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## The parental and family correlates of the child's subjective well-being (SWB)

**Abstract:** Many studies and existing theories tried to establish predictors of the child's subjective well-being (SWB) that refer to their parents or family as a unit. Although some studies have shed light on these associations, mixed results are still prevalent in this research field. This study aimed to explore the relationship between various indicators of family well-being and child's SWB within the theoretical framework of the Theory of Change (Newland, 2015). More precisely, it tested whether measures of family self-sufficiency (education, income, and employment), maternal and paternal physical health and SWB predict the child's SWB. Data from 843 children and both of their parents were collected via paper-pen method. All children were pupils at several Croatian primary schools, ranging from third to sixth grade, who live with both of their parents. A model that included all predictors showed good fit indices, but overall explained only 9.3% of the variance in the criteria. Within this model, only factors related to mothers, namely their SWB and education emerged as positive predictors of the child's SWB. Mother's health was found to be a weak, negative predictor of the child's SWB, but the link was explained by shared variance between mother's health and SWB (suppressor effect). It was also tested whether the model's predictions change significantly based on child's age and gender – the multigroup analysis yielded similar results, the predictions of the model do not change with respect to two age groups age and gender. The results are partially in concordance with existing research, but only marginally with the Theory of Change.

**Keywords:** *subjective well-being, parental well-being, family well-being, family self-sufficiency*

### INTRODUCTION

#### Subjective well-being

Subjective well-being (SWB) is often defined as the individual's propensity to estimate or experience his or her life in a positive (or negative) way (Diener, 1984). The structure of SWB was a subject of a long-running debate. The definition of SWB and potential strategies to operationalize, analyze, and interpret SWB findings are key concerns to which several structural conceptualizations suggested different and occasionally opposing responses (Busseri & Sadava, 2011). The tripartite conceptualization of SWB raised a lot of interest among researchers - it refers to life satisfaction (LS), positive

affect (PA), and negative affect (NA) as key components of the SWB. Some conceptualizations of SWB that based their assumptions on the tripartite model viewed those components as three separate facets (Diener & Biswas-Diener, 2002), some viewed PA and NA as determinants of LS (Schimmack et al., 2002), and others treated SWB as a hierarchical construct operationalized as a latent factor that consists of LS, PA, and NA (Busseri & Sadava, 2011). In this paper, SWB will be viewed as the latter, a hierarchical construct operationalized as a latent factor. According to Metler and Busseri (2017), such conceptualization is most supported by empirical findings. Both the unique and shared variances in LS, PA, and NA are important in understanding SWB.



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### Family well-being

Child's well-being is often regarded in the context of family and parents' well-being (Casas et al., 2011; Clair, 2012; Newland et al., 2014), although some researchers focused on the intraindividual determinants or innate characteristics (e.g., a child's temperament or personality). In this paper, child's well-being will be viewed in the context of external factors, namely, various parental or family characteristics.

Family well-being is a multidimensional construct that refers to the overall state of a family unit. The conceptualization of FWB typically includes several aspects of family life, such as the quality of the relationships between family members or the level of their cooperation (Roman et al., 2016). According to the Theory of change (Newland, 2015), the foundation for child well-being lies in family well-being (FWB) which consists of parents' physical and mental health, family self-sufficiency, and family resilience. This paper focuses on three domains of FWB: parental SWB (life satisfaction, positive, and negative affect), parental perceived physical health status, and family self-sufficiency (both parents' education level, employment status, and family income per household member) as factors associated with child's well-being.

### Parental SWB and the child's SWB

The relationship between parental SWB and their child's SWB was studied extensively. There is some evidence suggesting a positive relationship between parental and child's SWB. Casas et al. (2011) found that parental SWB is only weakly related to that of their child. Casas et al. (2007) have also explored concordances and discrepancies between adolescents' and parents' LS in various domains. For most life domains, either concordance or low discrepancy was found between LS of children and parents. Discrepancy was highest for satisfaction with sport activities and religious beliefs.

Many authors emphasize that genetic factors, not just environmental ones, influence SWB (Cummins, 2003; Lykken & Tellegen, 1996; Røysamb et al., 2003). Røysamb and Nes (2019) stated that genetic factors influencing SWB are partially overlapping with those which play a protective role for depression and mental health, as well as those influencing extraversion and neuroticism. Congruence between SWB of children and parents can therefore be partially explained by their genetic similarity. The similarity of SWB is even larger for twins - two meta-analysis (one for LS and one for general well-being) have showed that around 32-36% of the variance can be accounted for by genetic effects (Bartels & Boomsma, 2009).

Hoy et al. (2013) also found a moderate positive relationship between parental SWB (measured as LS) and child's SWB. Parents who perceived their life as more satisfying tended to have children with a relatively higher LS. Schwarze and Winkelmann (2011) reported a similar finding - a significant positive relationship between the happiness of parents and their children. A similar

pattern was also confirmed by Ben-Zur (2003) who reported on a weak to moderate relationship between adolescents' and their parents' LS. Rees and Bradshaw (2018) have found that four different measures of parental SWB were significantly, positively related to three measures of a child's SWB (LS, happiness, sadness). Authors offered a few explanations for the relationship between cognitive and affective domains of parental SWB and child's SWB. A well-known theory which explores how emotions spread among family members due to their shared environment is called emotional contagion. Parents often act as emotional "senders" or "receivers" influencing their child's well-being (Chi et al., 2019; Larson & Almeida, 1999). Research suggests that parents' well-being significantly affects that of their children, with emotions typically flowing from parents to children. Short-term stresses, originating outside the family, can also affect children when parents bring them home, a phenomenon known as "spillover". This spillover, linked to Bronfenbrenner's ecological approach, is more likely to occur with fathers than mothers, suggesting a stronger link between father and child well-being compared to mother and child (Larson & Gilman, 1999, Powdthavee & Vignoles, 2008).

It is important to note that not all studies have found a significant, positive relationship between parental and child SWB. In a study that aimed to explore the relationship between the SWB of parents and their children, a significant, positive relationship was reported for the Personal Well-being Index, health and security for the future. However, no relationship was found for the other five specific domains or for the LS as a whole (Casas et al., 2008). Using a dyadic analysis approach, Bedin and Sarriera (2014) reported that the parental and child's SWB were very weakly related in terms of both cognitive and affective components of SWB. The correlations were 0.14 for Satisfaction with Life Scale (SWLS), 0.18 for Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS) and were significant for only three out of 11 affective states (for "active", "excited", and "stressed"). Casas et al. (2012) examined various cognitive and affective SWB measures and concluded that parents' SWB is only weakly related to their child's SWB, despite common genetic and environmental factors.

### Parental physical health and the child's SWB

The physical health of parents was also examined as a factor that possibly plays a role in their child's SWB. However, research that combines objective or subjective measures of parental physical health with their child's SWB is scarce. The literature review by Armistead et al. (1995) explored the relationship between parental illness and child functioning, broadly conceptualized as mental health problems, lowered self-esteem, and negative affect. They concluded that different mechanisms and models may explain different child behaviors in the parent physical illness-child functioning relationship. Overall, the authors stated that the question whether there is a connection between parental illness and child's

functioning has not been unanimously answered. Many authors (Anderson & Hammen, 1993; Gass-Sternas, 1994; Mikail & Von Baeyer, 1990) have connected various parental physical health problems (e.g., terminal illnesses and chronic pain) with a lowered mental health state of a child.

Parents' higher general health status was found to be a protective factor for child's affective well-being measured as experienced sadness (Rees & Bradshaw, 2018). Hardie and Turney (2017) examined whether maternal and paternal health limitations influence their child's well-being, operationalized as internalizing and externalizing behavior problems. Results showed that maternal health limitations were associated with both internalizing and externalizing child behaviors, while paternal health limitations were unassociated with the child's outcomes. Powdthavee and Vignoles (2008) explored the role of parental mental health as predictors of the child's LS and included parental self-assessed physical health as a control variable. The physical health of both parents was not significantly related to the child's LS.

Case and Paxson (2002), as well as Case et al. (2005) describe parents as 'primary gatekeepers of their child's health' since they make a variety of choices related to their child's health (e.g., choose their diet). The authors claimed that parents' health behaviors lead to changes in their mental health and family functioning, which can, in turn, impact child functioning. More drastic examples are parents with chronic health conditions, which pose a more serious threat to the parent-child relationship in general, lowering the SWB of the child (Newland, 2015). In the Theory of Change, Newland (2015) claims that parental health affects the child's well-being through developmental parenting (e.g., affection, and responsiveness). Another indirect effect of parental physical health on a child's SWB should also be considered - the hereditary nature of many physical health conditions. Common human diseases usually result from the interplay of many genes and environmental factors. A parent's hereditary condition or impairment often increases the likelihood that his or her child will encounter the same condition, consequently lowering his or her physical health status (Emilsson et al., 2008; King et al., 2002). An individual's poor physical health has generally been associated with lower levels of SWB (Diener & Chan, 2011; Steptoe et al., 2015).

#### **Family self-sufficiency and the child's SWB**

Family self-sufficiency can be broadly defined as the family's ability to meet their own basic needs (Newland, 2015). It is an umbrella term that includes various factors, including parental education, income, employment, literacy, and socio-economic status. Overall, in Western countries, it has been found that higher income, being married, and being employed have a positive impact on family members' SWB (Carlsson et al., 2014). In this study, family self-sufficiency will include parents' employment, income per family member, and parents' education level.

#### **Parents' employment status and the child's SWB**

The effects of unemployment on the SWB of a person are, on the individual level, well-documented and well-established. Unemployment, typically, has a negative effect on the individual's SWB and other life aspects (Powdthavee & Vernoit, 2013). However, the relationship between parental employment status and the SWB of their child is not enough researched. Employment is the most common way of securing family income, providing structure, and setting a positive example of responsibility for children (Heinrich, 2014). Therefore, one would assume, that parental employment has a positive effect on the child's SWB. That viewpoint is backed by findings from Rees and Bradshaw (2018) – children who lived in a two-parent household had the lowest likelihood of lowered SWB if both parents were employed. The likelihood of low SWB was highest if neither parent worked. Similarly, cross-cultural research has found that both the father's and the mother's unemployment had a small, but significant negative effect on the child's SWB (Klocke et al., 2014). The mother's full-time employment was also found to be a significant positive predictor of the child's higher LS (Powdthavee & Vignoles, 2008). Casas et al. (2013) have also found that children who reported living with two employed parents had a higher SWB. In a large study conducted in Great Britain, children with mental health difficulties were about three times as likely as other children to live in households with two unemployed parents (McGinnity et al., 2005). Also, Powdthavee and Vernoit (2013) found that parental unemployment was related to a child's higher levels of LS, but only for children below the age of 11, supporting the idea that unemployment can also be beneficial for a child's SWB in certain contexts. This relationship was reversed for older children.

Not all research supports the notion that parental employment is necessarily beneficial, or that unemployment is necessarily disadvantageous for the child's SWB. Employment can impair the bond between parents and young children, in cases where their job includes long hours or night shifts. Also, the stress that a parent experiences while working a high-demand job can influence the atmosphere in the home and bring stress into the child's lives (Heinrich, 2014). Carlsson et al. (2014) have found that parental employment is not a significant predictor of the child's SWB. Many researchers agree that factors such as the age of a child, the length of/reasons for unemployment, family income, and others should be considered when researching this topic (Haisken-DeNew & Kind, 2012; Powdthavee & Vernoit, 2013; Heinrich, 2014).

#### **Income per family member and the child's SWB**

In psychological research, family income is typically measured using self-reported income data. It is often used as a primary measure of socioeconomic status, considering its reliability, objectivity, and cost-effectiveness. Participants are usually asked to report their family's total income over a specific period and the reported

income is usually adjusted for family size (Adler et al., 2000). Overall, research examining the connection between economic factors and SWB is still inconclusive. In a study that aimed to explore determinants of child's low SWB, children in poorer families were more likely to experience lower LS, lower happiness, and higher sadness (Rees & Bradshaw, 2018). Moreover, when other socio-demographic and economic factors were analyzed jointly, the results showed that family income contributed more to explaining the variation in child's SWB compared to other factors. A cross-cultural study also revealed a significant, positive association between the reported family material resources and child LS in each country (Sarriera et al., 2015). Studies from the UK showed a similar pattern of results. The household income showed a weak, positive relationship with the child's SWB, while their perception of possible material deprivation showed a stronger connection (Rees et al., 2012; Dinisman & Ben-Arieh, 2016). Casas et al. (2022) explored the relationship between the general wealth indicators of a country and child SWB. They found a significant relationship between economic indicators and affective SWB at the population level, but not between economic indicators and cognitive SWB, suggesting an idiosyncratic relationship between each of the SWB components and economic indicators.

While it is reasonable to presume that higher family income relates to higher child's SWB, not all studies reported a significant, positive association between family income and child's SWB (Carlsson, et al., 2014; Knies, 2011; Rees et al. 2011; Main, 2019; Lee & Yoo, 2015, Powdthavee & Vignoles, 2008). A study on a large sample of UK children reported that belonging to a higher family income group predicted more reported mental health problems and lower levels of well-being (Patalay & Fitzsimons, 2016). The authors elaborated that subjective material status should be considered. The perceived material position of the family and relative wealth was negatively associated with the child's SWB. Main (2019) claims that the relationship between income and child's SWB is more complex than it appears. Using mediation analysis, it was established that income has a direct, weak positive effect on the child's SWB, but also an indirect negative effect. Effects in opposite directions may obscure and neutralize the association between the variables in the analysis, which makes establishing the causal order between the variables even more difficult. The mediators tested were deprivation, perceptions of family resource-sharing practices, and subjective material well-being (SMWB). Interestingly, a negative relationship between income and SMWB was found. Also, SMWB explained far more variation in SWB than any other variable. That finding is in line with Cummins's hypothesis (2000) that the relationship between income and SWB is mediated by various economic and social factors. It is evident that findings are inconsistent across studies, nevertheless, studies highlight the need for a more nuanced understanding of the relationship between family income and child SWB.

### ***Parents' education level and the child's SWB***

Some studies used parental education attainment as one of the possible predictors of child's SWB, however, research focusing primarily or solely on the relationship between parental education and child's SWB is lacking. Parental education is likely related to the child's subjective well-being (SWB) for several reasons. Parents with higher levels of education often possess greater knowledge about child development, effective parenting strategies, and access to resources such as books, educational toys, and extracurricular activities. They may engage in more enriching and stimulating interactions with their children, which can contribute to the child's overall well-being. Additionally, higher education is associated with greater economic stability and parents with higher education levels may tend to model positive behaviors and support their child's educational aspirations, contributing to their overall well-being. Some authors suggest that educated mothers make less use of disciplinary practices, which is in turn associated with fewer symptoms of child's externalizing problems (Bøe et al., 2014).

Parental education is usually measured on a continuum of possible education outcomes, for example from finishing elementary school to acquiring a doctorate degree. Existing studies reported mixed effects of education on child's SWB. In a study that included several socio-demographic predictors of SWB, children living with parents who were more educated were less likely to have lower LS, lower happiness, and higher sadness (Rees & Bradshaw, 2018). In a study that focused on the mental health of children in Great Britain, children with mental health difficulties were more than twice as likely to have parents with no educational qualifications (McGinnity et al., 2005).

Some research yielded unexpected results. According to Rees (2019), children had more PA and less NA if they lived with a main parent who had fewer educational qualifications. Also, the mother's education was found to be a negative predictor of the child's LS. The authors, Powdthavee and Vignoles (2008), stated that they do not have a clear explanation for that effect. Patalay and Fitzsimons (2016) did not find a relationship between parental education and their child's SWB, after adding family income to the model. Similarly, a relationship was not found between parental secondary education (attending gymnasium or not) and the child's LS (Winkelman, 2006).

The introduction clearly indicates that this research field still lacks conclusive evidence. Therefore, this study aimed to explore the role of the parental SWB, their physical health, education, income, and employment in explaining the SWB of their children.

### **Research problems**

- (1) Investigate whether measures of family self-sufficiency (education, income, employment), maternal and paternal physical health, and mother's and father's SWB is associated with child's SWB.
- (2) To test whether the same determinants are associated with the child's SWB in two age subgroups (younger and older children) and between genders.

## METHOD

### Participants

The research was carried out as part of the project "Child well-being in family context (CHILD-WELL), which is financed by the Croatian Science Foundation. The data was collected in 15 primary schools in two Croatian counties (Varaždin and Osijek-Baranja).

This project includes data collected in a study with 1548 children (third to sixth grade of primary school), their mothers and fathers. Participants were included in the study only if children and parents both participated in the study, if at least two family members indicated that the child lives with both parents, and if the parent's marital status indicated that they are married or living with a partner. After this, 843 (M age=11.04, 48% boys) children and their mothers (M age=41.44) and fathers (M age=43.81) were left in the analysis. Parent characteristics are shown in Table 2. For multigroup analyses, children who attended 3<sup>rd</sup> and 4<sup>th</sup> grade (M age=10.09) were grouped and labeled as younger children. Children who attended 5<sup>th</sup> and 6<sup>th</sup> grade (M age =12.09) were grouped as older children.

### Procedure

This study was conducted in concordance with Ethical guidelines for research with children. Children and parents gave consent for participation in the project. Children filled out questionnaires during school hours and brought their parents' questionnaires home. Parents completed the questionnaires at home and stored them in sealed envelopes which children then brought back to school.

### Measures

#### Child's SWB (LS, PA, NA)

Life Satisfaction was measured with the Student Life Satisfaction Scale (SLSS) (Huebner, 1991). Children rated their agreement on a scale from 1 (Strongly disagree) to 6 (Strongly Agree) with seven different items (e.g., *I have a good life*). Cronbach alpha reliability of this scale was satisfactory ( $\alpha=.77$ ).

Positive and negative affect were measured with PANAS-C-SF (Ebesutani et al., 2012). It is a short version of positive (e.g., happy) and negative (e.g., sad) affect scales for children and it consists of 10 items, 5 items for each subscale. Reliability of both subscales in this study was good (positive affect  $\alpha=.80$ , negative affect  $\alpha=.73$ )

#### Parental SWB (LS, PA, NA)

The SWB of the mother and father consisted of three measures.

Life Satisfaction was measured with the Satisfaction with Life Scale (SWLS, Diener et al., 1985). The scale has five items that reflect general life satisfaction (e.g., *I am satisfied with my life*). Item are rated on a scale from 1 (Strongly disagree) to 7 (Strongly agree). Reliabilities for both mothers ( $\alpha=.89$ ) and fathers ( $\alpha=.89$ ) were good.

Positive and Negative Affect Schedule (PANAS, Watson et al., 1988) was used to measure positive (e.g., interested) and negative (e.g., upset) affect. It consists of 20 items, 10 for each subscale. Reliability for both positive (PA mothers  $\alpha=.86$ , fathers  $\alpha=.86$ ) and negative affect subscale was good (NA mothers  $\alpha=.90$ , fathers  $\alpha=.90$ ). Sample descriptives are shown in Tables 1 and 2.

#### Parental perceived physical health

The perceived physical health of the mother and father was reported by both parents. They rated their own health on a scale from 1 (very bad) to 5 (very good).

#### Parental employment

The parent's employment was coded as 0 – unemployed, and 1-employed. The variable was skewed with more than 90% of parents being employed.

#### Family income

The income per household member was reported by mothers. Income was reported in the following categories: no income, up to 265 euros, between 265 and 531 euros, between 531 and 929 euros, between 929 and 1593, and higher than 1593 per household member.

**Table 1.** Descriptive statistics subjective well-being measures and parents' physical health

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>M</i>	<i>SD</i>
LS – child	794	1.57	6	4.87	0.85
PA – child	801	1	5	4.20	0.69
NA – child	793	1	5	1.86	0.72
LS – mother	832	1	7	5.32	1.01
PA – mother	816	1.5	5	3.64	0.61
NA – mother	824	1	4.6	2.23	0.77
LS – father	832	1.4	7	5.20	1.02
PA – father	815	1.5	5	3.68	0.61
NA – father	821	1	5	2.02	0.72
Health - mother	841	1	5	4.11	0.72
Health - father	840	1	5	4.03	0.77

**Table 2.** Parents' characteristics

	<i>f</i>	%
Education – mother		
Primary school	11	1.3
High school	385	45.7
College or University	391	46.4
PhD	51	6.0
Education – father		
Primary school	16	1.9
High school	508	60.3
College or University	274	32.5
PhD	37	4.4
Employment – mother		
Employed	775	92.0
Unemployed	66	7.8
Employment – father		
Employed	783	92.9
Unemployed	53	6.3
Income per household member		
No income	2	0.2
Up to 265 euros	63	7.5
265-531	292	34.6
531-929	283	33.6
929-1593	140	16.6
Higher than 1593	44	5.2

**Parental education level**

Mothers and fathers reported their education level. Education levels were categorized into four categories – unfinished primary school or primary school only, high school only, higher-level education, and master's degree/doctorate.

**Data analyses**

All analyses were done in R software with the lavaan package (Rosseel, 2012). To make the models simpler, we decided to model child's SWB as a second-order hierarchical model and parents' SWB as a first-order factor based on sum scores. All models were tested with a maximum likelihood robust estimator. Model fit was evaluated with respect to the following criteria: CFI > .95, RMSEA < .06, and SRMR < .08 (Hu & Bentler, 1999). Multigroup models with free and equal loadings were compared with differences in CFI (Cheung, 2002), RMSEA ( $\Delta 0.015$ ), and SRMR ( $\Delta 0.015$ ) since these models had a large sample size and a lot of estimated parameters (Chen, 2007). Models with constrained regression parameters were compared via Scaled Chi-square difference ( $\chi^2$ ) which is common for these types of hypotheses.

We tested a model with all predictors included (Figure 1). This model was then tested with respect to two age and two gender groups. The multigroup analysis consisted of three parts. First, we estimated a model with free loadings between groups. Second, we compared that model with the model which has constrained loadings of all latent variables between the groups. Third, we constrained regression paths between the groups and compared that model with the model that has constrained loadings.

**RESULTS**

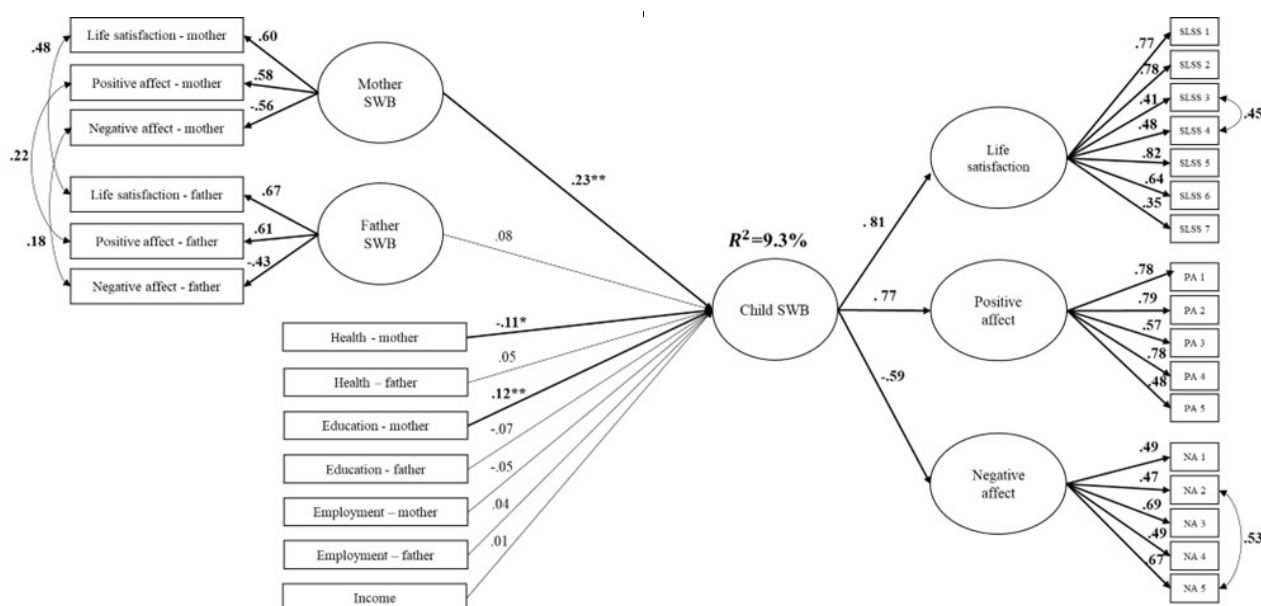
In Table 3 correlations between SWB measured as a latent variable and other model variables are presented. Latent correlations between child's, mother's, and father's SWB are positive. Moreover, links between mothers' and fathers' SWB are relatively high indicating possible difficulties when estimating their unique effects. The only other variables linked to child's SWB were mothers' education and fathers' perceived health.

A model with all predictors was specified. In that model, a child's SWB was modeled as a second-order factor with three first-order factors corresponding to life

**Table 3.** Correlation between latent SWB measures and other variables (*N*=843)

	SWB –c	SWB –m	SWB –f	EDU –m	EDU –f	EMP –m	EMP –f	Income	Health –m	Health –f
SWB – c	–									
SWB – m	.24***	–								
SWB – f	.20***	.51***	–							
EDU – m	.13**	.18**	.07	–						
EDU – f	.03	.18**	.13*	.40***	–					
EMP – m	-.02	.07	-.03	.18***	.08*	–				
EMP – f	.07	.09	.07	.12**	.17***	.11*	–			
Income	.08	.16*	.20***	.26***	.20***	.25***	.18***	–		
Health – m	.03	.48***	.25***	.10**	.13***	.13**	.08*	.10***	–	
Health – f	.13**	.27***	.47***	.06	.13***	-.03	.16**	.12***	.23***	–

Note. \**p*<.05; \*\**p*<.01; c – child, m – mother, f – father.



**Fig. 1.** The whole structural model with different components of family well-being as predictors of child' subjective well-being

satisfaction, positive and negative affect. Item residual correlations were allowed for items 2 and 3 on Student Life Satisfaction Scale, and between the two items on the negative affect scale. Parents' SWB was modeled as a first-order factor with indicators – life satisfaction, positive and negative affect. Residual correlations were allowed between mothers and fathers for the same measures. All other predictors were manifest variables. This model showed good fit indices: Scaled  $\chi^2(359)=577.460$ ,  $p<.001$ , Scaled CFI=0.961, RMSEA=.027, SRMR=.039. In that model, only mothers' SWB, education, and health were significant predictors.

This model was tested with respect to two age and gender groups. First, it was tested whether the model had the same regression paths for younger and older children. For younger and older children model with constrained loadings did not have a worse fit than the model with free loadings ( $\Delta\text{CFI}=-.005$ ,  $\Delta\text{RMSEA}=.001$ ,  $\Delta\text{SRMR}=.004$ ). Similarly, the model with constrained regression paths did not differ from the model with equal loadings ( $\Delta\chi^2(9)=9.649$ ,  $p>.05$ ). In the model with equal regression paths, mothers' SWB and education were significant positive predictors, while mothers' health was a negative predictor with a p-value equal to .056. For boys and girls, a model with equal loadings did not have a worse fit than the model with free loadings ( $\Delta\text{CFI}=-.001$ ,  $\Delta\text{RMSEA}=0$ ,  $\Delta\text{SRMR}=-.002$ ). And the model with equal regression paths between gender groups was not worse than the model with free loadings ( $\Delta\chi^2(9)=13.052$ ,  $p>.05$ ). In the last model, mothers' SWB and education were significant positive predictors, and mothers' health was again a negative predictor on the border of significance ( $p=.055$ ). Also, the main model was rerun with the inclusion of age and gender as control variables. The inclusion of age and gender did not alter the interpretation of the main model.

To explore in more detail the unusual link between mothers' health and child's SWB, another model was specified with the exclusion of mothers' SWB. It was

hypothesized that due to shared variance between mothers' health and mothers' SWB ( $r=.48$ , Table 1), a suppressor effect may have arisen. Once we have excluded mothers' SWB, the only significant effects in the model were fathers' SWB ( $\beta=.18$ ,  $p<.01$ ) and mothers' education ( $\beta=.14$ ,  $p<.01$ ). Therefore, the negative effect between mothers' health and child SWB should be rejected.

Analyses of data only on complete data (listwise deletion,  $N=639$ ) showed that the only significant predictors of child's SWB were mothers' SWB ( $\beta=.21$ ,  $p<.05$ ) and mothers' health ( $\beta=-.13$ ,  $p<.05$ ). Mothers' education was marginally significant ( $\beta=.10$ ,  $p<.10$ ).

## DISCUSSION

The present research highlights the mother's SWB and education as significant, positive predictors of the child's SWB. One explanation for the relationship between parent's and child's SWB is the relationship between parent's poor mental health and the mental health of the co-parent, parenting practices, children, and the entire family system (Freeman et al., 2008; Newland, 2015). In literature, that phenomenon can be called emotional transmission or contagion (Larson & Almeida, 1999). The idea is that emotions "flow" from parents to children (and vice-versa) and are therefore transmitted through the shared environment. Some studies indicated that certain factors enable such transmission. For example, negative emotions were found to transmit more often (Larson & Gilman, 1999). Bronfenbrenner (1979) refers to this effect as "spillover" in his ecological systems theory. Like emotional transmission or contagion, common stressors or specific events that occur in the shared environment (e.g., job loss, divorce) typically influence the SWB of all family members. A certain event can reflect primarily on one family member and others not as much, however, the stress of one family member can cause the stress of others by proxy. Such events will influence the SWB of family

members similarly, making their SWB more similar to each other (Howe et al. 2004, Westman & Vinokur, 1998). That is reflected in this research, the SWB of the child correlates positively with the SWB of both parents, and mother's and father's SWB are also correlated. However, only mother's SWB emerged as a significant predictor of the child's SWB in the tested model. When mother's SWB was excluded from the main analysis, father's SWB emerged as a significant predictor of the child's SWB.

There is a substantial amount of evidence confirming that SWB has a genetic component and is partially heritable (Bartels & Boomsma, 2009; Røysamb et al., 2002; Nes & Røysamb, 2015). For example, if a parent is highly neurotic, his/her child will likely also have an innate tilt towards negative affect. Although many researchers provided evidence for the heritability of SWB, a consensus is yet to be reached regarding the size of that effect. Studies in this field have shown that heredity can typically explain between 20 and 50% of the variance in SWB (Lucas & Diener, 2009). In our study, bivariate correlations between mother-child ( $r=.24$ ,  $p<.01$ ) and father-child ( $r=.20$ ,  $p<.01$ ) correspond to existing genetic research of SWB. The variation is understandable considering that the results may vary depending on child's age, the measures of SWB, or aspects of SWB that were the focus of specific research.

It remains unclear why only the mother's and not the father's SWB was found to be positively related to the child's SWB. Mothers are, overall and on average, more engaged in parenting and spend more time with the child, so it is possible that proximity and time spent in mutual activities result in "spillover" or emotional contagion effect for mothers only. It was already mentioned that mother's and father's SWB share a significant amount of variance ( $r=.51$ ,  $p<.01$ ), so it is possible that father's SWB is relevant for the child, but mother's SWB is more relevant. Again, by excluding mother's SWB from the analysis, father's SWB emerged a significant predictor of the child's SWB.

The mothers, but not the father's, education was another significant predictor of the child's SWB. The assumption regarding the link between education-SWB is that more education means better parenting practices, usually even more knowledge about child development, and a more stimulating environment for the child. Again, mothers' increased engagement in parenting, compared to fathers', may explain the findings related to education. Although the two predictors (mother's SWB and education) were consistently linked to the child's SWB, it is important to note that they exhibited weak predictive power and accounted for a minimal amount of variance in the outcome variable.

Regarding health, only mother's health was a weak, negative predictor of the child's SWB. That effect was later rejected and explained by a suppressor effect which arose due to mother's SWB. First, it needs to be considered that, unlike education and employment, health was subjectively assessed by both parents in this study with one, Likert-type question. Future studies which will focus

on the relationship between parental health and child's SWB should explore the health status of parents in more depth. Also, the health status of a parent probably plays a role in his/her self-assessment of the SWB. In this case, health is partially accounted for by SWB measures (Cross et al., 2018).

Both parents' employment status was not a significant predictor of the child's SWB. As mentioned in the method section, the employment variables for both parents are highly skewed. In the case of both parents, more than 90% of parents employed. A sample with more unemployed parents could provide a basis for more nuanced research into the relationship between parental employment and the child's SWB. The family income was also not a significant predictor of the child's SWB. As some researchers advise, measuring perceived social status or income relative to peers would be more revealing in the context of child's SWB. Two other limitations need to be considered regarding the family income in this research. First, the study sample is tilted towards more functional and higher SES families. Second, the region where the research was conducted is generally not characterized by serious poverty and large socio-economic discrepancies. That is important to note because the role of income in a child's SWB is possibly different in different countries and/or regions with larger gaps between the low- and high-income families. Employment and income are both objective measures of family well-being. Main (2019) claims that researchers should keep in mind that two self-assessment measures will usually be more congruent compared to one self-assessment and one objective measure. That is mostly relevant for the income variables. Many authors mention that subjective estimation of material well-being should be considered and is possibly a better predictor of SWB. However, that can possibly be a result of the common method variance.

The obtained results are only marginally in concordance with the Theory of Change because, according to the Theory, family well-being (parental SWB, their physical health and self-sufficiency - income, employment, education) should be positively, directly linked to child's SWB. The Theory also proposes that the relationship is mediated by parental behaviors which is not tested in this study. This study provides only weak evidence for the Theory of Change's proposed model, since only mother's education and SWB emerged as positive predictors of the child's SWB.

## STRENGTHS AND LIMITATIONS

One strength of this research is the fact that the data was collected from three different sources. The study sample is adequate in size but is generally tilted towards more functional families. The study invitation went through primary schools and participation was voluntary. Parents from higher-income families, employed, with possibly more positive attitudes towards education were slightly more motivated to participate in the study. First suggestion for future studies refers to sampling of the

families – if possible, researchers should avoid over-representing functional/high SES families and focus on motivating lower SES families to participate. All the typical limitations of cross-sectional research refer to this study as well. Longitudinal data will shed light on the examined relationships and possibly determine causal links between the studied variables.

While our study identified significant predictors such as mother's SWB and her education level, it's important to note that other potential predictors did not show significant associations with the criteria. This suggests that the relationship between parental/family well-being and child's SWB is complex and influenced by various factors beyond the ones measured in our study. Despite these findings, it's crucial to acknowledge that the combined effect of all included predictors accounted for only a small proportion of the variance in the criteria ( $R^2 = 9.3\%$ ), indicating that additional unmeasured variables likely contribute to the overall subjective well-being of both parents and children.

Future research should consider the various limitations associated with measuring the constructs included in the study. For instance, it is essential to consider whether using a binary question (yes/no) adequately captures employment status and how to obtain the most precise measure of family income. Also, it is crucial to recognize the potential biases inherent in self-reported data. Parents may tend to underreport negative issues due to social desirability which could lead to skewed results. This bias may manifest in various ways, such as parents downplaying conflicts within the family or minimizing their own mental health challenges to present a more favorable image. Similarly, children may also be influenced by social desirability biases, particularly when responding to questions about sensitive topics like family dynamics while the teacher or researcher is present. Therefore, future research should implement measures to mitigate these biases, such as using multiple informants or incorporating objective measures where possible, to ensure more accurate and reliable data collection.

It is also worth noting that this study includes only children who have both parents present in their family home. That limits the generalizability of the findings. It is not clear whether the results would translate to, for example, children with only one parent living at home. Future studies could focus specifically on children with divorced parents or single-parent households.

Also, the possibility that the child's SWB is less susceptible to external influences and more biologically determined needs to be seriously considered as well. This hypothesis can be supported based on several compelling factors, one of which revolves around the components encompassed within the child's SWB construct. Specifically, the child's SWB entails cognitive evaluations of life satisfaction, as well as assessments of positive and negative affect. These dimensions of SWB are not solely contingent on external circumstances. Rather, they are influenced in part by a child's inherent emotional functioning and underlying personality traits, which have

a well-established neurological and biological foundation (John et al., 2010; Lewis et al., 2010). Some authors explicitly argue that an individual's SWB is fundamentally shaped by their unique personality traits, suggesting that factors such as extraversion and neuroticism play a significant role in determining overall life satisfaction and emotional well-being (DeNeve & Cooper, 1998; Steel et al., 2008).

## CONCLUSION

The present research provides valuable insights into the factors influencing a child's subjective well-being (SWB). The findings underscore the significance of the mother's SWB and educational attainment as positive predictors of the child's SWB. This study examined associations between some parental and family characteristics (health, education, income, employment status, and SWB of both parents), and their child's SWB. Only the mother's SWB and education were found to be significant, positive predictors of the child's SWB. The model was tested with respect to two age and gender groups, yielding similar results, i.e. mother's SWB and education as positive predictors. Upon excluding mother's SWB from the analysis, the remaining significant predictors were fathers' SWB and mothers education. Overall, the tested model explained a low amount of variance in the criteria ( $R^2=9.3\%$ ). The results are somewhat aligned with existing research and only marginally aligned with the Theory of Change.

## COMPLIANCE WITH ETHICAL STANDARDS

This study involving human participants has been approved by the Ethics Committee of the Croatian Ministry of Science and Education, adhering to the ethical principles of the 1964 Declaration of Helsinki and its subsequent amendments. Written, informed consent was obtained from all participants, and steps were taken to ensure confidentiality and privacy.

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