

How does Perceived Stress Relate to Life Satisfaction in pre-University Teachers? The Mediating Role of Wellbeing

Aurora Adina COLOMEISCHI¹,
Andreea URSU²,

¹Stefan cel Mare University from Suceava, Romania, adina.colomeischi@usm.ro

²Stefan cel Mare University from Suceava, Romania, andreea.ursu@usm.ro

Abstract: *The detrimental effects of stress on life satisfaction in general population are well known. However, the associations between these variables and their underlying mechanisms scarce among teachers. Therefore, it was investigated the possible mediating effect of wellbeing on the link between pre-university Romanian teachers' perceived stress and their life satisfaction. Participants included 1390 teachers (mean age = 38.76, \pm SD = 10.08; 72% female) filled out measures of perceived stress, wellbeing and life satisfaction on-line. The results suggest that perceived stress had significant negative associations with all three dimensions of wellbeing and life satisfaction. Furthermore, all three dimensions of wellbeing (emotional wellbeing, social wellbeing, psychological wellbeing) were significantly positively associated with teachers' life satisfaction. Additionally, all wellbeing dimensions mediated the negative effect of perceived stress on life satisfaction. Overall, the results from this study indicate that all three dimensions of wellbeing are an important protector factor that could help us to comprehend the negative effect of teachers' perceived stress on their life satisfaction.*

Keywords: *psychological wellbeing; emotional wellbeing; social wellbeing; perceived stress; life satisfaction; k-12 school teachers.*

How to cite: Colomeischi, A. A., Ursu, A. (2023). How does Perceived Stress Relate to Life Satisfaction in pre-University Teachers? The Mediating Role of Wellbeing. *Revista Românească pentru Educație Multidimensională*, 15(3), 44-54. <https://doi.org/10.18662/rrem/15.3/752>

Introduction

Teachers are one of the most exposed to stress professional group. Thus investigating the relation between stress and life satisfaction could give us a frame of understanding for future intervention in order to sustain the performance of school activities. Researchers showed that teachers experience higher levels of fatigue, anxiety and stress, comparing to other professional categories (Iriarte Redín & Erro-Garcés, 2020), thus the school policies need to find solution to improve teacher's wellbeing. Additionally, it was found that despite the level of stress, teachers have a higher level of job satisfaction than other professionals (Iriarte Redín & Erro-Garcés, 2020; Kwon et al., 2020).

Our study intends to figure out the link between stress and life satisfaction among k-12 school teachers considering that the higher is the level of their life satisfaction the more efficient are the teachers in exercising their profession. Teachers are important agents for pupils' academic achievements (Hattie, 2009) so it is necessary to take care of their mental health and wellbeing. They model the interaction with students and influence their academic achievement (Boonen et al., 2013). The level of stress affects negatively the mental health of the teachers (Gómez del Amo & Guerrero-Barona, 2018).

One of the definitions of stress refers to all types of change that may cause a strain at psychological, physical or emotional domain (WHO, 2021) and it could affect the entire wellbeing of the person. Stress manifests as fear, anxiety, sleep difficulties, increasing in the consumption of some substance such as tobacco, alcohol or other drugs. Experiencing stress for a long time could affect physical and mental health (Ribeiro et al., 2018; Ursu & Măirean, 2022; Wirtz & von Kanel, 2017). Stress in teachers is related to workload, to their excessive commitment which conduct to lower satisfaction and performance (Huyghebaert et al., 2018). Additionally, it was showed that stress level affects negatively the satisfaction with life among teachers (Bano & Malik, 2014; Xu et al., 2021).

Life satisfaction is considered the general evaluation of one's life, the general view of the quality of life. There are various conceptualizations that explain what life satisfaction is, such as the general assessment of one's own feelings and attitudes about life (Buetell, 2006) or the degree to which persons assess in a positive way the quality of their life (Veenhoven, 1996). Hence, the concept could be considered both as a *result* of the internal and external factors of one's life and as a *driver*, or a *predictor* for other psychological outcomes such as wellbeing or resilience.

Various approaches have been proposed on the operationalization of life satisfaction. Some researchers defined life satisfaction as subjective wellbeing (Maddux, 2018) and the study of it include the way people evaluate their lives for one specific moment or for longer period. The subjective wellbeing is a psychological construct meaning on how the people think about and feel related to what is happened to them (Maddux, 2018). Additionally, life satisfaction was also defined as the cognitive or judgmental component of the subjective wellbeing or happiness (Pavot & Diener, 2008). The level of life satisfaction derives from the comparison one is making between his/her results and his/her expectations (Diener & Diener, 1985). According to the Office for Standards in Education (2019) the life satisfaction among teachers is lower comparing with other professional categories, so we could take into account the consequences of the stress upon the teachers' life. Despite the stress experienced within the teaching profession, teachers' life satisfaction relies on the job satisfaction as the main predictor (Luque-Reca et al., 2022).

Wellbeing is a complex psychological construct, being defined through different conceptual models (Charlemagne-Badal et al., 2015; Keyes, 2011; Oades & Mossman, 2017; Seligman, 2011) having multiple implications at the personal and social level. According to different models, wellbeing could be understood as an emergence from experienced positive emotions, positive relationships, engagement, meaning and achievements (Seligman, 2011). More recently, it was proposed that wellbeing resides in the combination of emotional, social and psychological wellbeing, the three of them contributing to the mental health (Lamers et al., 2011), this means that wellbeing includes the presence of positive emotions, the good functioning at the social life level and the general good functioning of the individual. Teachers' wellbeing could be understood through the Job Demands Resources theory (Granziera et al., 2021; Kern et al., 2014) considering that the specific of working field have a great contribution to the wellbeing (relationship with students and school, the school climate, the workload).

Studies on teachers' wellbeing showed that experiencing stress could affect physiological indicators of wellbeing or psychological wellbeing, life satisfaction and quality of life at large (Harris et al., 2016; Kern et al., 2014; MacIntyre et al., 2019; Naghieh et al., 2015; Sheffield et al., 1994; Vesely et al., 2014; von der Embse & Mankin, 2021), pointing out the possibilities of intervention in order to alleviate the stress impact and, in turn, to lead to an increasing personal and professional sense of wellbeing.

The present study

This study proposes to investigate whether wellbeing has a mediating role in the association between the k-12 school teachers' stress and their life satisfaction. Given the empirical evidence and theoretical framework, psychological, emotional and social wellbeing are key to promote life satisfaction, which may mediate the adverse impacts of perceived stress on this outcome. In order to do so, we expect that (a) teachers' perceived stress will be negatively associated with their wellbeing (psychological, emotional and social wellbeing) and life satisfaction; (b) all three dimensions of teachers' wellbeing will positively correlate with their life satisfaction; (c) psychological, emotional and social wellbeing would mediate the association between k-12 school teachers' stress and their life satisfaction.

Method

Participants

The participants of this study comprised of pre-university teachers (n = 1390) living in Romania and their age was ranged between 19 and 64 ($M = 38.76$; $SD = 10.08$), while their work experience was in average of 14.84 years \pm ($SD = 10.58$; range 1 to 44). Ten percentage were teachers at high school level, while 30.4 % were teachers at secondary, 38.2% % were teachers at primary level, and 20.6% were teachers at kindergarten. Almost half of them (43.5 %) were working in urban areas.

An online link was created using informed consent, demographic questions and the study measures. The participants were recruited through the students who were involved in master study program. All participants signed agreed to participate and all were aware that their participation was voluntary and their answers were confidential and anonymous. Participants were not compensated for their involvement.

Measures

Socio-demographics questions

This section included questions about participants' gender, age, work experience, education, school level where they teach and area of living.

Stress

In order to evaluate teachers' perceived stress, a Romanian translation of *Perceived Stress Scale* (Cohen et al., 1994) was used. The scale consists of 10 items. Six out of ten items are negatively worded, while the other items are positively worded. All items were scored using a five-point

Likert-type scale from 0 (never) to 4 (very often). The Cronbach's alpha coefficient of this scale in this study was .86.

Wellbeing

In order to measure evaluate teachers' psychological, emotional and social wellbeing, a Romanian translation of *Mental Health Continuum-Short Form* (Lamers et al., 2010) was used. The MHC-SF consists of 14 items. This scale is a self-report scale and all items were scored using a six-point Likert-type scale from 1 (never) to 6 (every day). The scale can used for assessment of general well-being as well as three dimensions of wellbeing. The Cronbach's alpha coefficient of MHC-SF for this study was .928.

Life satisfaction

In order to assess teachers' life satisfaction a Romanian translation of *The Satisfaction with Life Scale* (Diener et al., 1985) was used. This measure is a self-report scale and it consists of 5 items. All items are direct items and were scored using a seven-point Likert-type scale, from 1 (strongly disagree) to 7 (strongly agree). The Cronbach's alpha coefficient of SWLS obtained in this study was .869.

Procedure

Participating teachers were invited to participate in this study by students enrolled at an Educational science program from a large Romanian university. All participants signed informed consent. Participants have not received any compensation for their involvement in this study. All students received extra-course credit. The necessary scales were filled in online by participants.

Results

Associations between the main study variables

The descriptive statistics and the correlation analysis between the interested variables are depicted in Table 1. In general, the perceived stress mean was moderate, while for life satisfaction and psychological, emotional and social wellbeing average means were rather high.

Findings from the correlation analysis outlined that a high level of teachers' perceived stress had a significant and negative association with all three dimensions of (psychological, emotional and social) wellbeing and life satisfaction. There was also a significant and positive relationship between all

three dimensions of teachers' (psychological, emotional and social) wellbeing and their life satisfaction, as can be seen in Table 1.

Table 1. Bivariate correlations between the main variables

	M	SD	1	2	3	4	5
1. Perceived stress	25.77	5.90		-.47**	-.35**	-.40**	-.43**
2. Emotional wellbeing	14.35	2.69			.60**	.67**	.64**
3. Social wellbeing	19.58	5.58				.66**	.46**
4. Psychological wellbeing	28.32	5.46					.52**
5. Life satisfaction	27.97	4.63					-

*** $p < .001$

Source: Author's own conception

After examining the preliminary analysis, we tested the mediating effect of wellbeing in the association between k-12 school teachers' perceived stress and k-12 school teachers' life satisfaction.

The mediation model is illustrated in Figure 1. The results reveal that the model has the following indices: $R^2 = .41$, $F_{(3, 251)} = 243.37$, $MSE = 12.61$, $p < .001$. The total effect of perceived stress on life satisfaction was $b = -.34$, $p < .001$.

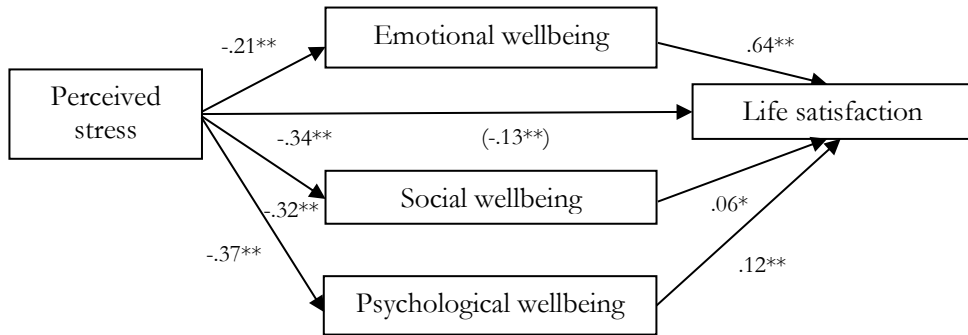
Direct effects

Perceived stress had a direct negative relation with emotional wellbeing ($b = -.21$, $p < .001$), social wellbeing ($b = -.32$, $p < .001$), psychological wellbeing ($b = -.37$, $p < .001$), and life satisfaction ($b = -.13$, $p < .001$). In addition, all dimensions of wellbeing (emotional wellbeing ($b = .64$, $p < .001$), social wellbeing ($b = .06$, $p < .01$), and psychological wellbeing ($b = .12$, $p < .001$)) had a direct positive relation with life satisfaction.

Indirect effects

We assumed that wellbeing (emotional, social and psychological wellbeing) would explain the associations between perceived stress and life satisfaction. The findings showed that all three dimensions of wellbeing partially mediated the effects of perceived stress on life satisfaction (*emotional wellbeing* $b = -.17$; CI: -.213; -.141; *social wellbeing* $b = -.02$; CI: -.047; -.006; *psychological wellbeing* $b = -.06$; CI: -.091; -.034).

Figure 1. The mediation model testing wellbeing as a mediating variable in the relationship between perceived stress and life satisfaction among teachers.



Note: $*p < .05$, $*** p < .001$

Source: Author's own conception

Discussion

The literature regarding the associations between stress and life satisfaction among teachers primarily concentrated on the direct link between those variables. Thus, researchers have not investigated the underlying mechanism between k12-school teachers' stress and life satisfaction remains unclear. In order to bring additional knowledge, we proposed to investigate whether wellbeing mediates the link between the perceived stress and life satisfaction among k-12 school teachers. Given the empirical evidence and theoretical framework, psychological, emotional and social wellbeing are key to promote life satisfaction, which may mediate the adverse impacts of teachers' stress on their life satisfaction. In order to do so, we hypothesized that (a) stress is negatively associated with psychological, emotional and social wellbeing, and life satisfaction; (b) psychological, emotional and social wellbeing are positively associated with life satisfaction, and (c) psychological, emotional and social wellbeing mediate the link between teachers' stress level and their life satisfaction.

The results of this study showed negative low to medium associations between stress and psychological, emotional and social wellbeing, and life satisfaction. These results support our first hypothesis and concurs well with previous studies' results who also confirm the link between psychological issues such as stress and aspects of wellbeing. More precisely, studies having participants from general population show that high levels of stress are associated with low levels of wellbeing and life satisfaction (Ribeiro et al., 2018; Ursu & Măirean, 2022; Wirtz & von Kanel, 2017). Additionally, studies with teachers as participants report the same pattern: high level of stress is negatively associated with physiological

indicators of wellbeing or psychological wellbeing and life satisfaction (Bano & Malik, 2014; Gómez del Amo & Guerrero-Barona, 2018; Harris et al., 2016; Kern et al., 2014; MacIntyre et al., 2019; Naghieh et al., 2015; Sheffield et al., 1994; Vesely et al., 2014; von der Embse & Mankin, 2021).

The second hypothesis was related to the positive associations between all three dimensions of wellbeing (emotional, psychological and social wellbeing) and life satisfaction among teachers. The results of our study show indeed positive associations between these variables. Other studies with this professional group reported similar results. High level of wellbeing are associated with high level of life satisfaction (Kaya & Çenesiz, 2022), promoting a good functioning in society.

Assessing the possible mediating role of wellbeing for the link between perceived stress and life satisfaction among teachers was the third hypothesis of the present study. Results show that emotional wellbeing, psychological wellbeing and social wellbeing partially mediated the link between teachers' perceived stress and their level of life satisfaction. These results indicate that wellbeing is an important source that can mediate the adverse effects of stress on life satisfaction of pre-university teachers.

The current study has several strengths. One of them is related to the large sample size selected from Romania, an understudied sample of pre-university teachers. Secondly, it investigates the underpinning wellbeing role for the relationship between k-12 school teachers' stress and life satisfaction. However, the shortcomings of this research are related to the self-report scales used to collect the data from participants. Another shortcoming is related to the cross-sectional design used. Future research should focus on assessing associations between stress, wellbeing and life satisfaction by using a longitudinal approach. By doing so, it will be possible to establish a cause-effect relationship between these variables. Further work needs to be done to find the moderators for teachers' stress and life satisfaction' relationship, or teachers stress and their levels of wellbeing.

Conclusion

This study focused on identifying the underlying mechanisms related to the associations between teachers' perceived stress, their wellbeing and their life satisfaction using a mediational model. The findings showed indirect and direct associations between k-12 school teachers' perceived stress and their reported life satisfaction. More precisely, the results show the mediating role of emotional, psychological and social wellbeing in the link between k-12 school teachers' stress and their life satisfaction. As a result, interventions aiming to increase the wellbeing of teachers, can be a

useful way to decrease the negative effect of perceived stress on teachers' wellbeing and eventually increase the life satisfaction of pre-university teachers.

References

- Bano, S., & Malik, S. (2014). Effect of Occupational Stress on Life Satisfaction among Private and Public School Teachers. *JISR Management and Social Sciences & Economics*, 12(1), 61–72.
<https://doi.org/10.31384/jisrmsse/2014.12.1.5>
- Boonen, T., Van Damme, J., & Onghena, P. (2014). Teacher effects on student achievement in first grade: which aspects matter most?. *School Effectiveness and School Improvement*, 25(1), 126–152.
<https://doi.org/10.1080/09243453.2013.778297>
- Buetell, N. (2006). *Life satisfaction, asloan work and family encyclopedia entry*, in *Sloan work-family. Encyclopedia*, Boston College.
- Charlemagne-Badal, S. J., Lee, J. W., Butler, T. L., & Fraser, G. E. (2015). Conceptual domains included in wellbeing and life satisfaction instruments: A review. *Applied Research in Quality of Life*, 10(2), 305–328.
<https://doi.org/10.1007/s11482-014-9306-6>
- Cohen, S., Kamarck, T., & Mermelstein, R. (1994). Perceived stress scale. *Measuring stress: A guide for health and social scientists*, 10(2), 1–2.
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of personality assessment*, 49(1), 71–75.
https://doi.org/10.1207/s15327752jpa4901_13
- Gómez del Amo, R., & Guerrero-Barona, E. (2018). Factores de riesgo psicosocial, estrés percibido y salud mental en el profesorado. *Clinica Contemporánea*, 9(1), E2, 1–12. <https://doi.org/10.5093/cc2018a2>
- Granziera, H., Collie, R., & Martin, A. (2021). Understanding Teacher Wellbeing Through Job Demands-Resources Theory. In C. F. Mansfield (Ed.), *Cultivating Teacher Resilience* (pp. 229–244). Springer Singapore.
https://doi.org/10.1007/978-981-15-5963-1_14
- Harris, A. R., Jennings, P. A., Katz, D. A., Abenavoli, R. M., & Greenberg, M. T. (2016). Promoting Stress Management and Wellbeing in Educators: Feasibility and Efficacy of a School-Based Yoga and Mindfulness Intervention. *Mindfulness*, 7(1), 143–154. <https://doi.org/10.1007/s12671-015-0451-2>
- Hattie, J. (2009). *Visible learning: A synthesis of 800+ meta-analyses on achievement*. Routledge.
- Huyghebaert, T., Gillet, N., Beltou, N., Tellier, F., & Fouquereau, E. (2018). Effects of workload on teachers' functioning: A moderated mediation model

- including sleeping problems and overcommitment. *Stress and Health*, 34(5), 601–611. <https://doi.org/10.1002/smi.2820>
- Iriarte Redín, C., & Erro-Garcés, A. (2020). Stress in teaching professionals across Europe. *International Journal of Educational Research*, 103, 101623. <https://doi.org/10.1016/j.ijer.2020.101623>
- Kaya, Z., & Çenesiz, G. Z. (2020). The predictor roles of life-satisfaction, and intrinsic-extrinsic motivation on the psychological well-being of pre-service teachers. *International Online Journal of Education and Teaching*, 7(4). 1370-1387. <http://iojet.org/index.php/IOJET/article/view/948>
- Kern, M. L., Waters, L., Adler, A., & White, M. (2014). Assessing employee wellbeing in schools using a multifaceted approach: Associations with physical health, life satisfaction, and professional thriving. *Psychology*, 5(6), 500–513. <https://doi.org/10.4236/psych.2014.56060>
- Keyes, C. L. M. (n.d.). *Mental Health in the CDS Youth* [Unpublished Doctoral Thesis]. Emory University.
- Kwon, K. A., Ford, T. G., Salvatore, A. L., Randall, K., Jeon, L., Malek-Lasater, A., ... & Han, M. (2020). Neglected elements of a high-quality early childhood workforce: Whole teacher well-being and working conditions. *Early Childhood Education Journal*, 50, 157–168. <https://doi.org/10.1007/s10643-020-01124-7>
- Lamers, S. M. A., Westerhof, G. J., Bohlmeijer, E. T., ten Klooster, P. M., & Keyes, C. L. M. (2010). Evaluating the psychometric properties of the Mental Health Continuum-Short Form (MHC-SF). *Journal of Clinical Psychology*, 67, 99–110. <https://doi.org/10.1002/jclp.20741>
- Luque-Reca, O., García-Martínez, I., Pulido-Martos, M., Lorenzo Burguera, J., & Augusto-Landa, J. M. (2022). Teachers' life satisfaction: A structural equation model analyzing the role of trait emotion regulation, intrinsic job satisfaction and affect. *Teaching and Teacher Education*, 113, 103668. <https://doi.org/10.1016/j.tate.2022.103668>
- MacIntyre, P. D., Ross, J., Talbot, K., Mercer, S., Gregersen, T., & Banga, C. A. (2019). Stressors, personality and wellbeing among language teachers. *System*, 82, 26–38. <https://doi.org/10.1016/j.system.2019.02.013>
- Maddux, J. E. (2018). *Subjective Well-Being and Life Satisfaction* (First edition). Routledge Taylor & Francis.
- Naghieh, A., Montgomery, P., Bonell, C. P., Thompson, M., & Aber, J. L. (2015). Organisational interventions for improving wellbeing and reducing work-related stress in teachers. *Cochrane Database of Systematic Reviews*, 4, CD010306. <https://doi.org/10.1002/14651858.CD010306.pub2>
- Oades, L. G., & Mossman, L. (2017). The Science of Wellbeing and Positive Psychology. In A. Jarden, L. Oades, & M. Slade (Eds.), *Wellbeing, Recovery*

- and Mental Health* (pp. 7–23). Cambridge University Press.
<https://doi.org/10.1017/9781316339275.003>
- Office for Standards in Education. (2019). *Teacher well-being at work in schools and further education providers*. Office for Standards in Education.
<https://www.gov.uk/government/publications/teacher-well-being-at-work-in-schools-and-further-education-providers>
- Pavot, W., & Diener, E. (2008). The satisfaction with life scale and the emerging construct of life satisfaction. *The Journal of Positive Psychology, 3*(2), 137–152.
<https://doi.org/10.1080/17439760701756946>
- Ribeiro, Í. J., Pereira, R., Freire, I. V., de Oliveira, B. G., Casotti, C. A., & Boery, E. N. (2018). Stress and quality of life among university students: A systematic literature review. *Health Professions Education, 4*(2), 70–77.
<https://doi.org/10.1016/j.hpe.2017.03.002>
- Seligman, M. (2011). *Flourishing*. Free Press.
- Sheffield, D., Dobbie, D., & Carroll, D. (1994). Stress, social support, and psychological and physical wellbeing in secondary school teachers. *Work & Stress, 8*(3), 235–243. <https://doi.org/10.1080/02678379408259995>
- Ursu, A., & Măirean, C. (2022). Cognitive Emotion Regulation Strategies as Mediators between Resilience and Stress during COVID-19 Pandemic. *International Journal of Environmental Research and Public Health, 19*(19), 12631.
<https://doi.org/10.3390/ijerph191912631>
- Veenhoven, R. (1996). The study of life satisfaction. In W. E. Saris, R. Veenhoven, A. C. Scherpenzeel, & B. Bunting (Eds.), *A Comparative Study of Satisfaction with Life in Europe*. Eötvös University Press.
- Vesely, A. K., Saklofske, D. H., & Nordstokke, D. W. (2014). EI training and pre-service teacher wellbeing. *Personality and Individual Differences, 65*, 81–85.
- Von der Embse, N., & Mankin, A. (2021). Changes in teacher stress and wellbeing throughout the academic year. *Journal of Applied School Psychology, 37*(2), 165–184. <https://doi.org/10.1080/15377903.2020.1804031>
- World Health Organization. (2023, June 19). What is stress? Retrieved from <https://www.who.int/news-room/questions-and-answers/item/stress>
- Wirtz, P. H., & von Känel, R. (2017). Psychological stress, inflammation, and coronary heart disease. *Current cardiology reports, 19*(11), 1–10.
<https://doi.org/10.1007/s11886-017-0919-x>
- Xu, X., Chen, L., Yuan, Y., Xu, M., Tian, X., Lu, F., & Wang, Z. (2021). Perceived Stress and Life Satisfaction Among Chinese Clinical Nursing Teachers: A Moderated Mediation Model of Burnout and Emotion Regulation. *Frontiers in Psychiatry, 598*. <https://doi.org/10.3389/fpsy.2021.548339>