Support from Parents, Teachers, and Peers is differently associated with School Students' Well-Being

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Abstract

Parents, teachers, and peers provide a powerful context for school students' well-being. However, a detailed and systematic analysis of how parental, teacher, and peer support relate to students' well-being, measured by the dimensions self-worth and psychological and physical well-being, is still missing. To address this research gap, the following study investigates 733 adolescent German students from grades 7 and 8 ($M_{age} = 13.97$, $SD = 0.41$, 52% girls) with respect to their perceived supportive relationships at home and within the school context. The study considers gender, socioeconomic status, and school form as potential confounders. The results of the structural equation model, analysed with the statistical software R, indicate that perceived teacher support was positively related to students' self-worth and physical well-being, while peer support was related to psychological well-being. Students who perceived their parents as supportive reported higher well-being with respect to all three dimensions investigated.

Keywords: social support, parents, teaches, peers, well-being, school students

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Research on school students' well-being has gained increasing attention over the last decade as a response to the drastic increase in mental health problems, referred to as the "millennial morbidity", among school students from developed countries (Palfrey, Tonniges, Green, & Richmond, 2005; Ravens-Sieberer & Ottová- Jordan, 2016; Suhrcke, Pillas, & Selai, 2008, p. 43). Well-being is a key factor to address health concerns of school students, as well-being is associated with a wide range of positive outcomes related to health and academia (Amholt, Dammeyer, Carter, & Niclasen, 2020). In particular, well-being is associated with educational attainment, academic success (Brown 2004; Simovska et al. 2016; Suldo et al. 2011), low levels of burnout and depressive symptoms (Upadyaya & Salmela-Aro, 2013), decreased test anxiety (Steinmayr, Crede, McElvay, & Wirthwein, 2016), and a minimized risk of psychopathology (Pynoos et al. 1999). When investigating school students' well-being, the immediate social environment should be considered, as an individuals' well-being is closely linked to the quality of her or his social relationships (Umberson & Karas Montez, 2010). However, thus far, little systematic research has been conducted on the association between school students' well-being and their immediate social environment, including parents, teachers, and peers. On a micro-level, students frequently interact with their parents, mostly at home, and with their teachers and peers inside and outside school, while parents, teachers, and peers in turn interact with each other on a meso-level (see ecological systems theory by Bronfenbrenner, 1979). Following this approach, the conceptual model of well-being in schools (Konu & Rimpelä, 2002) emphasizes the importance of students' surroundings and community for

students' well-being. To conceptualize well-being in the current study, we follow the approach by Ravens-Sieberer and colleagues (2010) and define well-being as a three-dimensional concept, including a persons' physical and psychological state as well as his or her self-worth (Ravens-Sieberer et al., 2014). Physical well-being describes a person's fitness and energy levels, as well as their levels of physical complaints and malaise. Psychological well-being refers to life satisfaction, including positive emotions and the absence of feelings of sadness and loneliness. As a third dimension, self-worth covers the value an individual assigns to himself or herself and feelings of contentment with oneself. While the association between well-being and late adolescents' health and life satisfaction is well researched, studies that systematically investigate the role of supportive relationships with parents, teachers, and peers among school students are underrepresented. To address this research gap, this study was designed to investigate the association between parental, teacher, and peer support and secondary school students' well-being.

Social Support and Well-Being.

In general, social support refers to the social structure in which an individual is embedded, including specific aspects served by interpersonal relationships (Taylor, 2011). These aspects include, for example, feeling part of a social network, being engaged in bidirectional relationships characterized by close ties, mutual care, and esteem, or receiving help if needed (Sarason & Sarason, 2009). Due to the beneficial nature of social support with respect to mental and physical health, self-worth, self-esteem, academic success, and life satisfaction, various research disciplines have established theories built around social support. Among the most prominent is the buffering hypothesis (Cohen & Wills, 1985), according to which social support

mitigates feelings of stress, as social support presents an available resource to cope with stressors (Kikusui, Winslow, & Mori, 2006). Moreover, by taking advantage of social support in stressful situations, further resources can be gained (Conservation of Resources Theory, Hobfoll et al., 1990). Following the direct effect theory (Hashimoto et al., 1999), social support is also beneficial in the absence of stress and serves to increase individuals' well-being. Research on developmental aspects of children and youth within the frameworks of social attachment (Bowlby, 1982, Shaver & Mikulincer, 2010) and the need-to-belong theory (Baumeister & Leary, 1995) calls attention to the instinctive psychological need to experience integration, membership, mutual trust, and safety (Furman, 1998). These are important antecedents of personal growth, cognitive and behavioural skills, and, above all, well-being (Karreman & Vingerhoets, 2012). Although these theories and models approach social relationships differently, focusing on specific aspects of social relationships, they commonly acknowledge the beneficial role of social relationships for individuals' well-being.

However, social support may be most beneficial if it is unobtrusive and meets the needs of an individual (cf. de Grey et al., 2018; Ozbay et al., 2007; Sarason & Sarason, 2009). Based on this premise, school students may have different needs with respect to the support perceived from their immediate environment. Hence, the perceived support from parents, teachers, and peers may be differently associated with students' self-worth and psychological and physical well-being.

Social Support and School Students' Well-Being

Thus far, empirical studies on the association between the three dimensions of well-being and social support from parents, teachers, and peers have either investigated single dimensions of

well-being (e.g., in parent-child research) or used well-being as an umbrella concept for behavioural, cognitive, or socio-emotional outcomes of school students. Therefore, the impression is given that social support in general – no matter from whom – presents a common remedy to enhance school students' overall well-being. However, systematic empirical research on the different sources from which students receive their support is still missing. For the sake of students' self-worth, mental health, and physical health, it is essential to identify which sources of support relate to the three dimensions of well-being to shape parent-child, teacher-student, and peer relationships inside and outside school.

Parental Support

Empirical research commonly emphasizes the positive link between parental support and students' well-being. Various studies – using small samples – have found that parental support is linked to children's psychological well-being. Such research includes studies with 128 late adolescents (Gecas & Schwalbe, 1986), 177 late adolescents (Xiaoyu, Chunhua, Rendy, 2019), and 554 middle adolescent students (Francis, Pai, & Badagabettu, 2020). Similarly, students' physical well-being, which has often been assessed by students' physical health, is closely linked to parental support. For example, Wickrama and colleagues (1997) found that parental support (perceived and observed) had direct and indirect effects on adolescents' physical health. In particular, changes in physical complaints could be explained through the level of parental support; in other words, physical complaints increased among children with low-to-medium parental support (Wickrama, Lorenz, & Conger, 1997). Other studies have found similar results; for example, middle school students exhibited better physical well-being if they had parents who cared for them (Xiaohong, Chen, Sun, & Liu, 2020). In a representative longitudinal study with

adults aged 25–74 years, Shaw and colleagues (2004) found that those adults who reported a lack of parental support during their childhood were more likely to develop chronic health conditions and depressive symptoms in adulthood (Shaw, Krause, & Chatters, 2004). Likewise, various studies indicate a perceived deficiency of parental support to be related to low levels of physical and mental health, such as increased internalized and externalized problems (Berber & Harmon, 2002), internalized distress (Costa et al., 2015), and impaired psychological functioning (Inguglia et al., 2018).

With respect to social support and students' self-worth, studies are limited to very small sample sizes and specific cohorts. For example, a study with 38 early adolescent students (7–12 years of age) who had experienced domestic violence found that maternal support and peer support were more strongly related to students' self-worth than support from their teachers (Riesen & Porath, 2004). In another study with 100 adolescents aged 13–18 from Malaysia, researchers suggest that parental and teacher support were not significantly related to students' self-worth, but peer support was related to improved self-worth (Chii et al., 2017).

In sum, empirical studies have found that parental support constitutes an essential component to enhance students' self-worth, psychological well-being, and physical well-being (for an overview, see Cripps & Zyromski, 2009; Thomas et al., 2017).

Scholastic Support

Most empirical findings suggest that parental support is positively linked to psychological and physical well-being and self-worth; however, the role of support from peers and teachers with respect to the three dimensions of well-being is not as clear. Thus far, research on peer and teacher support has focused primarily on students' behavioural, socio-emotional, and

health outcomes linked to an overall framework of well-being. In educational research, well-being has often been used as a flexible term that includes, for example, socio-emotional components, satisfaction, health, positive emotions, and the absence of worries and conflicting relationships at school (Hascher, 2003; Hoferichter, Hirvonen, & Kiuru, 2020; Rathmann et al., 2018; Tennant, Demaray, Malecki, Terry, Clary, & Elzinga, 2014). Therefore, the impression arises that many studies apply their own unique definition of well-being, which leads to the common perception that teacher and peer support in general contribute to students' overall well-being. It is clear that students' relationships at school decisively determine whether students experience positive emotions at school, feel a sense of belonging, are satisfied with school, and exhibit greater mental and physical health; however, peer and teacher support have not yet been investigated systematically with respect to school students' self-worth and psychological and physical well-being.

Peer Support

Focusing on the role of peers within the school context, peer support has been shown to be related to low levels of test anxiety (Hoferichter & Raufelder, 2015), lower levels of depressive symptoms and loneliness (Holt, 2018), higher school satisfaction (Verkuyten & Thijs, 2002), and higher self-worth (Adams et al., 2011; Harter, 1999) among school students. In particular, students' friendships with peers at school were found to be relevant for students' self-worth (Maunder & Monks, 2018). In contrast, peer competition at school was related to low scholastic well-being (Hoferichter & Raufelder, 2017), and the experience of peer victimization and bullying was related to poor mental health and impaired overall well-being (Arslan et al., 2021; Rigby, 2000; Rivers et al., 2009).

In conclusion, empirical studies suggest that parental support is associated with students' self-worth and psychological and mental health and therefore presents a foundation for well-being. In educational research, teacher and peer support have generally been found to be related to students' socio-emotional, health, and behavioural outcomes, framed as overall well-being, scholastic well-being, or socio-emotional well-being. However, studies within the school context have applied various definitions of well-being and have not systematically investigated teacher and student support with respect to students' self-worth and psychological and physical well-being. Hence, little systematic research has been conducted on how adolescent students' self-worth and physical and psychological well-being are related to the support they perceive from parents, teachers, and peers.

Aims and Hypotheses

This study aims to investigate the association between perceived parental, teacher, and peer support and school students' psychological and physical well-being and self-worth. By systematically analysing the three major sources of support in school students' daily lives inside and outside school, this study contributes to research on well-being in relation to social support.

To consider major confounding factors with respect to students' well-being, we included gender, socioeconomic status, and school form in the investigation. In general, girls tend to report lower levels of psychological functioning, psychological and physical health, and self-worth compared with boys (Thomas & Daubman, 2001; Phares, Steinberg, & Thompson, 2004; Savoye, Moreau, & Brault, 2015).

Besides gender, socioeconomic status has been shown to play an essential role for students' psychological and physical well-being, self-confidence, and self-esteem (Fassbender &

Leyendecker, 2018; Marcen, Gimeno, Gómez, Sáenz, Gutiérreza, 2013; Sweeting & Hunt, 2014; Twenge & Campbell, 2002). School form was considered in the analysis, as school students in Germany, where this study was conducted, attend different schools according to their abilities, interests, and future career plans, which may impact their well-being differently. Three major school forms can be distinguished: low-track schools (which finish with grade 9 or 10), high-track schools (which finish with grade 12 and certify students to attend university), and mixed-track schools (where various school leaving exams can be undertaken, and classes go up to grade 13). As the school tracks vary with respect to school culture, future career perspectives, and academic demands, students from high-track schools have been shown to exhibit different levels of exhaustion from schoolwork (Salmela-Aro, Kiuru, & Nurmi, 2008), perceived stress (Kulakow, Raufelder, & Hoferichter, 2021), and school satisfaction (Geven, 2019; Van Houtte, 2006, 2017) compared with students from low-track schools.

Following the theoretical frameworks outlined above and considering empirical findings, the following hypotheses were formulated:

Hypothesis I: Perceived parental support is positively associated with students' psychological and physical well-being and self-worth, as suggested in empirical studies focusing primarily on one dimension of well-being (Cripps & Zyromski, 2009; Francis et al., 2020; Wickram et al., 1997; Xiaoyu et al., 2019).

Hypothesis II: Perceived teacher support is associated with higher psychological well-being (Tennant et al., 2014) and physical well-being (Authors) but is less likely to be significantly related to students' self-worth (Ozier, 2008; Riesen & Porath, 2004).

Hypothesis III: Perceived peer support is positively associated with students' self-worth (Adams et al., 2011; Harter, 1999; Maunder & Monks, 2018; Riesen & Porath, 2004), psychological well-being (Hoferichter & Raufelder, 2015; Holt, 2018), and physical well-being (Arslan et al., 2021; Rigby, 2000; Rivers et al., 2009).

Method.

Participants and Procedure

The sample included 733 adolescent German students from grades 7 and 8 ($M_{age} = 13.97$, $SD = 0.41$, 52% girls) in the federal state of Mecklenburg-Vorpommern. The students came from 11 randomly chosen secondary schools. As the German school system allocates students to educational tracks, the three typical educational tracks were included in the sample: three low-track schools ($n_{students} = 192$), five high-track schools ($n_{students} = 442$), and two mixed-track schools ($n_{students} = 99$). Students were surveyed using a questionnaire during the winter term of the German school year 2018–2019. As there is only a small proportion of ethnic diversity in Mecklenburg-Vorpommern (4.3%; Statistical Office Mecklenburg-Western Pomerania, 2018), data on ethnic background was not gathered since it could have impaired the anonymity of the sample.

To ensure ethically sound research practices (American Psychological Association, 2002), a strict procedure for the collection of data was followed. First, permission to conduct the study was obtained from the educational authorities (Ministry for Education, Science and Culture, Mecklenburg-Western Pomerania). Second, schools were informed about the nature and procedure of the study and were asked to participate. Third, parents and students were approached and asked to provide their written consent. On the day of data collection, at least two

trained research assistants highlighted again the nature of the study and ensured the anonymity of data collection. They explained the use of the survey instrument, particularly the Likert scales, and answered questions about the study or ambiguous items if necessary.

Measures

Well-Being

To measure different aspects of well-being, three subscales of the Kid-KINDL-R (Ravens-Sieberer & Bullinger, 2000) were used. The Kid-KINDL-R is a self-report questionnaire to survey health-related quality of life, suitable for both healthy and clinical populations. The subscale *physical well-being* consists of four statements pertaining to the participants' experience of physical health during the last week. Participants rated the frequency of the described sensation, such as "I have felt sick" or "I had a lot of strength and stamina", on a 5-point Likert scale from 1 ("never") to 5 ("always"). As three of the four items are negative, they were recoded before analysis. Based on the current sample, the subscale showed an internal consistency of $\alpha = .76$.

The subscale *psychological well-being* consists of four statements pertaining to the participants' mental state during the last week. Participants rated the frequency of the described emotions, such as "I was afraid" or "I laughed and had a lot of fun", on a 5-point Likert scale from 1 ("never") to 5 ("always"). As three of the four items were negative, they were recoded before analysis. Based on the current study, the subscale showed an internal consistency of $\alpha = .72$.

The subscale *self-worth* consists of four statements pertaining to the participants' thoughts about themselves during the last week. Participants rated the frequency of statements

such as “I was proud of myself” or “I had a lot of good ideas” on a 5-point Likert scale from 1 (“never”) to 5 (“always”). Based on the current study, the subscale had an internal consistency of $\alpha = .85$.

Parental Support

Parental support was measured using the subscale *support and sympathy* of a questionnaire designed to investigate school-related parental behaviour (Reitzle, Winkler Metzke, & Steinhausen, 2001). This subscale consists of four statements, such as “My parents are there for me when I need them.” Participants rate their agreement with those statements on a 5-point Likert scale from 1 (“don’t agree at all”) to 5 (“agree completely”). Based on the current study, the subscale showed an internal consistency of $\alpha = .73$.

Teacher and Peer Support

For teacher and peer support, the two subscales *teacher support* and *peer support* of the Teacher and Classmate Support scale were used to measure school-related social support from teachers and classmates of the participants (Torsheim et al., 2000).

The subscale *teacher support* consists of four statements, such as “When I need additional help, I receive it”, and asks the participants to rate their agreement with those statements on a 5-point Likert scale from 1 (“don’t agree at all”) to 5 (“agree completely”). Based on the current study, the subscale showed an internal consistency of $\alpha = .70$.

The subscale *peer support* consists of four statements, such as “Most of my fellow students are friendly and ready to help”, and asks the participants to rate these statements on a 5-

point Likert scale from 1 (“don’t agree at all”) to 5 (“agree completely”). Based on the current study, the subscale showed an internal consistency of $\alpha = .78$.

Covariates

Additional variables were included in the model to rule out spurious associations in the interplay of the variables. Thus, a proxy for socioeconomic status was included that asked about the number of books available in the student’s household (“How many books do you have at home?”; Nachtigal & Kröhne, 2004). Answers were measured on a 5-point Likert scale ranging from 1 (“none or very few”) to 5 (“more than 200”). Moreover, students’ gender was included (0 = female, 1 = male). Lastly, as the German school system consists of various secondary education tracks, the educational tracks (i.e., low-tracking, mixed-tracking, and high-tracking schools) were dummy coded and included as covariates.

Statistical Analysis

The analyses of the present study were conducted with the free software *R* 4.0 (R Core Team, 2020). Descriptive statistics were computed using the *misty* package (Yanagida, 2020), whereas the inferential analyses were conducted with the *lavaan* package (Rosseel, 2012). All models were specified with the MLR estimator.

As in many large samples, the present study was subject to a certain degree of missing data. Of the 733 cases in the study, 104 cases (14.19%) were affected by missingness. Overall, 2.04% of unique values were missing. Thereby, the degree of missingness across all indicators and all cases ranged between 0% and 3.68%. Missing data were accounted for using *full information maximum likelihood* (FIML) estimation under the *missing at random* assumption (Rubin, 1987). FIML is regarded as one of the state-of-the-art techniques for handling missing

data (Graham, 2009) that counteracts bias in the parameters which would emerge from more conventional procedures, such as mean imputation or listwise deletion.

In a first step, confirmatory factor analyses were conducted to specify the latent variables and to examine the initial measurement model. To explore the theorized relationships between well-being and environmental support, a structural equation model was subsequently specified using the „sem“ function of the *R* package *lavaan* (Rosseel, 2012). In this model, the well-being variables (i.e., psychological well-being, physical well-being, self-worth) were regressed on the predictor variables (i.e., peer support, teacher support, parental support). To control for potential confounds, gender, SES, and school type were additionally specified as predictor variables.

Statistical Analysis

Bivariate Correlations

Table 1 exhibits all descriptive statistics (i.e., mean, standard deviation, range, skewness, kurtosis) and the manifest correlations of the variables of interest. The correlation matrix revealed highly significant correlations between all variables of interest.

Table 1

Intercorrelations and Descriptive Measures

	2	3	4	5	6	7	8	<i>M</i>	<i>SD</i>	<i>Range</i>	<i>Skewness</i>	<i>Kurtosis</i>
1. Parental support	0.19***	0.25***	0.24***	0.34***	0.31***	0.14***	0.03	3.30	0.57	1–5	-0.89	0.52
2. Teacher support		0.40***	0.24***	0.20***	0.20***	0.05	-0.03	3.60	0.66	1–5	-0.67	1.12
3. Peer support			0.22***	0.32***	0.15***	0.13***	-0.10**	3.96	0.72	1–5	-1.07	1.68
4. Physical well-being				0.62***	0.42***	0.11**	0.19***	3.52	0.90	1–5	-0.38	-0.57

5. Psychological well-being	0.48***	0.12**	0.16***	3.80	0.73	1–5	-0.84	0.42
6. Self-worth		0.17***	0.17***	3.08	0.85	1–5	-0.26	-0.08
7. SES			-0.07*	3.38	1.32	1–5	0.09	-0.61
8. gender				0.48	0.50	0–1	-0.72	-2.00

Note. All measures are standardized. * $p < .05$, ** $p < .01$, *** $p < .001$.

Structural Equation Model.

The specified SEM achieved an adequate fit to our dataset ($\chi^2(321) = 884.39, p < .001$, CFI = .91, SRMR = .06, RMSEA [90% CI] = .05 [.046–.054]). As can be seen in Fig. 1, the standardized factor loadings of all latent variables ranged between $\lambda_{\min} = 0.42$ and $\lambda_{\max} = 0.88$, indicating a reliable measurement of the variables. This model also included correlations between the predictor variables: Parental support was positively associated with teacher support ($r = .08, p < .001$) and with peer support ($r = .11, p < .001$). Moreover, peer and teacher support were positively associated ($r = .20, p < .001$). The residual correlations of the dependent variables were also significantly associated: psychological well-being was positively associated with physical well-being ($r = .28, p < .001$), and self-worth ($r = .15, p < .001$). Likewise, physical well-being and self-worth were significantly associated ($r = .18, p < .001$).

Table 2

Final Model

	physical well-being				psychological well-being				self-worth			
	<i>Est.</i>	<i>SE</i>	<i>p</i>	β	<i>B</i>	<i>SE</i>	<i>p</i>	β	<i>B</i>	<i>SE</i>	<i>p</i>	β
predictors												
parental support	0.30	0.07	< .001	0.20	0.38	0.06	< .001	0.37	0.45	0.07	< .001	0.32

teacher support	0.32	0.10	< .01	0.22	0.02	0.06	.74	0.02	0.27	0.08	< .01	0.20
peer support	0.13	0.09	.15	0.09	0.25	0.07	< .001	0.25	−0.12	0.08	.13	−0.09
SES	0.06	0.03	< .05	0.09	0.02	0.02	.40	0.04	0.04	0.03	.08	0.07
gender (0 = female, 1 = male)	0.39	0.07	< .001	0.23	0.28	0.05	< .001	0.23	0.37	0.06	< .001	0.23
school type*	0.01	0.12	.91	0.01	−0.16	0.08	.05	−0.09	−0.07	0.10	.50	−0.03
school type**	0.01	0.09	.96	0.00	0.10	0.06	.13	0.08	0.28	0.08	< .001	0.16
R^2	0.20				0.33				0.23			

Note. Significant results are printed in bold at the $p < .05$ level; *contrasts students from low and high-tracking schools (0) against students from mixed-tracking schools; ** contrasts students from low and mixed-tracking schools (0) against students from high-tracking schools (1).

Figure 1

Structural Equation model for regression analysis, including control variables

Note. Gender: female = 0, male = 1, school type* = contrasts students from low-track and high-track schools with students from mixed-track schools; school type** = contrasts students from low-track and mixed track school with students from high-track schools; coefficients are displayed unstandardized first, and standardized in second position; only significant paths are shown for clarity; * $p < .05$, ** $p < .01$, *** $p < .001$.

As can be seen in Tab. 2 and Fig. 1, physical well-being was predicted by parental ($B = 0.30, \beta = 0.20, SE = 0.07, p < .001$) and teacher support ($B = 0.32, \beta = 0.22, SE = 0.10, p < .01$), meaning that students who report high support by teacher and parents also report a high level for physical well-being. Also a small significant effect of SES ($B = 0.06, \beta = 0.09, SE = 0.03, p < .05$) could be identified, which indicates that students with a high SES tend to report higher values of physical well-being. Additionally, male students reported higher values for physical well-being than girls ($B = 0.39, \beta = 0.23, SE = 0.07, p < .001$).

Psychological well-being was also related to parental support (Tab. 2; $B = 0.38, \beta = 0.37, SE = 0.06, p < .001$) and peer support ($B = 0.25, \beta = 0.25, SE = 0.07, p < .001$), but not with teacher support. Similarly to physical well-being, gender effects could be identified such as male students reported higher values for psychological well-being than female students ($B = 0.28, \beta = 0.23, SE = 0.05, p < .001$).

Self-worth was positively predicted by parental support ($B = 0.45, \beta = 0.32, SE = 0.07, p < .001$) and teacher support ($B = 0.27, \beta = 0.20, SE = 0.08, p < .01$). Again, male students reported higher values for self-worth than female students ($B = 0.37, \beta = 0.23, SE = 0.06, p < .001$). Additionally, disparities with regards to school types applied: Students from high-

tracking schools reported significantly higher values of self-worth than students from low and mixed-tracking schools ($B = 0.28$, $\beta = 0.17$, $SE = 0.08$, $p < .001$).

Discussion

This study investigated how perceived support from parents, teachers, and peers relates to school students' well-being, including self-worth, psychological well-being, and physical well-being, considering gender, socioeconomic status, and school form as confounders.

In line with hypothesis I, results suggest that students who perceive parental support are more likely to report higher self-worth, psychological well-being, and physical well-being. These results confirm earlier findings by Gecas and Schwalbe (1986), Xiaoyu and colleagues (2019), and Francis and colleagues (2020), who investigated small samples of students with respect to parental support and psychological well-being. Students' physical health has also been found to be related to parental support in various empirical studies conducted by Wickrama and colleagues (1997), Xiaohong and colleagues (2020), and Shaw and colleagues (2004). Thus far, research on students' self-worth associated with parental support has been limited, and results have been inconsistent (Chii et al., 2017; Riesen & Porath, 2004). However, there have been some empirical studies investigating students' self-esteem, which describes the self-evaluation of ones' worthiness (Bandura, 1979). Our results are in line with studies investigating students' self-esteem, indicating that parental support is related to higher self-esteem in children and youth (Boudreault-Bouchard et al., 2013; Birndorf et al., 2005; Perron, 2013). In sum, the current research emphasizes the importance of parental support for all three dimensions of student's well-being. These findings are particularly important since the investigated cohort of school students is in the process of transitioning from childhood to

adolescence; this transition implies physical, cognitive, and emotional changes (Eccles, 1999), which may lead to a phase of “storm and stress” and a shift in identity (Twenge & Campbell, 2001). For some students, this phase is related to disrupted relationships with their parents (Arnett, 1999; Erikson, 1963); a decrease in their self-acceptance (Gómez-López; Viejo, & Ortega-Ruiz, 2019), self-esteem (Harter, 1998), mental health, and emotional well-being; and an increase in somatic complaints and fatigue (for an overview, see Viner, 2014).

Furthermore, the results of the study reveal that students’ physical well-being and self-worth are related to teacher support. Thus, hypothesis II was partially confirmed, as we expected that teacher support would be significantly related to psychological well-being but not to students’ self-worth. In fact, teacher support has shown to be related to students’ physical health with respect to their school exhaustion (Authors) and school burnout (Meylan et al., 2015; Moots, 2019). Thus far, limited research has been conducted on teacher support and students’ self-worth, and results have been mixed (Ozier, 2008; Riesen & Porath, 2004; Zhang et al., 2021). However, the current study reveals that teacher support is related to students’ self-worth, which may be explained by the role teachers play in evaluating students’ competencies and academic development. In particular, teachers give frequent feedback – consciously and unconsciously – with respect to a student’s behaviour and school performance, communicating their approval to the student (Hattie & Timperley, 2007), which, in turn, may be associated with the student’s self-worth. This argument is supported by a neurobiological study which found that during an fMRI task, teacher appraisals, but not peer or self-referential appraisals, were linked to students’ academic self-concept (Golde et al., 2019). In fact, studies indicate that how students evaluate their abilities and themselves as people depends in part on the support and feedback of their teachers (Kulakow & Hoferichter, 2021; Möller & Köller, 2001a, 2001b; Möller, Pohlmann,

Köller & Marsh, 2009; Skaalvik & Skaalvik, 2002). In this regard, Booth and Gerard (2011) suggest teachers should use thorough feedback to improve students' sense of their own abilities and provide opportunities to make them feel proud of their success. In a similar vein, Kulakow and Hoferichter (2021) recommend providing opportunities for students to experience competence. This can be achieved by considering students' learning levels when designing tasks to avoid overtaxing students.

Although previous results indicate that teacher support is related to students' psychological well-being (Tennant et al., 2014), the current study did not confirm these findings. This discrepancy may be explained by the general change in social relationships during adolescence. Within the investigated age group of secondary school students, teacher-student relationships may be important when it comes to instructional support – which explains the positive link between teacher support and students' self-worth – but not for socio-emotional support, which is related to psychological well-being (Authors).

In contrast to teacher-student relationships, peer relationships become more pronounced during adolescence (Gray, Romanuik, & Daraganova, 2017), which is reflected in the positive link found between peer support and students' psychological well-being. Contrary to our expectations formulated in hypothesis III, peer support was not related to students' self-worth and physical well-being. However, the current study indicates that peers present an important context for whether students experience psychological well-being conceptualized through joy, belongingness, and the absence of anxiety and boredom (Ravens-Sieberer & Bullinger, 2000). This finding is in line with other studies that have found that students' relationships with peers contribute to students' mental health, subjective well-being (Holt, 2018; Moore et al., 2018), scholastic well-being (Hoferichter & Raufelder, 2017), and decreased worry and emotionality

related to test anxiety (Hoferichter & Raufelder, 2015; Hoferichter, Raufelder, & Eid, 2015). As such, peer relationships are essential for students' psychological well-being. Moreover, the quality of these relationships has been shown to determine the neurobiological functioning of students' brains (Hsu et al., 2013; Landstedt & Persson, 2014; Authors; Silk et al., 2014). Due to the importance of peer support for students' psychological well-being, several secondary schools have implemented peer-based initiatives (Houlston, Smith, & Jessel, 2009). Within the context of mental health care, peer-to-peer support has been introduced as a promising way to enhance mental and physical well-being (Naslund et al., 2016).

Contrary to our expectations, no significant relationship was found between peer support and self-worth or physical well-being. Thus far, literature on bullying suggests that students' physical well-being and self-worth are negatively impacted by peer rejection (Arslan et al., 2021; Grills & Ollendick, 2002; Rigby, 2000; Rivers et al., 2009). However, this link cannot be established in this study with respect to peer support, as peer support or the absence of peer support does not seem to be as relevant as the experience of peer victimization (cf. Authors). Among this age cohort, the function of peers seems to be focused on the psychological well-being of students, while teacher support becomes relevant for students' self-worth and physical well-being. It seems that peer and teacher support compensate for each other with respect to students' expression of self-worth, psychological well-being, and physical well-being. In turn, parental support is related to all three dimensions of well-being and therefore presents the foundation for students' mental health, physical health, and self-worth.

Hence, each source of support fulfils a different function with respect to students' well-being. With respect to students' decrease in well-being during adolescence (American Psychological Association, 2014), adolescence is a vulnerable period in students' lives.

Investigation into supportive relationships within students' immediate environment is needed to identify the role of parents, teachers, and peers with respect to students' self-worth, psychological well-being, and physical well-being.

As such, the study results underline the ecological systems model (Bronfenbrenner, 1997) and the conceptual model of well-being in schools (Konu & Rimpelä, 2002), emphasizing that parent-child, student-teacher, and student-student relationships contribute to the well-being of students and thereby present differentiated resources for the specific dimensions of well-being (cf. Hobfoll et al., 1990; Cohen & Wills, 1985).

With respect to gender, socioeconomic status, and school form, the results indicate that students who attend high-track schools reported higher levels of self-worth than those who attend low-track and mixed-track schools. Overall, boys reported higher levels of self-worth, psychological well-being, and physical well-being compared to girls, and students from families with higher socioeconomic backgrounds reported higher physical well-being.

Strengths, Limitations, and Future Direction.

It is commonly recognized that parents, teachers, and peers present a significant context for students' well-being. By investigating the relative association between parental, teacher, and peer support with students' well-being, this study takes a detailed view on the complex nature of social relationships. In particular, potential protective factors are identified that stabilize and may contribute to school students' self-worth, psychological and physical well-being during a period of increased vulnerability accompanied by puberty, environmental changes, and increased pressure to perform. The present detailed and systematic analysis calls for continuing longitudinal and interventional studies that may be able to offer conclusive evidence about causal

relationships between sources of support and various dimensions of well-being. The present investigation provides a basis for the planning and shaping of support with the aim to enhance students' well-being and enable school students to flourish. This also leads to one limitation of the study: The study's design is cross-sectional and therefore does not allow for causal conclusions. As such, students were asked about their perception of support and how they evaluate their well-being. Although students' self-perception was of interest for the study, further investigations may consider multi-perspective ratings, for example, from parents, teachers, and peers, with respect to the variables of interest. Future studies may also focus on girls' and boys' perceptions of social support in relation to well-being to pinpoint gender-specific nuances. Person-oriented approaches (e.g., profile analysis) would allow researchers to derive implications for specific student groups (e.g., students with migrant backgrounds, students with disabilities, or students diagnosed with behavioural or mental health problems) to enhance their well-being.

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