Adolescent Psychological Health and School Attitudes: The Impact of Attachment Relationships

Ross B. Wilkinson (Ross.Wilkinson@anu.edu.au)

Monika Kraljevic
School of Psychology
The Australian National University, Canberra ACT 0200 Australia

Adolescent Psychological Health and School Attitudes: The Impact of Attachment Relationships

Ross B. Wilkinson (Ross.Wilkinson@anu.edu.au)
Monika Kraljevic
School of Psychology
The Australian National University, Canberra ACT 0200 Australia

Abstract

The simultaneous and differential effects of parental, peer, and intimate friendship attachment on attitudes to school and psychological health were examined in a sample of 520 adolescents aged from 13 to 19 years. Based on recent extensions to attachment theory, it was predicted that parental, peer and intimate friend attachment would impact on psychological health variables, while peer attachment and intimate friend attachment along with depression and self-esteem would influence attitudes towards school. The hypothesised pattern of relationships was evaluated using structural equation modelling techniques. Overall, there was only partial support for the hypotheses. Results showed that parental attachment and peer attachment were related to psychological health but intimate friendship attachment was not. Intimate friendship was the only attachment variable that directly influenced school attitudes. The three attachment variables were only weakly inter-correlated. Implications with regard to extensions of attachment theory are discussed.

The effect that our relationships with lovers, friends, parents, and acquaintances have on our psychological wellbeing has been a central concern of research examining adult psychological adjustment for many years. More recently, adolescents and their interpersonal relationships have become the focus of research into these important associations (e.g. Armsden & Greenberg, 1987; Meeus, Osterwegel, Vollebergh, 2002; Wilkinson, in press). Adolescent attachment research has continually shown that relationship quality has an impact on an individuals’ psycho-social adjustment. A high quality of interpersonal relationships in adolescence and adulthood is strongly associated with higher levels of self-esteem, less depression and better social adjustment (Armsden & Greenberg, 1987; Engels, Finkenauer, Meeus, & Dekovic, 2001; Greenberg, Siegel, & Leitch, 1983). In the present study, the self-reported quality of adolescent relationships with parents, peers and intimate friends is considered in regards to the degree of association these have with depression, self-esteem and school attitudes.

Attachment Continuity

The link between infant and adult attachment is based on the belief that early attachment experiences become cognitively encoded and referred to in relationships throughout the lifetime. These past experiences are stored in the form of self-representations and expectancies, which develop into internal ‘working models’ (Ainsworth, 1989; Bowlby, 1973). Parent-infant experiences provide a template or set of “rules” for the kind of experience one might expect in an adult relationship. That is, working models are developed as guides for future expectations and behaviour in interpersonal relationships (Bowlby, 1973).

Early attachment relationships that are centred on love and responsiveness are argued to lead to the development of working models that contain beliefs about the self as worthy of love and attention. In contrast, insecure attachment relationships that are based on inconsistency and unresponsiveness result in working models that contain beliefs about the self as unworthy and unlovable, and beliefs about others as unavailable and antagonistic (Dekovic & Meeus, 1997). These beliefs have implications for how the individual approaches relationships and social interactions. The type of attachment an individual develops with their primary attachment figure, and therefore the information stored within the internal working model, differ across individuals depending on early childhood experience and attachment quality. In this way, the quality and pattern of adult and adolescent relationships is related to individual infant relationship events (Collins & Read, 1990).

Attachment in Adolescence

Adolescent attachment research differs from research focused on infants and adults because it has tended to address relationship quality rather than specific categories of attachment such as anxious or ambivalent attachments (e.g. Ainsworth, 1989; Hazan & Shaver, 1987). Researchers focus on the quality of relationships in adolescence and how these impact on psychological outcomes. Adolescent-parent relationships are often subject to investigation, similar to infant-parent relationship research. However, in addition to this, adolescent peer attachments have become of interest. Both parent and peer attachment quality have been shown to be associated with psychological health and adjustment in adolescence (Armsden & Greenberg, 1987).

During adolescence, changes in attachment bonds occur as individuals learn to develop and value non-familial relationships. Independence and associations with others becomes increasingly important and young adolescents begin to identify with and seek support from peers more frequently. However, parental attachments continue to remain salient and constant throughout adolescence. Overall, the majority of research has shown that parental attachment is a significantly more powerful predictor of adolescent well-being than peer attachment quality, although this varies depending on the definition of well-being employed (Wilkinson & Walford, 2001; Wilkinson, in press). Generally, studies tend to indicate that insecure attachment is associated with vulnerability for depression symptoms and low levels of self-esteem (Engels et al., 2001; Heaven & Goldstein, 2001; Muris, Meesters, Melick, & Zwambag, 2001).

Adolescents have been found to be more susceptible to symptoms of depression when they perceive low levels of
trust and communication in their attachment to their parents, and high levels of alienation (Milne & Lancaster, 2001; Muris et al., 2001). Adolescents are more likely to have high self-esteem when parents are supportive and interested in their activities, and low self-esteem when parents are perceived as rejecting (Collins & Read, 1990).

Attachment quality not only impacts on adolescent psychological health, but also on other forms of adjustment, such as attitudes towards school. Insecure attachment has been found to be associated with significantly lower reports of academic achievement and ambition than secure attachment (Cooper, Shaver, & Collins, 1998) and secure attachment has been found to be a predictor of positive school adjustment (Soucy & Larose, 2000). Cotterell (1992) found that attachments with school mentors had a greater positive relationship with school adjustment, than parental attachments. He suggested that relationships with peers and other adults at school offer support that is different from support provided by parents. A more recent study showed that the relationship between parent attachment quality and school adjustment is mediated by social support (Soucy & Larose, 2000). It would seem from these findings that satisfaction with support provided by peers and intimate friends has a greater association with school attitudes and adjustment than does parental attachment.

**Intimate Friendship Attachment**

Adolescent attachment research has tended to focus on attachment to 'peers' with very few studies concentrating on attachments to close or intimate friends. However, Schneider and colleagues (Schneider, Atkinson, & Tardif, 2001) have claimed that intimate attachment relationships must be considered as separate from broad peer friendships. They argue that early and later intimate relationships (for example, parent and romantic partners) should be more similar to each other than they are to peer group friendships. Intimate relationships in adolescence may be developed with peers, romantic partners or siblings and during this period friendships start to become more significant. Self-disclosure becomes more frequent as adolescents realise that their friends understand the experience of adolescence and are valuable sources of information and advice. Adolescents with intimate friendships that are satisfying, disclosing, and sources of companionship report being less depressed and have higher self-esteem than adolescents whose relationships with their friends are not as intimate (Buhrmester, 1992).

**The Current Study**

While adolescent attachment research has often explored the relationship between parent and peer attachments on a variety of aspects of psychological well-being, studies have not often investigated attachment relationships simultaneously and their specific impacts on well-being and adjustment. By incorporating and evaluating the results of studies of adolescent attachment quality on psychological health and school adjustment, it can be concluded that different attachment relationships play important and differing roles in adolescent well-being and adjustment. The central proposal of the current study is that the quality of parental attachments has a more important role in psychological health, whereas support provided by peers and close friends is more influential in other areas of adjustment, such as attitudes towards school.

The overall pattern of hypothesised relationships are presented as a model in Figure 1. Based on previous research, it is expected that parental attachment will be directly related to depression symptoms and self-esteem and indirectly related to school attitudes via the psychological health variables. Higher levels of parental attachment should lead to less depression, higher self-esteem, and indirectly, better school attitudes. Peer and intimate friendship attachment, on the other hand, will be directly related to self-esteem and school attitudes but only indirectly related to depression symptoms via self-esteem. Better peer group and intimate friendships should result in better self-esteem, a more positive school attitude, and lower levels of depression. High levels of depression and lower levels of self-esteem are expected to negatively impact on school attitudes.

**Figure 1: The Hypothesised Model**

**Method**

**Participants**

527 ACT high school and college students participated in the study during scheduled class times. Of the participants, 248 (47%) were female and 279 (53%) were male. Participant age ranged from 13 to 19 years with a mean of 16.4 years (SD = 0.91). The majority of the sample were identified from parent occupation as of middle to upper socio-economic status.

**Procedure & Measures**

Questionnaire booklets were distributed and completed during scheduled class times and participants were given instructions sheets outlining ethical issues such as consent, confidentiality, voluntary participation and anonymity.

**Parent and Peer Attachment**

A short form of the Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987) was used to assess parent and peer attachment quality. Fifteen items from the original scale were used for each of the Parent and Peer Attachment scales. Participants were asked to rate items on a five-point scale (1 = almost always or always true, 5 = almost never or never true). Armsden and Greenberg (1987) report high
internal consistency and test-retest reliability for the IPPA scales.

**Intimate Friendship Attachment** A shortened version of the Intimate Friendship Scale (IFS) was used to measure intimate friendship attachment. The IFS is a measure developed to assess the quality of adolescent’s relationship with an intimate friend who is close in age, such as a peer or sibling (Wilkinson, Haigh, & Kraljevic, 2003). The short version of the IFS consists of 15 items that are responded to on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Items include ‘When I have a bad day my friend cheers me up’, ‘I am there for my friend when he/she needs support’ and ‘I don’t need to rely on my friend’. Participants were asked to keep in mind one close friend when responding to the items. Internal consistency and test-retest reliability for the IFS is high (Wilkinson et al., 2003).

**Self-Esteem** The 16-item Self-Liking/Self-Competence Scale – Revised Version (SLCS-R) was used to assess self-esteem (Tafarodi & Swann, 2001). Items are rated on a five-point scale from 1 (strongly disagree) to 5 (strongly agree). After coding, the items were summed so that higher scores indicate a higher level of self-esteem. Internal consistency and test-retest reliability for the SLCS-R are high (Tafarodi & Swann, 2001).

**Depression** A 10-item depression scale consisting of items from previously published scales was used to measure symptoms of depression (Wilkinson, in press). Participants responded to questions involving a range of typical depression symptoms. Examples of items include ‘I’ve felt too tired to do things’, ‘I’ve felt unhappy or sad’, and ‘I’ve felt hopeless about the future’. Items were responded to on a scale from 1 (a lot of the time) to 3 (never). Items were recoded and summed so that higher scores indicated more depression. Internal consistency of the scale was high at .92 (see Table 1).

**School Attitude** A 10-item school attitude scale was used to measure general attitudes towards teachers, schoolwork, and ‘going to school or college’. Items were taken from previously published scales and these were responded to on a four-point scale of 1 (strongly agree) to 4 (strongly disagree). Examples of items include ‘I like being at school’, ‘Teachers often treat you like you were kids’ and ‘I find school work easy’. The scores for the items were coded and summed so that higher scores indicated a more positive school attitude. Internal consistency was high at .85 (see Table 1).

**Results**

Initially, the data were screened for missing values and outliers using the Statistical Package for Social Sciences (SPSS). Using the procedure outlined by Tabachnick and Fidell (1996) with a Mahalonobis distance criteria of $p < .001$, seven multivariate outliers were identified and were deleted, resulting in 520 cases remaining.

**Descriptive Statistics and Correlations**

Means, standard deviations, reliability coefficients, and correlations are presented in Table 1. Contrary to expectations, the correlations between the attachment variables, although significant, are rather weak. With regard to the outcome variables of Depression, Self-Esteem and School Attitude, these all correlate significantly with each other. In particular, Depression has a moderate negative relationship with Self-Esteem. However, the relationship between School Attitude and the two psychological health variables is quite small. While both Parent and Peer Attachment are correlated with the psychological health variables, Friend Attachment is not. All of the attachment variables were positively related to School Attitude.

**Structural Equation Modeling (SEM)**

The hypothesized model of the relationship between the attachment measures and outcomes measures was evaluated using (SEM) techniques implemented in the AMOS 4 computer program (Arbuckle & Wothke, 1999). The model was evaluated using Maximum Likelihood Estimation and model fit indices. Modification indices were examined and parameters were freed or fixed as appropriate to generate a final model that maximized fit while retaining theoretical coherence. In accordance with current practice in reporting the assessment of SEM models, a number of different fit statistics were employed to evaluate the fit of the models (Tabachnick & Fidell, 1996). The $\chi^2$, Adjusted Goodness of Fit Index (AGFI), Comparative Fit Index (CFI), and Root Mean Square Approximation Error (RMSEA) were selected as appropriate fit indices.

The hypothesised model tested is presented in Figure 1. Note that errors terms and covariances between exogenous variables are not shown in the figure but were included in the tested model. After analysis, estimated paths with

<table>
<thead>
<tr>
<th>1. Depression</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depression</td>
<td>.921</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Self-Esteem</td>
<td>-.599*</td>
<td>.902</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. School Attitude</td>
<td>-.280*</td>
<td>.229*</td>
<td>.850</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Parent Attach.</td>
<td>-.313*</td>
<td>.256*</td>
<td>.141*</td>
<td>.915</td>
<td></td>
</tr>
<tr>
<td>5. Peer Attachment</td>
<td>-.247*</td>
<td>.290*</td>
<td>.239*</td>
<td>.257*</td>
<td>.854</td>
</tr>
<tr>
<td>6. Friend Attachment</td>
<td>-.073</td>
<td>.032</td>
<td>.370*</td>
<td>.183*</td>
<td>.248*</td>
</tr>
<tr>
<td>Mean</td>
<td>18.81</td>
<td>52.04</td>
<td>25.21</td>
<td>48.63</td>
<td>53.93</td>
</tr>
<tr>
<td>SD</td>
<td>4.04</td>
<td>10.72</td>
<td>3.96</td>
<td>12.55</td>
<td>12.24</td>
</tr>
</tbody>
</table>

* $p < .01$; Cronbach’s alpha presented on the diagonal.
standardized weights of less than .10 were deemed to be of minor importance and were deleted from the model irrespective of whether they were significant. The reduced final model was then reanalyzed and is presented in Figure 2.

Overall, the fit statistics indicated that the final model was a good fit to the data. The AGFI (.975) and CFI (.991) statistics were both above 0.95 indicating that the model fitted the data. The $\chi^2$ (11.80, df = 5, $p = .10$) was non-significant, indicating a good fit. The RMSEA (.041) was below the recommended value of 0.05 that would indicate a good fit (Arbuckle & Wothke, 1999). Squared multiple correlation coefficients from the final model indicated that 12% of the variance in Self-Esteem, 34.3% of the variance in Depression, and 21.4% of the variance in School Attitudes were accounted for. Similar to the zero order correlations, the exogenous attachment variables produced low, though significant, inter-correlations in the final model. Parent and Peer Attachment were correlated at .257, Parent and Friend Attachment at .183, and Peer and Friend Attachment at .248.

Figure 2: Final Model

Examination of the path coefficients in the final model (Figure 2) reveal that Parent and Peer Attachment evinced small direct and positive effects on Self-Esteem with Parent Attachment also having a small ameliorating effect on Depression. Both Parent and Peer Attachment produced negligible, though positive indirect effects on School Attitude ($< 1$). There was a small to moderate positive effect of Friend Attachment on School Attitudes, although this variable did not influence Self-Esteem as predicted and this path was removed from the model. Interestingly, and contrary to expectations, the path from Peer Attachment to School Attachment was also not large enough to warrant retaining in the final model. Self-esteem was a moderate negative predictor of Depression as expected. Both Depression and Self-Esteem evinced small effects on School Attitudes.

Discussion

Overall, the hypotheses in relation to parental attachment were supported while there was only partial support for the hypothesized pattern of relationships between peer and friend attachment and the outcome variables. The quality of the parental attachment relationship influenced both of the psychological health variables and attitudes towards school as predicted. Although, the weight of the paths generated in the model were quite modest.

The results with regard to the quality of peer and intimate friendship attachment were not quite as expected. While peer attachment did influence self-esteem as anticipated, the direct relationship with school attitudes was not supported. Further, examination of the indirect effects, of peer attachment on school attitudes via self-esteem and depression, indicated no significant relationship. The quality of intimate friend attachment, on the other hand, had a direct and positive impact on school attitudes as predicted, but did not have the positive impact on self-esteem that was expected.

Generally, the results of the SEM analysis are consistent with what was revealed by the zero order correlations. Essentially, there are quite modest relations between the variables, with the exception of the moderate relationship between depression and self-esteem. The weak relationships found in this study between the three attachment measures is somewhat surprising and may be the key to understanding why the original model with regard to peer and friend attachment did not function as predicted. The relative lack of relationship between the attachment measures is not consistent with the notion that cognitive internal working models strongly influence global attachment patterns. Although there was some relationship between what might be seen as the core attachment construct of parental attachment and the other two measures of an expanded attachment network, peer and intimate friend attachment, it is clear that these constructs are characterized here more by their independence than their interdependence. It is difficult to conclude, therefore, that participants in this study could be characterized as having a particular attachment ‘style’. Rather, the quality of the attachment relationship seems to depend a great deal on whether adolescents are asked to think about their parents, best friends, or peers.

The different attachment relationships also seem to each play somewhat of a different role in relation to the particular outcome variables. Only parent attachment had a direct role in relation to depressive symptoms while only friend attachment had a direct role on attitudes towards school. Consistent with previous findings (Wilkinson, in press) the quality of peer relationships was particularly related to adolescent self-esteem. It seems to be the case that as we begin to move beyond the often simplistic application of attachment theory and examine different forms of attachment relationships we are seeing the underlying complex nature of attachment relationships and their implications for adolescent adjustment (Meeus, et al., 2002).

The results of this study indicate that the quality of relationships with parents and a group of friends is more important for psychological health in adolescence then having a high quality intimate friendship with someone similar in age. Yet, the results also indicate that having a close intimate friend is associated with a more positive school attitude. To some extent this finding can be seen as supporting Cotterell’s (1992) earlier research indicating that mentors play a more important role in positive school adjustment than parents. In this case, having a close friend that can be confided in, relied upon, and turned to when...
times are stressful is associated with a more positive attitude towards the school environment.

The data presented here are, of course, correlational and cross-sectional in nature, and thus this limits the extent to which any claims of causal relationships can be justified. Longitudinal research would certainly overcome some of these limitations and would have further benefits in enabling an examination of the changes in attachment patterns and networks in adolescence over time. It is also worth noting that the work presented here did not explicitly examine sex differences in adolescent attachment patterns.

There is some evidence that there are significant differences in attachment to mothers and attachment to fathers (Wilkinson & Parry, in press). Given the present findings in relation to the relative independence of measures of attachment to different significant others, exploration of sex differences and interactions may add further to our understanding of the complexity of attachment in adolescence.

No matter at what stage of the life-span we are in, the quality of our interpersonal relationships impacts on our psycho-social functioning. In recent times attachment theory has been strongly promoted as an organising framework for understanding why this is so. There is mounting evidence, however, that the simplistic application of attachment theory tenets to developmental periods outside of infancy is unsatisfactory. Adolescence, as a period of expanding social networks and shifting interpersonal needs, is an area of research in which the complexity of multiple interpersonal attachments is becoming apparent. The challenge is to evolve attachment theory to account for this level of complexity.

References


