Belongingness and maladaptive schemas: A wellbeing group intervention program for high-school teachers

Raul V. Lupaş, Alina S. Rusu

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Raul V. Lupaş^{a*}, Alina S. Rusu^{b*}

^aDoctoral School "Education, Reflection, Development", Babeş-Bolyai University, 7 Sindicatelor Street, 400029, Cluj-Napoca, Romania

^bFaculty of Psychology and Educational Sciences, Babeş-Bolyai University, 7 Sindicatelor Street, 400029, Cluj-Napoca, Romania

*Corresponding author: raullupas@gmail.com; alinasimonarusu@gmail.com

Abstract

Keywords:

social connectedness;
mental health education;
teachers' wellbeing; early
maladaptive schemas.

Belongingness has been related with several positive aspects in the life of an individual, including academic and psychosocial success. The current paper aims to review the theoretical foundations of belongingness and to present the results of the implementation of a 2-months wellbeing-based program targeting the development of belongingness for high school teachers in a private school in Romania. The targeted variables were the social connectedness (as a measure of social belongingness), social assurance, and, as a moderator variable, the number of maladaptive cognitive schemas. The results indicate that the number of cognitive maladaptive schemas did moderate the intervention effect. Also, the efficiency of the wellbeing-training program in the direction of improving the social connectedness (belongingness) was supported by the data.

Zusammenfassung

Schlüsselworte:

soziale Verbundenheit;
Aufklärung über
psychische Gesundheit;
Wohlbefinden der
Lehrer; frühe
maladaptive Schemata.

Zugehörigkeit wurde mit mehreren positiven Aspekten im Leben eines Individuums in Verbindung gebracht, einschließlich akademischem und psychosozialen Erfolg. Das vorliegende Papier zielt darauf ab, die theoretischen Grundlagen der Zugehörigkeit zu überprüfen und die Ergebnisse der Umsetzung eines zweimonatigen Wohlbefinden-basierten Programms zur Entwicklung der Zugehörigkeit von Hochschullehrern an einer Privatschule in Rumänien vorzustellen. Die Zielvariablen waren die soziale Verbundenheit (als Maß für die soziale Zugehörigkeit), die soziale Sicherheit und als Moderatorvariable die Anzahl der schlecht angepassten kognitiven Schemata. Die Ergebnisse zeigen, dass die Anzahl der kognitiven maladaptiven Schemata den Interventionseffekt moderierte. Auch die Effizienz des Wohlfühl-Trainingsprogramms zur Verbesserung der sozialen Verbundenheit (Zugehörigkeit) wurde durch die Daten gestützt.

1. Introduction

The concept of belongingness in educational settings has been highlighted in literature as a good predictor of academic and psychosocial success (Slaten et al., 2016; Poulton, Caspi, & Milne, 2002; Wadsworth et al., 2001). A significant number of studies indicate that people who experience belongingness have higher levels of indicators such as: well-being, self-esteem, optimism, executive memory, transition through life, as well as lower levels of stress (Begen & Turner-Cobb, 2015; Slaten et al., 2016; Holt-Lunstad, Smith, & Layton, 2010). Belongingness in schools has also been considered by some researchers (Rowe, 2011) to be crucial for the healthy development of students and adolescents. In terms of general definition, the sense of belongingness in schools is considered the degree to which the student feels respected, accepted, and supported by teachers, colleagues, and other members of

the school community. Specifically, Willms (2000) defines school belongingness as a psychological construct related to attachment to school, supported by feelings of acceptance and appreciation from others. Other researchers (Osterman, 2000; Hamm & Faircloth, 2005) associate the definition of school belongingness with aspects such as: purpose in the community, commitment, and positive interactions with others.

2. Theoretical foundation

The concept of *social connectedness* is often used to describe the feeling of belongingness; connectedness is understood by most authors as referring to the connections that the student has within the school (Libbey, 2004), connections that should be characterised by an increased

level of trust and reciprocity. Connectedness, in the context of defining the sense of belongingness in schools, also refers to a low level or the absence of social conflict (such as bullying), tolerance to cultural diversity, and to a climate that promotes conflict prevention and management (Kawachi & Beckmann, 2000). The Full Frame Initiative (2013) defines social connectedness as the level at which a person has and perceives a sufficient and diverse number of relationships, which allow the individual to provide and receive information, emotional and material support, to create and develop a sense of belongingness and to foster development. Hence, one can infer that social connectedness, along with the construct of belongingness, and social assurance, are important aspects of physical, emotional, and mental health. The feeling of connectedness can increase longevity and improve the functioning of the immune system, while lack of social connectedness can be more threatening to health than variations of the blood pressure, obesity and smoking (Chuter, 2019).

Social connectedness is also important in educational contexts. While the beneficial effects on learning and other cognitive aspects have long been known, research in the neuroscience field (Anderman, 2002) shows that the feeling of belongingness and the feeling of connectedness, have a profound effect on the accumulation and optimal use of knowledge and new skills. When both students and members of the school environment have weak social connections, learning is limited due to reduced executive functions (Chuter, 2019).

Another concept frequently identified as a variable associated with belongingness is *social assurance*. Social assurance as a psychological construct was coined by Lee and Robbins (1995), in their study aiming to assess belongingness. The authors developed two scales to that end: *Social Connectedness and Social Assurance* (1995). Social assurance is associated with the trust and security that a person feels towards other people (Lee & Robbins, 1995). In particular, the construct signifies the need to be assured by others in social situations. Often, people use social assurance to deal with anxiety or other unwanted psychological diseases (Schmitt, 2009).

Considering the information in literature regarding social connectedness, we consider it important that teachers develop a better understanding of what it means to experience a sense of belongingness from the perspective of the social connectedness concept. In line with this, we consider that is crucial to provide teachers with the necessary tools and context with which to make effective plans in order to support and improve the relationships they have with the students, as well as with the other adults in their lives and in the school environment. Regarding the development of belongingness in association with interpersonal relationships, another variable that it was taken into consideration in this study is early maladaptive schemas, which are known in the literature to have an

important role in the functionality of social life of individuals (Young, Klosko & Weishaar, 2003).

Jeffrey Young (2003) introduced the concept of *early maladaptive schemas* (EMS) as an extension of cognitive therapy (Beck, 1967). EMS are defined as general themes or patterns about oneself and the relationships with others, which are developed in childhood or adolescence, are elaborated throughout life and are dysfunctional to a significant extent in the life and relationships of an individual (Young, Klosko & Weishaar, 2003). At the same time, they are patterns imposed by others on the experience or reality of the individual to help him explain his reality, mediate his perceptions and guide his answers (Young, Klosko, & Weishaar, 2003, *apud* Dumitrescu & Rusu, 2012). EMS are often the basis for conflicts in relationships with friends, colleagues, life partners, or other adults (Dattilio, 2005, *apud* Dumitrescu & Rusu, 2012). In adulthood, early maladaptive patterns can be activated by daily events, which people unconsciously perceive as similar to the childhood traumatic events, generating negative / uncomfortable emotions when activated (Young, 2003). The major objective in the case of Schema Therapy (Young, 2003) is that through the therapeutic and psycho-educational process, individuals develop a Healthy Adult Mode, so that they can take care of aspects related to work/profession, responsibilities, commitments, satisfactory relationships, healthy sex life, hobbies, pleasure and joy.

3. Research methodology

General objectives and hypotheses

Following the analysis of the literature presented above, the aims of this paper are: (1) To test the effectiveness of a group psychological intervention programme (pilot study) in terms of increasing teacher belongingness, analysing two variables - social assurance and social connectedness; (2) To investigate the relationship between early maladaptive schemas and the evolution of the feeling of belongingness. According to the stated objectives, the following hypotheses will be tested:

1. After the implementation of the wellbeing programme for teachers, i.e. "*Development of belongingness among teachers*" (DBT), the participants will report higher values of the variable social assurance.
2. After the implementation of the DBT programme, the participants will report higher values of the variable social connectedness.
3. An increased number of maladaptive schemas (Young, 2003) will be associated with lower values of the variables social connectedness and social assurance following the implementation of the DBT programme.

Research participants and design

The research was conducted on a convenience sample of 25 participants, aged between 25 and 47 years, including both females (17) and males (8). At the time of DBT program implementation, all participants were teachers at Transylvania College in Cluj-Napoca, Cluj County, Romania, some of whom also had administrative and coordination responsibilities, being part of the school's management team (internally called "Heads of Faculties"). Some of the participants were bilingual (Romanian / English), and some of them were native English speakers. The time frame for this study was 5 months, from February to June 2019.

Research tools

Young Questionnaire, Short Form 1 (YSQ - S3; Young, 2007)

To evaluate the early maladaptive schemas, Young and Brown (2003) developed the Cognitive Schema Questionnaire (CSQ, Young Schema Questionnaire, Short Form 3; YSQ-S3; Young & Brown, 2007). The short form of the CSQ has 75 items and measures 15 of the early maladaptive schemas. The questionnaire has participants evaluate on a 6-point Likert scale how well each item describes them (1 = "totally untrue", 6 = "it describes perfectly"). The short version allows the calculation of scores for the following schemas: Emotional Deprivation (ED), Abandonment / Instability (AB), Mistrust / Abuse (N/A), Social Isolation (SI), Defectiveness / Shame (DS), Failure (FA), Dependence / Incompetence (DI), Vulnerability to harm (VH), Enmeshment (EM), Subjugation (SB), Self-Sacrifice (SS), Emotional Inhibition (IE), Unrealistic Standards (US), Entitlement/ Grandiosity (ET), and Insufficient self-control (IS).

Social Connectedness Scale (SCS; Lee & Robbins, 1995)

The scale is composed of items from all three categories of belongingness proposed by the researchers (Lee & Robbins, 1995): connectedness (4 items), affiliation (3 items), company / fellowship (1 item). The items portray a general emotional distancing between oneself and others that can be experienced among friends or close colleagues, as shown by the item "Even among my friends, there is no sense of brotherhood / sisterhood", or by "I don't feel like I belong to someone or to a group". The name of the scale reflects, according to the authors, the relationship between the items (in a negative direction) and the direction of evaluation of the items (from 1 = "strong agreement" to 6 = "strong disagreement"). Therefore, high scores reflect an increased sense of connectedness and social belongingness. In literature, the alpha Cronbach's coefficient for the Social Connectedness Scale is .91.

Social Assurance Scale (SAS; Lee & Robbins, 1995)

Items in this scale highlight the need for safety and assurance, from at least one or more people, in order to have

a sense of belongingness. This is exemplified by the items: "I am more relaxed when I do things with other people and my life is incomplete without a friend next to me" and "It is difficult for me to use my skills and talents without someone next to me". The Cronbach's alpha coefficient for the Social Assurance Scale is .77.

The Social Connectedness and Social Assurance questionnaires were translated into Romanian and verified for the comprehension of the terms by two experts in psychology. As all participants were speakers of English, but only some of them spoke both English and Romanian, the questionnaires were made available in both languages. A version of the item in English with its translation into Romanian was included in each questionnaire.

Research design

An experimental design with repeated measurements (pre- and post-test evaluations) was used in this study. The two dependent variables that were evaluated are social connectedness and social assurance. The independent variable was the intervention / pilot programme, with the two phased of data collection (pre- and post-intervention).

Procedure

In the first phase, the participants received an email from the school principal informing them about the introduction of a pilot programme, i.e. "Development of belongingness among teachers" (DBT) programme. The intention of the wellbeing program was to normalize and integrate the differences between people / colleagues, in order to increase the feeling of trust, security, and belongingness. Furthermore, in order to observe the changes in the belongingness variable, the two scales, the social assurance scale and the social connectedness scale were used. These two scales were applied in the first and the last group meeting.

The 8 group meetings within the wellbeing pilot programme aimed to develop specific skills: maintaining and improving relationships at work, empathic listening, managing conflicts and difficult conversations, containing and validating the discomfort of others (colleagues, parents, students), the relationship between mind, emotions, and behaviour etc. In the first part of the meetings, the participants were recommended a series of books and videos, as educational bibliography. The topics covered within the DBT programme were: trust, wellbeing, feedback, resilience, emotions, mindfulness, interindividual differences, early maladaptive patterns, gratitude, and compassion.

The process of completing the questionnaires included in the DBT programme was carried out after the participants were informed about what the study entails and what will be expected from them. After a brief introduction, the participants received a document that they used to give their informed consent to participate. The option to use a

code instead of a name was also presented, in case they wished to remain anonymous. It was also offered the opportunity to withdraw from the programme at any time they wished was also offered.

4. Results

The collected data were analysed with SPSS version 22. The descriptive analysis of the data (collected pre- and post-intervention) is presented in Table 1. For the variable social connectedness, an increase was observed from a pre-intervention average value of 4.01 ($\pm .62$) to a post-intervention average value of 4.66 ($\pm .34$). As indicated in table 1, for the variable social assurance, an increase from pre- to post-intervention in the average value was observed, i.e. from 2.97 ($\pm .78$) to 3.14 ($\pm .64$).

Table 1. Descriptive analysis of the data (pre- and post-implementation of the DBT programme).

Variables/ instruments	Minimum value	Maximum value	Average	Standard deviation
Connectedness (pre- intervention)	2.75	5	4.01	0.62
Social assurance (pre- intervention)	1.63	4.63	2.97	.34
Connectedness (post- intervention)	3.88	5	4.66	.34
Social assurance (pre- intervention)	1.88	4.25	3.14	.64
Number of cognitive maladaptive schemas	2	8	4.77	2.1

The next step in the descriptive data analysis was to test the assumption of normal distribution of the data. According to Cohen (2008), skewness value should be within the range ± 0.8 and the kurtosis value should be within the range ± 3 . In the case of our data, the skewness value for the variable connectedness (post-intervention phase) was -1.2, so it was not placed in the admitted range of variation. To address this issue, the data were transformed by using the log10 formula (maximum score + 1 – data).

The first hypothesis states that there will be significant differences between the pre- and post-intervention values of the variable social connectedness, i.e. the social connectedness scores are expected to increase after the training program. The second hypothesis states that there will be significant differences between the pre- and post-intervention values of the social assurance variable, i.e. increased values after the training program. For the first two hypotheses, a multivariate analysis of variance model (MANOVA) was used, where the independent variable was the time of intervention with two levels (pre- and post-

intervention), and the dependent variables were the social connectedness and the social assurance. The first stage of MANOVA analysis is the testing of the assumption of sphericity (i.e. sphericity is the condition where the variances of the differences between all possible pairs of within-subject conditions are equal), by using the Mauchly test of sphericity. In the case of our data set, there are only two levels of the independent variable, so the information regarding the assumption of sphericity could not be extracted. We further proceeded with the multivariate analysis, which indicates whether the tested model is a significant one. The results indicated a significant model ($F=367.54$, $p = .000$), with an effect size of .970. The difference between the average values pre- and post-intervention for the variable social connectedness was significant ($F = 765.2$, $p = .000$), which indicates that the first hypothesis was confirmed by the findings. The analysis of the pre- and post-intervention values of the variable social assurance yielded no significant difference ($F = 2.056$, $p = .165$). Hence, the second hypothesis was not confirmed by the data.

The third hypothesis states that the number of early maladaptive schemas moderates the effect of the intervention, meaning that the impact of the DBT training program on the increase of social connectedness (3a; Fig. 1) and on the increase of social assurance (3b; Fig. 2) is lower in the persons with higher number of maladaptive schemas. For testing this hypothesis, the MEMORE SPSS macro was utilized (Montoya, *in press*), which was developed for testing the moderation models in the cases of repeated measures experimental design.

Figure 1. The first moderation model within the third hypothesis, i.e. 3(a)

Figure 2. The second moderation model within the third hypothesis, i.e. 3(b)

In the first moderation model (Fig. 1), the pre- and post-intervention conditions for the social connectedness were introduced as repeated measures variables, while the number of maladaptive schemas was included as moderator variable. In the second moderation model for the third hypothesis (Fig. 2), the pre-intervention and post-intervention conditions for social assurance were introduced as repeated measures variable, while the number of cognitive maladaptive schemas was included as moderator variable. The moderation effect was tested with a bootstrapping procedure, which was settled at a value of 5000, following the method described in Freedman (1981). To avoid multicollinearity, the variables included in the moderation models were centered (Aiken & West, 1991).

For the first proposed moderation model, the analysis indicates that, at a low level of the number of the cognitive maladaptive schemas, the moderation effect is statistically significant (effect = 3.9, $p = .000$, 95% CI [2.97, 4.8]). At a medium level of cognitive maladaptive schemas, the effect is also significant (effect = 3.7, $p = .000$, 95% CI [3.1, 4.4]), while at a high level of the number of the maladaptive schemas, no significant effect was obtained (effect = 3.6, $p = .000$, 95% CI [2.6, 4.5]). Hence, the third hypothesis, i.e. the number of cognitive maladaptive schemas will moderate the intervention effect, was confirmed. In other words, the efficiency of the wellbeing-training program in the direction of improving the social connectedness (belongingness) was supported by the data. Because the direct effect was not a significant one regarding the pre- and post-intervention for the variable social assurance, the conditional effect was not tested.

5. Discussion and conclusions

This paper presents the pilot implementation of the "*Development of belongingness among teachers*" (DBT) program, which was completed in 2019. The DBT program had the duration of five months and it included 25 pre-university teachers from a private high school in Cluj-Napoca, Romania. The research questions that shaped the study were: What is the effect of the DBT programme in terms of evolution of the feeling of belongingness among the participating teachers? What are the implications of early maladaptive schemas in terms of the evolution of belongingness?

Starting from these research questions and based on a generous theoretical support, the implementation of the programme, as well as the data processing, brought some findings that we consider that they can contribute to a deeper understanding of the analysed constructs. Specifically, the results indicate that the difference between pre- and post-test measurements for the social connectedness variable was statistically significant. Thus, the first hypothesis, which stated that there would be a significant difference between the pre- and post-intervention levels of social connectedness, was confirmed.

Hence, the DBT programme was effective in increasing the social connectedness variable among the participants. Although a slight increase was indicated by our data, the difference between pre- and post-test measurements for the variable social assurance was not statistically significant. Thus, the second hypothesis, which stated that there would be a significant difference between the pre- and post-intervention levels for the social assurance variable, was not confirmed. This result suggests two aspects at the level of interpretation. The first is that the DBT programme does not specifically address the development of social assurance, and the second aspect could be considered a limitation of this study, namely that the questions in the social assurance questionnaire were not completely appropriate for the structure and purpose of the programme.

An element of uniqueness of this study is represented by the investigation of the association between the number of early maladaptive schemas and the development of the sense of belongingness. Our study supports the importance of analysing the impact of early maladaptive schemas in the context of interpersonal relationships between teachers and those involved in the educational process, such as students, colleagues, parents and principals. Based on the results presented in this paper, the third hypothesis, according to which the number of early maladaptive schemas present in a person will moderate the effect of the intervention on increasing belongingness, was confirmed. Among the early maladaptive schemas that appeared to have a significant impact on the evolution of the feeling of belongingness, the following were noted: Abuse / Mistrust, Emotional Deprivation, Deficiency / Shame, Social Isolation, Unrealistic Standards. In other words, the participating teachers who had these early maladaptive schemas, recorded smaller differences in post-testing, regarding the evolution of the feeling of belongingness.

More specifically, this means that participants who have high scores in these early maladaptive schemas (score above 3) will have difficulty developing a sense of belongingness (Young & Brown, 2007). For example, according to the descriptions of the maladaptive schemas (Young & Brown, 2007), they might feel the following: that others are manipulating them, that they have hidden intentions, respectively (Abuse / Distrust); that close people, such as colleagues, will not be able to offer them emotional support when they need it (Abandonment / Instability); that their colleagues might judge, criticise / gossip about them and are not able to validate them (Deficiency / Shame); that they are isolated from the rest of the world, because they are different from their colleagues (Social isolation), and that they should express a certain image and performance in the community of colleagues, parents, and students, otherwise they will criticize them (Unrealistic standards). The quantitative results regarding the confirmation of the third hypothesis are also supported by the qualitative personal observations during the

individual psychological counselling sessions, in which teachers with early maladaptive schemas among those mentioned, were less willing to develop the therapeutic relationship, especially in the first phase of the project.

Our results are in line with other investigations presented in the literature, in which belongingness is associated with higher levels of well-being, self-esteem, a more positive and optimistic state, a better memory, transition to a better life, lower stress levels (Begen & Turner-Cobb, 2015; Slaten et al., 2016), better physiological functionality (Holt-Lunstad, Smith, & Layton, 2010; Jetten, Haslam, Haslam, & Branscombe, 2009). In terms of future directions of research, we would like to address the evolution of early maladaptive schemas in the context of the future implementation of the DBT program. Knowing the unfavourable impact of early maladaptive schemas in an individual's life, a decrease in scores in certain schemas might indicate an increase in the quality of life and an improvement in the individual's relationships, in this case, the teacher, and, later on, the student. Therefore, through the future implementation of the programme presented in this paper, we could follow the evolution of early maladaptive schemas, with the expectation that they, or part of them will show a decrease in scores. In order to better understand how we can increase belongingness by taking into account the association between this variable and the number of early maladaptive schemas, a greater volume of quantitative and qualitative research is needed. Our results point towards the need of development and implementation of well-being programmes for pre-university, and of sharing examples of good practices within the academic and the one of the mental health practitioners, i.e. programs with clear beneficial effects on the participants' mental health, social behaviour, decision making, performance and other aspects of quality of life.

Authors note: The authors had equal contributions to this article.

Raul V. Lupaş (economist and clinical psychologist) is currently a PhD student at the Doctoral School "Education, Reflection, Development" (domain: Sciences of Education), Babeş-Bolyai University, Cluj-Napoca, Romania, and associate lecturer at Academy of Economic Studies, Bucharest, Romania. He is also Head of Corporate Development Department at Mind Education, Romania. His professional and research interests are: human well-being and development, group coaching, team dynamics, belongingness, maladaptive mental schemas, and work psychology.

Alina S. Rusu (biologist and psychologist) is currently an Associate Professor in the Department of Special Education, Faculty of Psychology and Educational Sciences, Babeş-Bolyai University, Cluj-Napoca, Romania

and member of the Doctoral School "Education, Reflection, Development" (domain: Sciences of Education). Her professional and research interests are: humane education, interdisciplinary curriculum development, applied values of human-animal interactions and the multidimensional study of community-oriented volunteering. She teaches courses in animal psychology, psychobiology of human sexuality, and positive psychology applied to inclusive institutions.

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