



DUNEDIN STUDY CONCEPT PAPER FORM

Provisional Paper Title: Parent attachment and self-perceived competencies in adolescents: The roles of parental exposure to childhood maltreatment and peer attachment

Proposing Author: Eva J. Geiger*, Julia Ditzer*, Anat Talmon, Andrew Gray, Judith Sligo, Helena McAnally, Bob Hancox

Author's Email: eva.geiger@stud.uni-heidelberg.de
julia.norman@uni-leipzig.de
atalmon@mail.huji.ac.il
andrew.gray@otago.ac.nz
judith.sligo@otago.ac.nz
helena.mcanally@otago.ac.nz
bob.hancox@otago.ac.nz

P.I. Sponsor: Bob Hancox
(if the proposing author is a student or colleague of an original PI)

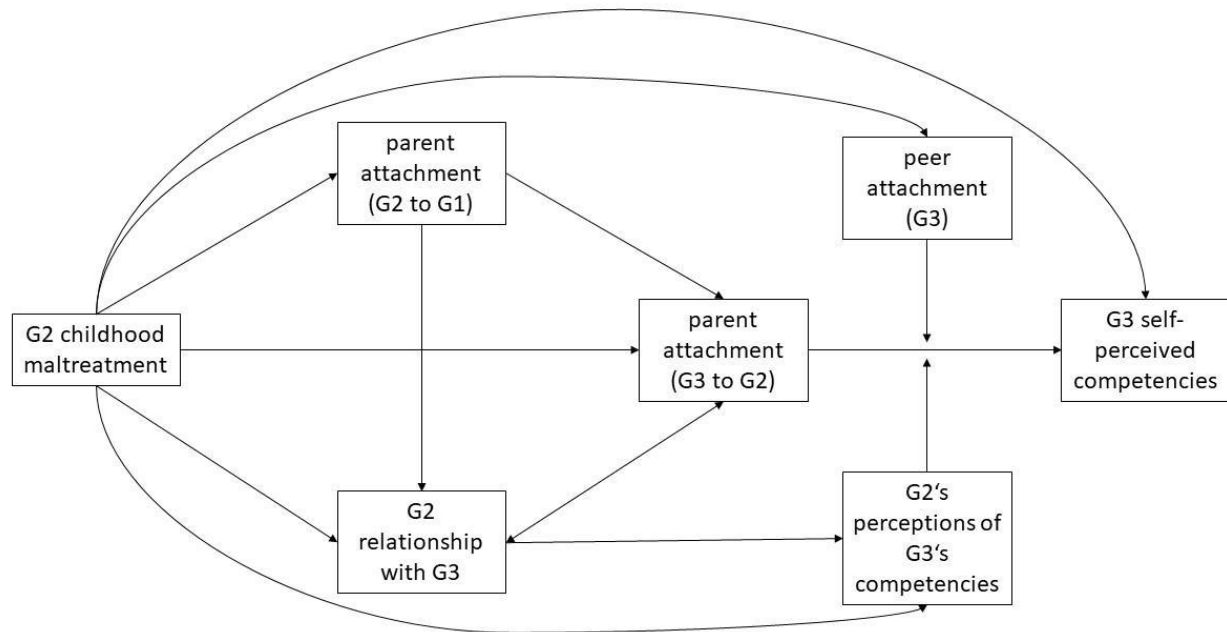
Today's Date: 27.08.2022

Objective of the study:

To investigate 1) whether parental experiences of childhood maltreatment have an intergenerational effect on adolescents' parent attachment and self-perceived competencies, and 2) whether peer attachment can buffer the consequences of insecure parent attachment on self-perceived competencies in adolescence. A partial overview of the conceptual model is depicted in Figure 1.

Figure 1

Partial Conceptual Model for the Relationship Between Parental Childhood Maltreatment, Parent and Peer Attachment, and Self-Perceived Competencies in Adolescence.



Note. The above model is simplified to show the key associations of interest here. Where available, equivalent G2 variables will be included as potential mediators of associations from G2 childhood maltreatment and G3 variables of interest, G2's childhood SES will be included as a potential confounder of all associations from G2 to G2 and from G2 to G3 variables, and G2's and G3's ages at assessment, and sexes/genders will be included as potential competing exposures of all G2 and G3 variables respectively. G1 = Dunedin Study Members' Parents, G2 = Dunedin Study Members, G3 = Dunedin Study Members' children.

Data analysis methods:

All variables will be operationalised to avoid the model stability issues that have been noted with related latent variable models. A version of the conceptual model shown above (see figure note for additional variables) will be implemented as a Bayesian path model using "uninformative" priors, allowing probabilistic interpretations of effect sizes through descriptions of the posterior distributions (which will also be summarized using medians and 95% equal-tailed credible intervals). Multiple chains will be used to assess model stability, along with other standard model diagnostics. Both direct and mediated effects are of interest and the "buffering" variables will be explored as effect modifiers.

Variables needed at which ages:

Demographics:

- G2 childhood socio-economic status (SES)

- G2 & G3 sex/gender
- G2's parental ages at G3's births
- G2's and 3's age at assessments

Study variables:

- G2 childhood maltreatment variable (for reference, see Reuben et al., 2016)
- G2 to G1 parent attachment: Inventory of Parent Peer Attachment (IPPA; Armsden & Greenberg, 1987) parent questions from Dunedin Study at age 15
- G3 to G2 parent attachment: Inventory of Parent Peer Attachment (IPPA; Armsden & Greenberg, 1987) parent questions from Next Generation Study
- Relationship of G2 to G3: Child Relationships Scale 30 items from Next Generation Study
- G2 peer attachment: Inventory of Parent Peer Attachment (IPPA; Armsden & Greenberg, 1987) peer questions from Next Generation Study
- G3 peer attachment: Inventory of Parent Peer Attachment (IPPA; Armsden & Greenberg, 1987) peer questions from Next Generation Study
- G1's perspective of G2's strengths: Strengths Questionnaire from parental Next Generation Study
- G2's perspective of G3's strengths: Strengths Questionnaire from parental Next Generation Study
- G2's self-perceived strengths from the Next Generation Study
- G3's self-perceived strengths from the Next Generation Study

Significance of the Study (for theory, research methods or clinical practice):

From birth, children engage in significant attachment formation processes with their caregivers (Soysali et al., 2005; Sullivan et al., 2011). Later in life, these familial interactions can significantly shape our core beliefs about ourselves; our so-called self-conceptions (Platts et al., 2002). For instance, attachment has been found to be predictive of decreased self-certainty and less self-clarity in adolescence (Wu, 2009). While the connection between less stable attachment and poorer self-conception is well established in the literature, less is known about which variables influence this relationship. Shedding light on moderating, and mediating, variables seems crucial as insecure attachment styles and lower self-esteem are independently associated with higher depressive symptoms (Bolognini et al., 1996), poorer mental health outcomes in general (Moksnes & Reidunsdatter, 2019), and poorer physical health trajectories in adolescence (Li et al., 2010).

One potential protective factor against negative self-conceptions is a sound attachment to one's peers. From a developmental perspective, peer relationships gain in relative importance especially in adolescence and attachment security to peers can diverge from parent attachment (Fraleay & Davis, 1997; Laible et al., 2000; Nickerson & Nagle, 2005). It has already been found that adolescent changes in peer attachments coincide with important

developments in self-concept (Allison, 2000; Steinberg, 2000). Despite the relative gain in importance of peer relationships during adolescence, very little is known about whether and how peer attachment influences the relationship between attachment to parents and self-conceptions. Consequently, research is needed to investigate a comprehensive model of the complex interactions of attachment and self-concept variables including peer attachment. Scientific insights into potentially moderating variables is crucial to buffer against physical and psychological effects of insecure parent attachment, especially as attachment to parents is relatively stable across the life span (McConnell & Moss, 2011). Additionally, from an applied clinical perspective, attachment to peers might be more easily targeted in interventions than parent attachment. In this paper, we conceptualize self-conceptions in accordance with Williams and McGee (1990) whose findings are based on the Dunedin study.

In light of the unique longitudinal and intergenerational nature of the Dunedin Next Generation study, a model based on the Dunedin dataset provides the unique opportunity of not only assessing momentary relations between attachment and self-concept, but also potential underlying mechanisms and moderators. Identifying underlying mechanisms seems to be especially beneficial in attachment research as attachment styles are often passed down within families (Doyle et al., 2000). Therefore, a multigenerational perspective is needed in addition to an intragenerational approach. It has been established before that a distal risk factor for a child's insecure attachment is a parental history of childhood maltreatment (CM; Lehnig et al., 2019; Roth et al., 2021). CM is defined as experiences of physical, emotional or sexual abuse, or physical or emotional neglect before the age of 18 (Engfer, 2005; Herrenkohl, 2005; Manly, 2005). Parental history of CM has also been independently linked to decreased self-esteem in survivors' offspring (Neiss et al., 2006; Stieger et al., 2017). Using the Dunedin dataset allows us to include this essential intergenerational perspective on predictors of adolescents' self-conceptions.

More specifically, the Dunedin Next Generation Study contains information about all of the variables discussed above: G2 parent attachment, G3 parent and peer attachment, and G3 self-conceptions, and other variables that form the proposed causal model. In combination with assessments regarding G2's history of CM in the original Dunedin study, the Dunedin dataset presents a unique opportunity to test the complex *intergenerational* interactions and relationships of these variables in one model. To our knowledge, this study would be the first to investigate a possible direct link between parental CM and adolescents' self-perceived competencies and self-esteem across generations. In addition, it is - to our knowledge - the first to hypothesize that peer attachment moderates the link between parent attachment and self-perceived competencies. In practice, we believe that adolescent self-perceived competencies are constructs that can be leveraged in school and clinical interventions at a time when teenagers go through a transformational period.

Moreover, this research would lend further evidence to the importance of therapy aimed at family systems as a whole. It would further suggest the paramount importance for practitioners in health to individualize and trauma-focused family therapy, which seems

essential in a culturally diverse country such as New Zealand (Kumar et al., 2012). In addition, this research holds important implications and foundations for policymakers and social workers suggesting that early intervention in the cycle of abuse might be intergenerationally important. This seems especially important as research has shown that CM affects 1 in 4 children in New Zealand and that this prevalence is commonly underestimated in the general New Zealand population (Rouland & Vaithianathan, 2018). Consequently, this research could show that a focus on both treatment and prevention programs might benefit not only the affected individuals but also their future offspring.

References:

- Allison, B. N. (2000). Parent-adolescent conflict in early adolescence: Research and implications for middle school programs. *Journal of Family and Consumer Science Education, 18*(2), 1–6.
- Armsden, G.C., & Greenberg, M.T. (1987). The inventory of parent and peer attachment: Individual differences and their relationship to psychological well-being in adolescence. *Journal of Youth and Adolescence, 16*, 427–454.
- Bolognini, M., Plancherel, B., Bettschart, W., & Halfon, O. (1996). Self-esteem and mental health in early adolescence: Development and gender differences. *Journal of Adolescence, 19*(3), 233-245.
- Doyle, A. B., Markiewicz, D., Brendgen, M., Lieberman, M., & Voss, K. (2000). Child attachment security and self-concept: Associations with mother and father attachment style and marital quality. *Merrill-Palmer Quarterly (1982-), 51*4-539.
- Engfer, A. (2005). Formen der Misshandlung von Kindern - Definition, Häufigkeiten, Erklärungsansätze. In U. T. Egle, S. O. Hoffmann, & P. Joraschky (Eds.), *Sexueller Missbrauch, Misshandlung, Vernachlässigung: Erkennung, Therapie und Prävention der Folgen früher Stresserfahrungen* (pp. 3–19). Schattauer.
- Fraley, R. C., & Davis, K. E. (1997). Attachment formation and transfer in young adults' close friendships and romantic relationships. *Personal Relationships, 4*(2), 131–144.
- Herrenkohl, R. C. (2005). The definition of child maltreatment: From case study to construct. *Child Abuse & Neglect, 29*(5), 413–424.
- Kumar, S., Dean, P., Smith, B., & Mellsop, G. W. (2012). Which family–What therapy: Maori culture, families and family therapy in New Zealand. *International Review of Psychiatry, 24*(2), 99-105.
- Laible, D. J., Carlo, G., & Raffaelli, M. (2000). The differential relations of parent and peer attachment to adolescent adjustment. *Journal of Youth and Adolescence, 29*(1), 45-59.
- Lehnig, F., Nagl, M., Stepan, H., Wagner, B., & Kersting, A. (2019). Associations of postpartum mother-infant bonding with maternal childhood maltreatment and postpartum mental health: A cross-sectional study. *BMC Pregnancy and Childbirth, 19*(1), 278.
- Li, H. C. W., Chan, S. L. P., Chung, O. K. J., & Chui, M. L. M. (2010). Relationships among mental health, self-esteem and physical health in Chinese adolescents: An exploratory study. *Journal of Health Psychology, 15*(1), 96-106.
- Manly, J. T. (2005). Advances in research definitions of child maltreatment. *Child Abuse & Neglect, 29*(5), 425–439.
- McConnell, M., & Moss, E. (2011). Attachment across the life span: factors that contribute to stability and change. *Australian Journal of Educational & Developmental Psychology, 11*, 60-77.
- Moksnes, U. K., & Reidunsdatter, R. J. (2019). Self-esteem and mental health in adolescents—level and stability during a school year. *Norsk Epidemiologi, 28*(1-2).

- Neiss, M. B., Sedikides, C., & Stevenson, J. (2006). Genetic influences on level and stability of self-esteem. *Self and Identity*, 5(3), 247–266.
- Nickerson, A. B., & Nagle, R. J. (2005). Parent and peer attachment in late childhood and early adolescence. *The Journal of Early Adolescence*, 25(2), 223–249.
- Platts, H., Tyson, M., & Mason, O. (2002). Adult attachment style and core beliefs: Are they linked?. *Clinical Psychology & Psychotherapy*, 9(5), 332-348.
- Reuben, A., Moffitt, T. E., Caspi, A., Belsky, D. W., Harrington, H., Schroeder, F., ... & Danese, A. (2016). Lest we forget: comparing retrospective and prospective assessments of adverse childhood experiences in the prediction of adult health. *Journal of Child Psychology and Psychiatry*, 57(10), 1103-1112.
- Roth, M. C., Humphreys, K. L., King, L. S., Mondal, S., Gotlib, I. H., & Robakis, T. (2021). Attachment security in pregnancy mediates the association between maternal childhood maltreatment and emotional and behavioral problems in offspring. *Child Psychiatry and Human Development*, 52(5), 966–977.
- Roulund, B., & Vaithianathan, R. (2018). Cumulative prevalence of maltreatment among New Zealand children, 1998–2015. *American journal of public health*, 108(4), 511-513.
- Soysali, A. Ş., Bodur, Ş., İşeri, E., & Şenol, S. (2005). Attachment process in infancy: A review. *Journal of Clinical Psychiatry*, 8(2), 88-99.
- Steinberg, L. (2000). The family at adolescence: Transition and transformation. *Journal of Adolescent Health*, 27(3), 170–178.
- Stieger, S., Kandler, C., Tran, U. S., Pietschnig, J., & Voracek, M. (2017). Genetic and environmental sources of implicit and explicit self-esteem and affect: Results from a genetically sensitive multi-group design. *Behavior Genetics*, 47(2), 175–192.
- Sullivan, R., Perry, R., Sloan, A., Kleinhaus, K., & Burtchen, N. (2011). Infant bonding and attachment to the caregiver: Insights from basic and clinical science. *Clinics in Perinatology*, 38(4), 643–655.
- Williams, S., & McGee, R. (1991). Adolescents' self-perceptions of their strengths. *Journal of Youth and Adolescence*, 20(3), 325-337.
- Wu, C. H. (2009). The relationship between attachment style and self-concept clarity: The mediation effect of self-esteem. *Personality and Individual Differences*, 47(1), 42-46.