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Resilience and Social Emotional Health of Teachers in Slovakia, Latvia, Lithuania in Pandemic Times

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Introduction. Research on teachers' resilience and social emotional health is important for quality learning and well-being at school, especially during the challenges of the COVID-19 pandemic. Research on mental health and resilience of teachers from Slovak republic, Latvia, and Lithuania was conducted as part of the ERASMUS+ project "Supporting Teachers to Face the Challenge of Distance Teaching" (2020-1-LV01-KA226-SCH-094599). Methodology. The primary goal of the first project phase was to assess social emotional health, so-called Covitality and resilience of teachers in elementary, secondary, and high schools in post-pandemic times and to focus on those areas which require significant support and development. 1,200 teachers, 400 from each participating country, took part in the research. Results were based on data from research methods: Resilience Scale (RS 14) and social-emotional health survey-teachers (SEHS-T) with the approval of the authors and with the consultation of M. J. Furlong, University of California, USA. Results. Teachers reported in all high level of social-emotional health overall indicator—Covitality, as well as enough high level in four of its domains: Belief in Self, Belief in Others, Emotional Competence, Engaged Living. Level of teachers' resilience has reached a moderate level in all three participating countries. There were found high significant positive correlations between teachers' resilience and overall covitality, as well as between resilience and covitality domains: Engaged living, Emotional Competence, and Belief in Self. Conclusions. Positive teacher strengths that were identified are self-regulation, empathy, cognitive reappraisal. Teachers demonstrated limits in resilience as a whole, in Belief in Others, especially in institutional and colleagues support, and in Engaged Living subscales gratitude, zest, and optimism. Identified weaknesses and limits will be used as a foundation for preparation of intervention activities for the teachers in the second project phase in 2022. These activities will target strengthening and support of mental health and resilience of teachers in participating East European countries.

Keywords: social-emotional health, resilience, strengths, teachers

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Introduction

Theoretical Background

Three countries—Latvia, Lithuania, and Slovak Republic—participated in the Erasmus+ project "Supporting Teachers to Face the Challenge of Distance Teaching" (2020-1-LV01-KA226-SCH-094599) during 2021-2023. The aim of the project is to develop a well-functioning digital support system for teachers to promote resilience and socio-emotional health.

In light of the drastic changes in the educational sector brought about by the COVID-19 pandemic, it has been decided to join forces and create tools and specific program that would meet current and future challenges in teachers' profession. There is a lack of scientifically sound research methods and public teacher support programs targeting social and emotional health of educational professionals. It should also be mentioned that social and emotional health of teachers is directly related to positive quality of education (Fontana & Abouserie, 1993).

Application of positive psychology at schools has emerged as a new perspective on education, especially in these recent years. Its focus has been on promotion of personal health resources, pupils' and teachers' strengths, as well as on increasing the potential for higher quality of life and well-being at school and beyond. Efforts have been made to identify positive opportunities for pupils and teachers not only in terms of their cognitive capacities, but also in motivation, emotionality, socialization, and self-regulation.

Three positive psychology pillars of this new trend are (Seligman, Steen, Park, & Peterson, 2005): (a) positive emotions (pupils, teachers, others (e.g., school professionals and parents)); (b) positive personality characteristics (abilities, talents, and talents of pupils); and (c) positive social institutions (democracy, strong family, school education, and supporting positive personality development). At schools, there is a strong tendency to look for strengths and resources of each pupil and teacher and to support their physical and mental health.

Mental health is an integral and essential component of health, one cannot exist without the other (Damodaran & Paul, 2016). According to World Health Organization (2004), health is a state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity. Mental health is more than the absence of mental disorders and it is closely connected to physical health (Kolappa, Henderson, & Kishore, 2013). There is no health without mental health. It is a state of well-being, in which an individual realizes own abilities, is able to cope with stress in life, works productively, and is capable of making contribution to the community (WHO, 2004).

Traditionally, the One-Dimensional Model perceived mental health as the absence of mental illness (Furlong, You, Renshaw, Smith, & O'Malley, 2013). Through the lens of the absence of psychopathology (Keyes, Shmotkin, & Ryff, 2002) improvement occurs due to the absence of mental deficit (Moore, Dowdy, Nylund-Gibsonb, & Furlong, 2018). Mental health and mental illness are put on two opposite poles of a continuum; research in mental health focused on psychopathology and diagnosis of mental disorder (Keyes et al., 2002).

According to the Dual-Factor Model of Mental Health, mental illness and mental wellness do not create a continuum of illness on one end and wellness on the other, but rather complement each other (Dowdy et al., 2014). The Dual-Factor Model or Two Continua Model emphasizes that positive (e.g. subjective well-being, positive strengths) and negative (e.g. distress) indicators of mental health are related but distinct, and the absence of pathology does not necessarily mean a good state of mental health (Suldo & Shaffer, 2008).

Social Emotional Health is a sum of positive social and emotional dispositions of a person and it is in line with the Dual-Factor mental health approach. The aim of the Social Emotional Health Model by Furlong et al.

(2014) is to identify key positive indicators for prediction of mental health. It is based on positive psychology, consisting of four positive main domains and 12 subscales as psychological indicators of mental health. The Belief in Self domain consists of Self-Efficacy, Persistence, and Self-Awareness. The Belief in Others domain comprises Family Support, Institutional Support, and Colleague Support. Emotional Competences consists of Cognitive Reappraisal, Empathy, Self-Regulation, and the last domain, Engaged Living, including Gratitude, Zest, and Optimism. The overall Social Emotional Health is referred to as Covitality.

Many authors (Rutter, 1987; Wagnild, 2014) have defined resilience. “While these definitions have some differences, there are fundamental similarities among them, including adaptation, balance, competence, determination, optimism and acceptance” (Wagnild, 2014, p. 11).

Wagnild and Young (1993) wrote that resilience is a personality characteristic that moderates the negative effects of stress and promotes adaptation. Wagnild (2014) stressed that “our own research has shown that resilience protects against (and reverses) depression, anxiety, fear, helplessness, and other negative emotions, and thus has the potential to reduce their associated physiological effects” (p. 10).

Eisenberg et al. (2010) approached resilience in terms of flexible and prompt adaptation to changing situation and environmental requirements. Psychological resilience is a component of self related to behavior as a dynamic product of regulation between the self and environmental requirements and becomes a stable trait over time (Philippe, Laventure, Belaulieu-Pelletier, & Lekes, 2011). Resilience as a personality trait enables the individual to better cope in life, as well as in demanding conditions and circumstances, especially in the presence of unexpected or long-term stressors (Reich, Zautra, & Hall, 2010). Resilience as a personality trait is a strength that acts as a significant moderator of negative effects of stress and a protective factor for adaption growth (Wagnild & Young, 1993). Resilience has also demonstrated potential to positively affect health, life satisfaction, quality of life and to prevent the onset of depression (MacLeod, Musich, Hawkins, Alsgaard, & Wicker, 2016). This may be considered a very important characteristic in teachers who in the present perform their profession in highly stressful and unfavorable circumstances in a relatively long-lasting pandemic period. In particular, teachers should have resilience at their disposal to help them cope with challenges in their personal and professional lives and thus help them adapt to demanding situations. This would enable them to come to terms with public expectations in regards to their profession which has faced higher demands for coping capacities and adaptation in pandemic times

In this respect it should be mentioned that resilience which is prone to changes, is a life-long process of capacity and strength development enabling the individual to face demanding situations, adversity, and to help with problem solution. According to Ungar (2010) in the process of resilience development it is desirable to support the individual ability to direct approach to health-sustaining resources, including opportunities for well-being and positive family, community and cultural interactions in culturally meaningful ways. Support of resilience will be targeted in the second project phase. Currently resilience will be discussed as a dispositional characteristic of teacher personality which enables to identify the current level of adaptation to adversity in the personality—environment system and which is considered a prerequisite for effective future adaptations.

Research Aims and Objectives

Primary research aim is to examine level of teachers’ resilience and social-emotional health in Latvia, Lithuania, Slovakia in the pandemic times which often have negatively affected mental health and coping in

everyday life. Resilience Scale RS (Wagniled & Young, 1993, Wagnild, 2016) and Social-Emotional Health Survey-Teachers (SEHS-T) modified Social-Emotional Health – Higher Education (SEHS-HE) by the acceptance of the authors (Furlong, M. J., You, S., Shishim, M., & Dowdy, E., 2017) were used as measures for data collection.

Based on the research aim, following research main questions were formulated:

1. What is the level of teachers' resilience in Latvia, Lithuania, and Slovakia?

2. What is the overall level of social emotional health (SEHS-T) of teachers in Latvia, Lithuania, and Slovakia?

3. How do the RS and SEHS-T dimensions and d their correlations demonstrate a potential problem in the context of the socio-emotional health on a sample of teachers?

We formulate the research objectives:

(1) To evaluate teachers' resilience (RS-14) in Latvia, Lithuania, Slovak Republic, and whole sample.

(2) To evaluate level of social-emotional health domains and indicators (SEHS-T) of teachers in Latvia, Lithuania, Slovak Republic, and whole sample.

(3) To identify correlations between SEHS-T and RS-14 of teachers sample.

Methodology

Methodological Background

The first step of the project is devoted to assessment of social-emotional health and resilience of teachers and revealing spheres, domains, and dimensions in which teachers need support and development. In the next step, the online individual and group counselling program and educational resilience support program and E-book for teachers are planned to realize.

The experts from Lithuania, Slovakia received successful support for this idea and for this aim from EU agency, with Latvia as the leading partner (Ilze Briška, Guna Svence) and with the research consultant Prof. Michael J. Furlong, the author of SEHS surveys, California University, Santa Barbara, USA.

The project started in April 2021. In Zoom three partners meetings of the discussions were managed dealing with the research methodology (criteria for teachers sample, adaptation of research methods, collection of data, gathering the data, statistical analysis, etc.)

The Social-Emotional Health Survey-Teachers (SEHS-T) methodology was adapted in these countries in April 2021. In Slovakia the adaptation of SEHS-T was performed by Eva Gajdosova and Veronika Bisaki with 91 participants—teachers from the primary and secondary schools, in Latvia the adaptation of SEHS-T was performed by Guna Svence and the research assistant Lāsma Lagzdiņa with 50 participating teachers according to the procedure adopted as a standard in psychology and described in Psychology-International Test Commission (2010) and in Lithuania the SEHS-T adaptation was done by Ala Petrulyté with 142 teachers.

The adaptation of the Social Emotional Health Survey for Teachers SEHS-T took place according to the test adaptation procedure (International Test Commission, 2010). The adaptation procedure took place in several stages:

1. First, the author of the original test-modified SEHS-HE—was asked for permission and it was received from Prof. Michael Furlong, California University, Santa Barbara, USA about the adaptation of the test in the cultural environment of Latvian, Lithuanian, and Slovak teachers. M. Furlong's permission was received together with the original version of the survey in English.

2. The next step in adapting the test was to translate the survey. A back-and-forth translation approach was used, meaning that one specialist translated from the original language into the target population's language and another group of specialists translated. A group of other translators then compared the two versions (Oakland, 2000), analyzed the resulting translations, and selected those translations that matched the relevant article of the original test in the back translation. If there was no agreement, then the most appropriate version of the articles was chosen (Raščevska, 2005).

3. The pilot research was realized to see the reliability of SEHS-T in Latvia (429 teachers) and Slovakia (91 teachers) (see Table 1). These pilot researches and their results confirmed the high reliability of the method SEHS-T in both of these countries. All data were processed in the statistical program IBM SPSS 21 version.

4. The same procedure was done with the Resilience Scale. The author Dr. Gail Wagnild, the Resilience Center, Montana, USA, gave the permission for 12 months to use the Resilience Scale RS and RS-14 in this research.

Table 1

Teachers' Reliability of SEHS-T and Its Domains in Slovak Republic and Latvia

Cronbach's alpha	No. statements	Slovak Republic	Latvia
SEHS-T	48	0.930	0.890
BIS	12	0.813	0.870
BIO	12	0.818	0.820
EC	12	0.814	0.720
EL	12	0.845	0.770

Participants

The research sample includes 1200 participants teachers, 400 teachers from every participating country of Latvia, Lithuania, Slovak Republic.

Three selection criteria for recruitment of 400 teachers from each of these three countries were used:

(1) targeted partner schools with which there have been other forms of co-operation. Principals were directly approached based on trust and confidence that the majority of teachers will take part in the survey. The partner schools were divided according to the second principle.

(2) educational institutions of different sectors (standard primary and secondary schools, high schools—arts and crafts, technical schools, countryside and city schools, small schools, and large schools, state).

(3) principle of random sampling is chosen. The research sample confirmed the prevalence of female teachers and teachers older than 40 years in all three countries.

Measures

Resilience scale (14 or 25 versions). Resilience Scale (RS; Wagnild & Young, 1993; Wagnild, 2016) is a measure for assessment of individual resilience in two dimensions: personal competence and acceptance of self. It consists of 25 items which are rated on a Likert-type scale from 1-7.

Resilience Scale RS scores range from 25 to 175. Scores greater than 145 indicate moderately high and high resilience, scores from 116 to 144 indicate moderately low to moderate levels of resilience, and scores of 115 and below indicate low resilience (Wagnild, 2016, p. 82). Resilience Scale RS was used separately in Latvian sample and in Slovak sample.

Resilience short version-Scale RS-14 scores from 14 to 98. Scores greater than 82 indicate moderately high and high level of resilience, scores from 65 to 81 indicate moderately low to moderate resilience, and scores of 64 and below indicate low resilience. Short version RS-14 was used in the whole sample (see Table 3).

Table 2

Scoring of RS-25 and RS-14 (Wagnild, 2016)

	Moderately high and high level	Moderately low to moderate level	Low level	Min.	Max.
Resilience Scale RS	> 145	116-144	< 115	25	175
Resilience Scale RS-14	> 82	65-81	< 64	14	98

RS has demonstrated very good validity and reliability which were repeatedly confirmed with various age and professional samples (Ahern, Kiehl, Sole, & Byers, 2006; Wagnild, 2009). Results of several studies showed that RS demonstrated stability over time: test-retest reliability within three months was r= 0.90 (Portzky, Wagnild, De Bacquer, & Audenaert, 2010).

Series of correlational and regression analyses were conducted using confirmatory factor analysis to assess factor structure of the RS (Wagnild & Young, 1993) at the Department of Psychology, Faculty of Arts, Comenius University in Bratislava (Mesarošová, Hajdúk, Heretik, 2014). RS shows good psychometric properties including acceptable reliability (Cronbach Alpha = 0.818).

Social-emotional health survey-teachers SEHS-T (Furlong & Gajdošová, 2018). Social Emotional Health Survey-Teachers (SEHS-T; Furlong & Gajdošová, 2018) is a modified version of the Social-Emotional Health Survey-Higher Education (SEHS-HE; Furlong et al., 2017). It has been modified in six items with the agreement of its author Prof. Furlong for the assessment of teacher social-emotional health.

The SEHS-T measures the covitality latent trait. Covitality refers to the co-occurrence of positive, healthy traits. It embodies the "…synergistic effects of positive mental health resulting from the interplay among multiple positive-psychological building blocks" (Furlong et al., 2014a, p. 3).

Social-Emotional Health Survey-Teachers (SEHS-T) assesses the level of covitality and its four domains—Belief in Self (BIS), Belief in Others (BIO), Emotional Competence (EC), Engaged Living (EL). SEHS-T has 12 subscales representing unique positive social-emotional health constructs associated with four general positive social-emotional health domains. The first domain, Belief-in-self, consists of three subscales grounded in constructs from the social-emotional learning (SEL) and self-determination theory literature: self-efficacy, persistence, and self-awareness (e.g., Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). The second domain, Belief-in-others, has three subscales derived from constructs found in the resilience literature: family support, institutional support, and colleague support (e.g., Larson, 2000). The third domain, Emotional Competence, consists of three subscales based on constructs drawn from the SEL: cognitive reappraisal, emotional regulation, empathy, and self-regulation (e.g., Greenberg et al., 2003). Engaged living, the final domain, comprises three subscales grounded in constructs derived from the positive psychology literature: gratitude, zest, and optimism (e.g., Furlong et al., 2014b).

SEHS-T contains 48 items rated on a six-point scale with covitality score ranging between 48-288. Based on the covitality score results are interpreted in three covitality levels: low, moderate, and high (see Table 2).

Data Analysis

Data were analysed using the IBM SPSS 21. The internal consistency of questionnaires was verified using

Cronbach's alpha coefficient. Subsequently, parametric analysis of variance (ANOVA), Student *t*-test, non-parametric Kruskal-Wallis, and Mann-Whitney U test were conducted. Substansive significance of differences was assessed based on η^2. Histograms were used to show normality. The correlations between the variables were examined using the Spearman correlation coefficient.

Table 3

Scoring of SEHS-T

	High level	Moderate level	Low level	Min.	Max.
SEHS-T	> 208	128-207	< 127	48	288
SEHS-T indicators	> 52	32-51	< 31	12	72
SEHS-T indicators	> 18	11-17	< 10	4	24

Results

Resilience of Teachers

Overall level of resilience and its dimensions in Lithuanian, Latvian, and Slovak Republic teachers. Resilience Scale R-14 demonstrated very good internal consistency $\alpha = 0.860$. Inter-item correlations were between $r = 0.333$ and $r = 0.652$. During item analysis no items with low inter-item correlation were identified ($r < 0.200$). Only for item "I usually take things in stride" higher correlation $r = 0.333$ was found.

Results confirmed that participants scored at moderate level in resilience ($M = 76.30$), i.e. Lithuanian ($M = 72.93$), Latvian ($M = 75.04$), and Slovak Republic ($M = 80.92$) teachers reported only moderate level of resilience (see Table 4). There are however significant differences in resilience among the countries ($p = 0.001$, $\eta^2 = 0.10$). Similar differences were found for both resilience dimensions, Personal Competence ($p = 0.001$, $\eta^2 = 0.99$), and Acceptance of Self and Life ($p = 0.001$, $\eta^2 = 0.13$).

Table 4

Teachers Resilience RS-14

Country	Minimum	Maximum	Mean	Std. deviation	Median
Slovak Republic	15.00	98.00	80.92	11.06	83.00
Latvia	44.00	97.00	75.04	9.22	75.50
Lithuania	14.00	98.00	72.93	13.05	73.50
Total	14.00	98.00	76.30	11.71	78.40

While a statistically significant difference in the level of resilience was found between Slovakia and Lithuania ($p = 0.001$) and between Slovak Republic and Latvia ($p = 0.001$), no significant difference was found between Latvia and Lithuania ($p = 0.103$, $\eta^2 = 0.309$).

Analysis of teacher responses in Resilience Scale revealed that majority of Slovak teachers (84%) provided high ratings (responses 6, 7) for the item "My life has meaning". Slovak (77.8%) and Lithuanian teachers (70.1%) provided high ratings (responses 6, 7) for the item "I am able to depend on myself more than anyone else", as well as the item "I keep interested in things" (67% and 63.3%).

However, limits were found in both samples in the item "I usually take things in stride", for which high ratings (6, 7 on a seven-point scale) were provided only by 39.8% of Slovak teachers and 49.5% of Lithuanian teachers.

Limits were also identified in the extent of energy and enthusiasm for requested activities "I have enough energy to do what I have to do". 39% of Slovak teachers and 66% of Lithuanian teachers provided negative

ratings for this item. Teachers also reported problems in solving difficult situations “When I am in a difficult situation, I can usually find my way out of it”. 37% of Slovak teachers and 68% of Lithuanian teachers responded to this item with low responses (5 and lower). One third of teachers in both countries (SR 29.5%, Lo 36,.8%) do not acknowledge problems “I take things one day at a time”, while two thirds are able to acknowledge problems, in particular 25% of Slovak and 15% of Lithuanian teachers very significantly.

Covitality of Latvia, Lithuania, and Slovak Republic Teachers

Covitality level. Average score of overall covitality level in teachers from Latvia, Lithuania, and Slovakia is $M = 230.34$ (theoretical score range: 48-288, empirical range: 69-288, SD 24.89, minimum 69.00, maximum 288.00), which indicates high covitality level. The mean score was found for Slovak Republic teachers ($M = 238.65$), teachers from Lithuania ($M = 230.51$), and Latvia ($M = 221.54$) scores slightly lower. There is significance of differences among countries, with medium eta squared/effect size ($p = 0.001$, $\eta^2 = 0.09$) (see Table 4, Figure 1 and Table 5).

Table 5

Teacher Covitality per Country (Slovak Republic, Latvia, Lithuania, and Total Sample)

Country	Minimum	Maximum	Mean	Std. deviation	Median
Slovak Republic	130.00	288.00	238.65	24.75	242.00
Latvia	131.00	275.00	221.54	21.96	222.00
Lithuania	69.00	287.00	230.51	24.85	233.00
Total	69.00	288.00	230.34	24.89	232.00
Independent-Samples Kruskal-Wallis Test Summary					
Total N			1185		
Test statistic			110.256[a]		
Degree of freedom			2		
Asymptotic sig. (2-sided test)			0.000		
η^2			0.09		

Note. [a] The test statistic is adjusted for ties.

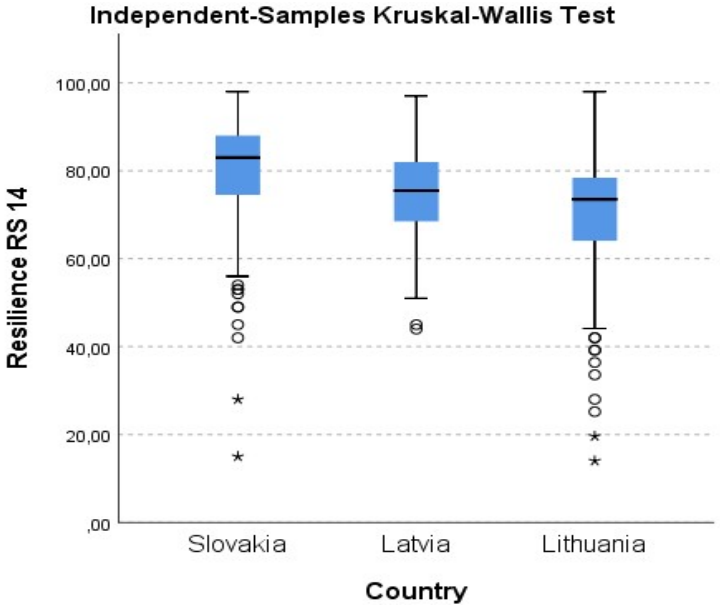

Figure 1. Resilience RS-14.

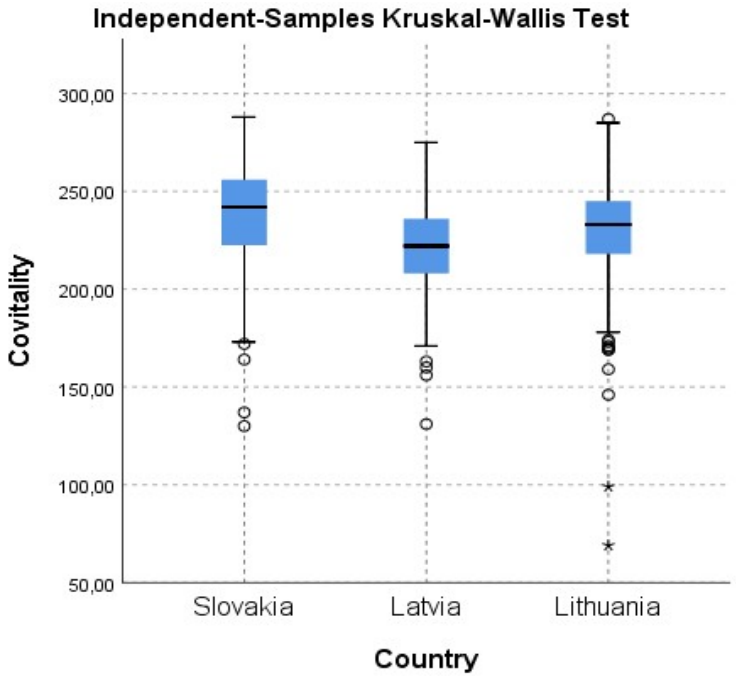

Figure 2. Teacher covitality in Latvia, Lithuania, and Slovak Republic

Based on the results of post-hoc analysis, significant differences were found between individual countries (Latvia-Lithuania, Latvia-Slovak Republic, Lithuania-Slovak Republic).

(1) Teacher belief-in-self (BIS)

BIS in teachers in participating countries is at high level (M = 57.11).

The highest level was found in Slovak Republic teachers (M = 59.65), only slightly lower level of BIS was found in Lithuania teachers (M = 58.53) and lower level, however still in the high range, was found in Latvia teachers (M = 53.16) (see Figure 2).

Differences in BIS in the three participating countries are statistically significant (p = 0.001, η^2 = 0.16). Results from comparative analysis show that while there are significant differences in BIS between Lithuania-Slovak Republic and Lithuania-Latvia (p = 0.001), there are no significant differences between teachers from Latvia and Slovak Republic in BIS (p= 0.05, η^2 = 0.1)

(2) Teacher belief-in-others (BIO)

Differences in Belief-in-others (BIO) among the countries are statistically significant with medium effect size (p = 0.001, η^2 = 0.07). The average overall score in BIO is the lowest compared to other covitality domains (M = 56.83). Comparative analysis revealed that Lithuanian (M = 55.32) and Latvian (M = 55.67) teachers scored in this domain lower than Slovak Republic teachers (M = 59.32) (see Figure 3).

While the differences between Slovak Republic and Lithuania (p = 0.001) and Slovak Republic and Latvia (p = 0.001), are statistically significant, there is no significant difference between Lithuania and Latvia in BIO (p= 0.082, η^2 = 0.246).

(3) Teacher emotional competence (EC)

Teacher level of EC in participating countries was found to be high (M = 58.71). Out of all covitality domains this is the domain where the teachers scored the highest.

Repeatedly Slovak teachers showed higher level of EC compared to the teachers from the other two countries (M = 60.66). However, only slightly lower level of EC was found in Latvian teachers (M = 58.35) and Lithuanian teachers (M = 57.10) respectively (see Figure 4).

Differences among the countries in the domain EC are statistically significant (p = 0.001, η^2 = 0.06), between Slovak Republic and Lithuania (p = 0.001), Slovak Republic and Latvia (p = 0.001) as well as between Lithuania and Latvia however at p = 0.002, η^2 = 0.007.

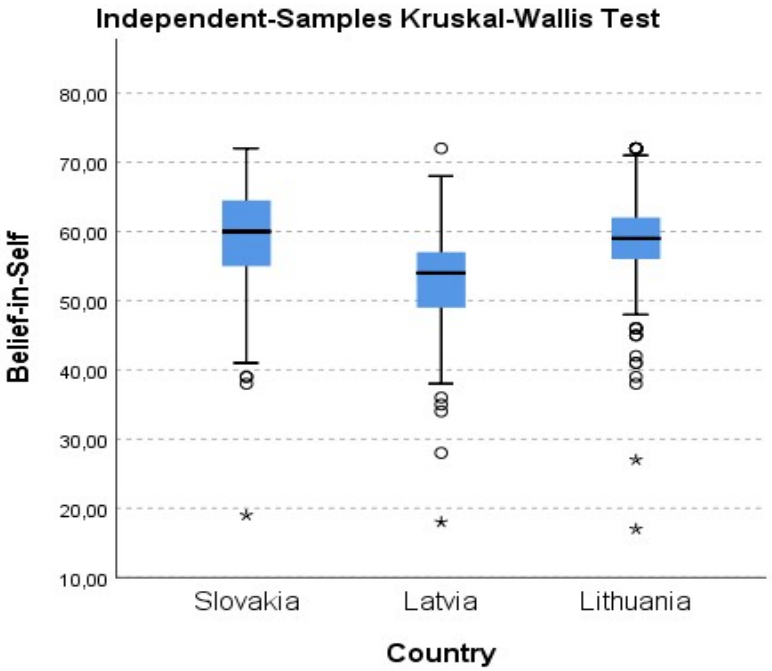

Figure 3. Belief-in-self (BIS).

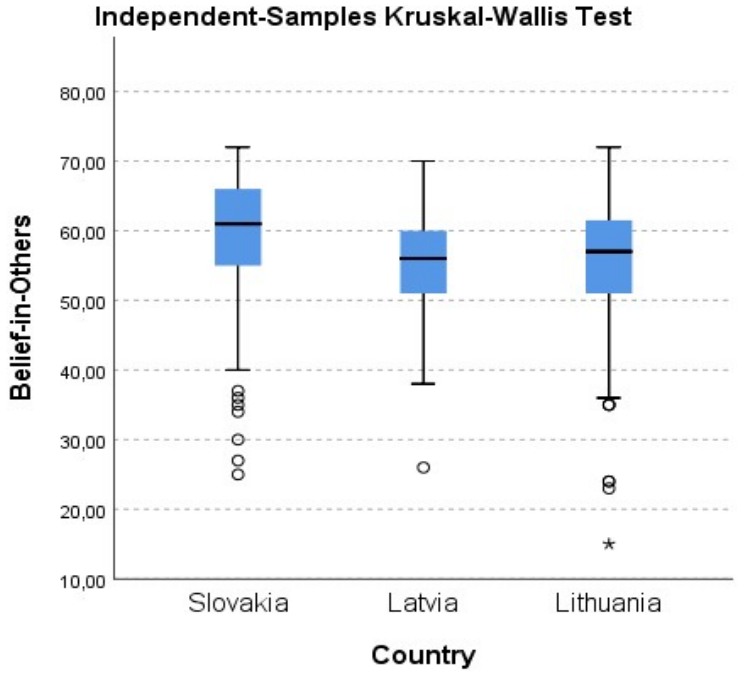

Figure 4. Belief-in-others (BIO).

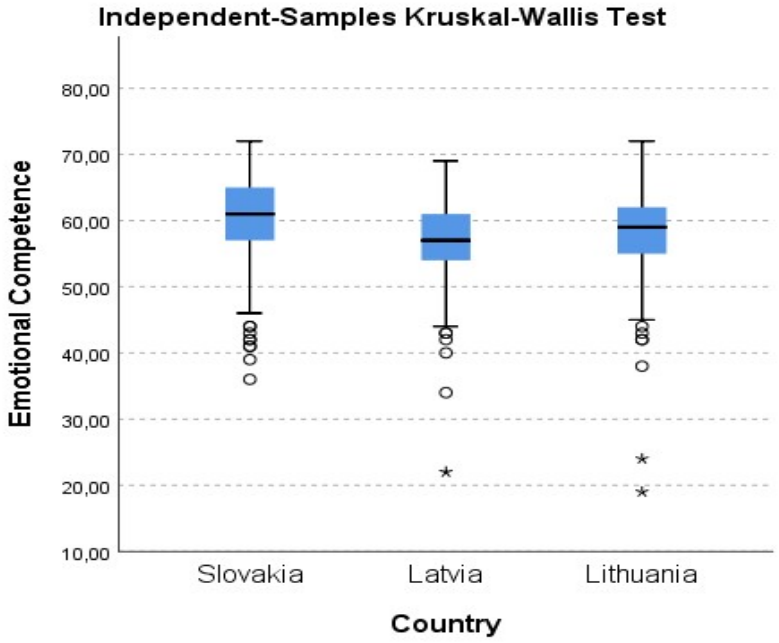

Figure 5. Emotional competence (EC).

(4) Teacher Engaged Living (EL)

The average score in the domain EL is M = 57.59. Differences between the countries are stastistically significant (p = 0.001, η^2 = 0.04).

Lower score was found for Lithuanian teachers (M = 55.91), followed by Latvian teachers (M = 57.95) while Slovak Republic teachers scored higher (M = 58.84) (see Figure 5). While there is a statistically significant difference between Lithuania and Latvia (p = 0.001) and Lithuania and Slovak Republic (p = 0.001) in EL, between Slovak Republic and Latvia no statistically significant difference was found (p = 0.134, η^2 = 0.401).

Psychological indicators of teacher SEHS-T covitality. Several psychological indicators in SEHS-T, self-efficacy, cognitive reappraisal, empathy, selfregulation, gratitude, optimism, were found to be at high level (> 18) in participating countries.

However, other covitality indicators that were at overall high level reached only moderate level in individual countries. These are: persistence (Latvia M = 17.00), self-awareness (Latvia M = 17.84), institutional support (Lithuania M = 17.46), colleague support (Lithuania M = 17.88), zest (Slovak Republic M = 17.68) (see Table 6).

Table 6

Teacher SEHS-T Domains BIS, BIO, EC, EL in Slovak Republic, Latvia, Lithuania

Country		BIS	BIO	EC	EL
	Minimum	19.00	25.00	36.00	16.00
	Maximum	72.00	72.00	72.00	72.00
Slovak Republic	Mean	59.65	59.51	60.66	58.84
	Std. deviation	7.22	8.14	6.53	8.04
	Median	60.00	61.00	61.00	60.00

Table 6 to be continued

	Minimum	18.00	26.00	22.00	30.00
	Maximum	72.00	70.00	69.00	68.00
Latvia	Mean	53.16	55.32	57.10	55.91
	Std. deviation	6.66	6.36	5.84	6.07
	Median	54.00	56.00	57.00	56.00
	Minimum	17.00	15.00	19.00	18.00
	Maximum	72.00	72.00	72.00	72.00
Lithuania	Mean	58.53	55.67	58.35	57.95
	Std. deviation	6.51	8.38	6.30	8.00
	Median	59.00	57.00	59.00	59.00
	Minimum	17.00	15.00	19.00	16.00
	Maximum	72.00	72.00	72.00	72.00
Total	Mean	57.11	56.83	58.71	57.59
	Std. deviation	7.36	7.90	6.39	7.54
	Median	58.00	58.00	59.00	58.00

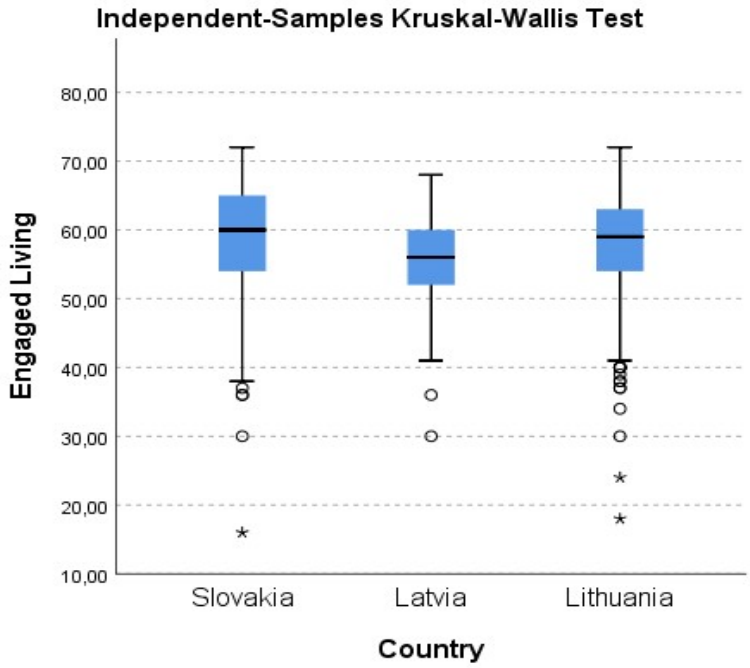

Figure 6. Engaged living (EL).

Teachers SEHS-T measures frequency analysis. Frequency analysis of SEHS-T and teacher responses in involved countries provided interesting results identified through frequency analysis of item responses of both measures.

Indicators in the domain BIO, i.e. perceived family support (M = 19.42), institutional support (18.03) and colleague support (18.66), which are of significant importance during pandemic times, were examined. Of interest was in particular the question, whether and to what extent teachers in these psychologically demanding times perceive support of the school institution. Results per country differ—in Slovak Republic only one third

of teachers (35.6%) reported sense of belonging to school and 12.8% reported that they perceived very low. Similar results were found for Latvia (32.1% rated sense of belonging as high, 10.8% as low). In Lithuania results for this item differ—60.8% of teachers rated institutional support as high.

Different results were found for perceptions of family social support. This indicator has been rated very highly in all indicator items by Slovak and Latvian teachers (70%-80%). In Lithuania, lower ratings were found for the item "In my family we make decision together as one team" (one third, 29.3% rated this item high—scale responses 5, 6, while 10.6% low—scale responses 1, 2).

Lower ratings were found in the domain EL for individual indicators—gratitude (M = 18.49), zest (M = 18.05), optimism (M = 19.38), which are at moderate to high level. Of importance are teacher responses to individual items, e.g. only one third of Slovak teachers (38.3%) and one third of Latvian teachers (32.1%) expected that they will feel joyful, happy during the day (scale responses 5, 6). Moreover, only half of teachers rated indicator, enthusiasms high (48.8%). This indicates that several areas for intervention have been identified.

The weaknesses in relation with the mental health of teachers are: Belief in Others (BIO): (institutional support, colleague support) and Engaged Living (EL): gratitude and zest. The positive strengths in relation with the mental health of teachers are: Emotional Competence (EC): self-regulation, cognitive reappraisal, empathy.

Correlations Between Teachers Resilience and SEHS-T Covitality

Significant positive correlations were found between teachers' resilience and covitality (r_s = 0.679**, p = 0.000) as well as resilience and four covitality domains (BIS r_s = 0.579**, BIO r_s = 0.528, EC r_s = 0.580**, EL r_s = 0.615**).

Results indicate that especially Emotional Competence (EC) and Engaged Living (EL) are associated with resilience. Correlations between resilience and 12 social-emotional indicators (subscales) are between r_s = 0.542** and r_s = 0.400**. Strong positive correlation was found between resilience and zest (r_s = 0.542**) and optimism (r_s = 0.528**), as well as between resilience and self-efficacy (r_s = 0.539**) and self-awareness (r_s = 0.503**) (see Table 8).

Table 7

Teachers Psychological Indicators of SEHS-T Covitality in Latvia, Lithuania, and Slovak Republic

Country		Self-efficacy	Persistence	Self-awareness	Family support	Institutional support	Colleague support	Cognitive reappraisal	Empathy	Self-regulation	Gratitude	Zest	Optimism
Slovak Republic	Minimum	6.00	5.00	6.00	4.00	5.00	7.00	11.00	12.00	7.00	5.00	4.00	4.00
	Maximum	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
	Mean	20.03	19.02	20.59	20.97	18.11	18.53	21.56	20.58	22.70	18.45	17.68	20.42
	Std. deviation	2.84	3.09	2.62	3.54	3.58	3.34	2.39	2.42	2.10	3.67	3.56	3.86
	Median	20.00	19.00	21.00	22.00	19.00	19.00	22.00	21.00	24.00	19.00	18.00	21.00
Latvia	Minimum	4.00	5.00	6.00	9.00	8.00	8.00	6.00	8.00	10.00	11.00	8.00	8.00
	Maximum	24.00	24.00	24.00	24.00	24.00	24.00	23.00	24.00	24.00	24.00	24.00	24.00
	Mean	18.33	17.00	17.84	17.86	18.52	19.57	18.30	19.23	18.79	18.66	18.45	18.94
	Std. deviation	2.66	2.81	2.55	2.85	2.52	2.07	2.52	2.38	2.38	2.13	2.36	2.27
	Median	19.00	17.00	18.00	18.00	19.00	20.00	19.00	20.00	19.00	19.00	19.00	19.00
Lithuania	Minimum	8.00	5.00	4.00	4.00	6.00	8.00	5.00	5.00	4.00	5.00	4.00	4.00
	Maximum	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
	Mean	19.53	19.26	19.74	19.42	17.46	17.88	20.24	20.23	21.57	18.35	18.04	18.79
	Std. deviation	2.39	2.80	2.55	3.91	3.12	3.12	2.50	2.48	2.55	3.50	3.45	4.02
	Median	20.00	20.00	20.00	20.00	18.00	18.00	20.00	21.00	22.00	19.00	19.00	20.00
Total	Minimum	4.00	5.00	4.00	4.00	5.00	7.00	5.00	5.00	4.00	5.00	4.00	4.00
	Maximum	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
	Mean	19.30	18.42	19.39	19.42	18.03	18.66	20.03	20.01	21.02	18.49	18.05	19.38
	Std. deviation	2.73	3.07	2.82	3.69	3.13	2.98	2.81	2.49	2.87	3.18	3.19	3.55
	Median	20.00	19.00	20.00	20.00	18.00	19.00	20.00	20.00	21.00	19.00	19.00	20.00

Table 8

Correlations Between Teachers Covitality and Resilience

SEHS-T		Resilience RS-14
Covitality	Correlation coefficient	0.679**
	Sig. (2-tailed)	0.000
Belief-in-self—domain 1	Correlation coefficient	0.579**
	Sig. (2-tailed)	0.000
Belief-in-others—domain 2	Correlation coefficient	0.528**
	Sig. (2-tailed)	0.000
Emotional competence—domain 3	Correlation coefficient	0.580**
	Sig. (2-tailed)	0.000
Engaged living—domain 4	Correlation coefficient	0.615**
	Sig. (2-tailed)	0.000
Self-efficacy	Correlation coefficient	0.539**
	Sig. (2-tailed)	0.000
Persistence	Correlation coefficient	0.441**
	Sig. (2-tailed)	0.000
Self-awareness	Correlation coefficient	0.503**
	Sig. (2-tailed)	0.000
Family support	Correlation coefficient	0.400**
	Sig. (2-tailed)	0.000
Institutional support	Correlation coefficient	0.457**
	Sig. (2-tailed)	0.000
Colleague support	Correlation coefficient	0.412**
	Sig. (2-tailed)	0.000
Cognitive reappraisal	Correlation coefficient	0.452**
	Sig. (2-tailed)	0.000
Empathy	Correlation coefficient	0.451**
	Sig. (2-tailed)	0.000
Self-regulation	Correlation coefficient	0.418**
	Sig. (2-tailed)	0.000
Gratitude	Correlation coefficient	0.426**
	Sig. (2-tailed)	0.000
Zest	Correlation coefficient	0.542**
	Sig. (2-tailed)	0.000
Optimism	Correlation coefficient	0.528**
	Sig. (2-tailed)	0.000

Note. ** Correlation is significant at the 0.01 level (2-tailed).

Results indicate that especially Emotional Competence (EC) and Engaged Living (EL) are associated with resilience.

Discussion

In pandemic period the mental health of population starts to be of significant focus of European, state and government authorities. Mental health with an emphasis on the social-emotional health of students and teachers at schools becomes of particular interest. Only teachers with good mental health can support and improve mental health of their students in every type of school.

The research aim of the present study was to determine the level of social-emotional health and resilience of teachers and to verify whether there are associations between social-emotional health and resilience. Measures used in this study were Social-Emotional Health Survey for Teachers which was used for the first time in a national and international context, and also the Resilience Scale. The internal consistency of the research methods was very satisfactory. The research was quantitative and correlational with comparative questions due to the examination of associations between selected variables.

The international research in the East-European countries Latvia, Lithuania, and Slovak Republichas confirmed that the level of socio-emotional health of teachers is high, both overall and in its key domains. The overall resilience of teachers was found to be between high and moderate level, the same applied to individual resilience dimensions.

The teachers' socio-emotional health was positively correlated with resilience. The correlations between covitality and its key domains and resilience are on very high level, especially the EL Engaged living of teachers which is the most important predictor of mental health of teachers in schools. Also self-efficacy, cognitive reappraisal, zest, and optimism were highly positively correlated with resilience.

Findings on associations between social-emotional health indicators and resilience confirmed that there are several psychological constructs associated with resilience. Teachers, in the process of coping, use various internal and external resources to overcome adversity. Important protective factors on individual level are self-esteem, positive self-concept, and high self-efficacy (Everall, Altrows, & Paulson, 2006; Fergus & Zimmerman, 2005). Self-esteem which is positively associated with resilience and personality (Mesárošová et al., 2014; Hayter & Dorstyn, 2014) is also positively associated with an active process of coping (Daigneault, Dion, Hebert, Mcduff, & Collin-Vezina, 2013; Arslan, 2016) and engagement in family and community environment (Dumont & Provost, 1999).

Results from the present study indicate significant associations between covitality and resilience in the participating sample and are thus in line with previous research (Furlong, 2013; Boman, Mergler, & Pennell, 2017, Telef & Furlong, 2017). Moreover, significant associations were confirmed for covitality and engaged living, emotional competence, as well as psychological indicators of self-efficacy, self-awareness, empathy, zest, and optimism.

The study showed preliminary good psychometric characteristics of the used tools, which allow us to use these tools in project second phase.

Theoretical and Practical Implications

The results of the study have several theoretical and practical implications. The following research activities are being considered: participation in comparative research on social and emotional health of teachers, standartization and application of research methods to assess the mental health of different types of the school teachers, and other school professionals.

The results of the study also have practical implications for the design and implementation of measures to improve teachers' social and emotional health and resilience.

According to this study, the main goal of the second phase of the project is to create and implement a well-functioning support system to strengthen the socio-emotional health of teachers and develop their resilience.

The specificity of this project is to acquire as broad coverage as possible and to provide that results are being used after the project as an integral part of teacher development processes across partner countries and

beyond. The project is just at a starting point of a set of activities to equip education and training systems to face the challenges presented by the recent sudden shift to online and distance learning. The project consortium will develop a system whose further functioning after the project and the project partner universities will maintain EU funding as part of their everyday work.

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