

The Relation between Adolescent Depressive Symptoms and Adolescents' Perceived Attachment to Father and Mother over a Two-Year Period.

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ABSTRACT

This study examined the predictive value of adolescent depressive symptoms on perceived adolescent-mother and adolescent-father attachment two years later, as well as the moderating role of sex. 1110 young adolescents (52,7% boys, $M_{age} = 12.44$, $SD_{age} = 0.61$) were asked to report on their depressive symptoms and perceived attachment quality to both mother and father on two waves with a two-year interval. In conclusion, depressive symptoms are no significant predictor of adolescent-father and adolescent-mother attachment after two years but earlier adolescent-father and adolescent-mother attachment are.

Keywords

Adolescent depressive symptoms, attachment, gender differences.

Acknowledgement

A similar research question has been researched in the same dataset by Branje, Hale, Frijns, & Meeus (2010).

INTRODUCTION

During adolescence, depressive symptoms show a substantial increase (e.g. Hankin, 2006). It is expected that in 2030 depression will be in the top three of diseases with the biggest burden (Mathers & Loncar, 2006). Parental attachment is one of the risk factors for the development of depression (e.g. Asarnow, Goldstein, Tompson, & Guthrie, 1993). The opposite effect, whether depressive symptoms influence later attachment quality, however remains unstudied. If it is found that later parent-adolescent attachment is influenced by adolescent depressive symptoms, depression treatment can also pay attention to improving the attachment bonds. Since insecure attachment bonds relate to depression relapse (Asarnow et al., 1993) the risk of such relapse might be reduced. Making sure that depression does not cause future attachment bonds to become insecure will also have a positive effect on further development as parental attachment is a foundation for emotional and interpersonal development in adolescence (Josselson, 1988). To better understand the relation between adolescent depressive symptoms and later parental attachment, this paper examined the predictive value of adolescent depressive symptoms for later perceived parental attachment quality.

Depression and interpersonal relationships

Different studies show that depressed individuals have problematic interpersonal relationships (e.g. Joiner & Timmons, 2002). Depressed individuals can often be characterized by deficits in their social skills and negative

speech quality and content. Talking to a depressed patient makes interlocutors more depressed, anxious and rejecting (Coyne, 1976). In short, depression not only influences someone's behaviour, but also their interpersonal relationships and feelings of others. More specifically, depressive symptoms influence family relationships (Davila, Stroud, & Starr, 2009). Maternal- and paternal-adolescent relationships are expected to be disrupted in particular.

Since relationships with parents are disrupted in particular in depressed adolescents (Davila et al., 2009), it can be expected that attachment will be influenced by adolescents' depression as well. Although attachment plays an important role in children's development (Parkes, Stevenson-Hinde, & Marris, 2006), the attachment to parents remains important during adolescence and adulthood (Raudino, Fergusson, & Horwood, 2013).

Attachment and depressive symptoms

Depressive symptoms and attachment are related when measured at the same measurement (e.g. Demidenko, Manion, & Lee, 2015). Furthermore, depressed adolescents perceive the attachment to their parents as less secure than non-depressed adolescents (Armsden, McCauley, Greenberg, Burke, & Mitchell, 1990). Earlier research shows that adolescents' attachment to parents also directly influences the amount of depressive symptoms in adolescence (e.g. Kullik & Petermann, 2013). Adolescent-mother attachment and adolescent-father attachment even contribute equally to the amount of depressive symptoms (Liu, 2006). The attachment relation with both parents is associated with recovering from depression, remaining depressed and depression relapse (e.g. Agerup, Lydersen, Wallander, & Sund, 2015). In short, parental attachment is found to influence the amount of symptoms, development, maintenance, course, recovery and relapse of depression.

Less is however known about whether internalizing problems predict the quality of later attachment. One study examined the bidirectional relationship between internalizing problems and attachment (Buist, Deković, Meeus, & Aken, 2004). This study showed that internalizing problems were negatively related to attachment one year later. Another study examined the bidirectional relationship between depressive symptoms and perceived parent-adolescent relationship quality (Branje et al., 2010). It was found that adolescents who show more depressive symptoms report lower quality of the parent-adolescent relationship. Changes in depressive symptoms resulted in changes in the perception of the parent-adolescent relationship quality.

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This study

The aim of this study was to examine the predictive value of adolescent depressive symptoms for adolescents' perception of attachment to father and mother two years later. The main research question was: 'Do adolescent depressive symptoms predict perceived adolescent-father and adolescent-mother attachment two years later?'. Since depressive symptoms were found to be related to perceptions of the parent-adolescent relationship quality (Branje et al., 2010), internalizing problems negatively influenced attachment one year later (Buist et al., 2004), and being depressed influenced perceptions of attachment (Armsden et al., 1990), it was expected that depressive symptoms have a negative effect on adolescents' perceptions of attachment quality to both parents two years later. The first subquestion was: 'Do depressive symptoms predict adolescents' perceived attachment to father and mother to a similar degree?'. It was hypothesized that both will be influenced to a similar degree by adolescent depressive symptoms, since attachment to father and attachment to mother were found to contribute equally to the amount of depressive symptoms (Liu, 2006) and adolescents with higher levels of depressive symptoms were found to report lower quality of the relationship with both mothers and fathers. The second subquestion was: 'Is the relation between depressive symptoms and perceived adolescent-father and adolescent-mother attachment moderated by adolescents' sex?'. Since same-sex attachment is of higher quality than different-sex attachment (Buist, Deković, Meeus, & van Aken, 2002), it was expected that the relation between depression and attachment would be stronger in same-sex dyads. Sex is expected to moderate the relation between depression and adolescents' perceived attachment to father and mother.

METHODS

Participants

The sample contained participants from the young cohort of the study on CONflict And Management Of Relationships (CONAMORE; Meeus et al., 2004), with data on depressive symptoms at the first measurement. This resulted in a sample of 1110 adolescents (52.7% boys), aged between 10 and 15 at the first measurement ($M_{\text{age}} = 12.44$, $SD_{\text{age}} = 0.61$). Adolescents were followed annually over five years of which this study used the first and third measurement. All participants were high school students from the province of Utrecht in the Netherlands and the majority of the participants was Dutch (77.5%). The other participants identified themselves as Surinamese (1.4%), Moroccan (7.9%), Turkish (3.6%), or 'something else' (3.2%). Of the other 6.4% this data was missing.

Attachment questionnaires were filled in by 782 participants (70.5%) at the first wave. The groups with and without attachment scores differed significantly, $F(4, 1033) = 2.54$, $p = .039$. The group without attachment scores reported more often that they belonged to a different ethnic group than 'Dutch'. At the third wave, 891 (80.3%) participants filled in the attachment questionnaires. Participants with and without attachment scores significantly differed from each other ($F(4, 1033) = 6.71$, $p < .000$). The group without scores was older and more often reported to belong to a different ethnic group than 'Dutch'. Because of the significant differences all participants were included in the analyses.

Procedure

After being informed about the research and having provided written informed consent, adolescents completed questionnaires at home. These questionnaires were completely confidential. Before answering the questionnaires an assistant gave verbal instructions. Completing all questionnaires for the CONAMORE study (Meeus et al., 2004) took approximately one hour and after every measurement wave adolescents received €10 as a reward.

Measures

Perceived attachment

Perceived attachment quality was measured with the Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987), which adolescents completed separately for mothers and fathers. Participants rated 12 statements on a six-point Likert scale ranging from 1 = 'never' to 6 = 'always'. An example of a statement is: 'I am often mad at my father'. This self-report questionnaire consists of three subscales: trust, alienation and communication. Since the alienation items were phrased negatively, these items were inverted, after which total attachment scores were computed by summing the scores of all items. The IPPA has proven to be reliable and valid (Armsden & Greenberg, 1987). The internal consistency of the IPPA was good with reliability across waves ranging from $\alpha = 0.83$ to 0.87 for fathers and from $\alpha = 0.83$ to 0.85 for mothers.

Depressive symptoms

Adolescents rated the amount of their depressive symptoms on a Dutch version of the Children's Depression Inventory (CDI; Kovacs, 2004). The CDI consists of 27 items that have to be rated on a three-point Likert scale ranging from 1 = 'not true' to 3 = 'really true' (Meeus et al., 2004). An example of a statement is: 'Nobody really loves me'. The COTAN rated the CDI as moderately reliable and sufficient concerning construct validity (Egberink, Janssen, & Vermeulen, 2009). Concerning criterion validity and norms the CDI was rated as insufficient. In the current study, this questionnaire was excellently reliable, $\alpha = 0.94$.

Analyses

To answer the main research question, linear regression analyses were performed separately for father- and mother-adolescent attachment. Hierarchical multiple regression analyses were used to control for the influence of perceived attachment. However, a considerable number of adolescents ($N = 328$) did not complete the IPPA at wave one. To analyse the larger sample, analyses were done with and without correction for earlier attachment. Secondly, to examine whether adolescent depressive symptoms predict adolescent-father and adolescent-mother attachment to a similar degree the significance and explained variance were compared. Finally, to test whether the relation between adolescent depressive symptoms and attachment is moderated by adolescents' sex, moderation analyses were conducted using the PROCESS tool (Hayes, 2012).

RESULTS

Depressive symptoms and perceived attachment

Adolescent depressive symptoms were a significant predictor of perceived attachment to father ($F(1, 856) = 36.36$, $p < .000$) and mother ($F(1, 855) = 21.96$, $p < .000$) two years later. This relation found to be negative ($B = -.26$ and $B = -.19$), implying that more depressive symptoms at wave one were associated with lower perceived paternal and maternal attachment quality at wave three. Hierarchical multiple regression analyses were used to correct for the influence of

perceived attachment at wave one. Perceived attachment to father at wave three was predicted by paternal attachment at wave one, $F(1, 636) = 180.41, p < .000$. The addition of depressive symptoms to the model delivered no significant change, $F_{change}(1, 635) = 2.01, p = .156$. Perceived attachment to mother at wave three was found to be predicted by maternal attachment at wave one, $F(1, 637) = 172.34, p < .000$. The addition of depressive symptoms to the model again delivered no significant change, $F_{change}(1, 636) = 2.09, p = .149$. In short, adolescent depressive symptoms significantly predicted perceived attachment to father and mother two years later. However, this relation was no longer significant when controlled for the influence of perceived attachment at wave one.

The relation between depressive symptoms and attachment; comparing father and mother

Even though the relation between adolescent depressive symptoms and attachment quality was explained by attachment at wave one, it was decided to analyse the other subquestions without the correction. To answer the first subquestion, the explained variance of the predictor depressive symptoms for perceived attachment to father and mother were compared. The effect size for the relation with both attachment bonds was small, adjusted $R^2 = .04$ for father, and adjusted $R^2 = .02$ mother. This indicates that adolescent-father and adolescent-mother attachment were predicted by depressive symptoms to a similar degree. Thus, adolescent depressive symptoms predicted change in attachment quality to father and mother to a similar, but small, degree.

Moderation of sex

The relation between depressive symptoms and attachment to father two years later was moderated by adolescents' sex, $B = -0.33, SE = 0.12, p = .005$. A significant negative relation was found between adolescent depressive symptoms and later attachment to father for both boys, $B = -0.15, SE = 0.06, p = .010$, and girls, $B = -0.48, SE = 0.10, p < .000$. The relation between depressive symptoms and attachment to mother was also moderated by adolescents' sex, $B = -0.22, SE = 0.10, p = .031$. A significant negative relation between depressive symptoms and attachment to mother two years later was found for boys, $B = -0.12, SE = 0.05, p = .012$ and girls, $B = -0.34, SE = 0.09, p = .000$. These results indicate that for boys and girls more depressive symptoms at wave one were associated with lower perceived adolescent-mother and adolescent-father attachment quality two years later, but this relation was stronger in girls.

DISCUSSION AND CONCLUSION

The aim of this study was to examine whether adolescent depressive symptoms influence adolescents' perception of attachment to their father and mother two years later. As hypothesized, depressive symptoms at wave one significantly predict perceived attachment to mother and father two years later. This was in line with the study by Branje and colleagues (2010). A possible explanation for this is that adolescents change after a period of depression (Rohde, Lewinsohn, & Seeley, 1994). Previously depressed adolescents show more internalizing behaviours and more emotional reliance, meaning that they desire more support and approval from others. This might change the adolescent-parent relationship and attachment in such a way that the depressive symptoms influence perceived attachment two years later.

As hypothesized, depressive symptoms predict adolescents' perceived attachment to father and mother to a similar degree, although these effects are very small. As an addition to the finding that attachment to father and attachment to mother contribute equally to the amount of depressive symptoms (Liu, 2006), it is found here that they are influenced equally by depressive symptoms as well.

Sex is found to be a significant moderator in the relation between adolescent depressive symptoms and the perception of attachment. The relation between depressive symptoms and attachment, to either mother or father, is negative for both boys and girls, but is stronger for girls. This is contrary to the expectation that same-sex attachment will be influenced more strongly than different-sex attachment. Branje and colleagues (2010) only found a moderating role of adolescent sex in the relation between depressive symptoms and perceived father-adolescent relationship quality. This could be explained by the difference in sample size and differences in the analyses used.

Further analyses show that adolescent depressive symptoms no longer predict perceived attachment to parents two years later when perceived attachment at wave one is added to the model. This means that the previous results should be interpreted carefully. A possible explanation for this is that attachment is relatively stable across the first 19 years of life (Chris Fraley, 2002). Changes in the parent-adolescent relationship due to adolescent depressive symptoms might not influence perceived attachment quality. An example of a change in the parent-adolescent relationship that is found not to change adolescents' perceptions of the relationship is the change in communication patterns (Laursen & Collins, 2004). While depressive symptoms influence adolescents' communication (Joiner & Timmons, 2002) it is suggested that depressive symptoms do not change adolescents' perceptions of the attachment quality.

This study has a number of limitations. First, other factors not taken into account here might also influence adolescents' perceived attachment to parents. Another limitation is that only self-report measures are used. In the future, it can be examined whether depressive symptoms influence parents' perceptions of adolescent-parent attachment. Lastly, not all participants had scores on the IPPA. Because of this the results are not generalizable to other populations than younger Dutch populations. Apart from that, some participants did not have IPPA-scores on the first measurement, which means that no correction of earlier attachment could be done for those adolescents. In the future, a more representative group should be used. Another limitation is that nothing can be said about causality in this study. From this study nothing can be said about the direction of the relation between depressive symptoms and perceived attachment quality. Earlier research by Buist and colleagues (2004) already found reciprocal relationships of internalizing symptoms and attachment quality. Branje and colleagues (2010) found mutual influence of depressive symptoms and perceived relationship quality. The influence of depressive symptoms on perceived relationship quality was found to be stronger than the other way around. However, the direction of effects of adolescent depressive symptoms and perceived parent-adolescent relationship was found to be dependent on adolescents' and parents' sex. This means that interventions should focus on adolescents' perceptions of the relationship but should also take the influence of earlier perceived relationship quality into account dependent on adolescent's and parent's sex.

Despite these limitations this study has several strengths. Firstly, the current study contributed to knowledge regarding the relation between depressive symptoms and later parental attachment and was the first to examine this relation in this direction. Secondly, analyses are done with correction for earlier attachment, which shows that the relation between adolescent depressive symptoms and adolescent-parent attachment disappears after taking earlier adolescent-parent attachment into account. In conclusion, the relation between depressive symptoms and adolescent-mother and adolescent-father attachment is no longer significant after controlling for earlier attachment, which is a significant predictor of later attachment. This study may have implications for preventions and interventions. Low attachment is found to be a predictor of later attachment, which means that it is important to detect insecure attachment-bonds and intervene to make sure that those attachment-relationships improve. This is certainly important because insecure attachment is found to have negative influences on other areas including the development of depression and depression relapse.

ROLE OF THE STUDENT

I got the data from the CONAMORE study (Meeus et al., 2004). With this data, I had to come up with a research question and write a proposal. When it was approved, I started on the research project and conducted all of it by myself with helpful feedback from Anne Berg. Anne Berg was guiding my thesis.

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