The influence of parental socioeconomic status on the emotional well-being of their children

Looking at differences between household formation and high or low components of SES

Luna van der Weij
S-3212068
Human Geography and Urban and Regional Planning
Bachelor Thesis on Healthy Ageing
Supervised by Tobias Vogt
Study year 2018/2019
Faculty of Spatial Science
University of Groningen

Abstract: In recent decades household formations have changed. Divorce rates are rising, and children are increasingly living with a single parent or a parent with a new partner. In the following research paper, the differences in the emotional well-being of children living in different household formation will be discussed. Furthermore, the influence of socioeconomic status (SES) of the family on the emotional well-being of their children is the central topic. Additionally, the research will also focus on the differences in high and low SES of mothers and fathers on the emotional well-being of their children. The central question is: *How does the socioeconomic status of different household formations influence the emotional well-being of a child?*. This question is answered by using the existing database of KiGGS. The main findings are: children living with both parents have significantly higher emotional well-being than children living with only their mother or a single parent and a partner. However, children living with only their father did not have significantly lower emotional well-being than children living with both parents. Furthermore, the educational level and occupation of the parents play a less important role than expected from the literature. Only children with fathers educated at the level of 'Lehre' or 'Berufsschule' have significantly different emotional well-being than children with fathers educated at university level. This suggests that household formation plays an important part in determining the emotional well-being of a child and the SES of the parents plays a less important role.

Keywords: Socioeconomic Status, emotional well-being, household formation

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1 Introduction

1.1 Background

A person has no influence on the environment he or she grows up in. The family in which a child grows up, however, has a lot of influence on their development. Several characteristics of the family influence the emotional well-being of a child. This paper will focus on the influence of socioeconomic status of different household compositions. Emotional well-being is a very important issue nowadays. The UNICEF strategic plan of 2018-2021 (United Nations Children's Fund, 2018), can be linked to increasing the emotional well-being of children. The goals are to increase the number of children that go to school, protect them against violence and exploitation, make sure that every child lives in a clean and safe environment and to make sure every child has an equitable chance in life.

Nowadays roughly 40% of first marriages end in divorce. Up to 75% of people who end their first marriage will remarry, and the divorce rate of second marriages is even higher than first marriages. Furthermore, for most of these people, the transition out of marriage constitutes significant life stress (Sbarra, 2015). With different family formations becoming more common, it is interesting to see the effect of these formations on the emotional well-being of children.

If people are aware of the influence of SES on the emotional well-being of children, this can give great insight into the cognitive development of children and help explain certain behavior. These insights can perhaps lead to better psychological help for these children and a better understanding of their behavior. There is some research about the influence of living with a single parent or both parents. However, little is known about the differences in the impact of SES of the mother and the father. It is important to be aware that emotional well-being is not only influenced by SES, but also by other factors like the age of the parents (Card & Wise, 1978), the number of siblings in the household (Gene, 2004) and the presence of a divorce (Hashemi & Homayuni, 2017). Not all researchers agree on the primary cause of low emotional well-being. Kiernan and Mensah (2008) found a role for both maternal depression and economic resources when explaining the lower emotional well-being of children from separated families. On the other hand, Turunen (2013) found in his research that parental involvement explained part of the lower emotional well-being of children with separated parents, but economic resources did not. Thus, it is very interesting to see what kind of information the database of KiGGS will provide, and hence see if SES has such a big influence as some research has shown, but others did not. KiGGS is a long-term study conducted by the Robert Koch Institute (RKI) on the health of children and adolescents in Germany. The children and adolescents of the first KiGGS study are repeatedly invited, and they continue to be monitored right into their adulthood.

Socioeconomic status (SES) is a broadly studied subject, that consists of three major components: family income, parental education, and occupational status. Brooks-Gunn and Duncan (1997) argue that high SES families can afford their children a broad spectrum of services, goods, parental actions, and social connections that are likely to benefit these children. On the other side, low SES children lack access to these resources and experiences, therefore putting them at risk for developmental problems. The number of economic resources influences to what capacity parents are able to purchase the fundamental material goods and services, including medical care, higher-quality child care or schools, and books and toys, all of which improve developmental processes. Greater economic assets may reduce parents' psychological distress, which in turn will reduce harsh parenting and thus benefit children (McLoyd 1998). Furthermore, Alexander et al. (1994) found that parents of moderate to high SES held beliefs and expectations that were closer to the actual performance of their children in comparison to low SES families which had high expectations and performance beliefs that did not correlate well with their children's actual school performance.

Two theoretical frameworks have been developed around the topic of SES. First, there is the family stress model which postulates that economic disadvantage provokes family stress and has an adverse

effect on parents' behaviors, emotions, and relationships, which in turn negatively influences their parenting and thus the relationships between parents and children (Conger & Donnellan, 2007). This model does not entail the aspect of the educational level of the parents, but states that a better educated parent will prioritize the needs of a child and the development of the child's human capital. They may be more sensitive and responsive to the child's needs, seek more knowledge about child development and education, and have a greater understanding of how to encourage social and academic competence. Therefore, enhancing the cognitive development of their child(ren).

The second framework is the family investment model, which proposes that financial prosperity increases the investments that parents make in the lives of their children. These investments are often related to standard of living and learning stimulation, therefore leading to higher academic and social success of their children (Bradley & Corwyn, 2002).

Bradley and Corwyn (2002) stated that economically deprived families more often manifest behavioral and emotional problems. In addition, there is evidence that the harmful effects of poverty are already observable early in a child's life. For example, studies in the United Kingdom have shown that associations of low SES with children's behavior and emotional well-being occur when children are as young as the age of three (Kiernan and Huerta 2008). Given these findings, interventions during the early years of a child's life may be most important in diminishing the harmful effects of poverty on children's behavioral and emotional development (Brooks-Gunn & Duncan, 1997).

Household formation is another important aspect that influences the emotional well-being of children. Children who do not live with both their biological parents are worse off than those who do in terms of psychological well-being, health, and schooling (Härkönen et al. 2017). Fomby & Cherlin (2007) describe the instability hypothesis in their research: children are affected by disruption and changes in family structure as much as, or even more than, by the type of family structures they experience. A child's transition from a two-parent family to a single-parent family is associated with lower school engagement, poorer cognitive achievement, and increasing behavioral and emotional problems. It's often thought that transition which adds a stepparent or cohabiting partner would increase children's well-being, since it brings another adult and more income into the household. However, most studies show that children whose parents have remarried do not have higher levels of well-being than children in single-parent families (Fomby & Cherlin, 2007). When going from a two-parent to a single parent household the household income usually declines. This decline can cause more stress for the parent and according to the family stress model (Conger & Donnellan, 2007), this will negatively influence their parenting.

Before we dive into the details of the research, a definition of emotional well-being is necessary. The definition described by Shutte et al. (2002) states that emotional well-being is indicated by two important aspects: characteristic mood and self-esteem. There are two separate mood characteristics, positive and negative affect. High positive affect comprises feelings of enthusiasm and alertness, whereas low positive affect involves feelings of sadness and lack of energy; high negative affect comprises aversive effect such as anger and fear, whereas low negative affect involves feelings of calmness and serenity. Positive mood seems to support approach behavior, while negative mood seems to support avoidance behavior. Both low positive affect and high negative affect have been found to relate to general distress and dysfunction, depression, and a state of anxiety. The aspect of self-esteem is the positive or negative self-evaluation, which is tied to the perception of self-worth or value. When a person feels he or she is doing well they feel good about themselves and have higher self- esteem. High self-esteem is related to multiple positive mental health indices, such as less depression, less anxiety, less loneliness, less social anxiety, and less alcohol and drug abuse.

1.2 Research problem
The influence of the SES of the family on a child has been broadly studied, but it also opens a door for more interesting questions. In the upcoming parts of this paper SES, emotional well-being and parents will all be central topics. The central research question is:
 'How does the socioeconomic status of different household formations influence the emotional well-being of a child?'.
The following sub-questions will hopefully help to answer this question:
- What are the differences in emotional well-being of children between living in single and both parent households?
- What are the differences between low and high SES aspects of the mother and the father on the emotional well-being of the child?

1.3 Structure of the thesis
This research thesis is constructed into five parts. First, the introduction is given, where the main concepts are defined and the research problem is stated. Second, the theoretical framework with the main theories and concepts about SES, emotional well-being and household formations is stated. This chapter also gives a conceptual model of the factors influencing the emotional well-being of a child. Third, the methodology with information about the variables that will be used from the KiGGS dataset. Fourth, the results which will be illustrated from multiple statistical analysis and combined with the theories from the theoretical framework. Last, a conclusion will be drawn about the main research question and recommendations will follow about future research.

2 Theoretical framework

Stress is often seen as a huge component explaining the difference in outcomes between low-SES and high-SES children. According to the family investment model, low-SES families experience more threatening and uncontrollable life events, are more often exposed to environmental hazards and violence, and are at higher risk of experiencing destabilizing events such as family dissolution and household moves (Bradley & Crowyn, 2002). The pathways linking a low SES and child emotional and/or behavioral problems are; parental ill mental health, weakening of family relationships, disengaged and harsh parenting practices, and/or lack of resources to purchase services and materials that benefit children's well-being (Flouri & Midouhas 2016). Children from poor families suffer from emotional and behavioral problems more frequently than children from richer families. Emotional outcomes are often divided into two dimensions: externalizing behaviors such as aggression, fighting, and acting out, and internalizing behaviors including anxiety, social withdrawal, and depression (Brooks-Gunn & Duncan, 1997). Furthermore, a research done by Ermisch (2008) showed that two percent of children from families in the highest income group had socio-emotional difficulties compared with sixteen percent of the children from families in the lowest income group.

2.1 Differences between parents
During the last four decades, two major changes within family gender roles took place. First of all, the employment of mothers has increasingly grown. Second, the role of fathers has expanded from 'breadwinner' providing economic support, to include the role of 'caregiver' (Carlson & Magnuson, 2011). The increasing presence of the father has been significantly linked to decline default and behavioral problems and to boost cognitive development, educational attainment, and psychological well-being (Amato & Rivera 1999, Hofferth 2006).
A study done by McBride and Mills (1993) looked at the differences between parental involvement during the preschool age of children. Their research indicated that mothers engage in childrearing activities at a significantly higher rate than fathers. This was seen in both dual-earner and single-earner families. Mothers spent a relatively higher proportion of their interaction time in functional and work-related activities whereas fathers spent a significantly greater proportion of their interaction time in play activities.

The research of Zhang (2012) indicates that children in poorer families have an increased chance to have conflictual relationships with fathers than children growing up in higher SES families. Presumably, economic disadvantage has an adverse impact on fathers' emotions and behaviors, which, in turn, negatively affects the relationships between fathers and children. Zhang also found that children with highly educated mothers were more likely to form positive relationships with both the mother and the father than children whose mothers had less education.

2.2 Single or both parent household
Hofferth (2006) argues that time is the most strongly linked resource of parents to the socio-emotional outcomes of their children. It is stated that stepfathers, for example, spend less time with their stepchildren then they would with their biological children. New relationships may also interfere with a mother's time investment in her biological children. A new partner may distract the mother's attention and, as a result, could reduce her time spent with her children.
The research of Folk (1996) showed that mothers who cohabit, on average, have greater economic resources than single mothers who live independently with their children.

2.3 Conceptual model
Based on the literature described in the theoretical framework, figure 1 illustrates a conceptual model on the factors influencing emotional well-being of children. Härkönen et al. (2017) and Fomby & Cherlin (2007) showed that household formation is an important topic with the number of parents and other adults influencing the economic resources that are able to provide for services for the child and also influence the time a parent has to pay attention to their child.
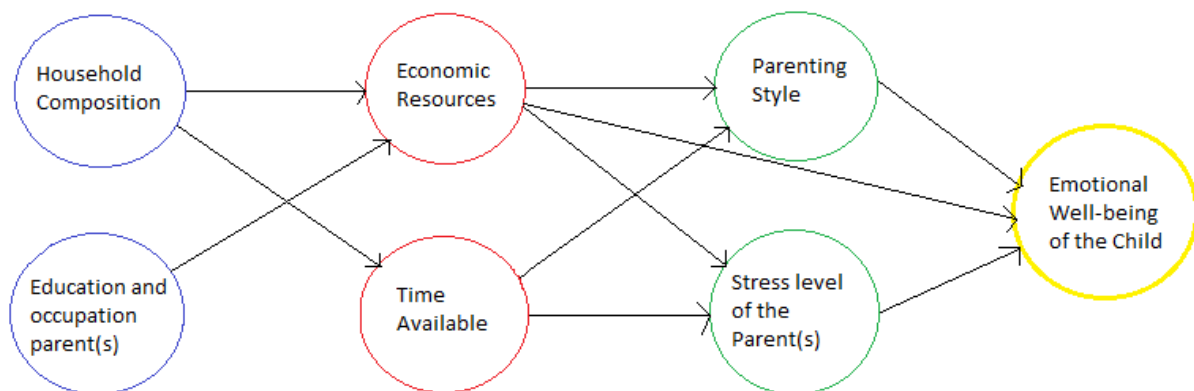

Figure 1: Conceptual Model of Emotional well-being

Educational level, an important concept of the SES, influences the economic resources of the parent(s). As argued by Duncan (1997) economic resources are a very important dictator of the capability to provide services and products for your children, this has a direct effect on the child's emotional well-being. Parent(s) with low economic resources often have more stress and therefore have a harsher parenting style (Conger & Donnellan, 2007). The time hypothesis of Hofferth (2006) displays that time plays a key factor in the well-being of children. The level of stress and the parenting style influence the emotional well-being of the child, a stressed parent with a harsh parenting style leading to relatively more negative outcomes than a parent with low stress.

2.4 Hypothesis
My hypothesis is that the SES of the mother will have a higher influence on children. I am stating this because mothers are often the primary caregiver in the household (McBride and Mills, 1993). Therefore, the mother spends more time with the children, especially when they are really young. If

the mother has a low SES, which often comes with stress (Conger & Donnellan, 2007) this will probably have more influence on the child than the SES of the father.

For the same reason, I argue that a child in a single parent household will have lower emotional well-being, because this family presumably has less emotional resources and therefore more stress. Therefore, a child from a two-parent household, generally with more economic resources and less stress will have higher emotional well-being. Even more so, I hypothesize that a child whose living arrangement often changes, with for example the addition of new partners in the household, will have lower emotional well-being than children from a stable single-parent household (Fomby & Cherlin, 2007).

3 Methodology

The existing database of KiGGS collected between 2003 and 2006, will be used as the data for this research. The KiGGS database is developed by the Robert Koch Institute, which is a federal authority and as such subject to the provisions of the Federal Data Privacy Act (In German the Bundes Daten Schutz Gesetz). This privacy act governs the exposure of personal data, which are manually processed or stored in IT systems. As mentioned, the database of KiGGS monitors German children into their adulthood. The database is very detailed and handles a lot of information. For my specific research question, not all data is relevant, below will be argued which variables are relevant for this particular research.

3.1 Variables from the KiGGS dataset

To answer the question: *What are the differences in emotional well-being of children between living in single and both parent households?* the nominal variable of main residence '*Hauptaufenthaltsorte'* (e001B) is relevant. This variable focuses on if the child lives with both parents, a single parent, or one parent and a partner. Therefore, this variable will help to test the hypothesis of Fomby & Cherlin (2007) stating that children who live with one parent and a partner do not have higher emotional well-being than children who live with a single parent. The interval variable of the '*Winkler Index'* (windexz), exists out of the household income, the educational and occupational level of the parent(s) present in the household. It gives a score to the household from three until twenty-one, 3-8 being a low SES, 9-14 being a moderate SES and 15-21 being a high SES (Winkler, 1998).

Emotional well-being will be measured using the ratio variables of '*SDQ: Total Quality of life'* (tot100_e, tot100k). The Strengths and Difficulties Questionnaire (SDQ) is a questionnaire that addresses negative and positive behavioral attributes of children and adolescents in the age range of 4 to 17 years which can be completed by teachers, parents, and as a self-report by adolescents of 11 years or older (Becker et al. 2004). The total quality of life variable is a summary of multiple variables handled in the questionnaire being physical well-being, emotional well-being, self-esteem, family, friends, and school. Family focuses on the amount of argument in the household and the relationship with the parents. Friends on if a child has friends and if the child feels like he or she fits in. And school focuses on if a child feels good in school, is happy to go and if they understand what is explained. As mentioned in the introduction the concept of emotional well-being is defined through self-esteem and characteristic mood (Shutte et al. 2002). One of the key elements of the SDQ questionnaire is self-esteem which is measured independently but also by measuring if the child feels like they fit in. The aspect of characteristic mood is seen in for example anger problems in the household and if a child is happy to go to school or would rather stay at home which could be related to social anxiety.

Since this questionnaire can be conducted by children of eleven years or older, some cases have two values for Total Quality of Life. Tot100_E is the variable that holds the value of total quality of life following the questionnaire that the parents completed. Tot100_k is the variable that gives the value

after children themselves filled in the questionnaire. Since the variable tot100_e focuses on all age groups, this variable will be used as the dependent variable.

For the second sub-question: *What are the differences between low and high SES aspects of the mother and the father on the emotional well-being of the child?* the components of SES are split into mother and father. The nominal variable *'Berufsausbildung'* focuses on the educational level of both mother (e090m) and father (e090v), it represents the highest level of education they have a degree in. The variable of occupation *'berufliche Stellung'* (e092), another key concept of SES, is also split into mother (e092m) and father (e092v). This category originally consisted out of twenty categories, according to the classification of occupations by Paulus and Matthes (2013) some categories were joined together which are represented in Appendix A. The household income is not divided into mother and father, therefore it will not be possible to use this variable.

To look further into emotional well-being, the variable *SDQ emotionale Probleme* (emoauf_e, emoauf_k) is added. This variable has three categories: normal, grenzwertig and ausfällig. They refer to the number of emotional problems the child (or its parents) reported. The value of 5 and higher have emotional problems (ausfällig), 4 is at risk (grenzwertig) and all values lower than 4 are not emotionally affected (normal). As mentioned for the variable of Total quality of Life, children of ages eleven and older could also fill in their own questionnaire. The same goes for this variable. Emoauf_e gives a value after the questionnaire was conducted by the parents, and Emoauf_k gives a value after the child themselves filled in the questionnaire.

3.2 Descriptive statistics

In table 1 all variables used from the KiGGS dataset are illustrated. For the results, a linear regression will be used to see if they have a significant influence on the dependent variable emotional well-being. However, because many variables are nominal or ordinal they cannot directly be placed in the linear regression. Therefore, dummies were created for these nominal variables. For every nominal variable, the reference category is illustrated in table 1. Furthermore, table 1 shows the number of cases every category of a variable has.

With the function selected variables, the ages 0-2 have been excluded from the dataset, because according to the KiGGS dataset these children are not old enough to have a meaningful interpretation of the variable total quality of life. After excluding these cases, the dataset consists of 14291 cases that are relevant for this particular research thesis.

Variable	Measure	Reference category	Amount of cases per category
Sex	Nominal	Female	*Male:* 7277 (50,9%) *Female:* 7014 (49,1%)
Age	Ordinal	3-6 years old	*3-6 years:* 3741 (26,2%) *7-10 years:* 4028 (28,2%) *11-13 years:* 2967 (20,8%) *14-17 years:* 3555 (24,9%)
Main residence	Nominal	Living with both parents	*Both parents:* 11176 (78,2%) *Mother:* 1570 (11%) *Father:* 126 (0,9%) *Mother and partner:* 1127 (7,9%) *Father and partner:* 77 (0,5%) *Other:* 145 (1%)
Winkler Index	Scale	-	Mean: 11,53 (Std. deviation: 4,329)

Educational level Mother (e090m)	Nominal	Mothers University Degree	Apprenticeship (Lehre): 5884 (41,2%) Apprenticeship (Berufsschule): 2146 (15%) Techincal college: 1757 (12,3%) College: 800 (5,6%) University: 1460 (10,2%) Other Degree: 436 (3,1%) No Degree: 1323 (9,3%) Following Education: 117 (0,8%)
Educational level Fathers (e090v)	Nominal	Fathers University Degree	Apprenticeship (Lehre): 5539 (38,8%) Apprenticeship (Berufsschule): 1589 (11,1%) Technical college: 1972 (13,8%) College: 1174 (8,2%) University: 1966 (13,8%) Other Degree: 391 (2,7%) No Degree: 710 (5%) Following Education: 42 (0,3%)
Occupation Mother (e092m)	Nominal	Mother occupation requiring university degree	No qualification: 4929 (34,5%) Skilled Labour: 5988 (41,9%) Technical college: 1528 (10,7%) University degree: 646 (4,5%) Unclear requirement: 680 (4,8%)
Occupation Father (e092v)	Nominal	Father occupation requiring university degree	No qualification: 1952 (13,7%) Skilled Labour: 5718 (40%) Technical college: 4232 (29,6%) University degree: 1233 (8,6%) Unclear requirement: 113 (0,8%)
Total Quality of Life Parents (tot100_e)	Scale	-	Mean: 77,2195 (Std. Deviation: 9,73770)
Total Quality of Life Child (tot100_k)	Scale	-	Mean: 72,7207 (Std. Deviation: 10,19591)
Emotional Problems Parents	Nominal	'Normal' children: no emotional problems	Normal: 11919 (83,4%) Risk: 1061 (7,4%) Emotional Problems: 1272 (8,9%)
Emotional Problems Child	Nominal	'Normal' children: no emotional problems	Normal: 5988 (41,9%) Risk: 239 (1,7%) Emotional problems: 225 (1,6%)

Table 1: variables and descriptives, KiGGS 2003-2006 (Source: KiGGS)

3.3 Quality of the data

It is important to be aware that for the variables measuring Total quality of Life (Tot100_E, Tot100_K) and Emotional Problems (Emoauf_E, Emoauf_K) children and parents had to fill in the questions themselves. This can cause multiple problems. Children might not be aware of their own problems, and therefore be less objective. However, parents might not be aware of all the behavior of their children for example at school and with friends.

4 Results
4.1 Differences between household formations

In figure 2 an error bar is illustrated of the variables main residence and total quality of life. The error bar of children living with both parents does not overlap with any of the other error bars. This gives an indication that their total quality of life score probably is significantly different from the other household formations.
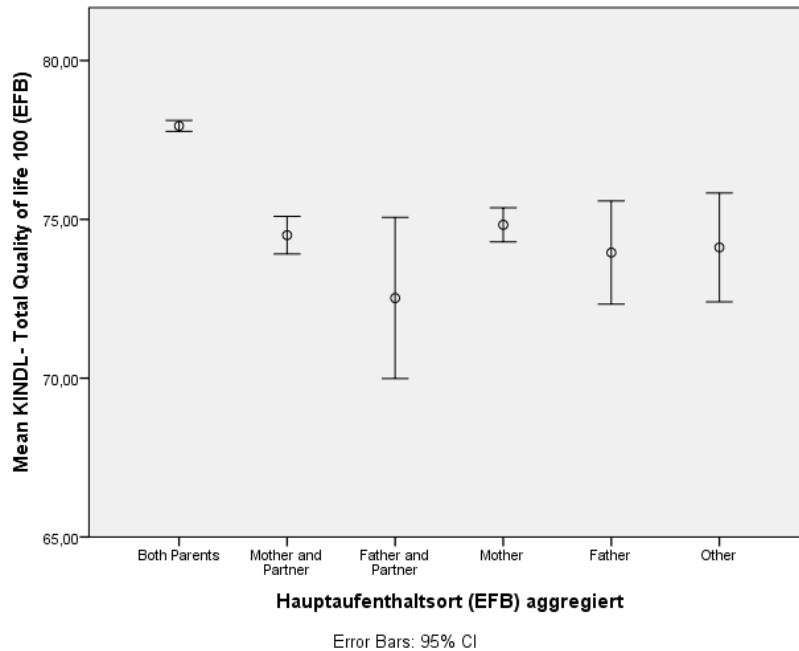

Figure 2: Error bar Main residence and Total Quality of Life

To answer the first sub-question: *What are the differences in emotional well-being of children between living in single and both parent households?* a hierarchical linear regression was completed. The variable Total Quality of Life reported by parents is used as the dependent variable, representing emotional well-being. Three models were created in the regression, the first only including the main residence variable. The second additionally looking at emotional problems (Emoauf_e and Emoafu_k) and the Winkler index and the third taking the control variables of sex and age into account.

Model Summary

Model	R Square	Adjusted R Square	R Square change	F Change	Sig. F change
1	,020	,020	,020	58,455	,000
2	,218	,217	,198	717,621	,000
3	,277	,276	,059	289,310	,000

Table 2: Hierarchical Linear Regression Output Model Summary

Table 2 shows the model summary from the regression. Taking all relevant independent variables into account, the third model shows an adjusted R square of 27,6%. Meaning they explain 27,6% of the dependent variable. The R square change from adding the variable of main residence is only 0,2%. But adding the variables of emotional problems and Winkler leads to an increase of 19,8%. Furthermore, by adding age and sex in the third model the R squared increases by 5,9%. All models have a significant R square change, hence all Sig. F change values are > 0,05.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27106,353	5	5421,271	58,455	,000[b]
	Residual	1318149,975	14213	92,743		
	Total	1345256,327	14218			
2	Regression	292875,752	10	29287,575	395,406	,000[c]
	Residual	1052380,575	14208	74,070		
	Total	1345256,327	14218			
3	Regression	372156,869	14	26582,633	388,018	,000[d]
	Residual	973099,459	14204	68,509		
	Total	1345256,327	14218			

Table 3: ANOVA output hierarchical linear regression

In table 3 the ANOVA of the regression is illustrated. All three models as a whole are significant. Which means the model is significant using a 95% confidence interval.

Coefficients[a]

Predictor variables	Regression 1 B	Sig.	Regression 2 B	Sig.	Regression 3 B	Sig.
(Constant)	77,943	,000	79,252	,000	81,634	,000
Mother	-3,086	,000	-1,681	,000	-1,293	,000
Father	-3,927	,000	-2,398	,002	-,870	,245
Mother and Partner	-3,448	,000	-2,475	,000	-1,621	,000
Father and Partner	-5,419	,000	-4,548	,000	-3,019	,001
Other	-3,768	,000	-2,389	,002	-1,533	,035
Winkler Index			,030	,085	,040	,017
Emoauf_E Risk			-7,362	,000	-7,505	,000
Emoauf_E Problem			-12,830	,000	-12,990	,000

Emoauf_K Risk			-6,429	,000	-3,788	,000
Emoauf_K Problem			-7,804	,000	-4,992	,000
Sex Male					-,440	,002
Age 7-10					-,629	,001
Age 11-13					-4,204	,000
Age 14-17					-5,754	,000

a. Dependent Variable: KINDL- Total Quality of life 100 (EFB)

Table 4: Linear Regression Output Coefficients

In Table 4 the coefficients output is illustrated. In the first regression all categories of main residence differ significantly from the reference category. Adding Winkler, Emoauf_E, and Emoauf_K causes all B scores of main residence to move closer to zero. All variables are significant, except for Winkler. In the third regression, the variable of sex indicates that males significantly from females (sig. = 0,002). The B score indicates that for males the predicted total quality of life score would be 0,440 lower than for females. All age groups in the regressions significantly differ from the reference category. The older the children get, the lower the B score, meaning that their score for the total quality of life declines in comparison to the reference category. For the variables of emotional problems, the groups of risk and the group with problems both significantly differ in their value of total quality of life from the reference group being children with no emotional problems. When the survey was filled out by parents, the 'risk' category has a predicted score of 7,505 lower than the reference category and children in the 'problem' category of 12,990 lower. When filled out by the children themselves, the 'risk' category had a predicted value of 3,778 lower and the 'problem' category of 4,992 lower than the reference category.

For main residence, all options but the option of living with only the father differ significantly in the total quality of life score compared to the reference category, living with both parents. All B scores are negative, meaning that the total quality of life score of the children living in these household formations is lower. For children living with their father and partner, the predicted total quality of life score is 3,019 lower than for children living with both parents. Interestingly, this is the highest difference with the reference category. The lowest difference in the total quality of life score in comparison to those of children living with both parents is that of children living with their father. The difference between mother and mother with a partner is remarkably less sizable (-1,293 and -1,621). The variable of the Winkler Index is also significant, the positive B score indicates that for every unit increase in the Winkler variable, a 0,40 increase is expected in the total quality of life score.

4.2 Discussion first linear regression

Taking the literature into account this is partly a surprising result. The instability hypothesis of Fomby & Cherlin (2007) discusses that families that do not live with both parents in the household are affected by the disruption of their household change in multiple ways; emotional well-being, school performance, and cognitive achievements. In the linear regression, it is shown that children that live in household composition other than with both parents, have a significantly lower total quality of life score. An exception for this is that children living with only their father, do not significantly differ in their total quality of life score. The theory of Hofferth (2006) about time being the most strongly linked resource of parents to the socio-emotional outcomes of their children can explain this. It states that parents without a partner have more time for their children, because they are not

distracted by a partner. But that does not explain why children living with only their mother do significantly differ in their total quality of life score.

Fomby & Cherlin (2007) argue that it's not true that transitions which add a stepparent or cohabiting partner would increase children's well-being. They argue that most studies show that children whose parents have remarried do not have higher levels of well-being than children in single-parent. Table 4 confirms this, when comparing mother and mother with a partner the difference in total quality of life score in comparison to the reference category is really small. And living with only the mother has a lesser difference, meaning that children who live in these households have a slightly higher total quality of life score on average. When we compare living with the father or living with the father and partner the theory of Fomby & Cherlin is confirmed again. The difference is even quite big is this case. With children living with only the father having the smallest difference in total quality of life score in comparison to the reference category (-,870). And children living with father and partner having the highest difference (-3,019).

The Winkler variable of SES also corresponds with the literature. For every increase in Winkler we expect an increase in Total Quality of Life. A higher SES score thus indicates higher emotional well-being. The theories of McLoyd (1998), Brooks-Gunn and Duncan (1997) and Alexander et al. (1994) all hypothesized that this was the case. With an increase in SES leading to more economic resources which can provide different services and products benefiting the emotional well-being of a child.

4.3 Differences in components of SES

The question relative to this hierarchical linear regression is: *What are the differences between low and high SES aspects of the mother and the father on the emotional well-being of the child?* In table 5 the model summary of the regression is shown. The first model with the variables occupation and education has an adjusted R square of only 0,04%. The adjusted R square of the final model is ,273 meaning that the independent variables explain 27,3% of the dependent variable.

Model Summary

Model	R Square	Adjusted R Square	R Square change	F Change	Sig. F change
1	,006	,004	,006	3,644	,000
2	,211	,210	,206	930,739	,000
3	,274	,273	,063	307,754	,000

Table 5: Mode summary linear regression

In table 6 the coefficients output of the regression is illustrated. The first regression only looks at occupation and education of the parents, only a few categories differ significant from the reference categories. Fathers educated at the level of 'Lehre', 'Berufsschule' and fathers having an occupation requiring a technical college degree. In model 3, there are even fewer categories significant. For the educational level of the mother, there are no significant differences in total quality of life of the child in comparison to children of mothers with a university degree. For fathers, there is a difference. Children whose fathers are educated at the level 'Lehre' and 'Berufsschule' differ significantly in their total quality of life score from children whose fathers are educated at university level. Both B scores are positive, meaning that the predicted total quality of life score for children whose father, for example, is educated at the 'Berufsschule' level is ,864 higher than that of children whose father has a university degree. Furthermore, for the occupation of the mother and the father there are no significant differences from the total quality of life of the child. The control variables of Emoauf_e, Emoauf_k, age, and sex are all significant.

Coefficients[a]

Predictor Variables	Regression 1		Regression 2		Regression 3	
	B	**Sig.**	**B**	**Sig.**	**B**	**Sig.**
(Constant)	**76,552**	**,000**	**78,827**	**,000**	**81,640**	**,000**
E090 Mother Apprenticeship (Lehre)	-,001	,997	,080	,772	,115	,666
E090 Mother Apprenticeship (Berufsschule)	,093	,793	,198	,531	,194	,522
E090 Mother Technical College	-,356	,308	-,136	,663	,086	,775
E090 Mother College	,079	,853	-,190	,616	-,060	,870
E090 Mother Other Degree	-,611	,262	-,304	,531	,040	,932
E090 Mother No Degree	-,576	,160	-,157	,668	-,261	,457
E090 Mother Following education	-,603	,537	-,040	,964	-,654	,433
E090 Father Apprenticeship (Lehre)	**,836**	**,003**	**,721**	**,004**	**,802**	**,001**
E090 Father Apprenticeship (Berufsschule)	**,871**	**,014**	**,716**	**,024**	**,864**	**,004**
E090 Father Technical College	,569	,071	,344	,221	,435	,107
E090 Father College	,292	,410	,315	,317	,409	,177
E090 Father Other Degree	,157	,778	-,054	,912	,098	,836
E090 Father No Degree	,203	,670	,303	,475	,386	,343
E090 Father Following education	,388	,808	,213	,881	-,039	,977
E092 Mother no Qualification	-,336	,324	-,203	,504	-,242	,406
E092 Mother Skilled Labour	,139	,678	,005	,986	-,099	,729
E092 Mother Technical College	,040	,917	-,226	,511	-,167	,612
E092 Mother Unclear Level	,757	,123	,639	,143	,488	,244
E092 Father no Qualification	-,500	,143	-,417	,170	-,550	,060
E092 Father Skillled Labour	,129	,647	-,146	,561	-,267	,268
E092 Father Techinal College	**,882**	**,001**	,234	,331	-,013	,956

E092 Father Unclear Level	,571	,559	,512	,556	-,095	,910
Emoauf_E Risk			**-7,541**	**,000**	**-7,635**	**,000**
Emoauf_E Problem			**-13,118**	**,000**	**-13,204**	**,000**
Emoauf_K Risk			**-6,609**	**,000**	**-3,870**	**,000**
Emoauf_ K Problem			**-7,845**	**,000**	**-4,943**	**,000**
Sex Male					**-,443**	**,002**
Age 7-10					**-,717**	**,000**
Age 11-13					**-4,362**	**,000**
Age 14-17					**-5,926**	**,000**

Table 6: Hierarchical Linear Regression Output Coefficients Model 3

4.4 Discussion second linear regression

As multiple theories suggested, parents with high SES should be able to provide more services and products for their children which should lead to better emotional well-being (Brooks-Gunn and Duncan, 1997; Bradley and Corwyn, 2002). However, the linear regression does not support much evidence for this. Interestingly, the literature suggested that low SES would lead to more stress and a harsher parenting style, therefore leading to lower emotional well-being of children living in low SES families (McLoyd, 1998; Conger & Donnellan, 2007). However, the children of lower educated fathers at the level of 'Lehre' and 'Berufsschule' have higher emotional well-being than those of university educated fathers. The results of the regression contradict with the literature. Overall, not many significant differences were found, and those who were found had a positive relation claiming that lower educated fathers have children with higher emotional well-being.

5 Conclusion

5.1 Answer to the research question

In this thesis, the KiGGS database was used to find an answer to the following central question: *'How does the socioeconomic status of different household formations influence the emotional well-being of a child?'.* With the use of two hierarchical regressions the differences in household formations and the differences between low and high components of SES were researched.

The first regression showed that children living with their mother, mother and partner or father and partner have a significantly lower emotional well-being than children living with both parents. Children who live with only their father did not differ significantly from the reference category. The instability hypothesis of Fomby & Cherlin (2007) gives an explanation for this.

The regressions made for the second research question showed almost no significance. For the components educational level and occupation the results were different than expected. From the literature, it became clear that it was expected that higher SES meant higher emotional well-being of children (McLoyd, 1998; Brooks-Gunn and Duncan, 1997). However, in the linear regression most categories of education and occupation were not significantly different from the reference category. The only category that is significant for education is fathers educated at the level of 'Lehre' and 'Berufsschule'. Surprisingly, the score of their children's emotional well-being is significantly higher, when the literature stated that a low SES would lead to a harsh parenting style, stress, and lesser economic resources to provide for their children. The variable of occupation has no significant categories for both the mother and the father. Overall, this research is in line with the research of Turunen (2013), who found that parental involvement explained part of the lower emotional well-being of children with separated parents, but economic resources did not. However, as mentioned in the introduction, it is important to keep in mind that emotional well-being is not only influenced by

SES. Other factors like the age of the parents (Card & Wise, 1978), the number of siblings in the household (Gene, 2004) and the presence of a divorce (Hashemi & Homayuni, 2017) can also play a role.

5.2 Reflection
In my opinion, working with an existing dataset can be tricky. Since you do not collect your own data, you do not have control over what variables you can use. Sometimes this was difficult, not all variables are the way you like them to be. For example, I would have liked to know the income of the mother and the father separately. Another tricky part is that the database was in German, and for example, the variables of education and occupation were not easily translatable. However, I think a great benefit of using the KiGGS database is how many cases you have to your availability. If I would have made my own survey I would probably have around 100 responses, and now I have around 14.000.

5.3 Future research
Since the first linear regression about household formations did not find a significant difference for children living only with the father and it did for the mother it would be interesting to do a research about why this is. If this is something more studies confirm, or if this only applies to this dataset. Another interesting finding to dig further into is that children of fathers educated at the level of 'Lehre' and 'Berufsschule' have higher emotional well-being than children with university educated fathers. A was expected from the literature, higher educated parents would lead to higher emotional well-being of their children. So further research could focus on why lower educated fathers, have a significant positive effect on the emotional well-being of their children. And also why, for mothers, there was no significant difference.
Furthermore, in my opinion it would be very interesting to see if in families of two parents of the same sex the impact of their SES is equal or different on the emotional well-being of the child. It would also be interesting if there are differences in emotional well-being of children that live with two parents of the same sex, the opposite sex or polygamist families with different household formations.

6 References

- Alexander, K. L., Entwisle, D. R., & Bedinger, S. D. (1994). When expectations work: Race and socioeconomic differences in school performance. *Social Psychology Quarterly*, 57, 283–299.
- Amato, P., & Rivera, F. (1999). Paternal Involvement and Children's Behavior Problems. *Journal of Marriage and Family*, 61(2), 375-384.
- Becker, A., Woerner, W., Hasselhorn, M., Banaschewski, T., & Rothenberger, A. (2004). Validation of the parent and teacher sdq in a clinical sample. *European Child & Adolescent Psychiatry*, 13(2), 16.
- Bradley, R., & Corwyn, R. (2002). Socioeconomic status and child development. *Annual Review of Psychology*, 53, 371-399.
- Brooks-Gunn, J., & Duncan, G. (1997). The effects of poverty on children. *The Future of Children*, 7(2).
- Card, J., & Wise, L. (1978). Teenage Mothers and Teenage Fathers: The Impact of Early Childbearing on the Parents' Personal and Professional Lives. *Family Planning Perspectives*, 10(4), 199-205.
- Carlson, M., & Magnuson, K. (2011). Low-income fathers' influence on children. *The Annals of the American Academy of Political and Social Science*, 635(1), 95-116.
- Conger, R.D., & Donnellan, M.B. (2007). An interactionist perspective on the socioeconomic context of human development. *Annual Review of Psychology*, 58, 175–199.
- Corwyn, R.F., & Bradley, R.H. (2002). Stability of maternal socioemotional investment in young children. *Parenting: Science and Practice*, 2, 27–46.
- Ermisch, J. (2008). Origins of social immobility and inequality: Parenting and early child development. *National Institute Economic Review*, 205(1), 62-71
- Flouri, E., & Midouhas, E. (2016). School composition, family poverty and child behaviour. *Social Psychiatry and Psychiatric Epidemiology: The International Journal for Research in Social and Genetic Epidemiology and Mental Health Services*, 51(6), 817-826.
- Folk, K. (1996). Single mothers in various living arrangements: Differences in economic and time resources. *American Journal of Economics and Sociology*, 55(3), 277-292.
- Fomby, P., & Cherlin, A. (2007). Family instability and child well-being. *American Sociological Review, 72*(2), 181-204
- Gene, H. (2004). Siblings' direct and indirect contributions to child development. *Current Directions in Psychological Science*, 13(3), 124-126.
- Härkönen, J., Bernardi, F., & D. Boertien (2017). Family Dynamics and Child Outcomes: An Overview of Research and Open Questions. *European Journal of Population*, 33(2), 163-184.
- Hashemi, L., & Homayuni, H. (2017). Emotional divorce: Child's well-being. *Journal of Divorce & Remarriage*, 58 (8), 631-644.
- Hofferth, S. (2006). Residential Father Family Type and Child Well-Being: Investment versus Selection. *Demography*, 43(1), 53-77.
- Kiernan, K., & Huerta, M. (2008). Economic deprivation, maternal depression, parenting and children's cognitive and emotional development in early childhood. *The British Journal of Sociology*, 59 (4), 783-806.
- McBride, B., & Mills, G. (1993). A comparison of mother and father involvement with their preschool age children. *Early Childhood Research Quarterly*, 8(4), 457-77.
- McLoyd, Vonnie C. 1998. Socioeconomic disadvantage and child development. *American Psychologist* 53 (2): 185–204.
- Sbarra, D. (2015). Divorce and health: Current trends and future directions. *Psychosomatic Medicine*, 77(3), 227-36.
- Schutte, N., Malouff, J., Simunek, M., McKenley, J., & Hollander, S. (2002). Characteristic emotional intelligence and emotional well-being. *Cognition and Emotion*, 16(6), 769-785.
- Turunen, J. (2013). Family structure, gender, and adolescent emotional well-being. *Journal of Divorce & Remarriage*, 54 (6), 476–504.
- United Nations Children's Fund (2018). *UNICEF Strategic Plan 2018-2021.* New York: UNICEF, Division of Communication.
- Winkler J. (1998): Die Messung des sozialen Status mit Hilfe eines Index in den

Gesundheitssurveys der DHP. *Messung soziodemographischer Merkmale in der Epidemiologie*. MMV Medizin Verlag, München, 69-74.

- Zhang, X. (2012). The effects of parental education and family income on mother-child relationships, father-child relationships, and family environments in the people's republic of china. *Family Process*, 51 (4), 483-497.

Appendix A

Activities requiring no qualification:
1 Ungelernter Arbeiter ,
2 Angelernter Arbeiter,
11 Angestellter mit einfacher Tätigkeit,
15 Einfacher Dienst,
20 Hausfrau/Hausmann

Skilled labour:
3 Gelernter Arbeiter und Facharbeiter,
5 Selbst. Landwirt, Genossenschaftsbauer
10 Industrie-/Werkmeister i. Angestelltenverhältnis
12 Angestellter mit qualifizierter Tätigkeit,
16 Mittlerer Dienst

Occupations requiring technical college graduation:
4 Vorarbeiter,
7 Sontiger Selbständiger bis 9 MA,
8 Sontiger Selbständiger mit >10 MA,
13 Angestellter mit hochqualifizierter Tätigkeit,
17 Gehobener Dienst

Activities requiring a university degree:
6 Selbständiger Akademiker,
14 Angestellter mit umfassenden Führungsaufgaben,
18 Höherer Dienst

Unclear requirement level:
9 Mithelfender Familieangehöriger,
19 Sontiges