



# Personal Resources, Well-Being, Internalizing and Externalizing Symptoms of Youth in Out-Of-Home Care

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**Abstract:** *Background:* Many youth living in out-of-home care have higher rates of mental health problems and more negative developmental outcomes than youth who live in their biological families. *Aims:* While previous studies have focused primarily on risk factors that increase the likelihood of behavioral problems, this study focuses on resources that contribute to positive development. *Method:* As part of the EMPOWERYOU research project, youth aged 11–18 years living in out-of-home care ( $n = 79$ , living in foster and adoptive families and residential groups) and living with their biological families ( $n = 71$ ) participated in an online survey. Youth reported on their personal resources, internalizing and externalizing symptoms, and well-being. *Results:* Youth in out-of-home care reported significantly fewer personal resources, less well-being, and more internalizing and especially externalizing symptoms than youth growing up in their biological families. Path analysis results showed that high self-esteem and high self-control were associated with less externalizing symptoms. Lower empathy/perspective-taking and more self-esteem were associated with less internalizing symptoms. More optimism was associated with increased well-being. These relationships were independent of family placement as there was no moderating effect for placement type. *Limitations:* Potential limitations arise from focusing solely on self-report and using of a cross-sectional design. *Conclusion:* The results highlight the relevance of promoting the personal resources of youth in out-of-home care. Since the path analysis did not reveal moderation by family placement, possible interventions do not need to be specified for them, but (already existing) effective interventions can be used.

**Keywords:** out-of-home care, resources, well-being, externalizing and internalizing symptoms

Many youth living in out-of-home care (OOHC) have experienced abuse and neglect in the past, which was the reason for their out-of-home placement (Vasileva & Petermann, 2018). As a result of their previous traumatic experiences, increased rates of mental health problems and more negative developmental outcomes were repeatedly shown for youth in OOHC (Fernandez, 2008; Linderkamp et al., 2009). According to Engler et al. (2022), higher rates were shown for example for attention deficit hyperactivity disorder (ADHD), depression, anxiety, conduct disorder, or post-traumatic stress disorder (PTSD), compared to the general population. Increased rates are not only reflected in categorical psychiatric diagnoses, but also in various dimensional self-reports and caregiver reports on mental health problems (e.g., Lohaus et al., 2017, 2018; Sawyer et al., 2007). Many previous studies have focused on risk factors that may have contributed to the development of mental

health problems in youth in OOHC, and significant effects were found for high exposure to maltreatment and neglect, prenatal exposure to nicotine, alcohol, and psychotropic drugs, and problematic family constellations (for an overview see Oswald et al., 2010). According to Oswald et al. (2010), multiple risk factors may contribute to developmental delays and mental health problems among youth in OOHC, making it difficult to identify single underlying risk factors. In addition, the accumulation of multiple risk factors number involved appears to be important for the occurrence of adverse developmental outcomes and mental health problems (Maaskant et al., 2014).

While the focus was previously mainly on risk factors, few studies examined predictors of positive development of youth in OOHC (Magee et al., 2019). Despite the fact that youth in OOHC have experienced multiple risk factors in the past, the majority of them do not show negative

developmental outcomes or mental health problems (Masten & Barnes, 2018). It is assumed that the probability of the occurrence of mental disorders can be increased by risk factors and decreased by resilience factors. In this context, resources can act as resilience factors, outbalancing the effects of risk factors and offering protection in the face of adversity (Hoge et al., 2007). Previous studies on resources of youth in OOH focused mainly on contextual factors contributing to positive developmental outcomes. For example, a meta-analysis by Lou et al. (2018) showed that providing educational support is a factor contributing to positive outcomes. Moreover, the quality of social relationships between children in OOH and significant others (e.g., caregivers, siblings) was found to be important for children to adjust to disruptions in their lives (Marcus, 1991; Price & Brew, 1998). However, a recent population-wide study demonstrated that mental health and well-being were more closely related to individual factors than contextual factors suggesting that the identification of individual resilience factors might help to improve interventions for mental health outcomes and reduce the negative effects of contextual risk factors (Tseliou & Ashfield-Watt, 2022).

In addition to the previous focus on contextual resources (e.g., Cox et al., 2003; Lee & Barth, 2009; Mapp & Steinberg, 2007; Rhodes et al., 2003), there is also research suggesting that different personal resources may be important for young people, and particularly for young people in OOH (Fernandez, 2008) and are associated to higher health-related quality of life (Erhart et al., 2008). In line with this research, the focus of the current paper is on personal resources that might foster positive development for young people in OOH. An important personal resource is empathy and perspective which is associated with more prosocial behavior and less aggressive behavior (Batanova & Loukas, 2011; Van der Graaff et al., 2017), and therefore can help youth to establish and maintain social relationships. In addition, self-efficacy and self-control may be important resources in coping with adversity (De Ridder et al., 2012). Self-efficacy refers to the belief in one's ability to perform a desired action with one's own competencies, while self-control relates to the ability to regulate behavior and emotional states to achieve self-imposed or externally imposed goals. Self-efficacy, as well as self-control, were shown to be positively related to youth's resilience and mental health (Kvarme et al., 2009; Luszczynska et al., 2005; Miller et al., 2011; Schwarzer & Warner, 2013). Furthermore, self-esteem and optimism are two personal resources that showed links to effective coping with adversity (Bastiaansen et al., 2005; Gaspar et al., 2009; Orth et al., 2008). For example, Veselska et al. (2009) showed associations between negative self-esteem and risk-taking behavior in youth, while Liu et al. (2021) underlined the role of self-esteem as a factor protecting against mental health problems in early

adolescence. Regarding optimism, studies indicate its protective role against youth health risks (Patton et al., 2011), but also the role of both optimism and self-esteem for subjective well-being (Duy & Yildiz, 2019). Sense of coherence is an important construct in the salutogenetic conception of Antonovsky (1993) which may also contribute as a personal resource to mental health and resilience (Länsimies et al., 2017). It refers to the basic attitude of experiencing the world as coherent, predictable, and meaningful. Accordingly, a high sense of coherence is characterized by the conviction that one understands events and can influence them and that at the same time, a sense of meaning is attributed to them, so that it is worthwhile to invest energy and work for things. For example, a study by Carlén et al. (2020) showed that the sense of coherence assessed at the age of 15 predicted mental health and well-being in youth 3 years later, while Moksnes et al. (2013) found that youth's sense of coherence was associated with several health-related outcome variables, especially higher well-being, and less depressive symptoms. Resources make a fundamental contribution to the resilience of youth in care (Nuñez et al., 2022). There is increasing discussion of the impact of adverse childhood experiences on lifelong development (Masten & Barnes, 2018), as it has been shown that higher levels of resilience are associated with better developmental outcomes and that youth in care were more vulnerable in this respect compared to their peers (Lou et al., 2018).

To summarize, this study focused on a set of important personal resources of youth in OOH, and their role in mental health (i.e., internalizing and externalizing symptoms) and well-being. A sample of youth living in OOH (foster and adoptive families and residential groups) was compared to a sample living with their biological families (BF) to identify possible differences between youth living in different family contexts.

Regarding the outcome variables, it was expected that youth living in OOH reported more (a) internalizing and (b) externalizing symptoms and less (c) well-being than youth living in BF (Hypothesis 1). They were also expected to report fewer personal resources, namely (a) self-control, (b) self-esteem, (c) optimism, (d) empathy and perspective taking, (e) sense of coherence, and (f) self-efficacy (Hypothesis 2). Furthermore, the role of personal resources was examined as a factor contributing to the youth's well-being and internalizing and externalizing symptoms. More personal resources were assumed to be related to fewer internalizing and externalizing symptoms and higher well-being of youth in OOH and BF. This was expected for all personal resources considered in this study (Hypothesis 3, later subdivided into Hypotheses 3a-3f, depending on the particular resource). As an exploratory research question, this study also analyzed whether these associations were moderated by the living conditions (OOHC vs. BF). This

analysis can provide insight into possible variables that should be addressed in future prevention and intervention efforts.

## Method

### Participants and Procedure

Originally, 159 youths in the age range of 11–18 years took part in the survey; due to missing values, a dropout of nine youths resulted. Therefore, self-report data was included from 71 youth living in BF (56% female) and 79 youth (49% female) living in OOHC. Among the youth in OOHC, 59 lived with foster parents, 17 with adoptive parents, and three in a residential group. Youth in OOHC ( $M_{\text{age}} = 13.57$ ,  $SD = 1.88$ ) were comparable to youth in BF ( $M_{\text{age}} = 13.44$ ,  $SD = 2.39$ ) with respect to age,  $t(148) = 0.380$ ,  $p = .704$ , and gender distribution,  $\chi^2(1) = 1.055$ ,  $p = .304$ .

The study was conducted as an online survey in parallel in both groups between May 2020 and January 2022, so that any COVID-related measures and restrictions may affect both groups equally. Participants were recruited via youth welfare offices and associations for foster and adoptive families throughout Germany, social media, local newspapers, and schools. Interested families contacted the organizers of the study for more detailed information and to register for participation. The online survey included several questionnaires (of which only three were used for answering the current research questions). To reduce the burden on the participants, the online survey was divided into five individual surveys which were released a few days apart. Completing each survey took 15–20 min for youth. Participants were compensated with a 20 € voucher for a store of their choice. All participants gave informed consent. The study was approved by the local ethics committee (EUB 2019-180) and was funded by the German Federal Ministry of Education and Research (BMBF, Funding code 01KR1806B). In this study, only youth self-reports were used, and the relevant questionnaires are presented in the following.

## Measures

### Outcome Variables

Internalizing and externalizing symptoms were assessed using the German version of the Youth Self-Report (YSR/11-18R; Döpfner et al., 2014). The items of the YSR/11-18 are rated by the youth themselves, providing information on various domains such as internalizing problems (e.g., anxiety, depression) and externalizing problems (e.g., aggression, rule-breaking behavior). The items are scored on a 3-point Likert scale, ranging from 0 (= *never*)

to 2 (= *often*). The composite scales indicating internalizing and externalizing symptoms were used in this study, based on sum scores across the respective items, with higher scores indicating higher levels of problems. One item related to suicidality was removed due to ethical concerns because the online format did not allow for direct contact with the participants in the case of a positive response. If more than eight items were missing, no scale value was computed (missing value). In the current sample, the internal consistencies (Cronbach's  $\alpha$ ) for the Internalizing scale (30 items) were .91 in OOHC and .94 in BF, and for the Externalizing scale (32 items) .84 in OOHC and .86 in BF.

Well-being was assessed using the self-report version of the KIDSCREEN-27 (The KIDSCREEN Group Europe, 2006). This questionnaire consists of 27 items with a 5-point response scale ranging from 1 (= *never/not at all*) to 5 (= *always/extremely*). The questionnaire contains five subscales related to (1) Physical Well-Being, (2) Psychological Well-Being, (3) Autonomy and Parent Relation, (4) Peers and Social Support, and (5) School Environment. The questionnaire items can be combined to a total mean score across all items which was used in this study to indicate well-being. Only for cases with no more than one missing item per scale, the total mean score can be used. Cronbach's  $\alpha$  was .80 in OOHC and .82 in BF in this study.

### Personal Resources

The Questionnaire to Assess Resources of Children and Youth (QARCA; Lohaus & Nussbeck, 2016) was used to identify the personal resources of the participants. Six personal resources are assessed using a set of 36 items (e.g., "I am satisfied the way I am" or "When I really want to achieve something, I succeed"). The items are answered on a 4-point Likert scale ranging from 1 (= *never true*) to 4 (= *always true*). Each personal resources subscale comprises 6 items and higher values indicate more self-reported resources. The participants' scale means were computed if at least 5 out of 6 item answers were available. The internal consistencies in this sample were  $\alpha = .87$  in OOHC and .85 in BF for the scale Empathy/Perspective Taking,  $\alpha = .88$  in OOHC and .91 in BF for Self-efficacy,  $\alpha = .75$  in OOHC and .75 in BF for Self-control,  $\alpha = .88$  in OOHC and .94 in BF for Self-esteem,  $\alpha = .89$  in OOHC and .87 in BF for Optimism, and  $\alpha = .79$  in OOHC and .83 in BF for Sense of Coherence.

## Statistical Analyses

Statistical analyses were conducted using IBM SPSS 29 and Mplus (Version 8, Muthén & Muthén, 1998–2017). First, missing data were imputed by multiple imputations at the scale level. Depending on the scale, there were between

0% and 6% missing values that were imputed. As recommended by Asendorpf et al. (2014), imputation was based on 20 imputed datasets. Gender and age of youth were used as predictor variables for imputation in addition to family placement and the scales of the questionnaires used for the calculations described under measures. Mahalanobis distances revealed two multivariate outliers. However, these cases were not caused by, for example, incorrect data entry, and analyses with and without the two outliers yielded similar results. Therefore, the outliers were included in the analyses. To test possible group differences (Hypotheses 1 and 2), multivariate analyses of covariance (MANCOVAs) were calculated. In the first MANCOVA, reports on internalizing and externalizing symptoms and well-being were used as dependent variables, while the second MANCOVA included the six personal resources as dependent variables. The independent variable was the living condition (OOHC vs. BF), and the youth's age and gender were included as covariates due to the significant correlations with the dependent variables. To examine associations of personal resources with internalizing problems, externalizing problems, and well-being (Hypothesis 3) and to further test the possibly moderating effect of family placement (OOHC vs. BF; exploratory research question), multigroup path analyses were conducted. To test for moderation, an unconstrained model allowing all path coefficients to vary between the two groups was compared to a constrained model setting all path coefficients to be equal in the two groups. Variables were checked for normality (skewness < 2, kurtosis < 2; West et al., 1995). Therefore, the MRL estimator was used. Since the  $\chi^2$ -difference test used for model comparisons cannot be used in a regular way for the calculation of the MLR estimator, this was adjusted accordingly. In case of a nonsignificant moderation, a single group analysis can be computed. To evaluate the overall model fit, guidelines by Schermelleh-Engel et al. (2003) were used: An RMSEA  $\leq$  .05 indicates a good model fit, and an RMSEA  $>$  .05 and  $\leq$  .08 is an acceptable model fit. For an acceptable model fit, the CFI should have a value of  $\geq$  .95, and for a good model fit a value of  $\geq$  .97.

## Results

### Preliminary Analyses

Correlations between age, gender, family placement, internalizing and externalizing symptoms, well-being, and resources are shown in Table 1. In youth in BF, being older and of female gender were factors associated with decreased well-being; this was not the case for youth in OOHC. In both groups, the female gender was associated with more internalizing symptoms and less self-efficacy,

self-esteem, and sense of coherence and in BF additionally with less optimism. As might be expected, there were significant intercorrelations between resources in each of the two groups.

### Main Analyses

The MANCOVA calculated to test whether youth in OOHC reported more internalizing and externalizing symptoms and less well-being than youth in BF (Hypothesis 1) revealed a significant multivariate effect for the living condition,  $F(3, 144) = 5.675$ ,  $p = .001$ ,  $\eta^2 = .106$ , Wilk's  $\Lambda = .894$ . As univariate analyses showed, youth living in OOHC reported significantly more externalizing symptoms and lower well-being in comparison to youth living in their BF, while there was no difference in internalizing symptoms (Table 2). Compared to the corresponding norm values from the questionnaires (YSR/11-18R; Döpfner et al., 2014), the symptoms described by the youth from BF are in the average range: internalizing symptoms girls  $t = 57$  and boys  $t = 54$ , externalizing symptoms girls  $t = 50$  and boys  $t = 48$  and those of the youth from OOHC in the upper average range: internalizing symptoms girls  $t = 61$  and boys  $t = 59$ , externalizing symptoms girls  $t = 56$  and boys  $t = 57$ . Regarding the covariates, there was no significant multivariate effect for age, but a significant effect for gender,  $F(3, 144) = 4.852$ ,  $p = .003$ ,  $\eta^2 = .092$ , Wilk's  $\Lambda = .908$ . Female participants reported lower well-being, and fewer externalizing symptoms and more internalizing symptoms.

The MANCOVA calculated to test whether youth in OOHC reported fewer personal resources than youth in BF (Hypothesis 2) revealed again a multivariate main effect for living conditions,  $F(6, 141) = 3.758$ ,  $p = .002$ ,  $\eta^2 = .138$ , Wilk's  $\Lambda = .862$ . As Table 3 shows, significant differences at the univariate level were found for all personal resources (Self-efficacy, Self-control, Self-esteem, Optimism, Sense of Coherence, and Empathy/Perspective-taking). Again there was no significant multivariate effect for age, but there was a significant effect for gender,  $F(6, 141) = 3.605$ ,  $p = .002$ ,  $\eta^2 = .133$ , Wilk's  $\Lambda = .867$ . Female participants reported more empathy and self-control and less self-efficacy, self-esteem, sense of coherence, and optimism than their male counterparts.

In multigroup analyses (MGA), the unconstrained path model provided good fit indices,  $\chi^2(14) = 7.167$ ,  $p = .93$ , CFI = 1.00, RMSEA = .00, 90% CI [.00, .03], but was not significantly different from the model constraining all paths to be equal between the two groups,  $\chi^2(32) = 31.02$ ,  $p = .52$ , CFI = 1.00, RMSEA = .00, 90% CI [.00, .08];  $\Delta\chi^2 = 23.85$ ,  $\Delta df = 18$ ,  $p = .25$ . Thus, no moderating effect could be found for living condition in our sample. Therefore, a single group analysis (SGA; including all participants from both groups,  $N = 150$ ) was computed. The model fit

**Table 1.** Correlations between the study variables for youth living in out-of-home-care ( $n = 79$ ) presented below diagonal. Correlations between the study variables for youth living in biological families ( $n = 71$ ) presented above diagonal

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Age <sup>a</sup>	–	.15	.11	.12	–.29*	–.05	.03	–.01	–.03	–.06	.11
2. Gender <sup>b</sup>	.06	–	–.08	.01	–.05	–.06	–.11	–.06	.09	.06	.10
3. Internalizing symptoms <sup>a</sup>	.01	–.32**	–	.73**	–.44**	–.04	–.40**	–.34**	–.68**	–.64**	–.45**
4. Externalizing symptoms <sup>a</sup>	–.06	.12	.41**	–	–.46**	–.19	–.31**	–.43**	–.45**	–.45**	–.30*
5. Well-being <sup>a</sup>	–.10	.00	–.35**	–.27*	–	.42**	.40**	.43**	.51**	.56**	.49**
6. Empathy/Perspective taking <sup>a</sup>	–.08	–.15	.20	–.30**	.22	–	.43**	.53**	.37**	.39**	.46**
7. Self-efficacy <sup>a</sup>	.03	.25*	–.21	–.13	.38**	.27*	–	.60**	.59**	.69**	.77**
8. Self-control <sup>a</sup>	–.01	.02	–.17	–.31**	.18	.42**	.51**	–	.51**	.63**	.58**
9. Self-esteem <sup>a</sup>	–.05	.34**	–.54**	–.19	.39**	.08	.48**	.40**	–	.81**	.76**
10. Optimism <sup>a</sup>	.01	.18	–.37**	–.14	.45**	.25*	.52**	.47**	.78**	–	.73**
11. Sense of Coherence <sup>a</sup>	.02	.39**	–.36**	–.11	.38**	.31**	.60**	.47**	.70**	.70**	–

Note. <sup>a</sup>Pearson's correlation coefficient; <sup>b</sup>point-biserial correlation; Gender was coded as follows: 1 = female, 2 = male. \* $p < .05$ ; \*\* $p < .01$ .

**Table 2.** Differences between youth in OOHC ( $n = 79$ ) and BF ( $n = 71$ ) regarding internalizing and externalizing symptomatology, and well-being (univariate effects)

Measure	OOHC	BF	<i>F</i>	<i>df</i>	<i>p</i>	$\eta^2$
	<i>M (SD)</i>	<i>M (SD)</i>				
Internalizing symptoms	14.05 (9.89)	11.42 (10.23)	3.00	1,146	.085	.020
Externalizing symptoms	12.79 (7.25)	8.30 (6.17)	15.90	1,146	< .001	.098
Well-being	3.57 (0.42)	3.72 (0.39)	4.42	1,146	.037	.029

Note. OOHC = Out-of-home care; BF = Biological families.

**Table 3.** Differences between youth in OOHC ( $n = 79$ ) and BF ( $n = 71$ ) regarding their personal resources (univariate effects)

Measure	OOHC	BF	<i>F</i>	<i>df</i>	<i>p</i>	$\eta^2$
	<i>M (SD)</i>	<i>M (SD)</i>				
Empathy/PT	2.84 (0.62)	3.04 (0.54)	4.41	1,146	.037	.029
Self-efficacy	2.80 (0.59)	3.07 (0.61)	7.91	1,146	.006	.051
Self-control	2.63 (0.60)	3.00 (0.54)	14.95	1,146	<.001	.093
Self-esteem	2.76 (0.71)	3.10 (0.69)	10.02	1,146	.002	.064
Optimism	2.71 (0.65)	2.99 (0.58)	8.27	1,146	.005	.054
Sense of coherence	2.91 (0.57)	3.28 (0.53)	18.67	1,146	<.001	.113

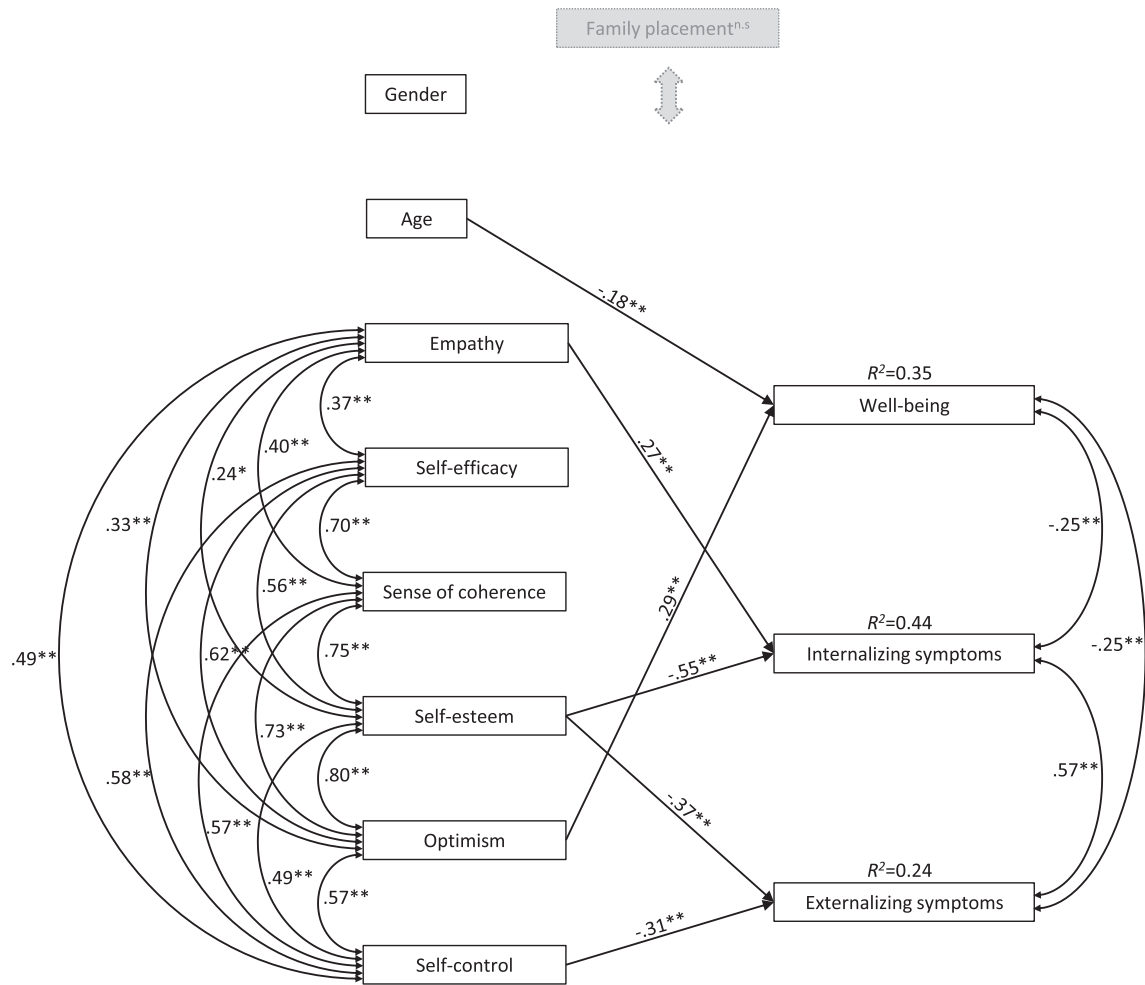
Note. OOHC = Out-of-home care; BF = Biological families; PT = Perspective Taking.

the data well,  $\chi^2(7) = 0.92$ ,  $p = .70$ , CFI = 1.00, RMSEA = .00, 90% CI [.00, .08], and several significant associations were found (Figure 1). A higher self-esteem was associated with fewer internalizing ( $b = -0.55$ ,  $SE(b) = 0.11$ ,  $p < .001$ ) and externalizing symptoms ( $b = -0.37$ ,  $SE(b) = 0.15$ ,  $p = .013$ ). More empathy/perspective taking was associated with more internalizing symptoms ( $b = 0.27$ ,  $SE(b) = 0.08$ ,  $p = .001$ ), and more self-control was associated with fewer externalizing symptoms ( $b = -0.31$ ,  $SE(b) = 0.09$ ,  $p = .001$ ). More optimism was associated with more well-being ( $b = 0.29$ ,  $SE(b) = 0.11$ ,  $p = .009$ ). Age and gender were included as control variables, with no effect on gender

but an effect on age. The older the youth were, the less well-being they reported ( $b = -0.18$ ,  $SE(b) = 0.07$ ,  $p = .010$ ).

## Discussion

The purpose of the study was to explore the role of important personal resources of youth in out-of-home care (OOHC) and biological families (BF) and their importance for mental health (internalizing and externalizing symptoms) and well-being.



**Figure 1.** Path model on the role of personal resources for internalizing and externalizing symptoms, and well-being in youth (living in out-of-home-care and biological families). Standardized path coefficients; for reasons of simplification, only significant paths are displayed. \* $p < .05$ ; \*\* $p < .01$ .

## Youth in Out-Of-Home Care vs. Biological Families: Mean Differences in Their Internalizing and Externalizing Symptoms, Well-Being, and Resources

As expected (Hypothesis 1), youth living in OOHC reported more internalizing and externalizing symptoms and less well-being than youth living in BF. These results are consistent with previous studies showing that youth living in OOHC show increased internalizing and externalizing symptoms (e.g., Fernandez, 2008) which persist into adulthood (e.g., Seker et al., 2022). For example, in a prospective longitudinal study on developmental outcomes in foster children in Germany, 36% of foster children showed behavioral problems (Linderkamp et al., 2009). When studies did not focus exclusively on mental health problems but also considered positive outcome variables, they typically used

reports from significant others, ignoring the youth' self-reported feelings and attributions (e.g., Barber & Delfabbro, 2005). However, there are few studies that addressed self-perceptions of the well-being of youth in OOHC, here they reported less emotional well-being than youth in BF of the same age (Fernandez, 2008). In a study with a similar sample (131 children and youth in OOHC between the ages of 8 and 16 in Germany) as in the present study, the proportion of children and youth in OOHC who reported low subjective well-being was on average about twice as high as in the normal population in all major life domains (Wiesch, 2016). The author concludes that children and youth in OOHC appear to lack resources in important life domains to positively cope with demands in the context of their increased stressful experiences and mental health problems. This assumption was confirmed in the present study. As expected (Hypothesis 2), youth in OOHC reported significantly lower scores for all assessed personal resources

than youth in BF. Previous research on resources in the context of OOHC has often examined primarily contextual rather than personal resources (e.g., Cox et al., 2003; Lee & Barth, 2009; Mapp & Steinberg, 2007; Rhodes et al., 2003). In the few studies that also dealt with the personal resources of youth in OOHC, similar results were found as in the present study, for example, Farmer et al. (2008) observed fewer personal strengths in youth in OOHC.

### **Associations Between Personal Resources, Internalizing, and Externalizing Symptoms and Well-Being**

With regard to the associations between personal resources and internalizing and externalizing symptoms and well-being among youth (in OOHC), the results of the current study confirmed that some of the resources examined played a relevant role. This is consistent with previous findings showing that personal resources are associated with higher health-related quality of life, even in the presence of a mental disorder, and are relevant for coping with health risks (Erhart et al., 2008). The path analysis conducted in this study revealed that higher self-control (Hypothesis 3a) was associated with less externalizing symptoms. This result is also consistent with the current literature. Several studies have examined the association between higher self-control and lower externalizing symptoms in youth. Moffitt et al. (2011) conducted a study investigating the relationship between self-control and externalizing behavior problems in youth. The findings revealed that higher self-control was significantly associated with a decreased likelihood of externalizing symptoms. Furthermore, the results of a meta-analysis conducted by De Ridder et al. (2012) demonstrated a moderate negative correlation between self-control and externalizing symptoms. Specifically, higher self-control was found to be associated with a decreased likelihood of externalizing behavior problems. In addition to self-control, higher self-esteem (Hypothesis 3b) was found to be associated with less externalizing symptoms in the present study. This finding aligns with a study on the determinants of quality of life in children with psychiatric disorders, which also highlighted the relevance of self-esteem (Bastiaansen et al., 2005). Self-esteem proved to be relevant not only for externalizing but also for internalizing symptoms. This is also consistent with previous findings. For instance, a study by Orth et al. (2008) found that higher levels of self-esteem were associated with lower levels of depressive symptoms in a sample of 500 youth. In this context, it should be noted that self-esteem is usually conceptualized in research as a predictor of internalizing and externalizing symptoms (e.g., Nie et al., 2014), but in clinical practice, reduced self-esteem is a symptom of these psychopathologies for

example depression, so that the associations found in this study could also be explained by this. Furthermore, the path analysis indicated that more optimism was accompanied by more well-being (Hypothesis 3c), which is consistent with findings from Gaspar et al. (2009), who demonstrated a positive association between well-being and generalized optimism. This relationship may be explained by the fact that optimists generally use more acceptance and active coping strategies, such as appraisal (Mishra, 2013).

In contrast to the other resources, empathy/perspective-taking (Hypothesis 3d) seemed to be more of a risk factor for internalizing symptoms than a protective factor. In addition to many studies that view empathy and perspective-taking primarily as strengths (Batanova & Loukas, 2011; Van der Graaff et al., 2017) (or demonstrated an association between empathy/perspective-taking and lower externalizing symptoms), there is also research suggesting that empathy may function as a “risky strength”: As Tone and Tully (2014) suggest the development of internalizing problems may be facilitated by an empathic response that is highly sensitive to the distress of others, involves rumination about one’s own role in the observed distress, or results in self-focused comforting responses. This might explain the positive relationship between empathy/perspective-taking and internalizing symptoms demonstrated in this study.

However, contrary to the hypotheses presented in the present study, sense of coherence (Hypothesis 3e) and self-efficacy (Hypothesis 3f) were not significantly associated with higher well-being or lower levels of internalizing and externalizing symptoms. These results are not in line with the majority of previous findings, particularly regarding self-efficacy. For example, Magaletta and Oliver (1999) found that general self-efficacy predicted optimism and well-being. In some studies, self-esteem and optimism were measured in conjunction with or as part of general self-efficacy. For example, Luszczynska et al. (2005) found a positive relationship between general self-efficacy and quality of life while emphasizing that self-efficacy was strongly associated with optimism, self-regulation, and self-esteem. Moreover, Kvarme et al. (2009) found a significant relationship between general self-efficacy and health-related quality of life and further examined specific components of self-efficacy. Self-esteem was understood here as part of self-efficacy. Of the components of self-efficacy examined, self-esteem was most strongly related to quality of life. The fact that there was no association between self-efficacy and well-being in the present study may thus have been due to the fact that self-esteem was included in this study as an independent predictor and not as a component of self-efficacy. Thus, the partial lack of significant effects could be related to the simultaneous pooling of multiple personal resources, which allowed us to determine the additional predictive value of each resource given the other

resources. The study revealed substantial intercorrelations between the individual personal resources, which are not unusual, so overlaps between the individual resources had to be considered in the conceptualization of the questionnaire used to record the resources. It is assumed that the individual resources are not independent of each other and that positive feedback loops arise, as the effects can reinforce each other (QARCA; Lohaus & Nussbeck, 2016). This could explain why individual resources (such as self-efficacy or sense of coherence) do not appear to be meaningful in the path analysis because other constructs (e.g., self-esteem) already encompass most of the variance in these constructs. However, the positive correlations with well-being and internalizing and externalizing symptoms (see Table 1) show that personal resources self-efficacy and sense of coherence may not be irrelevant.

### **Moderation by the Living Conditions (Out-Of-Home Care vs. Biological Families)**

There was no moderating effect for family placement in this study, which indicates that the associations between personal resources, mental health, and well-being were consistent across both groups, despite youth in OOHC reporting significantly fewer personal resources and well-being, but more externalizing symptoms. Analogous mechanisms were observed when examining other factors potentially related to the mental health of youth in OOHC, aside from personal resources. In a study of mental health problems in foster children, the differences between the stress levels of foster and biological mothers disappeared when the children's mental health problems were included as covariates in the analyses (Lohaus et al., 2017). The relationships between the variables seemed to be the same in foster and biological families, although the level of the variables was different. This may indicate that the underlying mechanisms are similar in both groups in the present study. However, care systems working with youth in OOHC should keep in mind that those youth nevertheless experience far more mental health problems and are in greater need of prevention and intervention programs.

### **Strengths, Limitations, and Future Research**

The present study included a sample of youth in out-of-home care (OOHC) that has received limited attention in previous research to date. Nevertheless, we managed to investigate an adequate sample size. Up until now, there have only been isolated studies where children and youth in OOHC were directly interviewed (Wiesch, 2016), or

studies featured notably small sample sizes (e.g., Gleißner et al., 2013).

However, it should be noted that it is known from previous studies that youth often describe themselves in self-reports as less problematic than they are portrayed in proxy reports (Linderkamp et al., 2009). As analyses were limited to self-reports, this constitutes a limitation of this study. Furthermore, future research should also examine additional resources (e.g., intelligence or social competence) that may be relevant for positive youth development. Because some existing longitudinal studies emphasize the positive development of youth in OOHC over longer periods of time, a longitudinal rather than a cross-sectional design might be helpful in future studies to examine the role of personal resources in a prospective manner (Barber & Delfabbro, 2005). With regard to the development of externalizing and internalizing symptoms in OOHC, previous research indicates a decrease (Fernandez, 2008; Linderkamp et al., 2009; McWey et al., 2010) as well as stability over time (Goemans et al., 2015). In light of the contradictory findings to date, future research should address the important question of how the individual resources identified in the current study contribute to a potentially positive long-term developmental outcome (e.g., with a focus on longitudinal assessments).

### **Conclusion and Practical Implications**

Recognizing and addressing internalizing and externalizing symptoms in youth in OOHC is important (Fernandez, 2008), in particular, because they can be a reason for termination of foster care (Newton et al., 2000). In the present study, youth in OOHC showed increased internalizing and externalizing symptoms that were associated with personal resources. Attention should be paid to the fact that empathy and perspective are not exclusively a resource, but may also be a risk factor for internalizing symptoms. Furthermore, self-esteem and self-control were associated with decreased externalizing symptoms in this study and should therefore be promoted. Carbone et al. (2007) found that youth in OOHC have lower mental health and self-esteem and consequently call for more support and professional help. In order to ensure this professional help, a detailed examination of personal resources can contribute to the development of uniform quality criteria (there is still a great need here; Küfner et al., 2011), which may contribute to a decisive improvement in the quality of life of youth in OOHC (Wiesch, 2016). Youth in OOHC also reported less well-being. Well-being is relevant not only for one's own feelings but also for positive personal development. This is especially important for youth in OOHC, as they show particular academic achievement gaps (Evans, 2001).



The results of this study highlight the relevance of promoting personal resources in the context of well-being and internalizing and externalizing symptoms of youth in OOHC. Broader screenings that assess both, mental health problems as well as individual resources could be a helpful approach (Jee et al., 2011). The lack of moderating effects of family placement indicates that potential interventions need not be specifically tailored to youth in OOHC, but can be based on existing effective interventions.

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There is no conflict of interest concerning the content of this article.

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Informed consent was obtained from all participants included in the study and the study was approved by the local ethics committee (EUB 2019-180).

### Open Data

The authors are willing to share their data and research materials with other researchers. The material will be available upon request.

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