



Universiteit Utrecht

MASTER THESIS

**Associations between growing up in different family structures on
adolescents' mental health**



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Abstract

Non-intact families are consistently associated with poorer mental health outcomes for the child, compared to intact families. Data from the Dutch nationally-representative HBSC study is analysed, using ANOVA and multiple linear regressions, to investigate the differences between adolescents in intact families, one parent families and stepparent families in internalizing and externalizing problems. Different non-intact families were compared to intact families, with emotional and conduct problems as the outcome variables. Overall, adolescents from non-intact families reported poorer mental health than in intact families, except for the father and stepparent families. However, the amount of variance explained by the different non-intact families was relatively low. Moreover, gender differences were found, showing that the effects of non-intact families are stronger for girls' internalizing problems, whereas in mother and stepparent families, effects on externalizing problems were stronger for boys. Family support partly explained the association between all non-intact families and mental health, except for father and stepparent families. Intervention should focus on family support, as lower levels of support was linked to poorer outcomes. This study revealed that there might be better explanations for the differences in mental health outcomes, suggesting that further research to underlying mechanisms should be performed.

Keywords: Family structure, intact families, non-intact families, internalizing problems, externalizing problems, family support, gender, emotional problems, conduct problems.

Samenvatting

Niet-intacte gezinnen worden consequent geassocieerd met negatieve gevolgen voor de geestelijke gezondheid van het kind, in vergelijking met intacte gezinnen. Data van het Nederlandse nationaal representatieve HBSC-onderzoek is geanalyseerd door middel van ANOVA en meerdere lineaire regressies, om verschillen tussen adolescenten in intacte gezinnen, eenoudergezinnen en stiefoudergezinnen in mate van internaliserend en externaliserend probleemgedrag te onderzoeken. Verschillende niet-intacte families zijn vergeleken met intacte families, met emotionele en gedragsproblemen als uitkomstvariabelen. Over het algemeen rapporteerden adolescenten uit niet-intacte gezinnen een slechtere mentale gezondheid dan in intacte gezinnen, behalve voor de vader- en stiefoudergezinnen. De variantie verklaard door de verschillende niet-intacte families was echter relatief laag. Bovendien werden gender-verschillen gevonden, welke aantoonde dat de effecten van niet-intacte gezinnen sterker zijn voor de internaliserende problemen van meisjes, terwijl in moeder- en stiefoudergezinnen de effecten op externaliserende problemen sterker waren voor jongens. Gezinssteun verklaarde gedeeltelijk het verband tussen alle niet-intacte gezinnen en geestelijke gezondheid, behalve voor vader en stiefoudergezinnen. Interventies moeten zich richten op gezinssteun, aangezien minder steun geassocieerd werd met slechtere geestelijke gezondheid. Uit deze studie bleek verder dat er mogelijk betere verklaringen zijn voor de verschillende uitkomsten in geestelijke gezondheid, suggererend dat verder onderzoek naar onderliggende mechanismen moet worden uitgevoerd.

Kernwoorden: Gezinsstructuur, intacte gezinnen, niet-intacte gezinnen, internaliserend probleemgedrag, externaliserend probleemgedrag, gezinssteun, gender, emotionele problemen, gedragsproblemen.

1.0 Introduction

In recent decades, family structures and adolescents' living arrangements have become increasingly diverse in the Netherlands. In the twentieth century, divorce rates increased tenfold, and new forms of living arrangements have emerged (CBS, 2011). Traditional family structures have become less common, while the amount of composed and single-parent families have increased. More specifically, in 2019, in the Netherlands, almost one out of six children grew up in a single-parent household, more than fifty percent of children from divorced parents sooner or later dealt with a stepparent, and almost ten percent of all families was a composed or stepfamily (CBS, 2017; CBS, 2019; NJI, 2014).

One essential purpose of families is to develop and promote the wellbeing of children. Family structure is an important marker of families' capacity to reach achieve this through the provision of money, time and emotional support. Intact, two-parent families, can often invest more time and support in the child, compared to single-parent households (Cavanagh & Fomby, 2019). Consequently, studies continuously show that children of separated parents score lower on a variety of emotional, behavioural, social, and health outcomes than children in intact families (Amato, 2005; Amato, 2010; Raley & Sweeney, 2020). Multiple underlying mechanisms may help explain these differences. One explanation for the poorer outcome is that non-intact families often have fewer resources available, especially single-mothers (Waldfogel, 2010). Research shows that when one parent lives away from the child(ren), investment of money and time often diminishes. Consequently, children from single-parents are less likely to experience parental support than children in two-parent families (Carlson, 2006). Moreover, Garnefski, and Diekstra (1997) also included the impact of stepparent families in their study, and found that adolescents from single-parent and stepparent families reported more emotional problems than adolescents from intact families. In contrast to single parents, the argument of fewer resources does not apply here. Identifying mechanisms that may help explain the link between non-intact families and adolescents' mental health outcomes is important for understanding to what extent family structure affects these outcomes. This may contribute to the development of policies to help remedy the negative effects.

This study focuses on differences in mental health outcomes between intact and non-intact families, and contributes to existing literature by aiming to provide more insights into the distinction between the different non-intact families (single-mother, single-father, father and stepparent, and mother and stepparent families). It is hypothesized that (H1A) *adolescents growing up in intact families will show lower levels of internalizing and externalizing problems compared to those in non-intact families*, and that (H1B) *differences will be found between the*

several non-intact family structures, expecting more problems for adolescents growing up in single-parent families. Moreover, mechanisms are examined that might help explain the link between family structure and adolescents' mental health, including the mediating effect of family support, and the moderating role of gender.

1.1 Gender differences in the effect of family structure on adolescents' mental health

International studies show gender differences in coping styles between adolescents in reaction to certain life events. Most studies indicate that women show higher levels of internalizing emotions, and that social stressors have a larger impact on their the emotional wellbeing, compared to men. Men, on the other hand, show more externalizing problems, and have a more rational coping style, when living in similar family structures (Chaplin & Aldao, 2013; Matud, 2004; Rosenfield, 2000). Moreover, focusing on different families, Garnefski and Diekstra (1997) argue that girls living in stepfamilies show more emotional problems than boys in such families, and that boys from stepfamilies report having more emotional problems than boys from single-parent families.

This study examines possible differences in the effects of different non-intact families on the development of internalizing and externalizing problems between boys and girls. Based on the literature, it is hypothesized that *the impact of growing up in a non-intact family structure on levels of internalizing problems might be stronger for women than men, whereas men might develop more externalizing problems when growing up in a similar family structure* (H2).

1.2 Family support as an explanation for the family structure-mental health link

Family support includes ‘‘the affectionate qualities of parents associated with warmth, acceptance and involvement’’, and levels of the support a parent provides can be different for each family type (Collins & Laursen, 2004; Huver, Otten, De Vries & Engels, 2010). A single parent, for instance, may provide lower family support due to less available time to spend with the child, or more emotional stress resulting from single-parenthood, compared to two-parent families (Amato, 2005; Cooper, McLanahan, Meadows & Brooks-Gunn, 2009). However, an extensive body of research shows that the level of family support could greatly determine the adolescent's mental health. In line with this, studies show that low positive family support is associated with more depressive symptoms for the child, whereas higher levels of support lead to less depression and internalizing problems among children, whereas children raised by supporting parents report higher self-esteem and less depression and anxiety (Barrett & Turner, 2005; Buehler, 2020, Carlson, 2006). This hints to the importance of studying the differences

in family support between non-intact families, which potentially mediates the association between growing up in different non-intact families and adolescents' levels of internalizing and externalizing problems. Expected in that *family support explains the association between family structure and adolescents' mental health, with single parents providing lower levels of family support than intact families. Additionally, it is expected that these lower levels of support will lead to higher levels of problems among adolescents (H3).*

1.3 Current study

The research question posed in this study is ‘to what extent do adolescents growing up in intact and different non-intact family structures – single mother, single father, mother/father and stepparent – differ in internalizing and externalizing problems?’ Additionally, the moderating effect of gender and the mediating effect of family support are examined. The sub-questions addressed in this study are: A1) To what extent do adolescents growing up in intact families differ in internalizing and externalizing problems, compared to adolescents in different non-intact family structures (i.e., single-parent and stepfamilies)? A2) How do adolescents growing up in various non-intact family structures - single mother, single father, mother and stepparent, and father and stepparent - differ in internalizing and externalizing problems? B) How does the impact of growing up in non-intact families on internalizing and externalizing problems differ for boys and girls? C) To what extent does the level of family support mediate the effect of growing up in different non-intact families on adolescents' internalizing and externalizing problems? A visualisation of the research model is depicted in Figure 1.

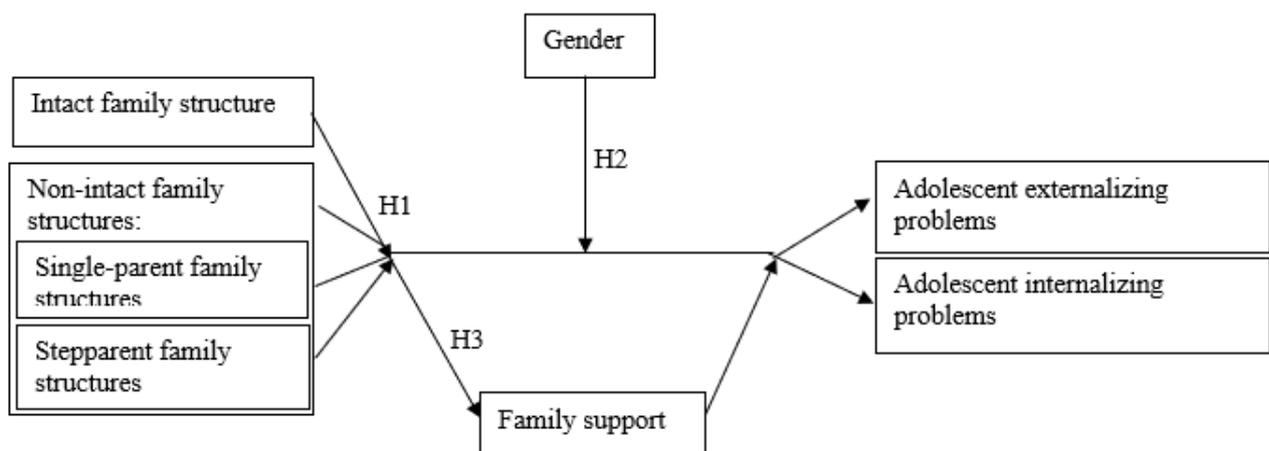


Figure 1. Visualisation of the research model and hypotheses

2.0 Method

2.1 Sample and participants

In this cross-sectional study the data gathered from participants of *the Health Behaviour in School-aged Children* survey is used. HBSC is a cross-national research on the health and wellbeing of adolescents across a large number of countries in Europe and North America (Weinberg et al., 2019). The HBSC survey instrument is an internationally standardized questionnaire, conducted every four years. The present study uses data collected in October and November of the year 2017, existing of anonymously administered, digital self-completion questionnaires. The sample contains data from 8980 students in primary and secondary school, varying in age between 11 and 16 ($M = 13.6$, $SD = 1.9$). A two-stage random cluster sampling procedure was used, consisting of (1) a random sample of schools in the Netherlands, stratified based on urbanisation level, and (2) a list of all classes from each participating school, with 2-5 classes selected randomly. To ensure national representative survey weights were applied to the data, all students were drawn as a single cluster within the selected classes. The response rate of the schools was 37%, and for the adolescents above 92% (Weinberg et al., 2019).

The distribution of respondents living in each family type is as follows: 'intact' ($n = 6893$), 'single mom' ($n = 1055$), 'single dad' ($n = 210$), 'mom and stepparent' ($n = 549$), 'dad and stepparent' ($n = 122$). The gender-ratio comes down to 48.9% boys ($n = 4387$) and 51.1% girls ($n = 4593$) in the total sample. Within the groups of family structures, it is quite evenly spread, with slightly more girls in single mother families (54.3%) and mother and stepparent families (52.8%), and slightly more boys live with a single father (52.9%) and a father and stepparent (50.8%).

2.2 Instruments

The two dependent variables in this study are *emotional problems* and *conduct problems*, here mostly referred to as internalizing and externalizing problems. For these variables, the Strengths and Difficulties Questionnaire (SDQ) was used. The SDQ is an emotional and behavioural screening questionnaire for children and young people. In this study, two subscales of the SDQ were used: adolescent's emotional wellbeing and conduct problems. Answering categories are presented on a 3-point Likert scale, ranging from 1= not true; 2 = slightly true; 3 = very true. Examples of items include: "I am easily distracted, I experience trouble concentrating" and "I am often sad, feeling down or in tears". Many empirical studies in a large variety of countries

have presented evidence regarding the reliability and validity of the SDQ, making it a trustworthy source to use (Duihof et al., 2015).

Family structure is the independent variable in this study, and is measured by the question ‘‘tick the box that describes the people that live in the house you are most of the time.’’ In the original question, a list of people one could live with was provided, including the following answering categories: 1 = mother; 2 = father; 3 = stepmother; 4 = stepfather; 5 = brothers and/or sisters; 6 = foster-family; 7 = other. Based on this data, categories of family compositions have been created and used for this study.

The mediating effect of *family support* is measured through items based on the Multidimensional Scale of Perceived Social Support. The MSPSS is a psychometrically sound instrument with demonstrated adequate internal and test-retest reliability, as well as strong factorial validity and moderate construct validity. The instrument consists of a self-explanatory 12-item inventory (Zimet et al., 1988). The data derived from the questionnaire in this study consists of four items about perceived family support. Examples of these items include ‘‘at home, I receive the emotional help and support I need’’ and ‘‘at home, I can talk about my problems.’’ The answering categories are measured on a 7-point Likert scale, ranging from 1 = strongly disagree to 7 = strongly agree. In this study, these four items are merged and recoded into one variable representing the respondents' perceived family support.

The moderating effect of *gender* is measured by the question ‘‘are you a boy or a girl?’’, where 1 = boy and 2 = girl.

2.3 Data-analysis

Before testing the hypotheses, initial data checks were performed. First, was checked if all the assumptions for the linear regression were met. The Durbin-Watson test showed that the data meets the assumption of independence of observations, with a Durbin-Watson statistic of 1.619 for internalizing problems ($M = 2.87$, $SD = 2.42$) and 1.688 for externalizing problems ($M = 2.07$, $SD = 1.65$). The homoscedasticity and multicollinearity ($VIF < .2$) assumptions were also met. The normality tests showed that the residuals were not entirely normally distributed, as assessed by visual inspection of a normal probability plot. However, inspection of the Q-Q Plots indicated that the variables did not show extreme abnormality. Because all assumptions were met and the sample is of substantial size, was decided to continue with the linear regression and the alternative post-hoc test.

In the dataset some significant outliers were found. However, as the sample is of considerable size it can be assumed that the outliers will not affect the reliability of the

outcomes. Therefore, the outliers were not removed. Moreover, the ANOVA assumption checks showed that the homogeneity of variances assumption was violated, as assessed by Levene's test for equality of variances ($p = .00$ and $p = .01$). Because this assumption was violated, the results of the Welch ANOVA will be interpreted, using the Games-Howell post hoc test for the multiple comparisons.

To test the first hypothesis, an analysis of variance (ANOVA) was conducted to assess whether significant differences in emotional and conduct problems between intact and non-intact families exist, as well as differences between the various non-intact family structures. To identify if and where these exact differences occur, a Games-Howell post hoc test was performed. Second, the different effects of living in the various non-intact family structures on emotional and conduct problems were explored through multiple linear regression analyses, using dummy variables of all family structures. The intact family structure was used as the reference category, and multiple regressions followed alternating the dummy variables: single mother, single father, mother and stepparent, and father and stepparent. Next, a post hoc test was conducted, and all outcomes were compared to each other. Gender and age were used as control variables.

To test the second hypothesis, the moderating role of gender was measured using hierarchical multiple linear regression analysis, following procedures outlined by Field (2013). In step one of the regression model, the control variable of age was entered. For step two, dummy variables of the family structures were entered, with intact family as the reference category. In the third step, interaction terms with gender were included.

The third hypothesis was tested through a mediation analysis based on the method of Baron and Kenny (1986). This analysis involves four steps to assess whether all variables are independently significantly related to each other, to ultimately determine whether the association between the independent variable (X) still significantly predicts the dependent variable (Y) after controlling for the mediator (M), or whether this association gets stronger or weaker. After that, Sobel tests are performed to examine whether the effect of family structure on internalizing and externalizing problems has decreased after adding family support to the analysis. A visualisation of this method is depicted in Figure 2.

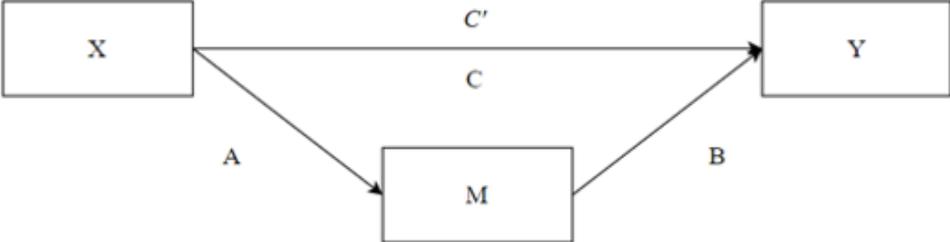


Figure 2. Visualisation of Baron and Kenny's method for mediation analysis. C' is the effect of the independent variable (X) on the dependent variable (Y), after controlling for the mediator (M).

3.0 Results

3.1 Descriptive statistics

Table 1 shows the correlation between the mediator (family support), moderator (gender), and the outcome variables (internalizing/emotional problems and externalizing/conduct problems). From the correlation, a negative significant relationship between family support and both emotional problems ($r = -.24, p < .01$) and conduct problems ($r = -.26, p < .01$) was found. Furthermore, a positive relationship between gender and emotional problems was found ($r = .31, p < .01$), and a (weak) negative relation between gender and conduct problems ($r = -.10, p < .01$). Both findings make sense and were expected.

Table 1
Means, standard deviations, and correlations with confidence intervals

Variable	<i>M</i>	<i>SD</i>	1	2	3
1. Family support	24.26	5.21			
2. Gender (1=boy, 2=girl)	1.51	0.50	-.01 [-.03, .02]		
3. Emotional problems	2.47	2.25	-.24** [-.26, -.22]	.31** [.29, .33]	
4. Conduct problems	1.84	1.49	-.26** [-.28, -.24]	-.10** [-.12, -.08]	.23** [.21, .25]

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. * indicates $p < .05$. ** indicates $p < .01$.

3.2 Differences in levels of problems between adolescents in different families

First, an analysis of variance (ANOVA) was conducted to compare the levels of emotional and conduct problems between adolescents in different family structures (intact, single mom, single dad, mother and stepparent, father and stepparent). The results are depicted in Table 2.

Table 2

Family structure and emotional and conduct problems

		<i>n</i>	<i>M</i>	<i>SD</i>	<i>SE</i>
Emotional problems	Intact	6850	2.36	2.19	.03
	Single mom	1050	2.76**	2.41	.07
	Single dad	210	2.97**	2.51	.17
	Mom and stepparent	547	2.95**	2.44	.10
	Dad and stepparent	122	2.80	2.28	.21
	Total	8779	2.47	2.25	.02
Conduct problems	Intact	6850	1.76	1.44	.02
	Single mom	1050	2.05**	1.61	.05
	Single dad	210	2.21**	1.60	.11
	Mom and stepparent	547	2.05**	1.67	.07
	Dad and stepparent	122	1.99	1.64	.15
	Total	8779	1.83	1.49	.02

Note. *M* represents mean, *SD* represents standard deviation, *n* represents the total number of observations in the sample, *SE* represents standard error, respectively. * indicates differences at $p < .05$ when compared to intact families, ** indicates differences at $p < .01$ when compared to intact families

The results show significant differences between non-intact families, compared to intact families. However, only minor differences were found between the non-intact families in levels of emotional and conduct problems. For emotional problems, there was a statistical significance between groups ($F(4, 8774) = 17,836, p=.00$). The Games Howell post hoc test revealed that the level of emotional problems was significantly higher in all non-intact family types, compared to an intact family. No significant differences were found between the non-intact families ($p>.05$). For conduct problems, also a significant difference between the groups was found ($F(4, 8774) = 16,003, p=.00$). Similar to the above mentioned results for emotional problems, the post hoc test indicated that adolescents from non-intact families show higher levels of conduct problems than adolescents from intact families, except for the father and stepparent-group. Again, no significant differences were found between the different non-intact families ($p>.05$). These findings partly support hypothesis H1A in which the expectation was formulated that adolescents from all non-intact families would show higher levels of emotional and conduct problems (i.e. internalizing and externalizing problems) than adolescents from intact families. However, growing up in a father and stepparent situation was not significantly associated with more conduct problems than in intact families.

Separately, the associations between the different non-intact families and emotional and conduct problems were analysed using a multiple linear regression (H1B). As mentioned before, the results of the ANOVA showed that no significant differences exist between the non-intact families and their levels of problems. However, significant differences were found between the non-intact families, compared to intact families. Therefore, in the regression analysis, the intact family structure was used as the reference category, and age was used as the control variable. The outcomes showed small size effects in the associations between the non-intact families and internalizing and externalizing problems.

For internalizing problems, adolescents in a mother and stepparent family showed the highest levels of problems compared to intact families ($B=.57$, $SE=.10$, $p<.01$), and those with a single mother showed the least emotional problems compared to intact families ($B=.37$, $SE=.07$, $p<.01$). For externalizing problems, adolescents living with a single father showed the highest levels of problems ($B=.47$, $SE=.10$, $p<.01$), whereas those in a single mother ($B=.29$, $SE=.07$, $p<.01$) and mother and stepparent household ($B=.29$, $SE=.07$, $p<.01$) showed similar lower levels of conduct problems, compared to intact families. But again, effect sizes are minor, which implies that these statements about differences can be considered as irrelevant. Interestingly, however, adolescents in a father and stepparent family did not significantly differ in levels of conduct problems compared to intact families ($B=.24$, $SE=.14$, $p>.05$). To answer the second part of the hypothesis (H1B), based on the results can be said that only minor differences exist between the non-intact families compared to intact families. The results indicate that all non-intact families have a slightly higher risk in developing emotional and conduct problems, when compared to adolescents in intact families, with one exception for adolescents in a father and stepparent family and their levels of conduct problems. The results of the regression analyses are described in Model 2 of Table 3 and Table 4.

3.3 Gender as a moderator in the family structure-mental health association

The moderating role of gender on the relation between family structure and internalizing and externalizing problems (H2) was tested by performing a hierarchical regression analysis (Field, 2013). In the analysis, the intact family structure was used as the reference category, and age was included as a covariate in the first step of the procedure. In the second step, all dummy variables for the different non-intact families were included. The third step included the interaction variables of gender and all non-intact family-dummy's.

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For internalizing problems, a significant interaction effect of gender was found for all of the non-intact family structures, indicating that the association between family structure and the level of emotional problems is significantly different for boys than girls. For externalizing problems, only the family structure of mother and stepparent ($\beta = -.10$, $SE = .13$, $p < .01$) was found significant, meaning that the effects of growing up with a mother and stepparent are different for boys than for girls. The results and specification of the associations of both analyses are depicted in model 3 of Table 3 and Table 4.

Table 3

Summary of Linear Regression Analysis for Variables Predicting Emotional Problems

Variable	Model 1			Model 2			Model 3		
	B	SE B	β	B	SE B	β	B	SE B	β
Age	.13**	.01	.11	.13**	.01	.11	.13**	.01	.11
Single mother				.37**	.07	.05	-2.28**	.22	-.33
Single father				.53**	.16	.04	-2.51**	.47	-.17
Mom and stepparent				.57**	.10	.06	-1.90**	.30	-.20
Dad and stepparent				.41*	.20	.02	-2.01**	.63	-.10
Single mother x gender							1.71**	.14	.40
Single father x gender							2.06**	.30	.22
Mom and stepparent x gender							1.61**	.19	.28
Dad and stepparent x gender							1.62**	.40	.13

Note. Intact family structure is the reference category. * $p < .05$, ** $p < .01$

Table 4

Summary of Linear Regression Analysis for Variables Predicting Conduct Problems

Variable	Model 1			Model 2			Model 3		
	B	SE B	β	B	SE B	β	B	SE B	β
Age	-.03**	.01	-.04	-.03**	.01	-.04	-.03**	.01	-.04
Single mother				.29**	.05	.06	.43**	.15	.09
Single father				.47**	.10	.05	1.05**	.32	.11
Mom and stepparent				.29**	.07	.05	.85**	.21	.14
Dad and stepparent				.24	.14	.02	.73	.42	.06
Single mother x gender							-.09	.09	-.03
Single father x gender							-.40	.21	-.06
Mom and stepparent x gender							-.36**	.13	-.10
Dad and stepparent x gender							-.33	.27	-.04

Note. Intact family structure is the reference category. * $p < .05$, ** $p < .01$

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Following these results, linear regression analyses were conducted for boys and girls separately, to examine how the effects of growing up in the non-intact families are different for both groups, compared to intact families. For emotional problems, because all family structures significantly interacted with gender, the results of all non-intact families can be interpreted. As hypothesized, it was found that the effects of growing up in all non-intact families on levels of emotional problems are stronger for girls than for boys. The coefficients of the analyses are depicted in Table 5.

Table 5
Differences in Emotional Problems between Boys and Girls from Different Family Structures

Variable	Boys			Girls		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Age	.01	.01	.01	.25**	.02	.20
Single mother	.11	.09	.02	.49**	.11	.07
Single father	.24	.18	.02	.86**	.24	.05
Mom and stepparent	.38**	.12	.05	.68**	.14	.07
Dad and stepparent	.27	.23	.02	.55	.31	.03

Note. Intact family structure is the reference category. * $p < .05$, ** $p < .01$.

For conduct problems, only the structure of mother and stepparent was found significantly interacting with gender. The results show that the effects of living in a mother and stepparent family on conduct problems are stronger for boys than for girls. Thus, both analyses support the second hypothesis of this study (H2). Regression coefficients are depicted in Table 6.

Table 6
Differences in Conduct Problems between Boys and Girls from Different Family Structures

Variable	Boys			Girls		
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>B</i>	<i>SE B</i>	β
Age	-.04**	.01	-.05	-.02*	.01	-.03
Single mother	.17*	.08	.03	.39**	.06	.09
Single father	.48**	.15	.05	.39**	.14	.04
Mom and stepparent	.31**	.10	.05	.27**	.09	.05
Dad and stepparent	.23	.20	.02	.21	.18	.02

Note. Intact family structure is the reference category. * $p < .05$, ** $p < .01$.

3.4 Family support as a mediator in the family structure-mental health association

A mediation analysis based on the method of Baron and Kenny (1986) was conducted to examine whether differences in the levels of family support between family structures could explain their effects on adolescents' levels of internalizing and externalizing problems. As indicated earlier, all non-intact family structures were found significantly different in adolescents' levels of problems compared to intact families, except for the father and stepparent family in externalizing problems ($p > .05$). In the analysis, the intact family structure was used as the reference category, and gender and parental socio-economic status as the control variables. After conducting the first step in the analysis, testing the main associations between family structure and internalizing and externalizing problems, controlled for gender and SES, the results showed that the relation between the father and stepparent structure and internalizing problems was no longer significant. Therefore, the results for this family structure aren't discussed in this section. All other main associations were still significant after controlling for these variables. Coefficients of the associations are depicted in Figure 3 and Figure 4 (path C). The paths and their characters are explained in the method section and Figure 2.

3.4.1 Family structure and levels of family support

After testing the main effects, the associations between the non-intact families and their levels of family support were analysed (path A). The biggest difference in levels of support compared to intact families was found for single fathers, which relatively provide the lowest levels of familial support ($B=-1.76$, $SE=.37$, $p<.01$). Thereafter, the structures of a single mother ($B=-.83$, $SE=.18$, $p<.01$) and a mother and stepparent ($B=-.79$, $SE=.23$, $p<.01$) provided approximately similar levels of support. These results are consistent with the expectation that intact- and stepfamilies would provide more family support than single parents.

3.4.2 Mediation via family support on internalizing problems

Next, it was tested if different levels of family support mediate the association between family structure and adolescents' emotional or internalizing problems. Path C' indicates the direct association between family structure and internalizing problems, after controlling for family support. The results showed that for the single mother structure the direct association decreased, and the relation was no longer significant ($B=.10$, $SE=.07$, $p>.01$). This indicates complete mediation. Thus, single mothers are associated with lower levels of family support, which is related to more internalizing problems among adolescents. The single father structure had a significantly smaller effect size on internalizing problems compared to the main effect, after

FAMILY STRUCTURE AND ADOLESCENTS' MENTAL HEALTH

controlling for the mediator ($B=.41, SE=.15, p<.01$), indicating a partial mediation via family support. The effect of living with a mother and stepparent on internalizing problems, controlled for family support, also had a significantly smaller size effect compared to the main effect ($B=.40, SE=.09, p<.01$), indicating partial mediation via family support on the association with the level of internalizing problems. Details of all regression coefficients (B's and Standard Errors between brackets) for internalizing problems are depicted in Figure 3.

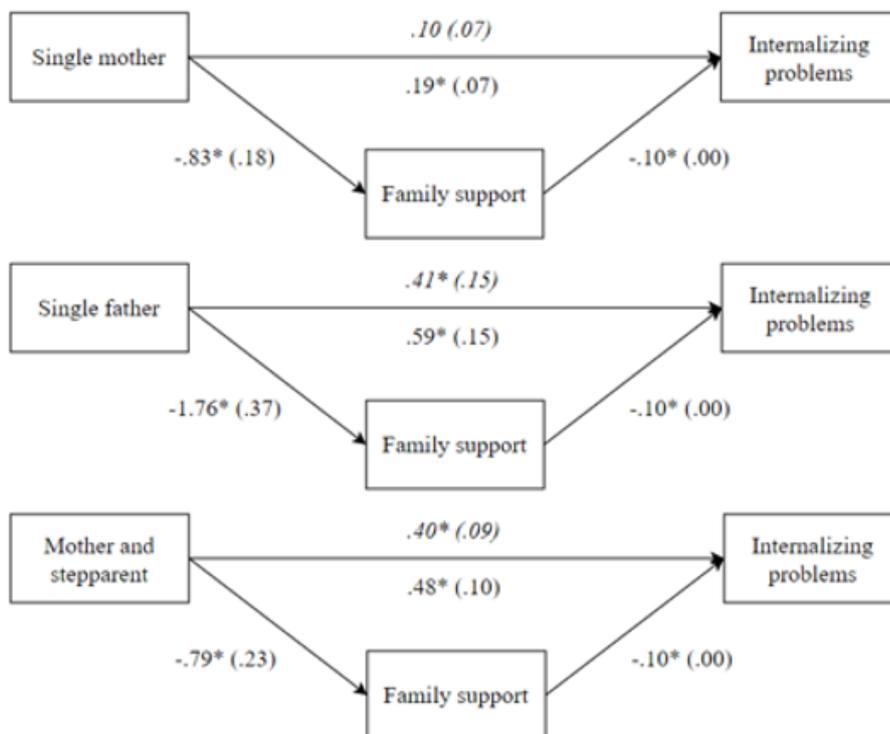


Figure 3. Regression coefficients for the association between different non-intact family structures and internalizing problems as mediated by family support. The regression coefficient between the family structure and internalizing problems, controlling for family support, is italic. * indicates $p < 0.01$

3.4.3 Mediation via family support on externalizing problems

A similar analysis was conducted to test whether different levels of family support mediate the association between family structure and adolescents' conduct or externalizing problems. After controlling for family support, the effect size of a single mother structure on externalizing problems significantly decreased ($B=.17$, $SE=.05$, $p<.01$), indicating partial mediation via family support. For the single father structure, the association with externalizing problems decreased and was no longer significant after controlling for family support, indicating complete mediation ($B=.20$, $SE=.11$, $p>.01$). A single father household is thus related to lower levels of family support, which is associated with higher levels of adolescents' externalizing problems. For the mother and stepparent, the size effect significantly decreased after controlling for the mediator ($B=-.17$, $SE=.06$, $p<.01$), indicating partial mediation via family support on externalizing problems.

Finally, Sobel tests were performed to determine whether the mediation effects were significant. All *p-values* were smaller than .01, indicating significant mediation effects for all non-intact structures, which is in line with the expectation (H3). Details are depicted in Figure 4.

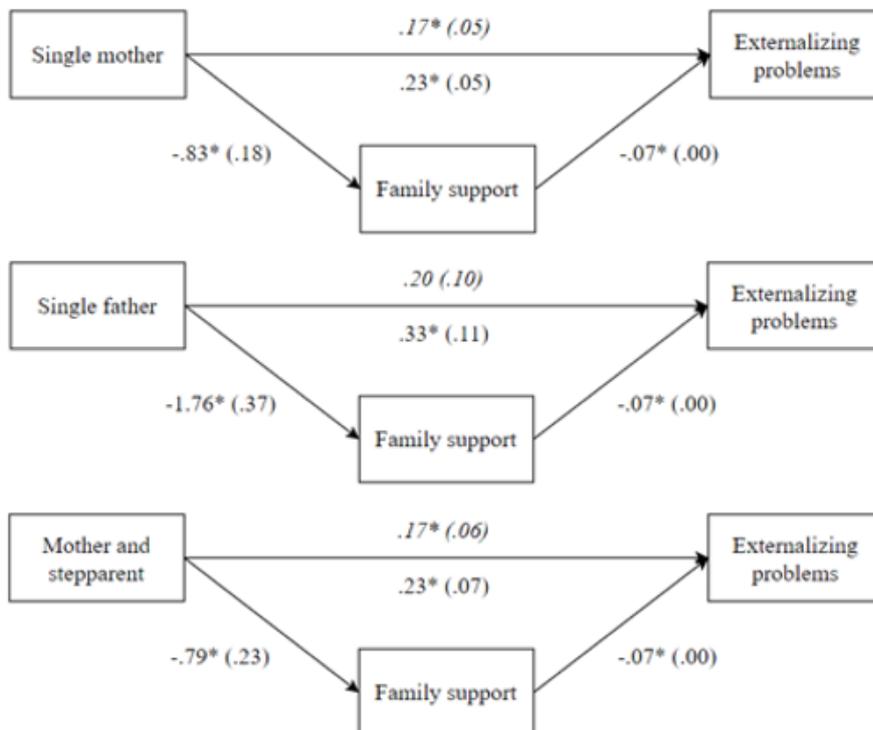


Figure 4. Regression coefficients for the association between different non-intact family structures and externalizing problems as mediated by level of family support. The regression coefficient between the family structures and externalizing problems, controlling for family support, is italic. * indicates $p < 0.01$

4.0 Discussion

This study investigated the potential differences in levels of internalizing and externalizing problems of adolescents living in either intact families, one parent families of a single mother or father, and stepparent families with biological mother or father. First of all, differences in the problem levels between adolescents from intact families and non-intact families were found, with the exclusion of adolescents in a father and stepparent family. Differences between non-intact families were too small to draw conclusions. Furthermore, gender differences in effects of family structure on mental health were found. The effects of all non-intact families on girls' internalizing problems were stronger than for boys, and, in mother and stepparent families, the effects on externalizing problems were stronger for boys than for girls. Furthermore, family support partly mediated the association between all non-intact families and the adolescents' levels of problems (except for that of the father and stepparent). Full mediation was found for single mothers, who provided less family support leading to more internalizing problems, and for single fathers, who provided the least family support compared to intact families, leading to more externalizing problems in adolescents.

More specifically, confirming hypothesis 1A, adolescents growing up in intact families show less internalizing and externalizing problems than those in non-intact families (Amato, 2005; Amato, 2010; Carlson, 2006; Cavanagh & Fomby, 2019; Garnefski & Diekstra, 1997; Raley & Sweeney, 2020; Waldfogel, 2010). The only exceptions are adolescents living in a father or stepparent family, as they do not show different levels of externalizing problems compared to intact families. Furthermore, it was hypothesized (1B) that differences would exist between the various non-intact families, and that growing up in single parent households would be most problematic. The results showed no significant differences between the groups. However, some (careful) statements can be made comparing non-intact families to intact families. Per expectation, for example, adolescents in a single father family experienced the highest levels of problems when compared to intact families (Carlson, 2006; Waldfogel, 2010). However, the differences between non-intact families were too small to draw conclusions.

Moreover, hypothesis 2 expected that gender would moderate the association between family structure and levels of adolescents' problems. The results showed that gender indeed moderates the association between all non-intact family structures and internalizing problems, with effects of growing up in a non-intact family on internalizing problems being stronger for girls than boys. For externalizing problems, gender only moderated the structure of mother and stepparent, indicating that the effects of growing up in this family type on externalizing problems are stronger for boys than for girls. These results support the expectation that the

effects of family structure on internalizing problems would be stronger for girls, and on externalizing problems stronger for boys (Chaplin & Aldao, 2013; Garnefski & Diekstra, 1997; Matud, 2004; Rosenfield, 2000).

Third, it was hypothesized that family support would mediate the relationship between living in a non-intact family and the adolescents' mental health, with single parents providing less support than the other families, and less family support leading to lower mental health among adolescents' (H3) (Barrett & Turner, 2005; Buehler, 2020; Collins & Laursen, 2004; Huver, Otten, De Vries & Engels, 2010). Family support indeed partially explained differences in effects of all non-intact family structures on adolescents' problems, except for the structure of the father and stepparent. It fully mediated the association between living with a single mother and internalizing problems, and living with a single father and externalizing problems. This indicates that single mothers are associated with less family support, leading to more internalizing problems, and that growing up with a single father, who provided the least family support compared to intact families, leads to more externalizing problems. Interventions should thus focus on supporting family support, as more support is linked to better outcomes.

Several researches point to a variety of mechanisms that likely explain the links between family structure and adolescents' mental health (Waldfogel, 2010). Potential explanations for the findings in this research, for instance for that the structure of father and stepparent did not differ from intact families in adolescents' mental health outcomes, may be found in other mechanisms than those examined in this study. The existence of other factors that may be better explanations for the links between family structure and adolescents' mental health, for example parental SES, could be a logic possibility. This may be higher in father and stepparent families compared to the other non-intact families, and single parents generally have lower income (Carlson, 2006; Waldfogel, 2010). However, these are just speculations, and more research is suggested to examine what mechanisms may play a role in the cause of these differences.

This research comes with a few important limitations. First of all, no distinction has been made between adolescents in co-parenting situations, meaning that some respondents who reported living in a certain non-intact family could be living with another parent part of their time. This could influence factors such as time, money, and support, which in turn could lead to different mental health outcomes. It is therefore suggested for future research to take this group into consideration. Moreover, the parents' socio-economic status in this study was used as control variable, but might play a more important role in the family structure-mental health association, as previously argued. This too is recommended to include in future research to this topic.

4.1 Conclusion

Despite the overall finding of significant differences between adolescents from intact and non-intact families in terms of mental health, it is important to realize that the amount of variance explained by family structure is relatively low. It might very well be that a multitude of other mechanisms are better explanations for differences in adolescents' mental health outcomes than family composition *per se*. This study found family support as an important explanation, and gender differences in problem outcomes were found. The exploratory character of this research asks for replication, but the results already mean an important contribution to the understanding of differences in mental health outcomes between adolescents in different family structures.

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Appendix 1: Igitur form

Information about your thesis

Please save this form, modify it and e-mail it to your supervisor together with the digital final version of your thesis. For further questions see: <http://studion.fss.uu.nl/helpdesk/student/scrol>



Student nummer:	6863000
Initials & prefixes:	S.O.S.
Family name:	Leegwater
Master:	Youth Studies

Begeleider

Name supervisor/assesor: *	Gonneke Stevens
Name 2th assesor:	Margot Peeters

Scriptie

Title thesis: *	Associations between growing up in different family structures on adolescents' mental health
Language thesis: *	English
Abstract:	Non-intact families are consistently associated with poorer mental health outcomes for the child, compared to intact families. Data from the Dutch nationally-representative HBSC study is analysed, using ANOVA and multiple linear regressions, to investigate the differences between adolescents in intact families, one parent families and stepparent families in internalizing and externalizing problems. Different non-intact families were compared to intact families, with emotional and conduct problems as the outcome variables. Overall, adolescents from non-intact families reported poorer mental health than in intact families, except for the father and stepparent families. However, the amount of variance explained by the different non-intact families was relatively low. Moreover, gender differences were found, showing that the effects of non-intact families are stronger for girls' internalizing problems, whereas in mother and stepparent families, effects on externalizing problems were stronger for boys. Family support partly explained the association between all non-intact families and mental health, except for father and stepparent families. Intervention should focus on family support, as lower levels of support was linked to poorer outcomes. This study revealed that there might be better explanations for the differences in mental health outcomes, suggesting that further research to underlying mechanisms should be performed.
Key words: (seperated by ;)	Family structure; intact families; non-intact families; internalizing problems; externalizing problems; family support; gender; emotional problems; conduct problems.
Make public: *	No
Make public after date:	July 1st, 2020

Ingevuld op: * 15 juni 2020

Door: * Sacha Leegwater

* = Obligated to fill in

Appendix 2: Form research activities

Research Activities	Total number of Hours	Signature YS staff
Digital Family Project Transcribing	20 hours for transcribing 5 interviews	
LEF program Transcribing	5 hours transcript R3	
Digital Family Project recruiting families to participate	4 hours per family: 24u Nienke Beunk Jessica Boersma Wieke Baris Christine Valdu Lies van Gelder Willem Verheijen	
YOUth got talent Respondenten werven Interviews transcribing	Werven: 1 hour Transcriberen: 5 hours	
Smartphone modules doorlopen en beoordelen, mening geven (Regina)	5 hours	
Total	60 hours	

Appendix 1: SPSS-syntax

* Encoding: UTF-8.

```
DATASET ACTIVATE DataSet1.  
FREQUENCIES VARIABLES=gezinB  
  /ORDER=ANALYSIS.
```

*exacte leeftijd gemiddelde berekenen

```
DESCRIPTIVES VARIABLES=age  
  /STATISTICS=MEAN STDDEV MIN MAX.
```

*geslacht percentages en grafiek

```
FREQUENCIES VARIABLES=v2  
  /BARCHART PERCENT  
  /ORDER=ANALYSIS.
```

```
DESCRIPTIVES VARIABLES=gezinA gezinB vollgezin v2 v6_1 v6_2 v6_3 v6_4 v6_5 v6_6  
v6_7 v7 v8_1 v8_2  
  v8_3 v8_4 v8_5 v8_6 v55_4 FAS_III FAS sdqem1 sdqcon1 sdqtot1 sdqem2 sdqcon2 sdqtot2  
sdqem3 sdqcon3  
  sdqtot3 v38b v38a v38c v38d  
  /STATISTICS=MEAN STDDEV MIN MAX.
```

CROSSTABS

```
/TABLES=gezinA BY sdqem1  
/FORMAT=AVALUE TABLES  
/CELLS=COUNT ROW  
/COUNT ROUND CELL.
```

```
RECODE gezinA (1=0) (ELSE=1) INTO Dummy_gezin.
```

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VARIABLE LABELS Dummy_gezin 'Dummy_gezin'.

EXECUTE.

DESCRIPTIVES VARIABLES=Dummy_gezin

/STATISTICS=MEAN STDDEV MIN MAX.

T-TEST

/TESTVAL=0

/MISSING=ANALYSIS

/VARIABLES=Dummy_gezin sdqem3

/CRITERIA=CI(.95).

CROSSTABS

/TABLES=Dummy_gezin BY sdqem2

/FORMAT=AVALUE TABLES

/CELLS=COUNT ROW

/COUNT ROUND CELL.

CROSSTABS

/TABLES=sdqem2 BY Dummy_gezin

/FORMAT=AVALUE TABLES

/CELLS=COUNT ROW

/COUNT ROUND CELL.

new variable for familysupport

DATASET ACTIVATE DataSet1.

COMPUTE Familysupport=SUM(v38a,v38b,v38c,v38d).

EXECUTE.

gezinintact dummy, 1 = intact en 0 = rest is nonintact

RECODE gezinA (1=1) (2 thru 6=0) INTO Intactgezin.

VARIABLE LABELS Intactgezin 'Intactgezin'.

FAMILY STRUCTURE AND ADOLESCENTS' MENTAL HEALTH

EXECUTE.

REGRESSION

```
/MISSING LISTWISE  
/STATISTICS COEFF OUTS R ANOVA  
/CRITERIA=PIN(.05) POUT(.10)  
/NOORIGIN  
/DEPENDENT sdqcon1  
/METHOD=ENTER Intactgezin.
```

REGRESSION

```
/MISSING LISTWISE  
/STATISTICS COEFF OUTS R ANOVA  
/CRITERIA=PIN(.05) POUT(.10)  
/NOORIGIN  
/DEPENDENT sdqem1  
/METHOD=ENTER Intactgezin.
```

**correlation crosstabs to check if significant*

CORRELATIONS

```
/VARIABLES=gezinAgoed FAS Familysupport v2 sdqem1 sdqcon1  
/PRINT=TWOTAIL NOSIG  
/MISSING=PAIRWISE.
```

dummiesgezinsstructuur

```
RECODE gezinA (3=1) (ELSE=0) INTO alleenstvader.
```

```
VARIABLE LABELS alleenstvader 'alleenstvader'.
```

EXECUTE.

```
RECODE gezinA (4=1) (ELSE=0) INTO moeder.stiefpap.
```

```
VARIABLE LABELS moeder.stiefpap 'moeder.stiefpap'.
```

EXECUTE.

FAMILY STRUCTURE AND ADOLESCENTS' MENTAL HEALTH

```
RECODE gezinA (5=1) (ELSE=0) INTO vader.stiefmam.  
VARIABLE LABELS vader.stiefmam 'vader.stiefmam'.  
EXECUTE.
```

```
RECODE gezinA (2=1) (ELSE=0) INTO alleenstmoeder.  
VARIABLE LABELS alleenstmoeder 'alleenstmoeder'.  
EXECUTE.
```

```
**descriptives all variables**
```

```
DESCRIPTIVES VARIABLES=Familysupport lft gezinA v2 FAS sdqem1 sdqcon1  
/STATISTICS=MEAN STDDEV.
```

```
DESCRIPTIVES VARIABLES=Familysupport lft gezinA v2 FAS sdqem1 sdqcon1  
/STATISTICS=MEAN STDDEV.
```

```
**crosstabs gender fam struct**
```

```
CROSSTABS  
/TABLES=v2 BY GezinAgoed  
/FORMAT=AVALUE TABLES  
/CELLS=COUNT COLUMN  
/COUNT ROUND CELL.
```

```
**descriptive frequencies all variables**
```

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FREQUENCIES VARIABLES=lft gezinA v2 FAS sdqem1 sdqcon1 Familysupport  
/STATISTICS=STDDEV MEAN  
/ORDER=ANALYSIS.
```

```
**testing assumptions: checking normality and outliers of dependent variables**
```

```
EXAMINE VARIABLES=sdqem1 sdqcon1
```

FAMILY STRUCTURE AND ADOLESCENTS' MENTAL HEALTH

```
/PLOT BOXPLOT NPLOT  
/COMPARE GROUPS  
/STATISTICS DESCRIPTIVES EXTREME  
/CINTERVAL 95  
/MISSING LISTWISE  
/NOTOTAL.
```

** Multiple lineaire regressie en assumpties checken **

```
FREQUENCIES  VARIABLES=FAS  Intactgezin  alleenstmoeder  alleenstvader  
moeder.stiefpap vader.stiefmam Familysupport sdqem1
```

```
DESCRIPTIVES  VARIABLES=FAS  Intactgezin  alleenstmoeder  alleenstvader  
moeder.stiefpap vader.stiefmam Familysupport sdqem1  
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```

regression analysis

REGRESSION

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/NOORIGIN  
/DEPENDENT sdqem1  
/METHOD=ENTER  alleenstmoeder alleenstvader moeder.stiefpap vader.stiefmam v2 FAS  
Familysupport
```

*Vif en Tolerance:

REGRESSION

```
/DESCRIPTIVES MEAN STDDEV CORR SIG N  
/MISSING LISTWISE  
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL  
/CRITERIA=PIN(.05) POUT(.10)
```

FAMILY STRUCTURE AND ADOLESCENTS' MENTAL HEALTH

/NOORIGIN

/DEPENDENT sdqcon1

/METHOD=ENTER FAS alleenstmoeder alleenstvader moeder.stiefpap vader.stiefmam
Familysupport

*Durbin Watson test (voor onafhankelijke residuen):

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT sdqcon1

/METHOD=ENTER Intactgezin alleenstmoeder alleenstvader moeder.stiefpap
vader.stiefmam

/SCATTERPLOT=(*ZRESID ,*ZPRED)

/RESIDUALS DURBIN

/SAVE COOK ZRESID SRESID.

*Lineariteit, homoscedasticiteit en uitbijters:

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT sdqem1

/METHOD=ENTER FAS Intactgezin alleenstmoeder alleenstvader moeder.stiefpap
vader.stiefmam Familysupport

/SCATTERPLOT=(*ZRESID ,*ZPRED).

*Plots voor normal verdeelde residue:

FAMILY STRUCTURE AND ADOLESCENTS' MENTAL HEALTH

REGRESSION

```
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT sdqem1
/METHOD=ENTER FAS Intactgezin alleenstmoeder alleenstvader moeder.stiefpap
vader.stiefmam Familysupport
/SCATTERPLOT=(*ZRESID ,*ZPRED)
/RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID).
```

*Shapiro wilk test voor normal verdeelde residue, stap 1:

REGRESSION

```
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT sdqem1
/METHOD=ENTER alleenstmoeder alleenstvader moeder.stiefpap vader.stiefmam
/SCATTERPLOT=(*ZRESID ,*ZPRED)
/RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID)
/SAVE ZRESID SRESID.
```

*Shapiro wilk voor normaal verdeelde resiuden (stap 2)

```
EXAMINE VARIABLES=ZRE_1 SRE_1
/PLOT BOXPLOT STEMLEAF NPLOT
/COMPARE GROUPS
/STATISTICS DESCRIPTIVES
/CINTERVAL 95
/MISSING LISTWISE
/NOTOTAL.
```

FAMILY STRUCTURE AND ADOLESCENTS' MENTAL HEALTH

*Uitbijters in spss, casewise diagnostics:

REGRESSION

```
/MISSING LISTWISE  
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL  
/CRITERIA=PIN(.05) POUT(.10)  
/NOORIGIN  
/DEPENDENT sdqem1  
/METHOD=ENTER FAS Intactgezin alleenstmoeder alleenstvader moeder.stiefpap  
vader.stiefmam Familysupport  
/SCATTERPLOT=(*ZRESID ,*ZPRED)  
/CASEWISE PLOT(ZRESID) OUTLIERS(3).
```

*Case wise diagnostics:

REGRESSION

```
/DESCRIPTIVES MEAN STDDEV CORR SIG N  
/MISSING LISTWISE  
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP  
/CRITERIA=PIN(.05) POUT(.10)  
/NOORIGIN  
/DEPENDENT sdqem1  
/METHOD=ENTER FAS Intactgezin alleenstmoeder alleenstvader moeder.stiefpap  
vader.stiefmam Familysupport  
/SCATTERPLOT=(*ZRESID ,*ZPRED)  
/RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID)  
/CASEWISE PLOT(ZRESID) OUTLIERS(3).
```

*Invloedrijke cases in SPSS Cookd's D

REGRESSION

```
/MISSING LISTWISE  
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL
```

FAMILY STRUCTURE AND ADOLESCENTS' MENTAL HEALTH

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT sdqem1

/METHOD=ENTER FAS Intactgezin alleenstmoeder alleenstvader moeder.stiefpap
vader.stiefmam Familysupport

/SCATTERPLOT=(*ZRESID ,*ZPRED)

/CASEWISE PLOT(ZRESID) OUTLIERS(3)

/SAVE COOK ZRESID SRESID.

****Gezin eerste huis zonder ANDERS****

IF (gezinA < 6) GezinAgoed=gezinA.

EXECUTE.

DESCRIPTIVES VARIABLES=GezinAgoed

/STATISTICS=MEAN STDDEV RANGE MIN MAX.

FREQUENCIES VARIABLES=GezinAgoed

/BARHART FREQ

/ORDER=ANALYSIS.

****ANOVA ***

DATASET ACTIVATE DataSet1.

ONEWAY sdqcon1 BY GezinAgoed

/STATISTICS DESCRIPTIVES HOMOGENEITY WELCH

/PLOT MEANS

/MISSING ANALYSIS

/POSTHOC=GH ALPHA(0.05).

****lineaire regressies dummies fam structures****

REGRESSION

/MISSING LISTWISE

FAMILY STRUCTURE AND ADOLESCENTS' MENTAL HEALTH

```
/STATISTICS COEFF OUTS R ANOVA  
/CRITERIA=PIN(.05) POUT(.10)  
/NOORIGIN  
/DEPENDENT sdqcon1  
/METHOD=ENTER lft alleenstmoeder alleenstvader moeder.stiefpap vader.stiefmam.
```

****crosstabs gezinsstructuur en gender****

CROSSTABS

```
/TABLES=v2 BY GezinAgoed  
/FORMAT=AVALUE TABLES  
/CELLS=COUNT  
/COUNT ROUND CELL.
```

****mediator fam support Baron and Kenny****

****path c****

REGRESSION

```
/MISSING LISTWISE  
/STATISTICS COEFF OUTS R ANOVA  
/CRITERIA=PIN(.05) POUT(.10)  
/NOORIGIN  
/DEPENDENT sdqem1  
/METHOD=ENTER v2 FAS vader.stiefmam.
```

****path a****

REGRESSION

```
/MISSING LISTWISE  
/STATISTICS COEFF OUTS R ANOVA  
/CRITERIA=PIN(.05) POUT(.10)  
/NOORIGIN
```

FAMILY STRUCTURE AND ADOLESCENTS' MENTAL HEALTH

/DEPENDENT Familysupport

/METHOD=ENTER v2 FAS vader.stiefmam.

**path b and c' **

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT sdqcon1

/METHOD=ENTER Familysupport v2 FAS vader.stiefmam.

moderation gender

IF (gezinA < 6) intactxgender=Intactgezin * v2.

EXECUTE.

IF (gezinA < 6) singlemomxgender=alleenstmoeder * v2.

EXECUTE.

IF (gezinA < 6) singledadxgender=alleenstvader * v2.

EXECUTE.

IF (gezinA < 6) momstepxgender=moeder.stiefpap * v2.

EXECUTE.

IF (gezinA < 6) dadstepxgender=vader.stiefmam * v2.

EXECUTE.

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

FAMILY STRUCTURE AND ADOLESCENTS' MENTAL HEALTH

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT sdqcon1

/METHOD=ENTER lft Familysupport FAS

/METHOD=ENTER alleenstmoeder alleenstvader moeder.stiefpap vader.stiefmam

/METHOD=ENTER singlemomxgender singledadxgender momstepxgender dadstepxgender.

EXECUTE.