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Marital Status, Marital Process, and Parental Resources in Predicting Adolescents' Emotional Adjustment

A Multilevel Analysis

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This study examined the relationship between adolescent emotional adjustment and the family environment (i.e., family status, family process, and parental resources). This was done by way of multilevel analyses, with a sample of 2,636 parent-child couples of both intact and divorced families. The results indicated that adolescent emotional adjustment was clearly based on the family as well as on the individual. We found support for the hypothesis that growing up both in postdivorce families and in intact families with a low marital quality related negatively to adolescent emotional adjustment. Our hypothesis that parental resources, in the form of parental support, parent-adolescent relationship, and parental psychological health, partly mediate the negative association between low marital quality and divorce on one hand and youngsters' adjustment on the other hand was also confirmed. Growing up in postdivorce families was especially detrimental for the emotional adjustment of girls.

Keywords: *adolescent; adjustment; divorce; marital quality; family systems*

Research has consistently shown that the family environment continues to be of crucial importance throughout adolescence and young adulthood (e.g., Davies, Dumenci, & Windler, 1999; Meeus, 1993; van Wel, 2000). Because of the important role of psychological functioning for youngsters' daily lives and their further social adaptation (e.g., McFarlane,

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Bellissimo, & Norman, 1994), it is apparently relevant to study the effect of the family environment on the emotional adjustment of adolescents. During adolescence, well-being decreases and psychological problems increase (Laufer & Laufer, 1984). One aspect of the family that has been steadily found to affect the emotional adjustment of adolescents is the quality and stability of their parents' marriage (e.g., Amato & Keith, 1991a; Cherlin et al., 1991; Emery, Fincham, & Cummings, 1992). Numerous studies have shown that youngsters growing up in families with a happy, harmonious parental marriage experience fewer problems and a higher well-being than those from divorced or maritally distressed families (e.g., Amato, Loomis, & Booth, 1995; Spruijt & DeGoede, 1997). Parental divorce generally has negative, if only small, effects on the adjustment of children (e.g., Amato & Keith, 1991a, 1991b). Compared to their peers growing up in continuously intact families, adolescents who have gone through the divorce of their parents are more likely to experience emotional problems, less likely to attend or complete college, more likely to display problematic behavior, and more likely to engage in early sex and experience relational problems (Amato & Keith, 1991a, 1991b; Simons, 1996). These negative effects of divorce apply to young children as well as to adolescents, and both short- and long-term effects have been found (Amato & Keith, 1991a, 1991b; Chase-Lansdale, Cherlin, & Kiernan, 1995).

In trying to account for the relation between marital status and child adjustment, various explanations have been proposed, such as parental (father) absence, parental adjustment, and interparental conflicts. Nowadays, most family scientists believe that a combination of factors is responsible for the negative divorce effects on children (e.g., Amato, 1993; Hetherington, Bridges, & Insabella, 1998). Even though the various factors are obviously interrelated, not many studies to date have examined them simultaneously (Simons, Lin, Gordon, Conger, & Lorenz, 1999).

In this study, we will use a multivariate approach, focusing on the effect of parents' marital status, marital process, and parental resources on the emotional adjustment of adolescents. We use data from a sample of 2,636 adolescents and one of their parents coming from both intact and divorced families. Drawing on family systems theory (Minuchin, 1974, 1985), we test whether the association between marital status and marital process on one hand and adolescent emotional adjustment on the other hand are mediated by parental resources. We will further examine possible age and gender differences.

BACKGROUND

MARITAL STATUS

In studying divorce effects on children, research in this area used to focus mainly on family status. This focus is based on the assumption that traditional two-parent families provide the best environment for the development of children. This approach is referred to as the parental absence perspective, because it focuses on the absence of the nonresidential parent. It is based on the notion that father absence has serious adverse consequences for children, due to socialization deficits, decreased parental attention, and a lack of parental role models (for a lucid description, see Amato, 1993; Hetherington et al., 1998).

MARITAL PROCESS

After the initial focus on family status in explaining differences in mean adjustment between children of divorced and intact families, research shifted to the family processes leading to these differences (e.g., Hetherington & Stanley-Hagan, 1999). This shift was based on the growing awareness that many of the factors leading to divorce are effective before the actual divorce takes place (Cherlin et al., 1991; Furstenberg & Teitler, 1994).

Two of the family process factors researchers have most frequently focused on are interparental conflicts and marital distress. Conflicts between parents can have negative consequences for children (e.g., Harold, Fincham, Osborne, & Conger, 1997). Not the change in family status but the parental conflicts often accompanying marital breakups are frequently held responsible for the negative effects of divorce on children (Amato et al., 1995; Dronkers, 1999; Spruijt & De Goede, 1997). So this may be considered a family process approach, as interparental conflicts can be detrimental for children in intact families as well as in divorced families. Especially if parental conflicts are poorly managed and unresolved, they can be damaging to children (Grych & Fincham, 1990). Witnessing parental conflict is related to children's emotional distress and their physical arousal, thereby directly influencing their emotional adjustment. Indirectly, parental conflict and marital distress affect children through other aspects of family-functioning (Emery et al., 1992), through disruptions in the emotional security of children (Davies & Cummings, 1994), or through their perceptions of conflict (Grych & Fincham, 1990).

PARENTAL RESOURCES

Divorce and marital distress are stressful life experiences that can lead to parental stress and diminished well-being. Divorced persons are often found to be more depressed and distressed (Kurdek & Fine, 1993; Simons, 1996). These psychological problems of parents have been found to be associated with their children's well-being (Compas, Ey, & Grant, 1993; Larson & Gillman, 1999). For instance, children who are exposed to high levels of maternal depressive symptoms run a greater risk of experiencing diverse psychological problems themselves (Downey & Coyne, 1990).

Moreover, results from various studies have shown that, partly as a result of interparental conflicts and reduced psychological health, divorced and maritally distressed parents do not function effectively in their parental role (Belsky, 1990; McFarlane et al., 1994). Low parental marital quality and divorce have been found to lead to less parental support (e.g., Booth & Amato, 1994), divorced mothers are inclined to display lower levels of monitoring and discipline (e.g., Hetherington et al., 1998), and parental divorce and marital distress can lead to deteriorating parent-child relationships (e.g., Amato & Booth, 1996; Belsky, Youngblade, Rovine, & Volling, 1991). Thus, both divorce and marital distress can interfere with the ability children have to use parental resources, which in turn can affect their adjustment. Parental resources may therefore be considered as mediating the negative effect of divorce and marital distress on child adjustment. This would also mean that, as long as parents manage to separate their marital role from their parenting role, parental resources could compensate for the negative effect of divorce and marital distress on child adjustment.

Family Systems Theory

A closer examination of the factors described above reveals that they are obviously interrelated. For instance, maritally distressed parents will be more likely to experience psychological problems, and marital or divorce problems may well disrupt their parenting skills. This is consistent with family systems theory, which regards the family as a social system. This family system is made up of the marital, parenting, parent-child, and sibling subsystems, each influencing, and being influenced by, the others (Minuchin, 1974, 1985). The family subsystems are arranged according

to a hierarchy, where the marital subsystem is regarded as the key element in determining the quality of family life (Erel & Burman, 1995). According to family dynamics, the quality of the marital or parental relationship is positively associated with the quality of the parent-child relationship, because happily married parents will be more available and supportive toward their offspring (Belsky, 1990; Erel & Burman, 1995; Krishnakumar & Buehler, 2000). Several studies have demonstrated that the quality of the parental relationship affects the behavior of parents toward their children, thereby indirectly influencing child adjustment (Cowan, Cohn, Cowan, & Pearson, 1996; Fauber, Forehand, McCombs Thomas, & Wierson, 1990). This is referred to as a spillover effect, because problems in the marital realm are assumed to spill over into the parenting system, thus transferring to the parent-child system (Kerig, Cowan, & Cowan, 1993; Krishnakumar & Buehler, 2000). Family systems theory makes up the theoretical framework to our study. The spillover effect can partly account for the association between marital status and marital process on one hand and adolescent emotional adjustment on the other hand. That is, this association can probably be explained by relations between the marital subsystem and the parenting and parent-child subsystem.

Age and Gender Differences

The findings of previous studies on age and gender differences in reaction to divorce and marital distress have been inconsistent. According to a review by Amato and Keith (1991a), both male and female adolescents of divorced families show higher rates of conduct disorders and depression compared to adolescents from intact families. Still, girls and boys have been found to be differentially influenced in different domains of adjustment. Boys are more likely to exhibit externalizing problems (i.e., delinquent behavior, aggression) in response to their parents' divorce or marital distress, whereas girls tend to react by internalizing problem behavior (i.e., depression, anxiety) (e.g., Emery, 1982; Jekielek, 1998). With regard to age, most studies find that negative effects are comparable for young children and adolescents (Hetherington & Stanley-Hagan, 1999). Furthermore, adjustment problems may emerge or increase during adolescence and young adulthood, even if divorce took place much earlier (Hetherington et al., 1998).

THIS STUDY

AIMS OF THIS STUDY

The aim of this study is to gain more systematic insight into the prediction of adolescent emotional adjustment by a combination of marital status, marital process, and parental resources. In trying to combine the various family factors that have been found to play a role in adolescent adjustment, we investigated both intact and postdivorce families. Many of the factors described above are most likely to be relevant in intact as well as in postdivorce families. Interparental conflict, parental distress, and parental resources all are relevant before, during, and after a possible separation. So part of the possible effect of the divorce process will in some respects be at work long before a divorce takes place. Moreover, part of the perspectives on divorce effects may well be pertinent to distressed intact families as well. Several studies suggest that marital distress and divorce may well exert their influence on adolescent adjustment by the same mechanisms (e.g., Fauber et al., 1990; McFarlane et al., 1994).

RESEARCH QUESTIONS

This investigation will address the question of what effects on adolescent emotional adjustment are exerted by the family environment (i.e., family status, family process, and parental resources). On the basis of the literature cited above, the following research questions and hypotheses are formulated: (a) *What are the associations between marital status and marital process on one hand and adolescent emotional adjustment on the other hand?* Based on the notion that the negative effects of divorce on children's adjustment often start long before a possible divorce takes place (e.g., Cherlin et al., 1991; Furstenberg & Teitler, 1994), we formulated the first hypothesis: Both growing up in postdivorce families and in maritally distressed families will relate negatively to adolescent emotional adjustment (Hypothesis 1). (b) *Are the relations between marital status and marital process with adolescent well-being mediated by parental resources?* In line with family systems theory (e.g., Minuchin, 1974, 1985) and based on previous studies (e.g., Krishnakumar & Buehler, 2000; Simons et al., 1999), we expect parent psychological health, parental support, and quality of parent-adolescent relationship to be lower in maritally distressed families and in postdivorce families. These diminished parental resources, in their turn, are expected to affect the emotional adjustment of youngsters. That is, we anticipate that the negative effect of

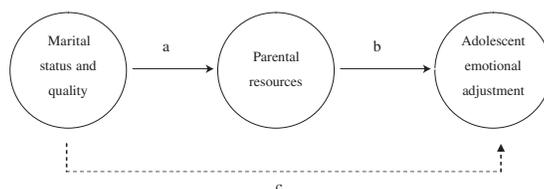


Figure 1: Hypothesized Relationship Between Parents' Marital Status and Marital Quality, Parental Resources, and Adolescent Emotional Adjustment

living in postdivorce families or in intact distressed families on the emotional adjustment of youngsters is partly mediated by parental resources, in the form of parental psychological health, parental support, and parent-adolescent relationships (Hypothesis 2). Figure 1 shows the conceptual model guiding this hypothesis. (c) *Are there sex and age differences in the associations between marital status, marital process, and parental resources with adolescent emotional adjustment?* First, in line with well-established findings, we expected emotional adjustment to be lower in adolescent girls as compared to boys (e.g., Compas et al., 1993; Meeus, 1993), to decrease during adolescence (e.g., Laufer & Laufer, 1984), and to show a larger decline as to age for girls than for boys (e.g., Meeus, 1993) (Hypothesis 3). We further included the age and sex of youngsters to test possible interactions between marital or parenting characteristics and adolescent age or sex. Because girls are generally found to be more concerned with maintaining harmonious interpersonal relationships than boys (Maccoby, 1990) and because they are more vulnerable for internalizing problems, we expect the negative influences of marital distress and divorce to be greater on girls than on boys (Hypothesis 4). Because empirical results with regard to age differences have been inconsistent (Hetherington & Stanley-Hagan, 1999), we formulate no hypothesis concerning age differences but will examine them exploratively.

METHOD

RESPONDENT

Data for this study come from a wider longitudinal panel study, the Utrecht Study of Adolescent Development (USAD) (Meeus & 't Hart, 1993), in which the life course trajectories of adolescents were examined. Throughout this article, the term *adolescence* is used for youngsters aged

12 to 24. This is in line with main youth studies and youth reports in the Netherlands, such as the Dutch Youth Monitor from the Central Bureau of Statistics (CBS). Therefore, our sample includes early adolescents (between 12 and 14), middle adolescents (between 15 and 17), late adolescents (between 18 and 20), and postadolescents (between 21 and 24). This is a common distinction in various studies, although we use age as a continuous variable in our study.

For this study, we used data from the first wave (1991). A representative sample of Dutch adolescents aged 12 to 24 was drawn from an existing panel of 10,000 households. A total of 3,525 households was approached. The adolescents as well as one of their parents were interviewed in their homes by trained interviewers. After the interview, the respondents were given another questionnaire to fill out on their own and send back to the research organization. Our data come from these self-report questionnaires, which were returned by 96% ($N = 3,394$) of the adolescents and 80% ($N = 2,776$) of the parents who were interviewed. We selected youngsters who completed these self-report questionnaires themselves and of whom one parent did so as well. Eventually, we had complete data of 2,776 parent-child couples. From these data, we selected adolescents whose parents had either been continuously married (intact families) or had divorced (postdivorce families). We excluded youngsters of whom a parent had died. This resulted in a sample size of 2,636.

Thus, we had complete data of 2,636 parent-child couples, making up 1,967 families, because 49% of the families had more than one child partaking in the study. Our working data set included 2,636 adolescents and 1,967 parents, coming from 1,343 families (50.9%) of which one parent and one child had participated, 579 families (43.9%) with one parent and two children, and 45 families (5.1%) with one parent and three children. The sample included 1,380 adolescent girls (52.4%) and 1,256 boys (47.6%). Parental gender was distributed likewise, with 1,015 mothers (51.6%) and 952 fathers (48.4%). Mean age of the adolescents was 17.4 ($SD = 3.41$) and their parents' mean age was 45.3 ($SD = 7.24$). Of the adolescents, 89% were living in the parental home, whereas 11% were living on their own. Social class of parents, an index of professional and educational level, could be differentiated as 12% upper social class, 43% middle social class, and 45% lower social class.

MEASURES

In our study, we used self-report data of adolescents and one of their parents. Next, there are descriptions of the scales we used to measure the

dependent variable, adolescent emotional adjustment, and the independent variables, marital status, marital structure, and parental resources.

Adolescent emotional adjustment. This was the dependent variable. This construct was made up of the following scales:

- A shortened version of the General Health Questionnaire (GHQ) (Goldberg, 1978; Kienhorst, Wilde, van den Bout, & Diekstra, 1990; Meeus, 1993), measuring the degree to which psychological stress and depression had recently been experienced. This measure includes two subscales: psychological stress (six items) and depression (four items). On a 4-point scale, the adolescents indicated to what extent they experienced various symptoms (e.g., feeling tense and nervous, feeling unhappy and dejected) during the past 4 weeks (1 = *much more than usual* to 4 = *not at all*). Internal consistency of both scales is high (alphas = .88 and .84 for psychological stress and depression, respectively), so mean scores were derived for each subscale.
- The Cantril ladder (Cantril, 1965), measuring general well-being and happiness. On a 10-point scale, respondents indicated how they generally felt (from 1 = *very bad* to 10 = *very well*).
- The consideration of suicide. Youngsters indicated on a 4-point scale whether they had considered committing suicide during the past 12 months (1 = *never* to 4 = *very often*) (Diekstra et al., 1991). Because of high interrelations, an exploratory factor analysis was conducted with the four scale scores as variables. A single-factor solution was obtained, explaining 58.8% of the total variance; loadings were .60 and higher (see also Helsens, Vollebergh, & Meeus, 2000). Each adolescent was thus assigned one factor score, derived by way of the short regression method, for the construct of emotional adjustment. This construct had a high internal consistency (total alpha = .89). The scales of some items were reversed, so that a higher score indicates a higher emotional adjustment.

Marital status. This variable separates continuously married, intact families from divorced families. Adolescents as well as parents were asked whether the parents had divorced. On average, divorce had taken place 9 years prior, hence the term *postdivorce families*. For the two-parent families, mean years since marriage was 20.

Marital process. Marital quality was used as an indicator of marital process. This construct was made up of the following items: (a) general marital satisfaction—on a 7-point scale, parents indicated how satisfied they were with their present relationship (1 = *quite satisfied* to 7 = *very unsatisfied*) (Spruijt & DeGoede, 1997); (b) divorce proneness—parents indicated on a 4-point scale whether they had seriously considered a divorce during the past 5 years (1 = *yes, several times* to 4 = *no, never*) (Spruijt & DeGoede, 1997); (c) indication of marital problems—for each of 13

items, parents indicated the amount in which certain problems were applicable to their present relationship (from 10 = *very much disagree* to 100 = *very much agree*). Marital problems pertained to lack of communication and quarrels about the children, money, sexual problems, and so on (see also Spruijt, 1993). These 13 items were highly interrelated ($\alpha = .95$; one underlying factor, explaining 61% of the variance), so mean scores were derived for each parent. Marital satisfaction, divorce proneness, and indication of marital problems were fairly well interrelated (correlations ranged from .20 to .45). An exploratory factor analysis was conducted with the three scales as variables. A single-factor solution was obtained, explaining 54% of the total variance; loadings were .60 and higher. Each parent was thus assigned one factor score for the construct of marital quality.

Parental Resources

Mother and father support. Perceived levels of support received from parents were measured using Meeus's (1989) personal network list, which uses the role-relation method (Fisher, 1982) of personal network delineation. The adolescents were asked the following question: (a) "If you are having problems in a relationship with someone else, or if you are feeling lonely, who helps you?" (relational support). Further, depending on whether they were in school or worked, the adolescents answered one of the following questions: (b) "If you are having questions and/or problems with your school or study, who helps you?" (educational support) or (c) "If you are having questions and/or problems with your work, who helps you?" (vocational support). The adolescents were asked to indicate on a 10-point scale the degree of support they received from a standard set of reference persons (father, mother, siblings, friends, classmates, and colleagues). For this study, we made use of reported support of the adolescents' fathers and mothers. Perceived support of the mother between domains (i.e., relational and school/work domain) correlated highly ($r = .53$, $p < .00$) and father support variables correlated even higher ($r = .63$, $p < .00$). Therefore, mean scores were used for mother support and father support. Higher scores indicated more perceived support.

Parent-adolescent relationship. To examine parent-adolescent relations, the parental bond scale by van Wel (1994, 2000) was used. This scale is based on the responses of adolescents to eight items, measuring the extent to which they (a) identify with their parents, in matters of opin-

ion and taste (e.g., "I often have the same opinions as my parents"); (b) view their parents as good examples/role models in their lifestyle and approach to child-rearing (e.g., "I would raise my children just like my parents have raised me"); (c) accept their parents as educators, from whom they can learn and accept criticism (e.g., "I can learn a lot from my parents"); and (d) value their parents as friends and communication partners (e.g., "I can talk with my parents very well"). Answers were obtained through a 5-point scale (varying from 1 = *entirely disagree* to 5 = *entirely agree*). These questions were highly interrelated ($\alpha = .87$) and appeared to have a single dimension: Factor analysis revealed that the eight items could be summarized in one factor, explaining 52% of the total variance with loadings above .65. Each youngster thus received a factor score for the construct of parent-adolescent relation (also see van Wel, 1994, 2000).

Parental psychological health. Some of the scales measuring adolescent emotional adjustment were also measured for the parent, namely, the shortened version of the GHQ (Goldberg, 1978; Kienhorst et al., 1990; Meeus, 1993). Internal consistencies of both scales were high (alphas = .91 and .83 for psychological stress and depression, respectively), so mean scores were derived for each subscale. In an exploratory factor analysis with the two subscales as variables, a one-factor solution was obtained, explaining 86.9% of the total variance; loadings were .90. Each parent was thus assigned a factor score for the construct of parental psychological health.

Note that father support, mother support, parent-adolescent relationship, and parent psychological health are used in this study as indicators of parental resources.

ANALYSIS

Data Preparation

We constructed the variable *marital type*, based on marital status and marital quality. This variable not only distinguished two-parent and postdivorce families but also subdivided two-parent families into three groups, according to their marital quality. We constructed three categories of marital quality: high, medium, and low marital quality and accordingly three groups of two-parent families were created.¹ Then, we added families in which a divorce had taken place. This resulted in the following four

groups: two-parent families with a high marital quality ($N = 1,257$, 47.7%), two-parent families with a medium marital quality ($N = 844$, 32%), two-parent families with a low marital quality ($N = 257$, 9.7%), and postdivorce families ($N = 278$, 10.5%). With these marital types, we were able to compare different perspectives into one model, namely, the marital status approach and the marital process approach. For the analyses, the variable marital type was dummy-coded. This resulted in three groups: two-parent families with a medium marital quality, two-parent families with a low marital quality, and families after divorce. Two-parent families with a high marital quality thus functioned as the reference group.

Multilevel Analysis

The data we used had a hierarchical structure, because we had data from one or more adolescents within a family as well as from the family context, in the form of a parent. This kind of data is often referred to as nested data, because characteristics or objects of one level are nested within characteristics or objects of another level. Furthermore, half of the adolescents in this sample had one or more siblings also participating in the study. Because we have different siblings per family, the assumption of independent observations is violated. We have within-family dependency, reflected in the intraclass correlation ρ . This implies that a proportion of variance in the dependent variable, adolescent emotional adjustment, can be ascribed to differences between higher levels, namely families. More about the necessity of multilevel analysis in the case of nested data can, for instance, be found in Maas (1996), Snijders (1995), and Van der Leeden (1998).

To account for the intrafamily dependency, we conducted a multilevel analysis. This is a class of methods based on hierarchical regression analysis, aimed at examining the associations within and between levels in hierarchically nested data. This method thus takes the grouping of the adolescents within families into account. A general description of multilevel analysis can for instance be found in Goldstein (1995) and Hox (1994). Data analysis was conducted using MlwiN, a program that performs multilevel analysis of data with n levels (Goldstein et al., 1998). Varying group sizes is not a problem for this analysis.

As shown in Table 1, the variance of youngsters' emotional adjustment was decomposed into variance at the family level, true variance at the individual level, and error variance. Error variance was defined as $[1 - \text{Cronbach's } \alpha]$. Family-level variance and total individual-level variance were produced directly by MlwiN, and true variance at the individual

TABLE 1
Decomposition of Variance of Adolescent Emotional Adjustment

<i>Variable</i>	<i>Family- Level Variance</i>	<i>Individual- Level Variance</i>	<i>Error Variance</i>	<i>Intrafamily Correlation</i>
Adolescent emotional adjustment	.17	.73	.10	.19

level was taken as the difference between total individual variance and error variance. The ratio of family-level variance to family-level plus individual-level variance is the intraclass or intrafamily correlation, corrected for unreliability (see also Van Yperen & Snijders, 2000). The intrafamily correlation is .19 ($.17 / (.17 + .73)$). Thus, 19% of the total variance of the variable adolescent emotional adjustment is at family level. This means that the emotional adjustment of adolescents is not a sheer individual characteristic but depends on family context as well. This also implies that multilevel analysis is the most appropriate method of analysis, because emotional adjustment is dependent within families.

RESULTS

DESCRIPTIVE STATISTICS

Table 2 provides data on the standardized means for the variables in the four marital types, further divided by adolescent sex. In all marital types, the mean emotional adjustment of girls is lower than that of boys. Mean emotional adjustment is lowest in two-parent families with a low marital quality ($M = -.46$ for girls and $M = -.05$ for boys) and in postdivorce families ($M = -.61$ for girls and $M = .05$ for boys).

Table 3 contains the intercorrelations between the variables on both the individual (adolescent) level and the family (parent) level. Family-level correlations are the correlations between family-means (see also Van Yperen & Snijders, 2000). At the individual and the family level, the correlations between adolescent emotional adjustment and all other variables are highly significant ($p < .001$). Adolescents who were younger, perceived more support from father and mother, reported good relationships with both parents, and had a parent with a high level of psychological health had a higher level of emotional adjustment.

TABLE 2
Standardized Means by Marital Type and Adolescent Sex

	<i>Two-Parent Families</i>							
	<i>High Marital Quality</i>		<i>Medium Marital Quality</i>		<i>Low Marital Quality</i>		<i>Postdivorce Families</i>	
	<i>Boys</i>	<i>Girls</i>	<i>Boys</i>	<i>Girls</i>	<i>Boys</i>	<i>Girls</i>	<i>Boys</i>	<i>Girls</i>
<i>N</i>	610	647	401	443	122	135	123	155
Adolescent emotional adjustment	.22	.00	.15	-.08	-.05	-.46	.05	-.61
Father support	.14	.18	.00	.01	-.11	-.38	-.42	-.58
Mother support	-.04	.15	-.13	.05	-.17	-.08	-.11	.03
Parent-adolescent relationship	.14	.15	.01	-.05	-.23	-.34	-.17	-.43
Parental psychological health	.27		-.06		-.68		-.45	

NOTE: For parental psychological health, means are based on smaller group sizes, representing number of families per marital type ($N = 947$, $N = 627$, $N = 187$, and $N = 209$ for the four marital types), to avoid parents of families with more than 1 (participating) child to count double or triple.

TABLE 3
Intercorrelations at the Individual and the Family Levels

	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
1. Adolescent emotional adjustment	—	.22***	.18***	.24***	-.10***	.10***
2. Father support	.22***	—	.69***	.47***	-.17***	.07**
3. Mother support	.20***	.70***	—	.50***	-.21***	.01
4. Parent-adolescent relationship	.25***	.45***	.48***	—	-.00	.07**
5. Adolescent age	-.09***	-.16***	-.19***	.01	—	.03
6. Parental psychological health	.10***	.07**	.01	.08***	.02	—

NOTE: $N = 2,636$ adolescents, 1,969 families. Individual-level correlations are in the lower triangle, family-level correlations (based on averages per family) in upper triangle. ** $p < .01$. *** $p < .001$.

MULTILEVEL ANALYSES

The results of the multilevel analyses are presented in Table 4. As is customary, variables are added to the model in the following order: Individual-level factors are entered first, followed by family-level factors,

TABLE 4
The Influence of Individual and Parental Factors on Adolescent Emotional Adjustment

	<i>Model 1</i>			<i>Model 2</i>		
	<i>B</i>	β	<i>SE_B</i>	<i>B</i>	β	<i>SE_B</i>
Individual-level factors						
Sex	-.205	-.10	.056***	-.256	-.13	.054***
Age	-.014	-.05	.007*	-.006	-.02	.007
Sex*Age	-.024	-.22	.011*	-.030	-.27	.011**
Father support				.003	.08	.001***
Mother support				.002	.05	.001*
Parent-adolescent relation				.041	.04	.026
Sex*Parent-adolescent relation				.226	.17	.037***
Age*Parent-adolescent relation				.006	.11	.007
Sex*Age*Parent-adolescent relation				-.034	-.44	.011**
Family-level factors						
Marital type ^a						
Two-parent medium quality	-.077	-.04	.054	-.040	-.02	.053
Two-parent low quality	-.276	-.08	.083**	-.180	-.05	.084*
Postdivorce	-.169	-.05	.083**	-.072	-.02	.084
Parent psychological health				.104	.06	.035**
Cross-level interactions						
Marital type by sex ^b						
Two-parent medium quality*Sex	-.020	-.01	.088	.040	.02	.084
Two-parent low quality*Sex	-.171	-.04	.136	-.032	-.01	.131
Postdivorce*Sex	-.450	-.05	.131***	-.286	-.07	.127*
Model fit: Decrease in χ^2						
Step 1 (individual level)						$\chi^2(3) = 77***$
Step 2 (family level)						$\chi^2(6)^c = 266***$
Step 3 (all effects)						$\chi^2(3) = 59***$
						$\chi^2(7) = 213***$
						$\chi^2(4) = 104***$
						$\chi^2(7) = 206***$

a. Two-parent families with a high marital quality are the reference group.

b. In cross-level interactions, estimation of the variance of the slope of sex at family-level costs one additional degree of freedom.

c. Model 2 is nested within model 1, so model fit at different steps in model 2 is compared to the fit at comparable steps in model 1.

* $p < .05$. ** $p < .01$. *** $p < .001$.

ending with possible cross-level interactions (e.g., Maas, 1992). At each step, fit was assessed and compared to the fit in the previous step (expressed in decrease in chi-square value). Note, however, that the coefficients shown in Table 4 are the coefficients as computed in the final step of the models, corrected for all other effects.

Model 1: The Effects of Marital Status and Marital Process on Adolescent Emotional Adjustment

At the individual level, adding adolescent sex (1 for girls), age, and sex by age to the null-model significantly improved the fit (decrease in $\chi^2(3) = 77, p < .001$). We anticipated adolescent girls to have a lower well-being compared to boys, older adolescents to have a lower well-being than younger ones, and a larger decline with age for girls as compared to boys. All the effects were significant and in accordance with our third hypothesis. Adolescent sex had the largest effect on emotional adjustment ($\beta = -.10, p < .001$).

At the family level, adding marital type to the model significantly improved the fit (decrease in $\chi^2(3) = 59, p < .001$), indicating that marital type could significantly explain variance of adolescent emotional adjustment. Compared to the influence of two-parent families with a high marital quality, functioning as the reference group, all other families had a negative influence on adolescent emotional adjustment. These effects were significant for both the two-parent families with a low marital quality ($\beta = -.08, p < .001$) and the postdivorce families ($\beta = -.05, p < .01$).² This is in line with our expectations (Hypothesis 1): Adolescents who grew up in maritally distressed families or in postdivorce families reported significantly lower levels of emotional adjustment (compared to adolescents growing up in intact families with a high marital quality).

The slope of adolescent sex proved to be highly variable at the family level. Cross-level interactions showed that the effect of sex significantly depended on marital type. That is, divorce had a much more negative influence on girls than on boys, as shown by the significant interaction effect between the dummy for postdivorce families and sex ($\beta = -.11, p < .001$). As a result of this cross-level interaction effect, the main effect of divorce on emotional adjustment was smaller than that of low marital quality. Adding the cross-level interaction effects significantly improved the fit of the model (decrease in $\chi^2(4) = 104, p < .001$). This means that Hypothesis 4 is confirmed. Finally, the age effect was invariable at the family level, indicating that the negative effect of postdivorce and low-marital quality families on adolescent emotional adjustment is similar for adolescents of all ages.

Model 2: Mediation of Parental Resources

For model 2, increase in model fit was compared to comparable steps in model 1. At the individual level, we found the same significant effects of

sex and the interaction between sex and age on emotional adjustment as in the first model. As opposed to model 1, the main effect of age was not significant, probably because of the interrelatedness of age with the other variables on the individual level that have now been added to the model. Adding father support, mother support, and parent-adolescent relationship significantly improved the fit of the model, compared to the first step in model 1 (decrease in $\chi^2(3) = 266, p < .001$). Father support and mother support had a positive and significant effect on adolescents' emotional adjustment. So, the higher the perceived amount of support from father and mother, the higher the emotional adjustment of adolescents and young adults. The main effect of parent-adolescent relationship on adolescent emotional adjustment was not significant, but there was a significant two-way interaction between sex and parent-adolescent relationship ($\beta = .17, p < .001$). For adolescent girls, a good relationship with the parents had a positive influence on their emotional adjustment. There was also a strong significant three-way interaction between sex, age, and parent-adolescent relationship ($\beta = -.44, p < .01$), indicating that the positive influence of parent-adolescent relation on girls' emotional adjustment decreased when girls get older.

At the family level, Table 4 shows that parental psychological health had a positive effect on adolescent emotional adjustment ($\beta = .06, p < .01$).³ Model fit significantly improved compared to the second step in model 1 (decrease in $\chi^2(7) = 213, p < .001$). The negative effects of low marital quality and divorce on emotional adjustment decreased, once the positive effects of parental resources were taken into account. Thus, controlling for the effects of perceived support from father/mother and perceived parent-adolescent relationship, as well as controlling for parental psychological health, resulted in a considerable decline of the effect of marital type. This means that parental resources may mediate a considerable part of the negative influence of low marital quality and postdivorce, as formulated in Hypothesis 2.

Note that there remained a significant, yet considerably smaller, main effect of low marital quality on adolescent emotional adjustment. No significant interaction effect was found between any of the variables added in this second step and marital type. This means that support from father, support from mother, parent-adolescent relation, and parental psychological health had, as expected, positive effects on adolescent emotional adjustment and, more important, that this was the case in each marital type. The cross-level interaction between the dummy indicating postdivorce families and adolescent sex remained significant but decreased considerably compared to the first model. Hence, the negative influence of divorce

on the adjustment of girls could not be totally explained by parental resources.

The results of model 2 indicated that low marital quality and divorce resulted in a decline in parental resources, which in their turn were responsible for the negative effects of divorce and low marital quality on adolescents (Hypothesis 2). The effects of marital type on adolescent emotional adjustment decreased if we controlled for the effects of parental resources. To test whether we may indeed speak of mediation effects, we applied a procedure recommended by Baron and Kenny (1986). Following their hierarchical regression procedure to test for mediation effects, coefficients had to be generated reflecting the direct relationships between marital type and adolescent emotional adjustment (path c in Figure 1), marital type and parental resources (path a in Figure 1), and parental resources and adolescent emotional adjustment (path b in Figure 1). The final step in this mediation test includes a model with the effect of marital type on adolescent adjustment, controlling for parental resources. The first and final step of this procedure has already been carried out by models 1 and 2 (see Table 4). The results of the second and third step are presented in Table 5.

The results in the upper part of Table 5 show that all variables pertaining to parental resources (father support, mother support, parent-adolescent relation, and parental psychological health) were significantly influential in predicting adolescent emotional adjustment. The results in the lower part of Table 5 demonstrate that, in their turn, the variables concerning parental resources could be significantly explained by marital type. Compared to two-parent families with a high marital quality, the reference group, all other marital types had a significant negative effect on parental resources. Based on a combination of the results, we concluded that our second hypothesis was partly confirmed: The effects of marital status and marital process on adolescent emotional adjustment are partly mediated by parental resources.

CONCLUSION AND DISCUSSION

This study examined the relations between growing up in postdivorce families and in intact families with a high, medium, or low marital quality and adolescent emotional adjustment. Furthermore, with regard to the differences in the associations between the different marital types and the emotional adjustment of youngsters, an explanatory mechanism was tested. We examined whether parental resources, in the form of parental

TABLE 5
Additional Steps to Demonstrate Mediation of Variables Representing Parental Resources^a

	Parental Resources											
	Mother Support			Father Support			Parent-Adolescent Relationship			Parent Psychological Health		
	B	β	SE _B	B	β	SE _B	B	β	SE _B	B	β	SE _B
Column variables as predictor												
Dependent variable = adolescent emotional adjustment												
Univariate ^b	.009	.20	.001***	.009	.23	.001***	.243	.24	.019***	.183	.10	.037***
Multivariate ^c	.001	.02	.001	.005	.13	.001***	.170	.13	.022***	.144	.08	.036***
Column variables as dependent												
Predictor variable = marital type ^d												
Two-parent medium quality	-2.021	-.04	1.041	-3.838	-.07	1.19**	-.172	-.08	.05***	-.179	-.08	.03***
Two-parent low quality	-3.803	-.05	.601	-10.02	-.12	1.83***	-.412	-.12	.07***	-.517	-.16	.04***
Postdivorce	-1.834	-.03	.54	-17.03	-.21	1.76***	-.439	-.14	.07***	-.392	-.12	.04***

a. The upper part of this table represents path b in Figure 1, that is, the effect of parental resources on adolescent emotional adjustment. The lower half of the table pertains to path a in Figure 1: the influence of marital type on parental resources.
 b. Influence of each column variable separately as predictor of adolescent emotional adjustment.
 c. Influence of all column variables in one model in predicting adolescent emotional adjustment.
 d. Two-parent families with a high marital quality are the reference group.
 * $p < .05$. ** $p < .01$. *** $p < .001$.

psychological health, parental support, and parent-adolescent relation, could account for the relation between marital type and adolescent emotional adjustment.

We started this article with the remark that research has consistently shown that the family environment continues to be of crucial importance throughout adolescence and young adulthood. This investigation is in agreement with this, because it demonstrated that considerable variance of adolescent emotional adjustment lies at the family level.

In line with our first hypothesis, growing up both in postdivorce families and in maritally distressed families was negatively related to adolescent emotional adjustment. This is consistent with previous research (e.g., Amato et al., 1995; Forehand, Neighbors, Devine, & Armistead, 1994). That is, both divorce and marital distress relate negatively to the well-being of youngsters. As for the consequences on adolescent emotional adjustment, not only marital status played a role. We found a strong negative effect of low marital quality of parents on the emotional adjustment of youngsters. This indicated that both boys and girls are vulnerable to the quality of their parents' marriage. Parents who are not satisfied with their marriage, are divorce-prone, and report high levels of marital problems have offspring with significantly lower levels of emotional adjustment. Marital quality is a good predictor of divorce. The findings thus indicate that the process of negative divorce effects may indeed be at work long before a possible divorce takes place.

Parental psychological health, parental support, and parent-adolescent relation partly mediate the negative relation between low marital quality and divorce with the psychological adjustment of youngsters. This is in line with the second hypothesis we formulated. We found quality of the parent-adolescent relationship, reported support of father and mother, and parental psychological health to be significantly lower in two-parent families with a low marital quality and in postdivorce families. Once we controlled for the effects of these parental resources in explaining the emotional adjustment of youngsters, the effect of marital quality and divorce decreased considerably. This is in line with other studies, in which a negative relation was found between marital distress and postdivorce family-life and the quality of parenting (e.g., Fauber et al., 1990; Krishnakumar & Buehler, 2000; Simons et al., 1999).

The findings are in accordance with assumptions based on family systems theory, in that negative effects of the parental relation subsystem seem to spill over into the parenting system and into the parent-child system, thereby affecting children (Erel & Burman, 1995; Harold et al., 1997). This means that if parents manage to prevent their partner

problems from influencing their parenting role, this may buffer their offspring from the stresses accompanying marital distress and postdivorce problems.

It is interesting that the association between marital type and parental resources partly differs with regard to mother support, compared to parental psychological health, father support, and parent-adolescent relation. That is, only low marital quality, but not divorce, had a small negative relation with the amount of mother support. This could indicate that mothers in postdivorce families try to compensate for the absence of fathers by providing their children with more support (see also Belsky et al., 1991). However, it could also indicate that adolescents in one-parent families regard their mothers, who often are the custodial parent, as more supporting.

With regard to adolescent age and sex, we found adolescent emotional adjustment to be lower in adolescent girls as compared to boys and lower in older adolescents as compared to younger adolescents, and we found a larger decline as to age for adolescent girls than for boys. These findings are in accordance with our third hypothesis. There was no significant interaction effect between marital type and age. This indicates that the association between parental marital quality or divorce and adolescent emotional adjustment does not fade away as youngsters approach young adulthood. This finding is consistent with other studies that found associations between divorce (Amato & Keith, 1991a) or marital conflict (Amato et al., 1995; Neighbors, Forehand, & Bau, 1997) and the adjustment of young adults.

In line with our fourth hypothesis, we found some significant differences in the association between marital type and emotional adjustment between boys and girls. Growing up in postdivorce families was especially detrimental for the emotional adjustment of girls, and whereas parental resources completely mediated the negative effect of divorce on the adjustment of boys, there remained a significant negative effect for girls. It is well-known that interparental conflicts often continue after divorce and as Buchanan, Maccoby, and Dornbusch (1991) found in their study, girls are more likely to feel caught between parents. Girls may thus be more vulnerable to postdivorce interparental conflicts. In this respect, our results differ from those of Simons et al. (1999), who found that parental divorce was more emotionally disturbing to boys than to girls. However, Simons studied short-term adjustment after divorce. It may well be that adolescent boys suffer more from short-term effects of divorce, whereas girls may be more affected by parental divorce in the long run. The findings of this study are in agreement with the notion that adolescent girls are more often concerned with maintaining harmonious interpersonal rela-

tionships (Maccoby, 1990) and react by internalizing problems in response to divorce (Emery, 1982; Jekielek, 1998), unlike boys. The highly significant long-term effect of divorce on the emotional adjustment of girls could also be an indication of a so-called "sleeper effect." That is, when children enter adolescence, latent problems in their social relationships and adjustment may be triggered (e.g., Hetherington & Clingempeel, 1992). This may be especially the case for adolescent girls, who are generally more vulnerable to internalizing problems than boys.

This study contributes to other studies in the field in several ways. First, by a multivariate approach, we simultaneously examined marital status as well as process-related factors often associated with the psychological adjustment of youngsters after divorce. Second, we directly compared adolescents of intact families with those of divorced families, in an attempt to nuance findings about negative divorce effects on youngsters. Instead of focusing on family status, we examined relevant family processes and quality of relationships. Third, we employed a sophisticated analytic strategy (i.e., multilevel modeling) to distinguish family-level effects from individual-level effects on adolescent emotional adjustment. Fourth, our data are obtained from two sources, adolescents as well as one of their parents.

We are well aware of several limitations in this study. First, because of the cross-sectional design of this study, we are unable to draw any conclusions with regard to possible causal relationships between the variables we used. It is possible that adolescent emotional adjustment, which functioned as the dependent variable here, has reciprocal relationships with several explanatory variables in this study. Youngsters who showed a higher emotional adjustment, for instance, may have also reported higher amounts of support from both parents, as well as better relationships, in a psychological strain toward consistency. Similarly, various studies have shown the child to exert at least an indirect influence on the parental marriage (e.g., Belsky, 1990). As for this possibility, though, it is worth mentioning that a study by Shek (1998) found more support for the notion that marriage influences parent-child relationships than for the notion that parent-child relationships influence marriage.

A second restriction of our study is the fact that we constructed three groups of intact married families and compared them with all divorced families put together in one group. We realize that this grouping may not appear very ideal in several respects, treating adolescents of families after divorce as one group, whereas at the same time distinguishing between different two-parent families. However, this way we could compare different perspectives in one model, namely, the marital status and the mari-

tal process approach. Because parental divorce on average occurred 9 years ago, though, we were in fact comparing the effects of the aftermath of divorce with present marital quality on adolescents' emotional adjustment. In other words, we found proof of significant long-term effects of parental divorce and of present effects of marital distress on the emotional adjustment of youngsters.

A final flaw in this study is the fact that we could not differentiate between father- and mother-effects, because we only had data on one parent per family. Furthermore, reports by adolescents about their parents did not always refer to their father and mother separately. That is, the construct of parent-adolescent relation indicated the relationship with both parents, whereas parental support was reported separately for father and mother. As some studies have reported, marital quality and divorce may have differential effects on the parenting of fathers and mothers and there may be gender differences in parent-child interactions (e.g., Booth & Amato, 1994; Kerig, Cowan, & Cowan, 1993; Simons et al., 1999). In this study, we were unable to examine such differences.

We found considerable long-term effects of divorce on adolescent emotional adjustment. In future research, it would be informative to examine whether low marital quality of parents has comparable long-term effects on adolescent well-being. It would also be interesting to study whether the same effects apply if we focus on externalizing problems. Because boys more often react to marital distress and divorce with externalizing problems, it would be useful to examine whether parental resources also mediate these effects.

Furthermore, we expect it may be useful to examine marital quality more closely, for example by distinguishing between different types of marital problems. It may well be that in case of high amounts of marital conflicts, or with specific kinds of conflicts, a different pattern of effects on offspring emerges. For example, some studies have shown that particularly in the case of serious interparental conflicts (Dronkers, 1999), when children feel they are caught between parents (Buchanan, Maccoby, & Dornbusch, 1991), for different types of appraisals of a given conflict (Davies & Cummings, 1994; Grych & Fincham, 1990), and for conflicts that are poorly managed and unresolved (Grych & Fincham, 1990), children may be adversely affected. In these cases, high parental support, good relationships with parents, or high psychological health of parents may fail to provide sufficient compensation.

As a last recommendation for future research, we suggest to broaden the construct of parental resources. First, it would be informative to distinguish fathers and mothers on all variables. Second, it seems useful to add

variables pertaining to parental control and monitoring, because these variables have also been found to play a mediating role between the effects of marital distress and divorce on adolescent adjustment (e.g., Amato, 1993; Kurdek & Fine, 1993; Simons & associates, 1996).

Despite some limitations, this study demonstrated that parental support, parent-adolescent relationship, and parent psychological health may function as buffers in the stresses accompanying parents' marital and postdivorce problems.

NOTES

1. Categories of marital quality were constructed based on standard deviations. Parents assigned a high marital quality were very satisfied with their present relationships, had never considered a divorce during the past 5 years, and scored below average on marital problems. Medium quality indicated parents who were fairly satisfied with their marriages, had never or only once considered a divorce, and scored about average on marital problems. Finally, low marital quality indicated parents who were less satisfied with their marriage, had at least once considered a divorce, and scored higher than average on marital problems.

2. The negative effects of divorce and low marital quality on adolescent emotional adjustment were not significantly different from each other, which was tested in a model in which the divorced families functioned as the reference group. The dummy for two-parent families with a low marital quality had a slightly positive, but not significant, effect on adolescent emotional adjustment ($\beta = .01, p = .56$), compared to the effect of divorced families.

3. Parental psychological health functions as a family-level variable, because its value is equal for different adolescents within one family. The variables based on the adolescents' reports differ within families and lie at the individual level. The variables that are based on the parents' reports lie at the family level, because they only vary between families.

REFERENCES

- Amato, P. R. (1993). Children's adjustment to divorce: Theories, hypotheses, and empirical support. *Journal of Marriage and the Family, 55*, 23-38.
- Amato, P. R., & Booth, A. (1996). A prospective study of divorce and parent-child relationships. *Journal of Marriage and the Family, 58*, 356-365.
- Amato, P. R., & Keith, B. (1991a). Parental divorce and adult well-being: A meta analysis. *Journal of Marriage and the Family, 53*, 43-58.
- Amato, P. R., & Keith, B. (1991b). Parental divorce and the well-being of children: A meta analysis. *Psychological Bulletin, 110*, 26-43.
- Amato, P. R., Loomis, L. S., & Booth, A. (1995). Parental divorce, marital conflict, and offspring well-being during early adulthood. *Social Forces, 73*, 895-915.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.

- Belsky, J. (1990). Parental and nonparental child care and children's socioemotional development: A decade in review. *Journal of Marriage and the Family*, 52, 885-903.
- Belsky, J., Youngblade, L., Rovine, M., & Volling, B. (1991). Patterns of marital change and parent-child interaction. *Journal of Marriage and the Family*, 53, 487-498.
- Booth, A., & Amato, P. R. (1994). Parental marital quality, parental divorce, and relations with parents. *Journal of Marriage and the Family*, 56, 21-34.
- Buchanan, C. M., Maccoby, E. E., & Dornbusch, S. M. (1991). Caught between parents: Adolescents' experience in divorced homes. *Child Development*, 62, 1008-1029.
- Cantril, H. (1965). *The pattern of human concerns*. New Brunswick, NJ: Rutgers University Press.
- Chase-Lansdale, P. L., Cherlin, A. J., & Kiernan, K. E. (1995). The long-term effects of parental divorce on the mental health of young adults: A developmental perspective. *Child Development*, 66, 1614-1634.
- Cherlin, A. J., Furstenberg, F. F., Chase-Lansdale, P. L., Kiernan, K. E., Robins, P. K., Morrison, D. R., & Teitler, J. O. (1991). Longitudinal studies of effects of divorce on children in Great Britain and the United States. *Science*, 252, 1386-1389.
- Compas, B. E., Ey, S., & Grant, K. E. (1993). Taxonomy, assessment, and diagnosis of depression during adolescence. *Psychological Bulletin*, 114, 323-344.
- Cowan, P. A., Cohn, D. A., Cowan, C. P., & Pearson, J. L. (1996). Parents' attachment histories and children's externalizing and internalizing behaviors: Exploring family systems models of linkage. *Journal of Consulting and Clinical Psychology*, 64, 53-63.
- Davies, P. T., & Cummings, E. M. (1994). Marital conflict and child adjustment: An emotional security hypothesis. *Psychological Bulletin*, 116, 387-411.
- Davies, P. T., Dumenci, L., & Windler, M. (1999). The interplay between maternal depressive symptoms and marital distress in the prediction of adolescent adjustment. *Journal of Marriage and the Family*, 61, 238-254.
- Diekstra, R. W. F., Garnefski, N., de Heus, P., de Zwart, R., van Praag, B. M. S., & Warnaar, M. (1991). *Scholierenonderzoek 1990. Gedrag en gezondheid van scholieren uit het Voortgezet Onderwijs* [Survey of pupils 1990; health and behavior]. Den Haag: NIBUD.
- Downey, G., & Coyne, J. C. (1990). Children of depressed parents: An integrative review. *Psychological Bulletin*, 108, 50-76.
- Dronkers, J. (1999). The effects of parental conflicts and divorce on the well-being of pupils in Dutch secondary education. *European Sociological Review*, 15, 195-212.
- Emery, R. E. (1982). Interparental conflict and the children of discord and divorce. *Psychological Bulletin*, 92, 310-330.
- Emery, R. E., Fincham, F. D., & Cummings, E. M. (1992). Parenting in context: Systematic thinking about parental conflict and its influence on children. *Journal of Consulting and Clinical Psychology*, 60, 909-912.
- Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: A meta-analytic review. *Psychological Bulletin*, 118, 108-132.
- Fauber, R., Forehand, R., McCombs Thomas, A., & Wierson, M. (1990). A mediational model of the impact of marital conflict on adolescent adjustment in intact and divorced families: The role of disrupted parenting. *Child Development*, 61, 1112-1123.
- Fisher, C. S. (1982). *To dwell among friends. Personal networks in town and city*. Chicago: Chicago University Press.
- Forehand, R., Neighbors, B., Devine, D., & Armistead, L. (1994). Interparental conflict and parental divorce. The individual, relative, and interactive effects on adolescents across four years. *Family Relations*, 43, 387-393.

- Furstenberg, F. F., & Teitler, J. O. (1994). Reconsidering the effects of marital disruption: What happens to children of divorce in early adulthood? *Journal of Family Issues, 15*, 173-190.
- Goldberg, D. P. (1978). *Manual of the General Health Questionnaire*. Horsham: General Practice Research Unit.
- Goldstein, H. (1995). *Multilevel statistical models* (2nd ed.). London: Edward Arnold.
- Goldstein, H., Rasbash, J., Plewis, I., Draper, D., Browne, W., Yang, M., Woodhouse, G., & Healy, M. (1998). *A user's guide to MlwiN*. London: Multilevel Models Project, Institute of Education, University of London.
- Grych, J. H., & Fincham, F. D. (1990). Marital conflict and children's adjustment: A cognitive-contextual framework. *Psychological Bulletin, 108*, 267-290.
- Harold, G. T., Fincham, F. D., Osborne, L. N., & Conger, R. D. (1997). Mom and dad are at it again: Adolescent perceptions of marital conflict and adolescent psychological distress. *Developmental Psychology, 33*, 333-350.
- Helsen, M., Vollebergh, W., & Meeus, W. (2000). Social support from parents and friends and emotional problems in adolescence. *Journal of Youth and Adolescence, 29*, 319-335.
- Hetherington, E. M., Bridges, M. I., & Insabella, G. M. (1998). What matters? What does not? Five perspectives on the association between marital transitions and children's adjustment. *American Psychologist, 53*, 167184.
- Hetherington, E. M., & Clingempeel, W. G. (Eds.). (1992). Coping with marital transitions: A family systems perspective. *Monographs of the Society for Research in Child Development, 57*(2-3, Serial No. 227).
- Hetherington, E. M., & Stanley-Hagan, M. M. (1999). The adjustment of children with divorced parents: A risk and resiliency perspective. *Journal of Child Psychology and Psychiatry, 40*, 129-140.
- Hox, J. J. (1994). *Applied multilevel analysis*. Amsterdam: TT-Publikaties.
- Jekielek, S. M. (1998). Parental conflict, marital disruption, and children's emotional well-being. *Social Forces, 76*, 905-936.
- Kerig, P. K., Cowan, P. A., & Cowan, C. P. (1993). Marital quality and gender differences in parent-child interaction. *Developmental Psychology, 6*, 931-939.
- Kienhorst, C.W.M., Wilde, E. J., van den Bout, J., & Diekstra, R.W.F. (1990). Psychometrische eigenschappen van een aantal zelfrapportage-vragenlijsten over "(on)welbevinden" [Psychometric characteristics of a number of self-report measures of "(non)well-being"]. *Nederlands Tijdschrift voor de Psychologie, 45*, 124-133.
- Krishnakumar, A., & Buehler, C. (2000). Interparental conflict and parenting behaviors: A meta-analytic review. *Family Relations, 49*, 25-44.
- Kurdek, L. A., & Fine, M. A. (1993). The relation between family structure and young adolescents' appraisals of family climate and parenting behavior. *Journal of Family Issues, 14*, 279-290.
- Larson, R. W., & Gillman, S. (1999). Transmission of emotions in the daily interactions of single-mother families. *Journal of Marriage and the Family, 61*, 21-37.
- Laufer, M., & Laufer, M. E. (1984). *Adolescence and developmental breakdown*. London: Yale University Press.
- Maas, C.J.M. (1992). *Probleemleerlingen in het basisonderwijs* [Problem pupils in secondary education]. Utrecht: ICS.
- Maas, C.J.M. (1996). Primacy of multilevel analysis with respect to hierarchically organized data. *Bulletin de Methodologie Sociologique, 51*, 10-26.
- Maccoby, E. E. (1990). Gender and relationships: A developmental account. *American Psychologist, 45*, 513-520.

- McFarlane, A. H., Bellissimo, A., & Norman, G. R. (1994). Family structure, family functioning, and adolescent well-being: The transcendent influence of parental style. *Journal of Child Psychology and Psychiatry, 36*, 847-864.
- Meeus, W. (1989). Parental and peer support in adolescence. In K. Hurrelman & U. Engel (Eds.), *The social world of adolescents* (pp. 167-185). New York: De Gruyter.
- Meeus, W. (1993). De psychosociale ontwikkeling van adolescenten [Psychosocial development in adolescents]. In W. Meeus & H. 't Hart (Eds.), *Jongeren in Nederland* [Young people in the Netherlands] (pp. 31-55). Amersfoort: Academische uitgeverij.
- Meeus, W., & 't Hart, H. (Eds.). (1993). *Jongeren in Nederland* [Young people in the Netherlands]. Amersfoort: Academische uitgeverij.
- Minuchin, S. (1974). *Families and family therapy*. Cambridge, MA: Harvard University Press.
- Minuchin, S. (1985). Families and individual development: Provocations from the field of family therapy. *Child Development, 56*, 289-302.
- Neighbors, B. D., Forehand, R., & Bau, J. J. (1997). Interparental conflict and relations with parents as predictors of young adult functioning. *Development and Psychopathology, 9*, 169-187.
- Shek, D.T.L. (1998). A longitudinal study of Hong Kong adolescents' and parents' perceptions of family functioning and well-being. *Journal of Genetic Psychology, 159*, 389-403.
- Simons, R. L. (Ed.). (1996). *Understanding differences between divorced and intact families: Stress, interaction, and child outcome*. Thousand Oaks, CA: Sage.
- Simons, R. L., Lin, K. H., Gordon, L. C., Conger, R. D., & Lorenz, F. O. (1999). Explaining the higher incidence of adjustment problems among children of divorce compared with those in two-parent families. *Journal of Marriage and the Family, 61*, 1020-1033.
- Snijders, T.A.B. (1995). Multilevel models for family data. In J. J. Hox, B. F. van der Meulen, J.M.A.M. Janssens, J.J.F. ter Laak, & L.W.C. Tavecchio (Eds.), *Advances in family research* (pp. 193-208). Amsterdam: Thesis Publishers.
- Spruijt, A. P. (1993). Relaties: Feiten, opvattingen, en problemen [Relationships: Facts, opinions, and problems]. In W. Meeus & H. 't Hart (Eds.), *Jongeren in Nederland* [Young people in the Netherlands] (pp. 56-78). Amersfoort: Academische uitgeverij.
- Spruijt, E., & DeGoede, M.P.M. (1997). Transitions in family structure and adolescent well-being. *Adolescence, 32*, 897-912.
- Van der Leeden, R. (1998). Multilevel analysis of longitudinal data. In C.J.H. Bijleveld & L.J.Th. van der Kamp (Eds.), *Longitudinal data analysis. Designs, models, and methods* (pp. 269-317). London: Sage Publications Ltd.
- van Wel, F. (1994). "I count my parents among my best friends": Youths' bonds with parents and friends in the Netherlands. *Journal of Marriage and the Family, 56*, 835-843.
- van Wel, F. (2000). The parental bond and the well-being of adolescents and young adults. *Journal of Youth and Adolescence, 28*, 307-318.
- van Yperen, N. W., & Snijders, T.A.B. (2000). A multilevel analysis of the demands-control model: Is stress at work determined by factors at the group level or the individual level? *Journal of Occupational Health Psychology, 1*, 182-190.