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Psychological structure of teacher well-being: Justification of a situated model

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ABSTRACT

Teacher well-being is recognized as a crucial element in educational work. However, its configuration remains unclear due to the heterogeneity with which its analysis has been approached. This study has tested three measurement models that explain the configuration of this construct based on six variables that have been identified as relevant: teacher self-efficacy, psychological well-being, discomfort due to workload, well-being in the school organization, well-being in student interaction, and collective teacher self-efficacy. A cross-sectional investigation with self-report measures and structural equation models was conducted. The analyses also considered an opposing variable: Professional Burnout in the School. A total of 364 teachers from 13 schools in the Tarapacá Region, Chile, participated. The results have shown the fit of a model that explains a latent variable called the psychological structure of teacher well-being, which has a multidimensional, interactional configuration situated within school organizations. The central elements of this model are contextual variables that can be improved within each school through collective development. This challenges national educational systems to promote teacher well-being through school autonomy.

Estructura psicológica del bienestar docente: justificación de un modelo situado

Palabras clave:
Bienestar docente
Autoeficacia
Desgaste profesional
Profesores

RESUMEN

Se indica al bienestar docente como un elemento crucial para la labor educativa. Sin embargo, su configuración permanece confusa debido a la heterogeneidad con que se ha abordado su análisis. Este trabajo ha puesto a prueba tres modelos de medida que explican la configuración de dicho constructo a partir de seis variables que han sido identificadas como relevantes: autoeficacia docente, bienestar psicológico, malestar por carga laboral, bienestar en la organización escolar, bienestar en la interacción con estudiantes y autoeficacia docente colectiva. Se ha realizado una investigación transversal con medidas de autorreporte y modelos de ecuaciones estructurales. Los análisis también han considerado una variable opuesta: desgaste profesional en la escuela. Han participado 364 docentes de 13 escuelas de la Región de Tarapacá, Chile. Los resultados han mostrado el ajuste de un modelo que explica una variable latente denominada estructura psicológica del bienestar docente y que posee una configuración multidimensional, interaccional y situada en organizaciones escolares. Los elementos centrales de este modelo son variables contextuales, susceptibles de ser mejoradas al interior de cada escuela mediante un desarrollo colectivo. Esto desafía a los sistemas educativos nacionales a promover el bienestar docente desde la autonomía escolar.

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Introduction

Well-being has been described as a conscious assessment of personal experience in which positive or pleasant judgments (feeling good) predominate over negative or unpleasant judgments, a product of the harmony between personal characteristics and contextual factors that go beyond individual control (Hascher, 2010, 2012; Mead et al., 2021). The understanding of human well-being has considered three psychological traditions: subjective well-being (Diener, 1984), psychological well-being (Ryff, 1989) and social well-being (Keyes, 1998). In recent years, two integrative perspectives have been added. Tennant et al. (2007) have defined well-being in terms of physical and mental health. While, Kemp and Fisher (2022) have described the power of connection with oneself, with the community and with nature as central elements of general well-being.

The evaluation of well-being has focused on specific groups. Such is the case of teacher well-being. This targeting has become an important issue for educational systems (Comisión Europea, 2021; Education Support, 2022; McCallum et al., 2017; Viac & Fraser, 2020) since the quality of teaching work constitutes one of the factors with greater impact on student learning (Hattie, 2009; Nye et al., 2004) and, consequently, on the social development of a nation (Chetty et al., 2014; Hanushek & Woessmann, 2012). Teacher well-being has increased its interest due to the negative impact on the physical and mental health of teachers as a result of the COVID 19 pandemic (Alves et al., 2021; Beltman et al., 2022; López-Orellana et al., 2021). A positive impact of teacher well-being has been identified on school learning (Duckworth et al., 2009; Sutton & Wheatley, 2003), on classroom climates (Hargreaves, 2001; Jennings and Greenberg, 2009), on socio-emotional development (Bilz et al., 2022; Collie et al., 2012) and on student psychological well-being (Harding et al., 2019). Despite its relevance, the understanding of teacher well-being remains confused due to the heterogeneity with which its analysis has been approached. In this regard, Hascher and Waber (2021) have carried out a systematic review of 98 articles on teacher well-being between the years 2000 and 2019. Their conclusions have emphasized the need to have a multidimensional vision of teacher well-being that integrates affective (positive and negative), cognitive, psychological and physiological variables. Also, they have pointed out the importance of defining which elements are central in its configuration. The purpose of this work is to respond to these challenges. Aelterman et al. have defined teacher well-being as "a positive emotional state resulting from the harmony between the sum of specific environmental factors and the needs and expectations of teachers" (2007, p. 286). Following them, five models that have an interactional and multidimensional vision have been selected for this purpose.

First, Huberman and Vandenberghe (1999) have carried out a theoretical systematization of satisfaction and stress in school teachers. They have pointed out that the variables that explain its origin can be divided into three factors: related to the person; related to the profession and the workplace; and related to society. A second model is the one proposed by Aelterman et al. (2007) who have studied teacher well-being using mixed methods including interviews and psychometric evaluations with 1,116 Belgian school teachers. These authors have pointed out that teacher well-being is defined by ten elements that range from the most personal to the most contextual. Third, Van Horn et al. (2010), based on the use of psychometric methodologies with 1,252 Dutch school teachers, has identified five dimensions: affective, social, professional, cognitive, and psychosomatic. Fourth, Collie et al. (2015) have studied teacher well-being using mixed methods, with 603 Canadian school teachers participated in their research. They proposed that teacher well-being is configured from three dimensions: well-being related to workload, well-being related to the school organization and well-being related to interaction with students. Finally, Viac and Fraser (2020) have provided a theoretical organization of teacher well-being that considers four dimensions: cognitive, subjective, physical and mental, and social. Although these models have understood teacher well-being from an interactional and multidimensional perspective, they have not indicated which factors are central within their models.

Justification of the psychological structure of teacher well-being

Among the five models described, two are theoretical models based on previous evidence (Huberman & Vandenberghe, 1999; Viac & Fraser, 2020) and three are empirical models (Aelterman et al., 2007; Collie et al., 2015; Van Horn et al., 2010). Its theoretical foundations come from a sociocognitive vision of educational processes in which different elements of human development are integrated, both intrinsic and contextual (Bandura, 1977; Hadwin et al., 2010; Schunk, 2001). In the present work, the various variables that make up these models have been compared and a synthesis of individual and contextual variables has been obtained, which has been called the psychological structure of teacher well-being (hereinafter PSTW). This synthesis is presented in Chart 1. From this synthesis, two individual variables have been identified: teacher self-efficacy and psychological well-being. Teacher self-efficacy refers to a teacher's assessment of his or her own ability to favorably impact student learning. Bentea (2017) has described it as positively related to psychological well-being and negatively related to work stress in her research with 217 Romanian teachers, same as Xiyun et al. (2022) who have pointed out that teacher self-efficacy and emotional regulation predict the psychological well-being of 276 Iranian teachers.

Psychological well-being implies a conjunction of intra- and interpersonal capacities for the development of full functioning: autonomy, personal development, purpose in life, positive relationships with others, mastery of the environment and self-acceptance (Ryff, 1989). In this regard, Leal-Soto et al. (2014) have found a positive and significant association between psychological well-being and the motivational practices of 46 Chilean teachers. In this synthesis, the following contextual variables have also been identified. Collie et al. (2015) have pointed out three contextual dimensions that participate in teacher well-being. Well-being in the workload refers to the perception of teachers regarding the negative impact resulting from working under pressure, concern about the use of time, administrative work, fatigue from working outside formal hours and work discomfort. To better reflect the content of this dimension and integrate negative and positive elements in the PSTW, in the present work its name has been replaced by workload discomfort. Well-being in the school organization refers to the perception of the school as an organization, which includes valuing communication, recognition from the management team, peer support, family commitment, regulations or guidelines, communication between members of the school community and participation in decision-making. These elements have also been related to teacher well-being by Kouhsari et al. (2023). Finally, well-being in the interaction with students indicates the assessment of the teachers' interactions with the students during classes, particularly with respect to their behavior, motivation to learn and their configuration as a course group. Although they distinguish these three dimensions, Collie et al. (2015) do not consider them separately; however, due to their high individual explanatory value, in the PSTW each of these three contextual factors have been considered separately.

Another contextual factor is collective teaching self-efficacy, which assesses the perception of effectiveness of the group of

Table 1
Description of the participating schools according to the provinces of Tarapacá

Province	N° of schools	N° of private schools with public financing	N° of public schools	N° of teachers	N° of students
Tamarugal	2	0	2	26	1.289
Iquique	11	9	2	338	11.152
Total	13	9	4	364	12.441

Table 2
Reliability statistics and descriptive statistics

Scale	α	ω	*M*	*SD*	*t*	*p**
TS	0.78	0.77	4.38	0.44	60.0	<.00
PW	0.84	0.84	5.02	0.55	69.1	<.00
WD	0.65	0.65	3.80	0.72	21.1	<.00
WSO	0.75	0.75	3.99	0.64	29.3	<.00
WIE	0.73	0.73	4.49	0.55	51.06	<.00
CTS	0.78	0.76	3.91	0.68	25.79	<.00
SPB	0.86	0.86	3.25	1.10	4.36	<.00

Note. α = Cronbach's alpha; ω = McDonald's Omega; *M* = Medium; *SD* = Standard Deviation; t = t value; p = Student's t test for one sample with test value = 3 and significance level .05; TS = Teaching self-efficacy; PW = Psychological well-being; MCL = Workload discomfort; WSO = Wellbeing in the school organization; WIE = Well-being in interaction with students; CTS = Collective teaching self-efficacy; SPB = School professional burnout.

teachers with whom one works in an educational center in developing student learning. It includes the ability to promote significant learning, motivate, persevere in the face of difficulties, and solve situations of indiscipline. It also weights the ability of peers to develop learning considering the influence of factors outside their control, such as: student predisposition, family support, probable delinquency, and alcohol and drug consumption by students (Goddard et al., 2000). Collective teaching self-efficacy has been related to teaching commitment, personal teaching self-efficacy, directive leadership, and student achievement (Salas-Rodríguez & Lara, 2020). Not all the variables in Chart 1 have been included in the proposed psychological structure. The recognition of constructs that are related to school autonomy has been privileged to contribute to educational improvement from the management of each educational center (Marchesi & Martín, 2014). Consequently, the main objective of this research is to select an empirical model that explains teacher well-being and increases the precision of its definition, a need that has been highlighted by the work of Hascher and Waber (2021).

In contrast to teacher well-being, school burnout has been described as physical exhaustion (agitation, poor sleep, and working in free time), loss of meaning (demotivation and lowered expectations), and confusion (insecurity, confusion, and high concern about meeting goals) as a result of participation in a school context (Salmela-Aro et al., 2009). An adaptation of this construct to teaching work, which has been called professional burnout in school, is part of the present work with the purpose of demonstrating the discriminant validity of the proposed structure.

Method

Participants

Participants were 364 school teachers (242 women and 122 men) who work in the Tarapacá Region, Chile. The group includes teachers from 1st grade to 12th grade (primary and secondary), who teach various subjects, for example: mathematics, science, language, etc. The average age of participants was 38 years. They belong to a total of 13 schools, nine private ones with public financing and four public schools, all for free for families. No data has been obtained from paid private schools. A description of the participating schools is presented in Table 1.

Instruments

In the scales of teaching self-efficacy, psychological well-being and collective teaching self-efficacy, an item selection process has been carried out with the aim of reducing the time allocated to self-report. In order for the instruments to maintain the original psychometric properties, final consistency has been guaranteed with the reduced items and items have been selected with theoretical criteria agreed upon by the authors of this work. Table 4 presents the goodness-of-fit indicators for each of the instruments.

The evaluation of teaching self-efficacy has been carried out through an adaptation of the *General Self-Efficacy Scale*, Spanish version by Baessler and Schwarzer (1996). Of the ten original items, four have been selected as they are highly representative of the construct. In addition, two specific items have been added that evaluate teacher self-efficacy regarding learning achievement and to establish pedagogical links (e.g., "When having to face a problem in my work as a teacher, I generally think of several alternatives to solve it."). The instrument has a 5-point scale with a range from 1 = *totally disagree* to 5 = *totally agree*.

Psychological well-being has been evaluated using the Spanish adaptation of the *Ryff Psychological Well-being Scales*, carried out by Díaz et al. (2006). Of the 39 original items, 18 have been selected for their high theoretical representativeness of each dimension of the construct, three items for each of the six subscales (e.g., "I have the feeling that I am developing a lot as a person"). The instrument has a 6-point scale with a range from 1 = *totally disagree* to 6 = *totally agree*.

To evaluate workload discomfort, well-being in the school organization and well-being in interaction with students, an adaptation of the *Teacher Well-being Scale* by Collie et al. (2015) has been used, considering each variable as an independent factor. The adaptation consisted of translating the 16 original items from the English language to the Spanish language using the reverse translation method. Likewise, the response format has been modified to a Likert-type one that has a 5-point scale with a range from 1 = *totally disagree* to 5 = *totally agree*. The workload discomfort scale contains five items (e.g., "Doing everything that is asked of me in the time I have available is something that worries me"). The well-being in the school organization scale contains seven items (e.g., "Good communication between everyone is something that makes me feel comfortable in my job as a teacher"). Finally, the well-being in interaction with students' scale contains four items (e.g., "The

Table 3
Pearson bivariate correlation statistics of the scales of the psychological structure of teacher well-being

Scale	TS	PW	WD	WSO	WIE	CTS	SPB
TS							
PW	0.34**						
WD	0.01	−0.17**					
WSO	0.28**	0.24**	−0.19**				
WIE	0.29**	0.16**	0.02	0.38**			
CTS	0.20**	0.31**	−0.21**	0.33**	0.17**		
SPB	−0.14**	−0.50**	0.46**	−0.38**	−0.17**	−0.36**	

Note. N = 364; **The correlation is significant at the .01 level (two-sided). TS = Teaching self-efficacy; PW = Psychological well-being; WD = Workload discomfort; WSO = Wellbeing in the school organization; WIE = Well-being in interaction with students; CTS = Collective teaching self-efficacy; SPB = School professional burnout.

good behavior of students in my classes increases my motivation to work").

Collective teaching self-efficacy has been evaluated based on an adaptation of the *Collective Teaching Efficacy Scale* by Goddard et al. (2000). Of the 21 original items, 12 have been considered due to their high theoretical correspondence (e.g., "The teachers at this school do not have the necessary skills to produce significant learning in the students"). The adaptation consisted of translating the 12 items from the English language to the Spanish language using the reverse translation method. The instrument has a 6-point scale with a range from 1 = *totally disagree* to 6 = *totally agree*.

Burnout at school has been assessed through an adaptation of the *School Burnout Scale* by Salmela-Aro et al. (2009). The adaptation has consisted of translating the nine items from the English language to the Spanish language using the reverse translation method and particularizing the choice of the items with the work at school (e.g., "I frequently sleep badly due to issues related to my job"). The instrument has a six-point scale with a range from 1 = *totally disagree* to 6 = *totally agree*.

Procedure

Firstly, the school management teams have been contacted to inform them of the project and request their participation. Subsequently, the teams that have agreed have invited the teaching staff to participate voluntarily. This process has been approved by the Research Ethics Committee of the Autonomous University of Madrid, report CEI-125-2566. Data collection has been identical in each school. The participants have met in person, have approved an informed consent, have answered the instruments individually on a virtual platform and have been able to resolve their doubts thanks to the presence of a member of the research team in each educational center.

Data analysis

The mean, standard deviation and one-sample *t* test have been obtained. Subsequently, using structural equation models (SEM), each instrument has been analyzed and three measurement models have been evaluated: Model 1 (M1), Model 2 (M2), and Model 3 (M3). Previously, it has been determined whether the data from the seven instruments and the data from the three models met the fundamental requirements for SEM (Heck et al., 2014). To visualize multicollinearity, Pearson's bivariate correlation coefficient has been calculated. The internal consistency of each instrument has been analyzed using Cronbach's alpha and McDonald's omega statistics. Univariate normality has been evaluated by calculating skewness, kurtosis, and the Kolgomorov-Smirnov (KS) test statistic. The normality of each measurement model has been evaluated using Mardía's multivariate asymmetry and kurtosis indicators, considering their critical value and range. Given that normality has not been evident and that this is an essential requirement for the use of the maximum likelihood (ML) estimation method in confirmatory factor analyzes with SEM, 2000 Bootstrap resampling have been carried out (Cheung & Lau, 2008; Fan, 2003) with confidence intervals corrected to 90%. Furthermore, based on the p value of the Bollen-Stine (BS) index, the suitability of each measurement model has been evaluated (Enders, 2009). For identification, the degrees of freedom (*df*) have been obtained. To estimate the goodness of fit, the ML method has been used, as proposed by Iacobucci (2010). The following reference criteria have been considered: Chi-square/degrees of freedom ratio (χ^2/df), comparative fit (CFI) and root mean square error of approximation (RMSEA). Subsequently, the three measurement models (M1, M2 and M3) have been evaluated. The statistical package IBM SPSS and Amos version 28 have been used.

Results

Descriptive and reliability analyzes

The group of participating teachers have generally reported a high level of teacher well-being, both in individual and contextual variables. The Student *t* test statistics have shown that the means are significantly above the central value of the range of responses (Table 2). The sample of participants exceeds 200 cases ($N = 364$) and has been considered suitable for carrying out SEM (Kline, 2005). Cronbach's alpha and McDonald's Omega statistics have indicated acceptable or optimal levels of internal consistency since they exceed the value of .70 (Nunnally & Bernstein, 2010) except for the workload discomfort scale (Table 2).

Correlation analysis

The correlations between the individual and contextual variables are moderate but significant and in the opposite direction when they measure professional burnout at school and workload discomfort (Table 3). The moderate magnitude of the correlations expresses that they are not similar variables and that they do not evidence the presence of multicollinearity since none exceeds the value .85 (Pérez et al., 2013).

Model specification, identification, and estimation

The degrees of freedom (df) of the instruments and test models (Tables 4 and 5) have indicated their over-identification and therefore have been able to be estimated (Medrano & Muñoz-Navarro, 2017). The indicators of normality, skewness, kurtosis, and KS have indicated that the global scores of the PSTW scales have not been normally distributed since they do not range between the values -1 and +1 and because the p values of KS are less than .05 (Darlington & Hayes, 2017; Heck et al., 2014), except for the Collective Teaching Self-Efficacy Scale, which contains the values that demonstrate normality. Mardía's (1974) multivariate normality indicators have shown that the distributions of the test models are not normal. In the case of asymmetry, the value of the statistic has been greater

Table 4
Univariate normality indicators and goodness-of-fit indicators of the instruments that make up the psychological structure of teacher well-being

Scale	Asymmetry	Kurtosis	KS	BS	*df*	χ^2/df	CFI	RMSEA
TS	−0.47	−2.18	0.00	0.16*	8	1.76	0.98	0.04
PW	−0.70	0.33	0.00	0.17*	6	1.64	0.99	0.04
WD	−0.59	0.11	0.00	0.35*	3	1.27	0.99	0.02
WSO	−0.98	1.34	0.00	0.20*	10	1.60	0.98	0.04
WIE	−1.59	3.32	0.00	0.74*	1	0.250	1.00	0.00
CTS	0.00	0.00	0.18		21	1.77	0.98	0.04
SPB	0.06	−6.69	0.01	0.13*	14	1.79	0.99	0.04

Note. PSTW = Psychological structure of teacher well-being; KS = Kolmogorov-Smirnov test p value; BS = Bollen-Stine bootstrap p-value. *The confidence intervals of the regression weights and the standardized regression weights have values significantly different from zero. TS = Teaching self-efficacy; PW = Psychological well-being; WD = Workload discomfort; WSO = Wellbeing in the school organization; WIE = Well-being in interaction with students; CTS = Collective teaching self-efficacy; SPB = School professional burnout.

Table 5
Multivariate normality indicators and goodness-of-fit indicators per model

Model	MA	c.v.	MC	c.r.	BS	*df*	χ^2/df	CFI	RMSEA
M1:(*N* = 364)	6.02	0.14**	6.98	7.25/8.78	0.17*	4	1.29	0.99	0.02
M2:(*N* = 364)	9.06	7.70**	9.06	7.25/8.78	0.07*	5	2.09	0.98	0.05
M3:(*N* = 364)	6.02	0.14**	6.98	7.25/8.78	1.78*	7	4.46	0.90	0.09

Note. PSTW = Psychological structure of teacher well-being; M1 = Model 1 (TS, PW, WD, WSO, WIE, CTS = PSTW); M2 = Model 2 (SPB associated with PSTW = TS, BP, WD, WSO, WIE, CTS); M3 = Model 3 (ITW = WD, TS, PW and CTW = WSO, WIE, CTS plus PSTW); ITW = Personal teaching well-being; CTW = Contextual teacher well-being; MA= Multivariate Mardia asymmetry; c.v. = Critical value; MC = Mardía's multivariate kurtosis; c.r. = Critical range; BS = Bollen-Stine p value. *The confidence intervals of the regression weights and the standardized regression weights have values significantly different from zero. **Significance level .05, according to Mardía Index (1974).

Chart 1
Synthesis of variables of the psychological structure of teacher well-being from the comparison of models

Huberman and Vandenberghe (1999)	Aelterman et al. (2007)	Van Horn et al. (2010)	Collie et al. (2015)	Viac and Fraser (2020)	Synthesis of PSTW variables
Person-related factors	Self-efficacy	PW: Competence PW: Autonomy AW: Affective well-being		Self-efficacy Satisfaction with life Positive affects Purposes	Teacher Self-efficacy Psychological well-being
		AW: Organizational commitment AW: Work satisfaction	Well-being in the school organization. (Participation, positive interaction with managers, teachers, students, and families).	Work satisfaction	well-being in the school organization
Factors related to the profession and the workplace	Director support Relationship with parents Peer support	SW: Socialization with peers SW: Depersonalization towards peers		Interpersonal relationships with managers Interpersonal relationships with peers	
		PW: Professional aspiration			Collective teacher self-efficacy
		SW: Socialization with students	Well-being in interaction with students	Interpersonal relationships with students	Well-being in interaction with students
		SW: Depersonalization towards students AW: Emotional exhaustion PW: Physical Health CW: Concentration at work	Workload well-being	Psychosomatic symptoms Concentration at work	Workload discomfort
	Infrastructure			Quality of working conditions	
Sociopolitical factors	Professional development Policies			Job resources, training, and feedback National educational policies	

Note. PSTW = Psychological structure of teacher well-being; CW = Cognitive well-being; AW = Affective well-being; SW = Social Welfare, PW = Professional Wellbeing; PW = Psychosomatic well-being; SW = Subjective well-being.

than its critical value in the three models. Regarding kurtosis, the value of the statistic has not been located within the critical range established by Mardía (1974) according to the sample size in the three models (Wulandari et al., 2021). For this reason, to correct the abnormality, the p values of the BS Indices have been obtained as a result of the resampling or bootstrap (Cheung & Lau, 2008) of the SEM corresponding to the seven instruments and the three test models (Tables 4 and 5). The p indicators of the BS index have corrected the abnormality by exceeding the value of .05. Consequently, the formulation of SEM has been supported based on new empirical distributions, which has allowed the requirements of ML to be met (Enders, 2009).

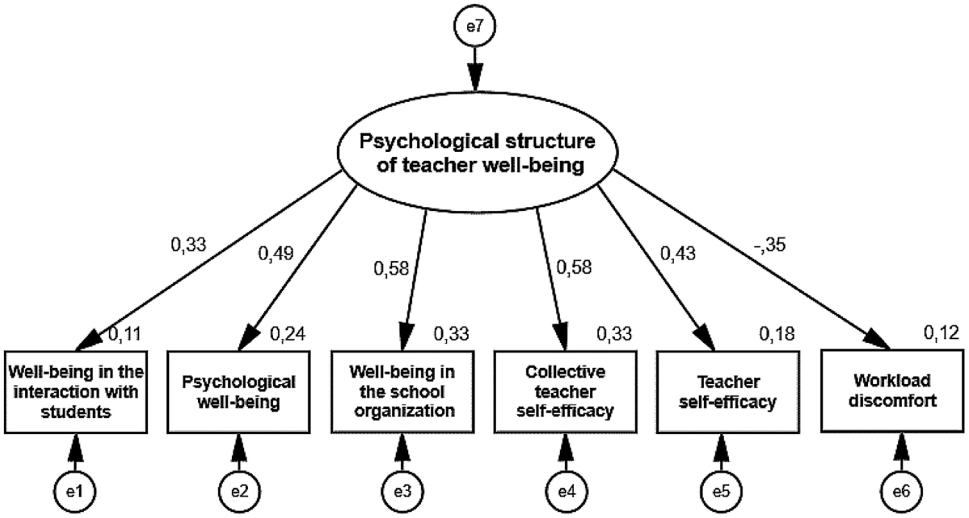

Figure 1. Unidimensional model of the psychological structure of teacher well-being.

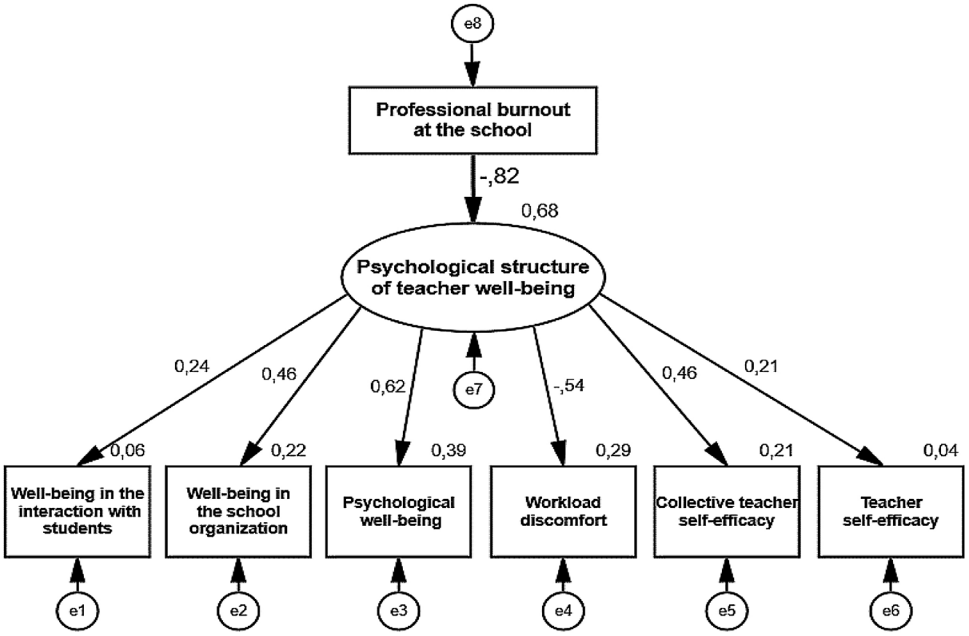

Figure 2. Impact of professional burnout at school on the psychological structure of teacher well-being.

Model formulation

The first model (M1) has reflected the theoretical position held in this work. This model implies considering that the psychological structure of teacher well-being responds to a conglomerate of individual and contextual variables, which have been identified from the synthesis of five theoretical and empirical models previously presented in Chart 1. The second model (M2) has analyzed the explanatory capacity of professional burnout in school on the proposed psychological structure of teacher well-being. Model 3 (M3) has included a theoretical alternative which is the differentiation between individual and contextual variables. In this model the variable workload discomfort has been considered as an individual variable.

Model evaluation

The seven instruments and the first two models (M1 and M2) have achieved the following reference criteria for goodness of fit: $\chi 2/df < 3$, CFI $\geq .95$ and RMSEA $\leq .05$ (Tables 4 and 5), although M1 has presented a superior goodness of fit. M3 has shown goodness-of-fit indicators below acceptable values (Table 5).

Model selection

In M1, the PETW has explained 33% of the variance of well-being in the school organization and 33% of collective teaching self-efficacy (Figure 1). This allows us to identify the centrality of these variables in the model, both of which are contextual in nature. In M2, professional burnout at school has explained 68% of the variance of PETW, which has explained 39% of psychological well-being and 29% of workload discomfort (Figure 2). In M3, the PETW has explained 79% of the variance in personal teacher well-being and 67% of the variance in contextual teacher well-being (Figure 3); however, this last model has presented a goodness of fit below the acceptable values.

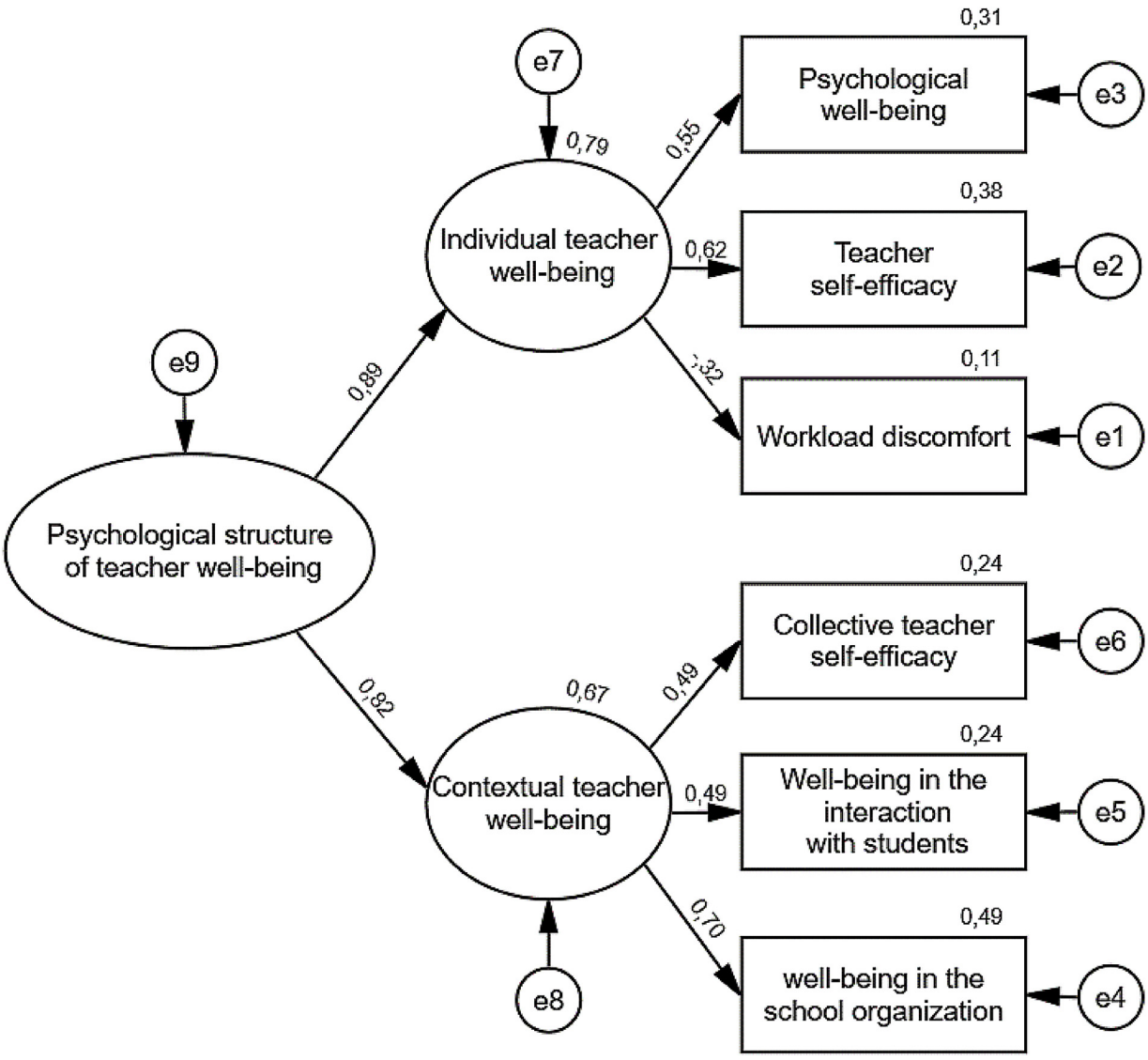

Figure 3. Two-dimensional model of the psychological structure of teacher well-being.

Discussion

Hascher and Waber (2021) have highlighted the need to achieve an integrative model of multidimensional teacher well-being in which the central components stand out. The psychological structure of teacher well-being was tested in M1 and has been confirmed by the results (Figure 1). In it, the central constructs are contextual variables: well-being in the school organization and collective teaching self-efficacy. This is consistent with the work of Kouhsari et al. (2023) who have highlighted the value of organizational variables in promoting teacher well-being. Well-being in the school organization evaluates the work environment regarding interactions with managers, teaching peers, and families. This construct highlights the perception of organizational leadership offered by management teams, school guidelines and regulations, collaboration between teachers and the participation of families in educational processes (Collie et al., 2015). For its part, collective teaching self-efficacy (Goddard et al., 2000) assesses the ability of peer teachers to facilitate student learning. In this way, the fact that teachers perceive that their peers are effective in their work can be a precedent for collaboration between teachers and a consequence of adequate managerial leadership (Salas-Rodríguez & Lara, 2020). Although both variables are outside individual control and are conditioned by the regulations of national educational systems (Viac & Fraser, 2020), they can be improved within each educational center through collective development. Given this, the role of management teams is a key aspect since they could foster organizations that promote good interpersonal treatment and facilitate teaching collaboration. Consequently, there may be a challenge here for educational systems which is to promote teacher well-being considering the autonomy of each school (Marchesi & Martín, 2014). In an interactional construct, individual variables also have a relevant role. This has happened with psychological well-being and teaching self-efficacy. Previous research has indicated that psychological well-being is related to the implementation of teaching practices with motivational effects in classes (Leal-Soto et al., 2014). Similarly, teacher self-efficacy has been related to better emotional regulation and well-being of teachers (Bentea, 2017; Xiyun et al., 2022).

M2 seeks to know the discriminant validity of the first model (Figure 2). For this purpose, the impact of professional burnout at school (Salmela-Aro et al., 2009) on the proposed psychological structure has been analyzed. The results have shown that this impact is high and in the opposite direction (Figure 2). In this model,

the centrality of the components has changed. Here the variables that are explained to a greater extent are psychological well-being (Ryff, 1989) and workload discomfort (Collie et al., 2015). This result highlights the damage that school contexts that lead to professional burnout can produce, both in psychological and physical aspects. For its part, in M2 it has been found that the explanatory incidence of PETW in the well-being in interaction with students (Collie et al., 2015) and teaching self-efficacy (Baessler & Schwarzer, 1996) scales is lower than in M1. In other words, these scales are not so influenced by including the variable burnout at school in the model. It seems that professional discomfort does not have as much impact on the concept that teachers have of their own competences and on their interaction with students. The latter should be explored in greater detail in future research, since as psychological well-being is affected and discomfort increases, it is likely that teachers' emotional regulation and, with it pedagogical interaction, will also be negatively affected.

In M3, individual variables are clearly differentiated from contextual variables and have shown unacceptable goodness-of-fit indicators (Figure 3). This allows us to confirm the one factor structure of psychological teacher well-being that is verified in M1. In this model, the variable discomfort due to workload has been treated as an individual variable.

Limitations and prospective

The main limitation of this study lies in its cross-sectional nature. It is suggested to evaluate this model longitudinally and use multiple analysis techniques that include measurements carried out with students (Harding et al., 2019). On the other hand, it would be convenient to investigate the interaction of psychological structure of teacher well-being with other specific variables, such as: emotional regulation, teacher commitment, teacher collaboration and assessment of public educational policies. It is also suggested to study the impact of said structure on variables specific to pedagogical work, such as didactic or evaluative strategies. Taking into account the physical dimension, it would be relevant to analyze the impact of school infrastructure on the well-being of school teachers. On the other hand, the results refer to the Chilean professional environment. It may be relevant to study these relationships in countries with educational conditions very different from those in Latin America, such as in Asian or Middle Eastern countries.

Conclusions

According to the results of this research, teacher well-being is defined as the predominance of positive or pleasant judgments regarding individual pedagogical work that arises from the harmony between personal characteristics and the context of interactions that occur in a given educational organization. Approach similar to the proposal of Kemp and Fisher (2022), who have highlighted the value of the connection with oneself and the community in their understanding of general well-being. Consequently, to develop teacher well-being in educational centers it is necessary to attend to both individual variables and contextual variables, emphasizing the development of the latter. An educational organization that promotes collaboration and good treatment, that includes families and that provides permanent technical pedagogical support can act as a modulator of the individual variables of the teachers and facilitate their well-being (Collie et al., 2012). This contextual role constitutes one of the traditional premises of the sociocognitive vision of learning (Schunk, 2001). It is important to keep in mind that contextual variables are subject to external determinations (rules, financing, administration, etc.) so that educational systems should have public policies that allow the management of teachers well-being in each educational center to be developed (Marchesi & Martin, 2014). In conclusion, according to the results of this work, the well-being of the teaching community should be a permanent and explicit concern both in educational centers and in national educational systems and not be subject to isolated or circumstantial measures.

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