.511 |
| Percent of explained variance | 38.11 | 11.26 | 8.93 | 7.24 |
| Total percent of explained variance | 65.54 | | | |

Extracted components: 1 – positive parenting and affective attachment to mother; 2 – externalising problems and negative parenting; 3 – affective attachment to father; 4 – negative discipline and inadequate affective attachment to mother.

The first isolated component (positive parenting and affective attachment to mother) integrates subscales of the Alabama Parenting Questionnaire indicating positive parental practices (saturation being 0.987 for the the Subscale of Parental Involvement and 0.660 for the Subscale of Positive Parenting); all the subscales of the Scale of Parental Monitoring (saturation being 0.735 for the Subscale of Parental Solicitation, 0.671 for the Subscale of Child Disclosure and 0.533 for the Subscale of Parental Knowledge), except for the Subscale of Parental Control; and all the subscales of the Inventory of Parents and Peers Attachment in relation to mother (saturation being 0.876 for the Subscale Comunication with Mother, 0.706 for the Subscale of Trust in Mother and 0.522 for the Subscale of Alienation from Mother).

The second component (externalising problems and negative parenting) was dominantly determined by the scales of externalising problems with saturations being 0.813 for the Scale of Aggressive Behaviour and 0.804 for the Scale of Rule-breaking Behaviour, subscales of the Alabama Parenting Questionnaire indicating negative parenting practices

with saturations being 0.709 for the Subscale of Poor Monitoring/supervision and 0.676 for the Subscale of Inconsistent Discipline, and negative saturation of the Subscale of Parental Knowledge -0.325 and positive saturation of the Subscale of Positive Parenting of 0.315.

The third component (affective attachment to father) was constituted by all the subscales of the Inventory of Parents and Peers Attachment regarding father (saturation being 0.903 for the Subscale of Trust in Father, 0.899 for the Subscale of Communication with Father and -0.836 for the Subscale of the Alienation from Father).

The fourth component (negative discipline and inadequate affective attachment to mother) was saturated by following subscales: Parental Control (0.807), Corporal Punishment (0.511), Poor Monitoring/supervision (-0.448); Alienation from Mother (0.371), and Trust in Mother (-0.354).

The most significant finding which issued from the matrix of correlation was a negative correlation of the second component with the first (-0.539) and third (-0.481) one (Table 2).

Table 2
Matrix of correlation of extracted components

| | | • | | |
|-----------------------|--------|--------|--------|--|
| Extracted components* | 1 | 2 | 3 | |
| 1 | | | | |
| 2 | -0.539 | | | |
| 3 | 0.481 | -0.481 | | |
| 4 | 0.009 | 0.074 | -0.108 | |

^{*}For explanation see under Table 1.

Discussion

Isolating the constructs that indicate a positive relationship with parents and affective attachment to mother as the first major components represents a significant finding. Positive aspects of relationship with parents including the parents' interest, presence and knowledge about where, who with and how their children spend their free time indicate specificity of the nature of parenting as an active, supporting and two-way process ^{35, 36}. The results of the research indicate that mothers are generally more involved in the life of adolescents, they accomplish better communication, adolescents have greater confidence in them and self-report to them more about where, with whom and how they spend their time without parental monitoring ^{10, 37, 38}. Research results support the thesis on differences in affective attachment to father and mother, except in relation to variables of parenting and parental monitoring and manifestation of externalising problems ^{14, 15}.

Aggressive behaviour and rule-breaking behaviour dominantly saturate second component in such a way that poor monitoring and inconsistent discipline have high positive saturation, what conforms to the findings of other studies on structurising externalising problems in behaviour and main negative aspects of parenting associated with it 19, 34, 39. Negative saturation of parents' knowledge about children's where-abouts, friends and activities corresponds to the assumptions about the importance of this construct in relation to aggressive behaviour and rule-breaking behaviour, and even greater importance in relation to negative parental practices, like poor monitoring/supervision and inconsistent discipline 4, 40, 41. However, what surprised us was a positive saturation of positive parenting about which rare empiricial evidences can be found 42, 43. It could be explained by so called reactive parenting when parents after having perceived the problems in adolescents' behaviour are trying to compensate for the lost time 42,44.

Bearing in mind that there are only few studies that research the affective attachment to father in the context of perceiving the relationships with parents and externalising problems, the research findings that the third component is saturated by trust, communication and alienation from father are thought very significant. The results of sporadically conducted studies indicate utterly different paths in adjustment, origin and maintenance of the problems in behaviour, especially externalising problems in adolescents in whom there are differences regarding variables of relationship to father ^{15, 24, 45}. Namely, research findings indicate that affective attachment to fathers in relation to expressing externalising problems becomes particularly apparent after the age of 12 ¹⁴.

The constructs which saturate fourth component reflect parental practices which indicate strict discipline manifested by corporal punishment, parental control, strict monitoring and supervision with lack of trust and with alienation from mother, what corresponds to the findings of other authors 46-49. Variables of affective attachment to mother often mediate in explaining the externalising problems by negative parental variables, the link between parental practices and affective attachment being more stable than that which is being realised with externalising problems 14, 15. The authors dispute about presigns and strength of variables of parental control and relationship with externalising problems in connection thereof ^{29, 37}. Taking into account that parental control is manifested by limiting freedom by setting rules and restrictions on where the adolescents are allowed to go, how long they are allowed to stay, what activities they can do and so on 28, 29 it can be said that it is about the construct that represents a negative aspect of parental monitoring and discipline what was confirmed in this research as well.

Conclusion

A positive relationship between parents and adolescents, except for positive parental practices, determine all subscales of parental monitoring too, except parental control. Mothers, compared to fathers, generally realise better relationship with adolescents, they are more involved in the life of adolescents, offer them more support so that the adolescents disclose their activities to mothers more often. On the other hand, affective attachment to father has an important influence on adolescents externalising problems in contrast to mothers and independantly of their parenting role.

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REFERENCES

- Farrington DP, Welsh BC. Saving children from a life of crime: early risk factors and effective interventions. New York: Oxford University Press; 2008.
- Herrenkohl TI, Maguin E, Hill KG, Hawkins JD, Abbott RD, Catalano RF. Developmental risk factors for youth violence. J Adolesc Health 2000; 26(3): 176–86.
- Office of the Surgeon General (US), National Center for Injury Prevention and Control (US), National Institute of Mental Health (US), Center for Mental Health Services (US). Youth Violence: A Report of the Surgeon General. Rockville (MD): Office of the Surgeon General (US); 2001.

- 4. *Pinquart M.* Associations of parenting dimensions and styles with externalizing problems of children and adolescents: An updated meta-analysis. Dev Psychol 2017; 53(5): 873–932.
- Hann DM. Taking stock of risk factors for child/youth externalizing behavior problems. Rockville, MD: National Institute of Mental Health; 2001.
- de Vries SL, Hoeve M, Stams GJ, Asscher JJ. Adolescent-Parent Attachment and Externalizing Behavior: The Mediating Role of Individual and Social Factors. J Abnorm Child Psychol 2016; 44(2): 283–94.
- Bender HL, Allen JP, McElhaney KB, Antonishak J, Moore CM, Kelly HO, Davis SM, et al. Use of harsh physical discipline and developmental outcomes in adolescence. Dev Psychopathol 2007; 19(1): 227–42.
- Buist KL, Deković M, Meeus W, van Aken MA. The reciprocal relationship between early adolescent attachment and internalizing and externalizing problem behaviour. J Adolesc 2004; 27(3): 251–66.
- Fearon RP, Bakermans-Kranenburg MJ, van Ijzendoorn MH, Lapsley AM, Roisman GI. The significance of insecure attachment and disorganization in the development of children's externalizing behavior: a meta-analytic study. Child Dev 2010; 81(2): 435–56.
- Smetana JG, Matzger A. Don't ask, don't tell (your mom and dad): disclosure and nondisclosure in adolescent–parent relationships. In: Kerr M, Stattin H, Engels R, editors. What can parents do? New insights into the role of parents in adolescent problem behavior. Chichester, UK: John Wiley & Sons; 2008. p. 65–89.
- Tambelli, R., Laghi, F., Odorisio, F., Notari, V. Attachment relationships and internalizing and externalizing problems among Italian adolescents. Child Youth Servic Rev 2012; 34(8): 1465–71.
- Madigan S, Brumariu LE, Villani V, Atkinson L, Lyons-Ruth K. Representational and questionnaire measures of attachment: A meta-analysis of relations to child internalizing and externalizing problems. Psychol Bull 2016; 142(4): 367–99.
- 13. Reitz E, Dekorić M, Meijer A. Relations between parenting and externalizing and internalizing problem behaviour in early adolescence: child behaviour as moderator and predictor. J Adolesc 2006; 29(1): 419–36.
- Bosmans G, Braet C, Van Leeuwen K, Beyers, W. Do parenting behaviors predict externalizing behavior in adolescence, or is attachment the neglected 3rd factor? J Adolesc 2006; 35(3): 354–64.
- Gallarin M, Alonso-Arbiol I. Parenting practices, parental attachment and aggressiveness in adolescence: a predictive model. J Adolesc 2012; 35(1): 1601–10.
- Reese DM. Attachment quality, parental monitoring and peer relations as predictors of risky behaviors among ethnic minority youth [thesis]. Washington: The George Washington University; 2008.
- Laird RD, Marrero MD. Information management and behavior problems: is concealing misbehavior necessarily a sign of trouble? J Adolesc 2010; 33(1): 297–308.
- Kerns KA, Aspelmeier JE, Gentzler AL, Grabill CM. Parent-child attachment and monitoring in middle childhood. J Fam Psychol. 2001 Mar;15(1):69-81.
- Hoeve M1, Dubas JS, Eichelsheim VI, van der Laan PH, Smeenk W, Gerris JR. The relationship between parenting and delinquency: a meta-analysis. J Abnorm Child Psychol 2009; 37(6): 749–75.
- Hoeve M1, Stams GJ, van der Put CE, Dubas JS, van der Laan PH, Gerris JR. A Meta-analysis of Attachment to Parents and Delinquency. J Abnorm Child Psychol. J Abnorm Child Psychol 2012; 40(5): 771–85.
- Simons R, Simons L G, Hancock PA. Linking family processes and adolescent delinquency: issues, theories and research findings. In: Feld B, Bishop D, editors. The Oxford Handbook of

- Juvenile Crime and Juvenile Justice. New York: Oxford University Press; 2012. p. 175-201.
- Schroeder RD, Mowen TJ. Parenting style transitions and delinquency. Youth & Society 2014; 46(2): 228–54.
- Chong HM. The impact of parental attachment on adolescent externalizing problem behavior in Hong Kong [dissertation]. Hong Kong: City University of Hong Kong; 2007.
- Williams SK, Kelly FD. Relationships among involvement, attachment, and behavioral problems in adolescence: Examining father's influence. J Early Adolesc 2005; 25(2): 168–96.
- Mesman J, van IJzendoorn MH, Sagi-Schwartz A. Cross-Cultural Patterns of Attachment: Universal and Contextual Dimensions. In: Cassidy J, Shaver P, editors. Handbook of attachment: Theory, research, and clinical applications. 3rd ed. New York, NY: Guilford Press; 2016. p. 852–77.
- Fanti KA, Henrich CC, Brookmeyer KA, Kuperminc GP. Toward a transactional model of parent-adolescent relationship quality and adolescent psychological adjustment. J Early Adolesc 2008; 28(2): 252–76.
- Achenbach TM, Rescorla LA. Manual for the ASEBA school-age forms and profiles. Burlington, VT: University of Vermont, Research Center for Children, Youth & Families; 2001.
- 28. Kerr M, Stattin H. What parents know, how they know it, and several forms of adolescent adjustment: further support for a reinterpretation of monitoring. Dev Psychol 2000; 36(3): 366–80.
- Stattin H, Kerr M Parental monitoring: a reinterpretation. Child Dev 2000; 71(4): 1072–85.
- Armsden GC, Greenberg MT. The inventory of parent and peer attachment: Individual differences and their relationship to psychological well-being in adolescents. J Youth Adolesc 1987; 16(5): 427–52.
- Armsden GC, Greenberg MT. The Inventory of Parent and Peer Attachment: Mother, Father, and Peer Attachment – Revised. Seattle, WA: Department of Psychology, University of Washington, Seattle. 2009.
- Pace CS, San Martini P, Zavattini G. The factor structure of the Inventory of Parent and Peer Attachment (IPPA): A survey of Italian adolescents. Pers Indiv Differ 2011; 51(1): 83–8.
- 33. Frick PJ. The Alabama Parenting Questionnaire. Tuscalosa: University of Alabama; 1991.
- Frick PJ, Christian RE, Wootton JM. Age trends in the association between parenting practices and conduct problems. Behav Modific 1999; 23(1): 106–28.
- 35. Grusse JE. What is the Nature of Effective Parenting? It Depends. In: Kerr M, Stattin H, Engels R, editors. What can parents do? New insights into the role of parents in adolescent problem behavior. Chichester, UK: John Wiley & Sons; 2008. p. 240–59.
- 36. Kerr M, Stattin H, Engels R. What's changed in research on parenting and adolescent problem behavior and what needs to change? In: Kerr M, Stattin H, Engels R, editors. What can parents do? New insights into the role of parents in adolescent problem behavior. Chichester, UK: John Wiley & Sons; 2008. p. 1–9.
- Keijsers L, Branje SJT, VanderValk IE, Meeus W. Reciprocal effects between parental solicitation, parental control, adolescent disclosure, and adolescent delinquency. J Res Adolesc 2010; 20(1): 88–113.
- Smetana JG. Adolescents, families and social development: how teens construct their worlds. Chichester, UK: Wiley-Blackwell; 2011.
- Fite PJ, Colder CR, Lochman JE, Wells KC. The mutual influence of parenting and boys' externalizing behavior problems. J Appl Dev Psychol 2006; 27(2): 151–64.
- Kerr M, Stattin, H, Burk, WJ. A reinterpretation of parental monitoring in longitudinal perspective. J Res Adoles 2010; 20(1): 39–64.

- 41. Laird RD, Pettit GS, Dodge KA, Bates JE. Change in parents' monitoring knowledge: links with parenting, relationship quality, adolescent beliefs, and antisocial behavior. Soc Dev 2003; 12(3): 401–19.
- Griffin KW, Botvin GJ, Scheier LM, Diaz T, Miller NL. Parenting practices as predictors of substance use, delinquency, and aggression among urban minority youth: moderating effects of family structure and gender. Psychol Addict Behav 2000; 14(2): 174–84.
- 43. McKee L, Roland E, Coffelt N, Olson AL, Forehand R., Massari, et al. Harsh discipline and child problem behaviors: the roles of positive parenting and gender. J Fam Viol 2007; 22(4): 187–96.
- Ksinan AJ, Vazsonyi AT. Longitudinal associations between parental monitoring discrepancy and delinquency: an application of the latent congruency model. J Youth Adolesc 2016; 45(12): 2369–86.
- 45. Lee JY, Park SH. Interplay between Attachment to Peers and Parents in Korean Adolescents' Behavior Problems. J Child Fam Stud 2017; 26(1): 57–66.

- Lansford JE, Sharma C, Malone PS, Woodlief D, Dodge KA, Oburu P, et al. Corporal punishment, maternal warmth, and child adjustment: A longitudinal study in eight countries. J Clin Child Adolesc Psychol 2014; 43(4): 670–85.
- 47. Gershoff ET. Corporal punishment by parents and associated child behaviors and experiences: a meta-analytic and theoretical review. Psychol Bull 2002; 128(4): 539–79.
- 48. Ruhl H, Dolan E.A, Buhrmester D. Adolescent attachment trajectories with mothers and fathers: The importance of parent-child relationship experiences and gender. J Res Adoles 2015; 25(3): 427–42.
- Roskam I. Externalizing behavior from early childhood to adolescence: Prediction from inhibition, language, parenting, and attachment. Dev Psychopathol 2018; 1–13.

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