Research indicates that establishing a secure attachment relationship in childhood affects later perceived social support (PSS). In order to test this relationship empirically and to gather comparative information on the separate elements of PSS, two attachment questionnaires and three measures of PSS were administered to 139 white males and 320 white females between the ages of 15 and 20. Separate mother and father versions of the Inventory of Parent and Peer Attachment were completed, measuring the level of confidence, quality of communication, and level of alienation in the attachment relationship. In addition, participants were asked to complete tests of three separate constructs of PSS: a selection of the five most preoccupying items from a list of 36 stressful events, a list of members in their social network and evaluations of the level of support in each, and an inventory of their general expectations of social support. Results of the study included the following: (1) the three constructs of PSS (i.e., general feelings of support, specific support from the social network, and specific support in stressful situations) were found to be significantly correlated and to measure independent aspects of global PSS; (2) a significant positive relationship was observed between the quality of parental attachment and feelings of support; (3) the correlation between attachment and PSS related to both stressful events and other adults in the social network; and (4) representations of parental attachment contributed to specific expectations of support, and thus would appear to influence specific behaviors. (AC)
PARENT-ADOLESCENT ATTACHMENT

AND

SPECIFICITY OF PERCEIVED SOCIAL SUPPORT

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Department of Science and Higher Education, Quebec, Canada.
ABSTRACT

Early attachment experiences have been proposed as the cornerstone on which expectations concerning others and perceptions of social support are developed. In this study, 139 males and 320 females, all Caucasian (mean age = 17 years) completed two attachment questionnaires and three measures of perceived social support selected to reflect the theoretical proposition of Sarason, Pierce, and Sarason (1990). The first support measure focuses on specific stressful events; the second focuses on specific relationships in the adolescents' social network; the third assesses the general feeling of being supported. The independence of the social support measures was confirmed by correlational and factor analyses. Adolescent representations of parental attachment are positively related to the perceptions of social support but the relationship with the general feeling of being supported is stronger than the relationship with the more specific perceptions. Multiple regression analyses show that parent-adolescent attachment remains associated with the more specific perceptions of support after controlling for the influence of the general feeling of being supported. The implications of these findings for issues of attachment and social support in the development of adolescence are discussed.
INTRODUCTION

Many researchers recognize that establishing a secure attachment relationship constitutes a critical task in childhood. The protection and security offered by attachment figures give the child the opportunity to explore his environment, to develop social competence, and to deal more effectively with subsequent socio-affective and cognitive tasks (Ainsworth, 1982; Bowlby, 1982; Sroufe & Waters, 1977).

Sroufe and Waters (1977) suggest that the internal organization of the attachment system is subject to developmental change and elaboration. Attachment behaviors become more and more connected to emotional and perceptual systems (Bretherton, 1985). It is by the intermediate of inner working models that attachment continues to fulfil its function of physical and psychological protection after childhood. Internal representations (thoughts and feelings) related to experiences of care and protection from attachment figures, representations of the self in relation to these figures, and "state of mind" regarding attachment experiences (Main, 1991) have been identified as important criteria of these models for adolescent and adult populations. The main function of inner working models is to guide feelings, perceptions, and behaviors in novel social situations.

Recognizing the potential role of attachment working models in perceptions of the social environment, Sarason, Pierce, and Sarason (1990) believe that these models influence the individuals' expectations of support, or more specifically, Perceived Social Support (PSS). They conceptualize PSS as a stable cognitive characteristic of the personality which would be in part grounded on primary attachment experiences to parents. From a secure attachment, the child would build a positive model of his/her attachment figure. After childhood, this model would influence the development of a belief that help from the social environment will be provided in stressful situations.

Although the study of the determinants of PSS appears as a
central issue in social support research (Newcomb, 1990), the nature of this construct is still not well understood. Recent empirical findings help to clarify the structure of PSS (Pierce, Sarason, & Sarason, 1991; Pierce, Sarason, & Sarason, 1992; Lakey & Cassady, 1990, Newcomb, 1990). Some perceptions of support vary according to the specific relationships targeted by the evaluation whereas others remain relatively stable across relationships. The individual develops general expectations of support (or a feeling of being supported) but also specific expectations which are more sensitive to relationship and situational characteristics. Adolescents with secure attachment should have the feeling of being supported even though recognizing that behaviors from specific network members are not helpful or that specific stressful situations could attenuate the potential support from others.

The purpose of this study is to test empirically the presence of a positive relationship between attachment and PSS during late adolescence. We first verify the validity of the multidimensionality of perceived social support by comparing general expectations of support, specific expectations from the social network, and specific expectations related to stressful events. Then, these three measures of PSS are correlated with adolescent representations of childhood and current attachment to mother and father. The following hypotheses are tested (see figure 1):

H1: The three PSS constructs are independent with moderate correlations.

H2: Quality of adolescent attachment representations are positively associated with all three PSS constructs.

H3: Adolescent attachment representations are more strongly related to the general PSS construct than to the specific PSS constructs.

H4: The relationships between attachment and the two specific PSS constructs remain significant even after controlling for the effect of the general PSS construct.
METHOD

Sample and Procedure

The data used in this communication is drawn from a longitudinal study of adjustment to college. For the larger study, each member of a random sample of 550 students entering a local junior college was contacted. In the telephone contact, the purpose of the study and the expectations of participants were explained; 459 students (83%) agreed to participate (15 to 20 years old). Questionnaires were distributed by mail and returned during a welcome day organized by the college staff. The longitudinal study assesses attachment, social support and adjustment at the end of high school and during the first and third terms in college. For this communication, only the measures from the first set of data are used.

Most students come from intact families (77.5%); some have experienced parental divorce (17.4%), and a small minority lost a parent (3.2%). At the time of the survey, 78.4% were living with both natural parents, 17% with mother only, 4.1% with father only, and 0.4% were not living with any parents. The median income category of father and mother are $40000-$49999 and $10000-$19999, respectively. Fathers have a higher level of education than mothers (13.1 vs 12.2 years).

Attachment Measures

1) Separate mother and father versions of the Inventory of Parent and Peer Attachment were used to assess the adolescents' security of attachment in their current relationships to parents (Armsden & Greenberg, 1987). Each questionnaire contains 28 items forming three subscales: confidence, quality of communication and alienation in the attachment relationship. Because correlations between subscales are very high (means Pearson's = .74 for father-adolescent and .71 for
mother-adolescent), a global score of current security was computed ((communication + confidence) - alienation). This global score has a high internal consistency (Cronbach’s alpha = .86 for mother and .88 for father).

2) The mother and father subscales of the Mother-Father-Peer scale (Epstein, 1983) were used to evaluate perceptions that parents provided acceptance and encouragement to develop autonomy during childhood. The internal consistency coefficient for mother-adolescent and father-adolescent are .83 and .88, respectively, for the acceptance subscale and .79 and .76, respectively, for the autonomy subscale.

Perceived Social Support Measures

1) A Measure of Perceived Social Support regarding preoccupied events (MPSS/E) was developed for this study. Using a list of 36 stressors related to adolescence and to the transition from high school to junior college, participants selected the five events which they viewed as most preoccupying at the time of the study. The availability of others (alpha = .78), the satisfaction regarding the support received (alpha = .80), and other criteria related to social support were then assessed. A global score of PSS specific to stressful situations was computed by adding the availability and satisfaction scores (alpha = .82).

2) An adaptation of the Social Network Inventory (SNI) (Perl & Trickett, 1988) was used to assess the PSS specific to the relationships with members of the social network. Participants were asked to list the abbreviated name of important persons in their social environment with whom they maintain regular contacts (at least once a week). Then, they had to indicate the type of the relationship (parents, brothers-sisters, friends, or other adults), the degree to which they felt each
member was available when personal problems arose, the satisfaction with the relationship, and other criteria related to the structure and functions of social network. Specific PSS scores (availability + satisfaction) were derived for each type of relationship and for the entire social network (alpha = .62). Because the information related to PSS specific to parents is theoretically redundant with parent-adolescent attachment information, the former subscore is excluded from the analyses. The score for the entire social network is therefore obtained by adding the PSS subscores for siblings, friends, and other adults.

3) The appraisal support subscale from the Inventory of Support Evaluation List (ISEL) (Cohen & Hoberman, 1983) was used to assess general expectations of social support or the general feeling of being supported. This subscale contains 12 items (alpha = .89) not specific to social members and also not connected with specific and idiosyncratic stressful events. Lakey & Cassady (1990) have demonstrated that ISEL items are significantly correlated with cognitive measures related to the personality.

RESULTS

Preliminary analyses: gender differences

Multivariate analyses of variance performed on mother-adolescent attachment scores indicate no significant differences between females and males. There is a significant multivariate difference between females and males when father-adolescent attachment scores are considered (Hotteling’s $T = .03$, $F (3, 439) = 4.4$, $p < .005$). However, none of the univariate differences are significant. The same analyses used on the three perceived social support scores (general expectations, PSS specific to stressful events, and PSS specific to the entire social network) reveal a
gender multivariate difference (Hotteling's $T = .03$, $F(3, 434) = 4.1, p < .01$). Univariate analyses of variance show that females have higher general expectations of social support than males ($F(1,436) = 11.9, p < .001$). Finally, a gender multivariate difference is detected on the PSS subscores specific to the social network (siblings, friends, and other adults) (Hotteling's $T = .05$, $F(3, 159) = 2.9, p < .05$). Females perceive more support from friends than males ($F(1,161) = 7.1, p < .001$).

Analyses related to the hypotheses

**Hypothesis 1.** To test the first hypothesis, correlations between PSS scores were computed. Then, a principal component factor analysis was performed on five social support scores: appraisal support subscale of the ISEL (general expectations), availability and satisfaction scores of the MPSS-E (PSS specific to stressful events), and availability and satisfaction scores of the SNI (PSS specific to network relationships). A varimax rotation was performed with a predefined limit of three factors.

As demonstrated in Table 1, correlations between the PSS constructs are significant but moderate (with the understandable exceptions of the correlations between PSS from the entire network and PSS from a subpart of the network). The pattern of correlations is consistent with the hypothesis that general expectations, specific evaluations of support from the network, and specific evaluations of support in stressful situations tap different and independent aspects of the global PSS construct. The first hypothesis is also supported by the results of the factor analysis (see Table 2). The pattern of the rotated factor matrix indicates a first factor with high loadings on the MPSS-E scores, a second factor with high loadings on the SNI scores, and a third factor with high loading on the ISEL score. This factor structure reinforces the validity of a multidimensional conceptualization of perceived social support.
Hypotheses 2 and 3. Before evaluating the relationship between attachment and PSS, factor analyses with varimax rotation were performed to reduce the information given by the three attachment scales (current security, acceptance and autonomy). Results of these analyses indicate that only one factor could be extracted for the mother-adolescent (eigenvalue = 1.88, variance explained = 62.5 %) as well as for the father-adolescent attachment scores (eigenvalue = 2.00, variance explained = 66.7 %). The factor loadings for current security, acceptance, and autonomy are .84, .84 and .68, respectively, in the mother-attachment relationship and .87, .89 and .67, respectively, in the father-attachment relationship. One factorial score for mother and one for father will then be used in the subsequent analyses as global criteria of adolescents' attachment representations to mother and father.

Table 3 shows that attachment representations are positively associated to PSS. Only two correlations are not significant. When the magnitude of the correlations are compared, t-tests reveal that general expectations are more highly correlated to attachment factors than specific perceptions of support from siblings (t2), friends (t3), and from the entire network (t5) but not from other adults (t4). General expectations and specific perceptions of support related to stressful events have correlations of equal magnitude to attachment factors (t1).

Hypothesis 4. The last hypothesis stipulates that the quality of attachment representations should influence the specific perceptions of support even after controlling for the relationship between attachment representations and feeling of being supported (general expectations). To test this theoretical model, two multiple regression analyses were performed with attachment factors as the criterion and general expectations and specific PSS scores as the predictors. The general expectations score was forced to enter first in the regression. Table 4 summarizes the results of the regression analyses.
As we were expected, specific perceptions of social support are still associated with mother-adolescent attachment even after controlling for the influence of general expectation variable. For the adolescents' representations of attachment to father, only the PSS specific to stressful events remains significant after controlling for general expectations.

DISCUSSION

This study explored the validity of a model composed of two main elements: adolescents' representations of childhood and of current attachment to parents and adolescents' perceptions of social support (PSS). The verification of a positive relationship between these two elements was done using a theoretical structure of three independent components of the global PSS construct: general expectations of support or the feeling of being supported, perceptions based on specific relationships and perceptions related to stressful events.

First, as hypothesized (see hypothesis 1), the multidimensional structure of the PSS construct was confirmed by correlational and factor analyses. Adolescents seem to differentiate their evaluations of support according to their general feeling, to the specificity of the relationship and to the specificity of the context. The distinction between general and specific perceptions of support, already underlined by Pierce, Sarason, & Sarason (1991), becomes important especially in the study of the origins and consequences of perceived social support. The relative contribution of personal, situational, and relational factors should vary according to the PSS component studied. We also expect that each part of the PSS construct could be associated with different consequences for adolescents. For example, low general expectations of support could lead to chronic adjustment difficulties (e.g. loneliness) whereas low specific perceptions could be more related to situational problems (e.g. isolation from...
network members).

Second, as proposed by attachment theory (Bowlby, 1982), a significant positive relationship was observed between the quality of adolescents' representations of parental attachment and adolescents' perceptions of support (see hypothesis 2). This relationship remains significant whether the support is evaluated to general or specific constructs. However, it seems clear that attachment perceptions are more strongly related to general expectations than to specific perceptions of support from network members (see hypothesis 3). This finding is consistent with the theoretical view of Sarason, Pierce, & Sarason (1990) who suggest a developmental path between attachment experiences and PSS defined as a sense of being accepted. Working models of attachment figures would influence the development of internal characteristics of the personality related both to the self and to the outside world. In this sense, general expectations of support should constitute, for adolescents, a stable personality characteristic based on positive attachment experiences with their mothers and fathers.

Third, the results also show that the magnitude of correlations between attachment and general expectations is not different from those between attachment and PSS specific to stressful events or PSS specific to other adults. We speculate that these two latter variables are highly correlated to attachment because they share common features with external aspects of the attachment experiences. One the one hand, perceiving social support in specific stressful situations could mean that adolescents deal effectively with the threats present in their environment. They would have learned from secure attachment to parents to maintain positive expectations of support, especially during stressful situations, because whatever comes, the parents have always been there to protect their child. On the other hand, perceiving support from adults other than parents, siblings, or friends of the same age could mean that some adolescents have access to a third attachment figure as important as parents. Perceptions of support from this third person could have a similar function of security
and protection as parental attachment.

Fourth, results of the multiple regression analyses suggest that adolescent representations of parental attachment contribute to specific expectations of support even after controlling for the feeling of being supported. The development of a secure relationship with parents would not only have a positive effect on the global personality characteristics but would also influence the development of specific behaviors, feelings, and perceptions in a given relationship and in a given context.

Two implications are derived from these results. It is important in future research to take into account the complexity of the PSS structure. According to different methodologies, PSS could have various meanings and consequently, different origins and outcomes. A clear picture of the antecedents, correlates, and consequences of general and specific expectations of support is needed to better understand the role of social support in the development of adolescence. It is also crucial to recognize the role of attachment experiences in the development of perceived social support. Much research in adolescent attachment has been focused on the developmental effect of attachment on the self model (e.g. self-esteem, personal adjustment) but few studies have explored the pathway linking parental attachment to the social model (e.g. perceived social support, attribution style). We believe that this latter component is as important as the former to delimit the crucial issues of attachment in adolescent development.
REFERENCES


Figure 1: Attachment and Perceived Social Support
**TABLE 1**
Correlations between Perceived Social Support (PSS) scores

<table>
<thead>
<tr>
<th>PSS scores</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSS scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General expectations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. ISEL</td>
<td>1.00</td>
<td>.38**</td>
<td>.20**</td>
<td>.32**</td>
<td>.21**</td>
<td>.34**</td>
</tr>
<tr>
<td>2. MPSS-F</td>
<td>1.00</td>
<td>.28**</td>
<td>.27**</td>
<td>.23**</td>
<td>.33**</td>
<td></td>
</tr>
<tr>
<td>PSS-network (avail+satisf)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. SNI-brothers/sisters</td>
<td>1.00</td>
<td>.34**</td>
<td>.24**</td>
<td>.32**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. SNI-friends</td>
<td></td>
<td>.29**</td>
<td>.77**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. SNI-others adults</td>
<td></td>
<td>.78**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. SNI-entire network</td>
<td></td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: ISEL: Inventory of Support Evaluation List; MPSS-E: Measure of Perceived Social Support related to stressful Events; SNI: Social Network Inventory.

** p < .01
<table>
<thead>
<tr>
<th></th>
<th>F1 (PSS-events)</th>
<th>F2 (PSS-network)</th>
<th>F3 (General expect.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISEL</td>
<td>.21</td>
<td>.18</td>
<td>.95</td>
</tr>
<tr>
<td>MPSS-E (availability)</td>
<td>.91</td>
<td>.18</td>
<td>.12</td>
</tr>
<tr>
<td>MPSS-E (satisfaction)</td>
<td>.91</td>
<td>.10</td>
<td>.17</td>
</tr>
<tr>
<td>SNI (availability)</td>
<td>.24</td>
<td>.84</td>
<td>.03</td>
</tr>
<tr>
<td>SNI (satisfaction)</td>
<td>.03</td>
<td>.84</td>
<td>.22</td>
</tr>
<tr>
<td>Eigen values</td>
<td>2.40</td>
<td>1.09</td>
<td>0.72</td>
</tr>
<tr>
<td>% of variance</td>
<td>48.70</td>
<td>21.70</td>
<td>14.30</td>
</tr>
</tbody>
</table>
TABLE 3
Correlations Between Attachment Factors and PSS scores

<table>
<thead>
<tr>
<th>Attachment factors</th>
<th>General expect. (ISEL)</th>
<th>PSS-event (MPSS-E)</th>
<th>PSS-network (SNI) brothers/</th>
<th>friends</th>
<th>others</th>
<th>entire network</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>sisters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother-adolescent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>.35***</td>
<td>.28***</td>
<td>.23***</td>
<td>.18***</td>
<td>.27***</td>
<td>.26***</td>
</tr>
<tr>
<td>Females</td>
<td>.34***</td>
<td>.27***</td>
<td>.23***</td>
<td>.19***</td>
<td>.27***</td>
<td>.27***</td>
</tr>
<tr>
<td>Males</td>
<td>.37***</td>
<td>.31***</td>
<td>.22*</td>
<td>.14</td>
<td>.28*</td>
<td>.23**</td>
</tr>
<tr>
<td>Father-adolescent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>.30***</td>
<td>.32***</td>
<td>.22***</td>
<td>.13***</td>
<td>.25***</td>
<td>.20***</td>
</tr>
<tr>
<td>Females</td>
<td>.28***</td>
<td>.31***</td>
<td>.22***</td>
<td>.19***</td>
<td>.23**</td>
<td>.24***</td>
</tr>
<tr>
<td>Males</td>
<td>.39***</td>
<td>.36***</td>
<td>.23*</td>
<td>.03</td>
<td>.34**</td>
<td>.14*</td>
</tr>
</tbody>
</table>

* a: One-tail t-tests are applied to test the difference between each pair of correlation which include general expectations-attachment correlation. Because the pattern of correlations appears similar for males and females, t-tests are computed for the entire sample only.

Mother:  
- t1 (432) = 1.42, p < .10  
- t2 (334) = 1.87, p < .05  
- t3 (438) = 3.26, p < .001  
- t4 (214) = 1.01, ns  
- t5 (444) = 1.78, p < .05  

Father:  
- t1 (424) = 0.40, ns  
- t2 (331) = 2.01, p < .025  
- t3 (432) = 3.17, p < .001  
- t4 (207) = 0.61, ns  
- t5 (436) = 1.91, p < .05  

* p < .05; ** p < .01; *** p < .001.
TABLE 4

Multiple Regression Analyses of Relationships between Specific PSS scores and Attachment Factors with a Control for the effect of the General Expectations score.

Dependent variable = mother-adolescent attachment factor

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Multiple R</th>
<th>R square</th>
<th>F change</th>
<th>p (F)</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>General expect.</td>
<td>.35</td>
<td>12.3</td>
<td>60.5</td>
<td>&lt; .0001</td>
<td>.25</td>
</tr>
<tr>
<td>PSS-network</td>
<td>.39</td>
<td>14.8</td>
<td>12.3</td>
<td>&lt; .0005</td>
<td>.13</td>
</tr>
<tr>
<td>PSS-events</td>
<td>.41</td>
<td>16.3</td>
<td>7.3</td>
<td>&lt; .01</td>
<td>.14</td>
</tr>
</tbody>
</table>

F (3,427) = 27.6, p < .0001

Dependent variable= father-adolescent attachment factor

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Multiple R</th>
<th>R square</th>
<th>F change</th>
<th>p (F)</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>General expect.</td>
<td>.29</td>
<td>8.4</td>
<td>38.8</td>
<td>&lt; .0001</td>
<td>.20</td>
</tr>
<tr>
<td>PSS-events</td>
<td>.37</td>
<td>13.5</td>
<td>24.5</td>
<td>&lt; .0001</td>
<td>.24</td>
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<tr>
<td>PSS-network</td>
<td>.41</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
</tbody>
</table>

F (2,420) = 32.7, p < .0001