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Perceived Attachments to Parents and Peers and Psychological Well-Being in Adolescence

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This paper reports the findings from a study of 935 adolescents' perceived attachments to their parents and peers, and their psychological health and well-being. Perceived attachment to parents did not significantly differ between males and females. However, females scored significantly higher than males on a measure of attachment to peers. Also, relative to males, they had higher anxiety and depression scores, suggesting poorer psychological well-being. Overall, a lower perceived attachment to parents was significantly associated with lower scores on the measures of well-being. Adolescents who perceived high attachments to both their parents and peers had the highest scores on a measure of self-perceived strengths. In this study, adolescents' perceived attachment to peers did not appear to compensate for a low attachment to parents in regard to their mental ill-health. These findings suggest that high perceived attachment to parents may be a critical variable associated with psychological well-being in adolescence.

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INTRODUCTION

The importance of attachments and the consequences to the individual if these emotional bonds are not established or sustained have been described by Bowlby (1977). Proponents of attachment theories, such as Bowlby, argue that individuals who fail to develop or deviate in attachment behavior are most susceptible to psychiatric disturbances. However, while attachments are considered to be an integral part of human behavior throughout the life span of the individual, there have been relatively few studies that have focused on the importance of attachments in adolescence. Nevertheless, there is some evidence to suggest that such attachments, particularly to parents and peers, are associated with mental health and coping abilities.

In their review of the "the vicissitudes of autonomy" in early adolescence, Steinberg and Silverberg (1986) outline two competing views of the relationship between attachment to parents and attachment to peers. The first suggests that during adolescence there is a shift away from parents toward peers as part of a striving for autonomy. According to this view, attachment to parents and attachment to peers should be inversely related. When a shift away from parents occurs in early adolescence, feelings of self-reliance may be diminished, and may lead to the adolescent being unduly susceptible to peer group pressure, especially in antisocial activity (Steinberg and Silverberg, 1986).

An alternative viewpoint, deriving from the work of Berndt (1979) on susceptibility to social influence, is that family and peers constitute two independent "social worlds." Attachment to family may be independent from attachment to peers, and the relative importance of these two worlds will depend on which group the adolescent considers the important context for self-evaluation. According to this view, for example, in situations that are adverse or stressful, poor attachment to parents may be compensated for by strong attachment to peers. Such a prediction is also consistent with research establishing a relationship between social support and mental health (Boyce, 1985).

A third point of view is that attachments to parents and peers are positively correlated, which received some support from Armsden and Greenberg's (1987) results. From a review of the early literature on attachment, Greenberg *et al.* (1983) observed a major shift from parents to peers in adolescence. However, they point out that this view has been considerably revised. For example, Smith (1976) showed that in important situations, where values and decisions about the future were required, adolescents were more likely to seek the counsel of their parents rather than their peers. Parents have also been ranked higher than peers in interpersonal

significance throughout the adolescent years (Rosenberg, 1979). Therefore, rather than a shift away from parents to peers, adolescents appear to maintain their relationship with their parents in many important situations. Greenberg *et al.* (1983) found that parent rather than peer attachment was a more powerful predictor of well-being in adolescence.

Attachment behavior has been found to be closely associated with gender. Armsden and Greenberg (1987), using the Inventory of Parent and Peer Attachment (IPPA), found that females scored significantly higher than males on different aspects of attachment behavior (e.g., parent utilization) and attachment to their peers. A recent study by Lapsley *et al.* (1990) obtained similar results using the IPPA. The alienation subscale of the IPPA did not differentiate between females and males in the above studies. However, Lapsley *et al.* (1990) found that college students' scores on the communication and trust subscales of the IPP were significantly higher for females compared to males. These sex differences applied only to scores for peer attachment, not parent attachment.

What, then, is the relative importance of parent and peer attachments for the mental health (and ill-health) of the adolescent? Armsden and Greenberg (1987) examined the importance of attachments to parents and peers, and their association with psychological well-being in adolescence. They showed that a significant relationship between psychological well-being and perceived quality of adolescents' attachments to parents and peers existed. Adolescents "securely" attached to their parents compared to adolescents "insecurely" attached reported significantly less negative life change and higher self-esteem than the insecure group. In earlier studies by Burke and Weir (1978, 1979), adolescents' psychological well-being was strongly related to the satisfaction with the help they received from their parents relative to their peers. Both studies indicated that attachment to parents rather than peers may have a positive impact on adolescent mental health.

The contribution of peer relations to psychological, behavioral, and physiological health in adolescents was examined by Hansell (1983). His findings indicated that measures of health were affected by the structure of the peer social network. Specifically, Hansell's measure of psychological health (e.g., how satisfied the adolescent was with school life) was positively associated with the number of friendships made and received, and the role the adolescent occupied within a particular social network. Thus, students who occupied central roles rather than peripheral or isolated roles in the network expressed more satisfaction with school life. Although by Hansell's account the results from his study were complicated, they did suggest that different aspects of adolescent friendship networks can increase or decrease

distress associated with psychological, behavioral and physiological measures of health.

One of the suggestions made by Armsden and Greenberg (1987) for future research was to examine the relative contributions of attachment to parents and peers to adolescent well-being. In their study, the sample numbers in the insecure and secure attachment groups were too small to allow analysis of the relative importance of parent and peer attachment variables to well-being. They suggested it is important to discover if low attachment to parents can be compensated by a relatively moderate or high attachment to peers.

The present study had three broad aims. The first aim was to examine Steinberg and Silverberg's (1986) hypothesis of an inverse relationship between parent and peer attachment in adolescence. The second aim was to examine sex differences in reports of adolescents' attachment to their parents and peers. The third aim was to examine Greenberg *et al.*'s (1983) hypothesis that well-being in adolescence is more strongly associated with parent rather than peer attachment, and in particular, to determine the relative importance of these sources of attachment for the mental health of adolescents.

METHOD

Sample

The sample was part of a cohort born at Queen Mary Hospital, Dunedin, between April 1, 1972, and March 31, 1973. A total of 1139 children were eligible for this study by living in the Otago province (including Dunedin), and 1037 were enrolled in the Dunedin Multidisciplinary Health and Development Study at age 3. The children not enrolled in this study were either traced too late for inclusion or their parents refused to participate.

The sample has been reassessed every two years using extensive medical, behavioral, and developmental measures (Silva, 1990). By the age of 15 years, there were 8 known deaths in the sample. Of the 1029 adolescents who participated in this study, 852 adolescents were interviewed in the Dunedin Unit, and 117 adolescents were interviewed elsewhere in New Zealand or overseas. Information on 7 adolescents with severe developmental retardation was also collected. Of those adolescents not assessed, participation was refused by 33 members, 11 were not seen for different reasons including being out of the country, and 9 adolescents could not be located.

On Elley and Irving's (1972) index of socioeconomic status (SES), the sample members are slightly socioeconomically advantaged compared to the rest of New Zealand. The highest (Level 1) and lowest (Level 6) of the six levels of SES were underrepresented, and Level 4 of this index was overrepresented in the sample (Silva, 1990). At age 15 years, the majority of the sample were European; about 5.4% identified their ethnic origin as Maori and Polynesian (compared to 12% for New Zealand). However, the sample is probably comparable with samples from other English-speaking Western countries.

Measures

Parent and Peer Attachment

Attachment to parents and peers was assessed using selected items from the IPPA, developed by Armsden and Greenberg (1987). The item content for the IPPA was selected from an original pool of items suggested by Bowlby's theoretical formulations (Armsden and Greenberg, 1987) based on the "nature of feelings towards attachment figures" (p. 5). Attachment on the IPPA is measured by three subscales of communication, trust, and alienation. Details of loadings on factors, reliability, and the procedures that led to the original version of the IPPA are given in Armsden and Greenberg (1987).

Due to time constraints, a short version of the IPPA was constructed on the basis of psychometric information supplied by the authors of the original scale. The communication, trust, and alienation subscales were shortened by including the 4 items that had the highest item-total correlation coefficients within each subscale, for parents and peers separately. Hence, the original IPPA was shortened from 53 items to 24 items in the present study, 12 items for each of the parent and peer scales.

A list of the items is shown in Table I. Coefficient alpha for the parent scale was 0.82 and for the peer scale it was 0.80. With the exception of the alienation subscale (for parent and peer attachments), the majority of the item-total correlation coefficients were greater than 0.40. A 4-point Likert scale was used with categories of (1) *almost never or never*, (2) *sometimes*, (3) *often*, and (4) *almost always or always*.

Mental Health

The Diagnostic Interview Schedule for Children (DISC-C) (Costello *et al.*, 1982) was used to assess the mental health of individual sample members. The DISC-C is a widely used structured interview, assessing criteria

Table I. Psychometric Properties and Sex Differences for Items on the Modified IPPA

Item	Item-total correlation coefficients	% responding "often-always"[a]	
		Female (N = 456)	Male (N = 479)
Parent attachment			
Communication			
1. I tell my parents about my problems and troubles.	0.67	71	66
2. My parents help me to understand myself better.	0.62	69	74
3. If my parents know something is bothering me, they ask me.	0.50	80	78
4. My parents have their own problems, so I don't bother them with mine.	0.42	13	15
Trust			
5. My parents respect my feelings.	0.58	90	93
6. When I'm angry about something my parents try to be understanding.	0.60	75	76
7. I wish I had different parents.	0.48	4	3
8. My parents accept me as I am.	0.48	91	93
Alienation			
9. I don't get much attention at home.	0.38	6	9
10. I get easily upset at home.	0.26	12	8

11.	Talking over my problems with my parents makes me feel ashamed or foolish.	0.33	12	17
12.	I feel angry with my parents.	0.41	10	9
Peer attachment				
Communication				
13.	My friends encourage me to talk about my difficulties.	0.54	61	22[b]
14.	My friends are concerned about my well-being.	0.64	88	69[b]
15.	I tell my friends about my problems and troubles.	0.69	73	39[b]
16.	I like to get my friends point of view on things I'm concerned about.	0.50	76	53[b]
Trust				
17.	My friends listen to what I have to say.	0.59	88	68[b]
18.	I feel my friends are good friends.	0.36	94	95
19.	I wish I had different friends.	0.29	3	2
20.	When I am angry about something my friends try to be understanding.	0.65	82	54[b]
Alienation				
21.	I get upset a lot more than my friends know about.	0.18	17	16
22.	I feel alone or apart when I am with my friends.	0.21	4	2
23.	It seems as if my friends are irritated with me for no reason.	0.29	2	5[b]
24.	Talking over my problems with my friends makes me feel ashamed or foolish.	0.33	5	25[b]

[a] Values shown are % of boys and girls responding 3 (*often*) and 4 (*almost always/always*) combined.
[b] χ^2 value significant at $p < 0.01$, otherwise non-significant.

Table II. Intercorrelations of the Modified Version of the IPPA Scales[a]

	Parent communication	Parent alienation	Peer trust	Peer communication	Peer alienation
Parent					
Trust	0.67	–0.47	0.26	0.21	0.17
Communication		–0.44	0.32	0.33	0.17
Alienation			–0.18	–0.14	0.36
Peer					
Trust				0.68	–0.36
Communication					–0.27

[a] All correlation coefficients are significant at $p < 0.01$.

for Diagnostic Statistical Manual (3rd ed.) disorders of childhood and adolescence. In this study, mental health was assessed by four subscale scores based upon measures of anxiety, depression, inattention, and conduct problems (Williams *et al.*, 1989). Questions were scored as (0) *no*, (1) *sometimes*, and (2) *yes* for the 12 months preceding the interview. These scores were summed to produce total scores for each subscale.

Life Events

A measure of life events assessed by the "Feeling Bad" scale (Lewis *et al.*, 1984) was also completed by each adolescent. This scale consists of 20 items rated on the frequency and intensity (on a 5-point scale) with which each event was experienced by the sample members. Lewis *et al.* reported that the items on this scale could be represented by three factors. These factors were labeled as "sources of stress," "sources of depression," and "changes in living arrangements." The overall coefficient alpha for the scale was high (alpha = 0.82).

Strengths

Each sample member completed a 22-item checklist on their perceived strengths or positive aspects of how each individual saw himself or herself. Checked items were summed to produce a total strengths score. Some examples of the items include "popular," "reliable," "lively," and "outgoing." This scale appears to measure a single construct of "strengths"; coefficient alpha for this scale was 0.78 (Williams and McGee, 1991).

Procedure

The assessments were done between February 1987 and May 1988. Sample members were interviewed usually within two months of their 15th birthday. Written consent was obtained from the parents and the adolescent prior to the interview, and adolescents were assured of the confidentiality of the interviews. Three trained interviewers assessed the majority of the sample members at the Dunedin Research Unit.

RESULTS

The intercorrelations of the scales on the modified IPPA are shown in Table II. All intercorrelations were positive and significant at $p < 0.01$. The strongest correlations were between the communication and trust scores for the measure of parent ($r = .67$) and peer ($r = .68$) attachment. Although significant, the correlations between the corresponding scales for parents and peers were not high; coefficients for the communication scales were .33, for the trust scales, .26, and for the alienation scales, .36.

Total scores for parent and peer attachments were calculated for each member of the sample, by adding the total scores for each of the subscales of communication, trust, and alienation (reverse coded). The correlation coefficient of 0.36 between these scores was significant ($p < 0.01$).

Sex Differences

Table I shows the results of chi-square analyses on individual items on the modified IPPA. There were significant sex differences for most of the items on peer attachment, with females reporting greater attachment to their peers. Items on parent attachment did not show any significant sex differences.

The scores for parent attachment ranged from 2 to 36. Males and females had the same median score of 31. For peer attachment, the range of scores was from 8 to 36, with a median score of 26 for males and a median score of 32 for females. The frequency distributions for the total scores on the parent and peer measures of attachment were negatively skewed.

Therefore, the total scores for attachment to parents were divided into low attachment (the lowest 15% of scores) and high attachment (approximately 85% of the scores). The same cutoff percentage of scores was used to divide total scores for peer attachment into low and high attachment. There was a significant association between sex and level of peer attachment (χ^2 [1df] = 36.27, $p < 0.01$), with a significantly greater number

Table III. Mean Scores for Different Groups of Attachment on a Series of Well-Being Measures

	Parent attachment					
	Low		High			
Measures	Peer Low $N = 48$	Peer High $N = 93$	Peer Low $N = 104$	Peer High $N = 690$	MSE[a]	F(3,931)[b]
Anxiety	9.9	9.5	9.6	8.5	5.8	4.43
Depression	4.0	8.0	3.0	2.7	6.3	18.02
Inattention	10.6	9.8	7.5	6.6	4.6	23.14
Conduct	8.3	8.8	3.7	2.9	5.1	48.68
Life events (frequency)	20.5	20.8	15.5	13.1	7.3	42.70
Life events (intensity)	23.0	23.1	20.0	17.5	9.9	14.45
Strengths	12.0	12.9	13.0	15.2	3.9	25.56

[a] MSE represents the square root of the mean square error term for the ANOVA; an unbiased estimate of the sample standard deviation.
[b] Error *df* varied slightly owing to some missing values; all *F* values are significant at $p < 0.01$.

of males in the low attachment group (23%) relative to females (9%). The majority of the high attachment group was represented by females. There was no significant association between sex and total attachment scores to parents (χ^2 [1*df*] = 0.53, $p > 0.05$).

Frequency distributions for the communication, trust, and alienation subscales were also divided into low and high scores using the lowest 15% as the cutoff. Significant sex differences were observed for the communication and trust subscales (χ^2 [1*df*] = 71.63 and χ^2 [1*df*] = 12.61, respectively, $p < 0.01$). On both scales females had significantly higher peer trust and communication scores compared to males. However, the scores on the alienation subscale were not significantly different for males (M) and females (F) (χ^2 [1*df*] = 2.78, $p > 0.05$).

Following Armsden and Greenberg's (1987) procedure, the total scores on parent and peer attachments were grouped into four categories of attachment reflecting different degrees and combinations of attachment to parents and peers. This produced the following groups: (1) low parent–low peer (32 M, 16 F); (2) low parent–high peer (36 M, 57 F); (3)) high parent–low peer (80 M, 24 F); and (4) high parent–high peer (331 M, 359

F). Sex differences between these four groups were significant (χ^2 [3*df*] = 40.82, $p < 0.01$). The majority of the sample (about 79% of the females and 69% of the males) was classified as reporting a high attachment to both their parents and peers. The composition of the other groups reflects the higher peer attachment scores for females relative to males.

Attachment and Mental Health

The differences among the above four groups on the scores for anxiety, depression, conduct, inattention problems, life events, and strengths were investigated separately by two-factor (Attachment Level × Sex) analyses of variance (ANOVA). The mean scores and results from the ANOVAs are summarized in Table III. The interaction between sex and attachment level was not significant for any of the seven measures of well-being, and therefore the results are shown for males and females combined.

Overall, the main effect of attachment level was significant for the seven measures of well-being. A significant main effect of sex on the measures of anxiety, depression, and the frequency and intensity scores on the Feeling Bad scale was also found. Females reported greater anxiety, depression, and more negative life events and associated distress with these events.

As shown in Table III and confirmed by post hoc Scheffé tests, adolescents who reported low attachment to their parents had significantly higher scores for inattention and conduct disorder. The level of perceived attachment to peers was not significantly associated with the scores for inattention and conduct problems.

A slightly different trend emerged for problems of anxiety and depression. The highest scores for depression were reported by adolescents who perceived a relatively low attachment to their parents and a high attachment to their peers. This group of adolescents significantly differed from the other attachment groups on this measure. Although analyses of attachment scores showed a significant main effect for reported anxiety, post hoc comparisons did not indicate any significant differences among the groups. The mean anxiety scores for the groups of attachment, in Table III, indicate that with the exception of the high parent–high peer group of attachment, the other groups reported slightly higher and comparable levels of anxiety.

The analysis of the scores on the Feeling Bad scale indicated significantly more negative life events and more reported distress by adolescents in the low parent attachment groups compared to those adolescents in the high parent attachment groups. There were no significant differences

between the two high parent attachment groups after post hoc comparisons were made.

On the measure of perceived strengths, there were significant differences between the group with high parent–high peer attachment and other three groups. The adolescents who perceived a high attachment to both their parents and peers had the highest average score on the strengths measure. The remaining three groups did not differ significantly from each other.

DISCUSSION

The main findings from the present study were as follows: the majority of adolescents in this sample reported a high attachment to their parents and peers; females relative to males reported a greater attachment to their peers; and psychological well-being in early adolescence was more strongly associated with the perceived level of attachment to parents rather than peers.

Contrary to the hypotheses outlined by Steinberg and Silverberg (1986), attachments to parents and peers were neither inversely correlated nor unrelated. Parent and peer trust, communication, and alienation all showed significant, positive correlations ranging from .26 to .36. Furthermore, most adolescents in the sample showed relatively high levels of attachment to *both* parents and peers, suggesting that most adolescents maintain a strong attachment to their parents. This finding offers some support for Smith (1976), Rosenberg (1979) and Greenberg *et al.* (1983), who emphasized the continuing importance adolescents place upon their parents. While peers are clearly important at this age, for most adolescents attachment to peers does not occur at the expense of attachment to parents.

The relatively high and significant positive correlations (r = .67 for parents and r = .68 for peers) between the communication and trust subscales of the modified IPPA are comparable with the results of Armsden and Greenberg (1987) for the original IPPA. The subscales of communication and trust were strongly related to each other within parent and peer measures of attachment. According to Armsden and Greenberg (1987), items in the IPPA were designed to assess the level of security felt by the adolescent toward significant attachment figures. Items that defined the communication and trust subscales in Table I suggest an accepting environment provided by parents and peers. These items probably measure the underlying level of security perceived by the adolescent in any relationship with an attachment figure. Thus, a strong association between the trust and communication subscales would be expected.

Significant sex differences were apparent only on the measure of peer attachment (females reported greater attachment), and then primarily on the communication and trust subscales. These were two subscales showing the strongest intercorrelation. Lapsley *et al.* (1990) also reported similar sex differences in a college sample using the IPPA. Gilligan (1982) accounts for some of the sex differences observed in her studies on moral development, by arguing that "women are oriented toward attachment and "connectedness" to others, whereas men are oriented toward individuation and "separatedness" from others" (in Colby and Damon, 1983, p. 474). Based on Gilligan's explanation, Colby and Damon state that females find it easier than males to form intimate relationships. Also, the identity of a female is more likely to be based on her intimate relationships with others, whereas the identity of a male is more likely to be based on his choice of occupation (p. 474). Elsewhere, there is evidence from the Dunedin study supporting the view that female "identity" is more narrowly based on attachment to others in comparison with that of males (Williams and McGee, 1991).

If, as Gilligan (1982) suggests, female psychosocial development is more likely to be based on intimate relationships, connectedness, and bonding as opposed to the typical male themes of separatedness and detachment, then a sex difference should have been observed for attachment to parents. It may be, however, that some consideration needs to be given to the notion of autonomy or independence. Girls certainly view themselves as more autonomous (Steinberg and Silverberg, 1986) and independent (Williams and McGee, 1991) than boys. Colby and Damon (1983) noted that the empirical evidence in support of Gilligan's ideas is mixed. They point out that while Gilligan's views may be used to explain some sex differences in development (e.g., moral development) they cannot be generalized to account for all sex differences.

An important relationship between mental health and attachment to parents was observed in this study. Generally, low perceived attachment to parents was associated with greater problems of conduct, inattention, depression, and the frequent experience of negative life events. Other studies (e.g., Burke and Weir, 1979; Armsden and Greenberg, 1987) have also found that attachment to parents has a greater association with the well-being of the adolescent relative to the contribution made by peer attachment. To some extent, these findings support Berndt's (1979) view that the social worlds of the family and peer group are isolated. This idea implies that adolescents may receive qualitatively different aspects of support from their parents and peers. For example, in terms of mental health, low attachment to parents does not appear to be compensated by a high

attachment to peers. Girls report higher levels of peer attachment and yet also report higher levels of symptoms than boys.

The strongest effect of low parent attachment occurred for conduct and inattention problems. This provides some support for the idea that too great an independence from parents may be associated with problems in developing self-reliance in early adolescence. As a result, adolescents may be more vulnerable to peer pressure especially in antisocial activity (Steinberg and Silverberg, 1986). In the case of depression, on the other hand, symptom scores were highest where parent attachment was low but peer attachment high. For the Feeling Bad scale, experienced distress was higher even where peer attachment was high. This finding with respect to depression, if replicated, might suggest that the relation of depression to attachment differs from other mental ill-health measures. One possibility to be explored is that depression is more likely under conditions of high peer attachment when such attachments are under threat. An informal observation from the interviews with the sample has been that depressed mood is frequently associated with disruptions to relationships with peers.

While mental ill-health was associated with low parent attachment, the adolescent's perception of his or her strengths was related to both parent and peer attachment. As far as the "positive" measure of mental health was concerned, high parent attachment did not appear to compensate for low peer attachment. The adolescent's positive view of himself or herself derived from both parents and peers. In support of the results of Hansell (1983), the present findings indicate that the peer group may provide a supportive and encouraging environment for the adolescent in terms of influencing self-expression.

The results suggest that secure and stable relationships with parents may be more important than peer attachment for some measures which are generally accepted as indicative of mental ill-health. On the other hand, evidence from the present study as well as a previous study by Williams and McGee (1991) on the same sample suggest that satisfying relationships with both parents and peers may be necessary for the development of self-esteem or identity in adolescence.

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