Linguistic adaptation and Romanian validation of the "teachers' self-efficacy for Autism Spectrum Disorder Inclusion" Scale (TSE-ASDI)

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Abstract

Nowadays, more and more children with Autism Spectrum Disorder (ASD) attend mainstream kindergartens or schools. This study was intended to achieve a linguistic adaptation and validation of the "Teachers' Self-Efficacy for Autism Spectrum Disorder Inclusion" (TSE-ASDI) scale into Romanian. The linguistic translation and validation was carried out in stages, following a conceptual equivalence approach, including forward and backward translations, review and adaptation of the scale by experts and linguistic validation in pre-service and in-service teachers in which the psychometric properties were tested. The results showed that the Romanian version of the TSE-ASDI scale is reliable and valid and further testing of the instrument would be necessary in order to confirm its utility in Romania for both practice and research.

Keywords: Autism; Teacher Preparation; Teacher Self-Efficacy; Inclusion; Linguistic Validation

1. Introduction

The number of children diagnosed with Autism Spectrum Disorder (ASD) appears to be growing exponentially. According to the latest report by the CDC - Centers for Disease Control and Prevention, approximately 1 in 54 children has been diagnosed with ASD in the United States (Maenner et al., 2020). In Romania, over 1000 children are diagnosed with autism spectrum disorder annually (according to data provided by the National Institute of Mental Health). Of the 10,558 school-age children with ASD, 45% attend boarding schools, 30% attend special schools and 25% are not included in any form of education (according to data provided by the Ministry of Education and Research).

Despite the increase in the number of children diagnosed with ASD and the awareness of autism in the public area, there are relatively few studies aimed to analyse the inclusion of children with ASD in mainstream schools.

Students with ASD are one of the most challenging groups of students in terms of teaching. These children have difficulties in terms of social interaction, understanding and compliance with social rules, communication, and difficulties in understanding the curriculum. They may be easily distracted by aspects that are insignificant to those around them or by personal interests, have difficulty understanding the emotions and intentions of classmates, and initiating and integrating into their play (Love, 2016).

Teachers play an important role in the academic experiences of students with ASD, but some studies suggest that they experience an increased risk of burnout and the factors that prevent burnout include: special training and teacher self-efficacy (Corona et al., 2017). The level of comfort that teachers have in relation to students' behaviour is one of the most important factors in the assessment of self-efficacy regarding the inclusion of children (Sălăgean & Costea-Bărluțiu, 2019).

Teacher training in preparation for inclusion should focus on improving their self-efficacy by increasing their level of understanding and confidence in their own

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abilities to meet students' needs. One can perceive oneself as being a simple executor or, on the contrary, as having the initiative and making decisions: teachers might perceive themselves as competent when their decisions and initiatives are successful (Stan & Safta, 2020). This is a challenge for training organizations (Forlin, 2010; Shaukat, 2013).

The concept of self-efficacy was introduced by the Canadian psychologist Albert Bandura, defined as the belief in one's own abilities to organize and execute the course of actions necessary to achieve goals (Bandura, 1997). Therefore, by referring to people's perceptions of their ability to perform a particular action, self-efficacy can affect their emotions, thoughts, motivation, and behaviour (Barros & Batista-dos-Santos, 2010; Canabarro et al., 2018). A person will reach his potential if he believes in his own ability to achieve a certain result (Canabarro et al., 2018). On the other hand, low self-efficacy promotes negative feelings about one's abilities and responsibility for one's own performance (Caleb, Ogwuche & Howell, 2020).

When we transpose the concept of self-efficacy in the educational context, it can refer to teachers' beliefs in their own ability to carry out pedagogical actions that lead to the expected results. It can be a sense of personal ability to produce positive outcomes in the teaching process and to train students in learning, including students with special needs, to organize and execute the course of action necessary to achieve a specific teaching task in particular contexts (Biasotti, 2011; Mccullough et al., 2014; Tschannen-Moran & Hoy, 2001).

Teachers' self-efficacy has proven to be an important variable in teacher training over many years (Cakiroglu, 2008). It was also related to their effort and determination to cope with difficulties (Soodak & Podell, 1993), to the well-being of the school organizational climate (Hoy & Woolfolk, 1993), to class-based decision making (Moore & Esselman, 1992), to the interest of teachers to raise questions and to the success of students (Shaukat, 2013).

There are three major areas that have been highlighted in relation to the low level of self-efficacy of mainstream teachers working with students with ASD or other disabilities in an inclusive environment: (1) lack of training, (2) lack of support and (3) general perception about children with ASD (Condrey, 2015).

Self-efficacy is ultimately a cognitive construct that mediates between knowledge and action. Together with other variables, it determines the success of actions (Achurra & Villardón, 2013).

In reviewing studies in the field of teacher self-efficacy, it was concluded that scales that measure self-efficacy are generally not varied and improvements and adaptations are needed in terms of assessment techniques (Bandura, 1997; Klassen et al., 2011; Love, 2016; Pajares, 1996; Toland & Usher, 2016). Scales that measure self-efficacy are often used despite of their psychometric problems, which can lead to incorrect results and statistical conclusions whose validity is problematic (Henson, 2002; Love, 2016).

Some of the instruments developed to measure self-efficacy are the General Self-Efficiency Scale (SES), the Skill Confidence Inventory scale (SCI), the Strong Interest Inventory scale (SII), the Mathematics Self-Efficacy Scale (MSES) (Vasiliu & Marinescu, 2015).

To assess the level of self-efficacy of teachers, several scales have been designed but the best known are: Teacher Efficacy Scale (TES), developed by Gibson and Dembro in 1984, Teacher Interpersonal Self-Efficacy Scale (TISES), developed by Brouwers and Tomic in 2001, and Teachers' Sense of Efficacy Scale (TSES), developed by Tschannen-Moran & Woolfolk Hoy in 2001, to measure teacher self-efficacy in student involvement, instructional activities, and classroom management.

A study by Klassen, Tze, Betts and Gordon (2011) shows that these tools for measuring overall self-efficacy do not cover the assessment of teachers' beliefs about their effectiveness in using specific teaching techniques for students with special educational needs (SEN). Students with different types of disabilities fall into the category of students with SEN to indicate that they have particular educational needs. This category also includes students diagnosed with autism spectrum disorders.

Therefore, instruments that assess teachers' self-efficacy for teaching students with SEN have been developed. The Teacher Efficacy for Inclusive Practices (TEIP) Scale, designed by Sharma, Loreman & Forlin (2012), measures teachers' beliefs about the effectiveness of teaching in inclusive practice. This scale follows three dimensions: effectiveness in using inclusive instruction, effectiveness in collaboration, and effectiveness in behaviour management (Shaukat, 2013), but is not specific to activities for students with ASD.

Ruble et al. (2013) and Segall & Campbell (2014) attempted to include specific items to assess the self-efficacy of teachers working with students with ASD, but the first authors referred only to teachers working in special education, and the following assessed teachers' attitudes towards inclusion, especially with regard to students with ASD, but only six items were specifically designed to assess teachers' self-efficacy (Love, 2016).

In recent years, due to the alarming increase in the number of children with ASD who are included in mainstream education, various authors have developed scales to measure the level of self-efficacy of teachers who teach in classes where students with ASD are included.

Autism Self-Efficacy Scale for Teachers (ASSET) is a scale designed by Ruble, Toland, Birdwhistell, McGrew & Usher, (2013) that assesses teachers' beliefs about self-efficacy by referring to their ability to perform instructional tasks with students with ASD. After applying the scale, the results indicated an internal consistency in terms of teachers' responses, the scores were negatively correlated with those obtained at 2 subscales that measure teachers' stress levels, and there was no correlation with the scores obtained at the scales that they measured the level of burnout of teachers (Canabarro et al., 2018; Ruble et al., 2013).

Another similar scale is The Teacher Self-Efficacy for Autism Scale (TSEAS), designed by Love (2016), a multidimensional scale with a positive correlation with the best known tools that measure teachers' self-efficacy (SES) and a low positive correlation with an instrument to measure job satisfaction.

But we consider that the most complex scale that measures the level of self-efficacy of teachers who teach in classes where students with TSA have been included so far is the "Teachers' Self-Efficacy for Autism Spectrum Disorder Inclusion" scale, designed by Corinne Gaffney Catalano, in 2018. That is why we chose to perform the linguistic validation of this scale for the Romanian population.

Catalano, C. G. (2018), investigating the literature in the field of teachers' beliefs in relation to teaching students diagnosed with ASD in mainstream education, including studies on pre-service and in-service teachers in mainstream and special education, identified five factors considered essential for teaching in this category of population (students with ASD): a) development and understanding of students' needs through formal and informal assessments; b) supporting social communication; c) management of undesirable behaviours; d) curricular and instructional adaptation and e) communication and collaboration with interdisciplinary team members and parents (Catalano, 2018).

Based on these factors that teachers consider important, Catalano (2018) developed and validated a tool for measuring teachers' self-efficacy for training students with ASD included in mainstream education. This study made an important contribution to the training of teachers, developing a useful instrument for research and to facilitate understanding of the concept of self-efficacy and the role that these beliefs can play in the experience of teachers working with students with ASD (Catalano, 2018).

Although there are several studies about the self-efficacy of teachers who teach students diagnosed with ASD (e.g. Gregor & Campbell, 2001; Humphrey & Symes, 2013; Jennett et al., 2003; Ruble et al., 2011, 2013; Teffs & Whitbread, 2009), none of the measuring instruments used in these studies measure self-efficacy for teaching in the context of inclusive classes, focusing on the factors which teachers consider important in working with students with ASD.

The process of developing the "Teachers' Self-Efficacy for Autism Spectrum Disorder Inclusion (TSE-ASDI)" Scale brings us evidence for content validity, the response process, the internal structure of the instrument and shows us the

relationships with other variables. Based on Gehlbach and Brinkworth's (2011) recommendations for the construction of measuring instruments and the latest standards for educational and psychological testing (Standards for Educational and Psychological Testing - American Educational Research Association, American Psychological Association, National Council on Measurement in Education [AERA, APA, NCME], 2014), Corrine Catalano (2018), author of this scale, performed the validation process gathering evidence related to the test content, the response process, the internal structure and the relationship with other variables.

This validation process was carried out in the context of inclusive classes, referring to students with ASD between 3 and 8 years old, because, if a student is not included in mainstream education in kindergarten or when he or she starts school, in most cases he or she remains in special school until the end of the academic career (Catalano, 2018; Miller, 1993). Teachers in preschool and primary education are the first to offer recommendations for choosing another form of education and these recommendations have been related to the level of self-efficacy of teachers (Catalano, 2018; Guskey & Passaro, 1994; Soodak et al., 1998; Soodak & Podell, 1993, 1994). Therefore this is a target population of teachers.

The finale version of the TSE-ASDI scale includes 16 items, having very good reliability scores for the full sample ($\alpha = .952$): for in-service teachers ($\alpha = .961$), and for pre-service teachers ($\alpha = .939$). To validate the scale, the selected participants were students preparing to work as teachers in preschool or primary education and teachers in preschool and primary education in the United States and Canada.

The TSE-ASDI scale was moderately correlated with the TSES scale (Tschannen-Moran & Hoy, 2001), indicating that it measures a similar and yet unique concept.

The results of the process of developing and validating this scale are important and useful for future research as well as in practice. This scale is intended for widespread use by teacher trainers and researchers to make valid inferences and to assess the self-efficacy of teachers in carrying out the actions described with students diagnosed with ASD in inclusive educational settings (Catalano, 2018). Since the final shape of the scale of 16 items obtained reliability scores, it meets the strictest recommendations for the use of a scale and is therefore suitable for use in research and application contexts (Catalano, 2018; Nunnally, 1978).

The TSE-ASDI scale is the first tool to measure the self-efficacy of teachers for teaching children diagnosed with ASD in inclusive settings in preschool and primary education. The one-dimensional TSE-ASDI scale is a reliable tool that can be used by trainers and researchers for both students and teachers (Catalano, 2018).

The majority of pre-service teachers are still in a self-knowledge stage, trying to identify their strengths and also their limitations related with career (Crișan et al., 2015). Applying this scale can therefore be useful to help them get to know themselves better and to guide them to seek information and support in those areas that they master less.

The 'Teachers' Self-Efficacy for Autism Spectrum Disorder Inclusion (TSE-ASDI) scale is, to date, the first tool to measure teachers' self-efficacy in teaching children diagnosed with ASD in inclusive settings in early childhood education, a reliable tool that can be used by trainers and researchers for both pre-service and in-service teachers (Catalano, 2018), therefore we chose to translate and perform a linguistic validation of this scale for the Romanian population.

2. Methodology

2.1. Objective

Teachers often feel unprepared for the inclusion of children with ASD in mainstream kindergartens or schools. Therefore, the use of appropriate measures for self-efficacy is important, in order to prepare training and support programs for teaching students with ASD in inclusive early childhood classrooms. This study was intended to achieve a linguistic adaptation and validation of the "Teachers' Self-Efficacy for Autism Spectrum Disorder Inclusion" (TSE-ASDI) scale into Romanian.

We also intended to analyze the teachers' self-efficacy conducting correlational analyses to test relationships between teachers' self efficacy and other variables like: age, level of education, participation in training courses and experience with individuals with ASD.

2.2. Participants

Our initial sample was formed of 202 participants. Participants (N = 202) completed a questionnaire about demographic characteristics and data about their experience in interacting with students with ASD and teaching experience and the TSE-ASDI scale (Catalano, 2018), translated and adapted into Romanian. Two weeks after the first data collection, participants were invited to complete the scale again. 60% of the participants (N=122) completed the scale for the second time and their responses were statistically analyzed.

From the sample of 122 participants who voluntarily completed the scale on both occasions, 95.90% were women. 23% of the participants were students in Educational Sciences field, Pedagogy of Primary and Preschool Education specialization, 36% were in-service teachers in kindergarten and 41% were in-service teachers in primary school. The sample was selected on-line through a form that was distributed on social networks and with the help of several tutors, who agreed to disseminate the information about the study among their students.

22.13% of the participants were between 18 and 25 years old, 26.22% were between 26 and 35 years old, 33.6% were between 36 and 45 years old, 10.65% were between 46 and 55 years old and 7.37% were over 55 years old. 79% of the in-service teachers work in urban areas and 21% work in rural areas. 85% of the teachers worked in public schools and 15% of the teachers worked in private schools.

Table 1. Demographic characteristics of the participants

		Total sample N=122	Students N=28	Teachers in kindergarted N=44	Teachers in primary school N=50
Age	18-25 years old (%)	22.13%	50%	13.63%	14%
	26-35 years old (%)	26.22	25%	29.54%	24%
	36-45 years old (%)	33.6%	10.71%	43.18%	36%
	46-55 years old (%)	10.65%	10.71%	4.54%	16%
	over 55 years old (%)	7.37	-	9.09%	10%
Gender	male (%)	4.09%	10.71%	-	4%
	female (%)	95.90%	89.28%	100%	96%
Level of education	high school graduate (%)	9.83%	35.71%	2.27%	2%
	bachelor's degree (%)	51.63%	42.85%	54.54%	50%
	master's degree (%)	38.52%	17.85%	43.18%	48%
Type of school	public school (%)			88.64%	80%
	private school (%)			11.36%	20%
Background	urban (%)			84.01%	72%
	rural (%)			15.90%	28%

As seen in table 1, our sample is mostly formed of female gender, in-service teachers, most teaching in public schools, in urban areas. The participants are from 27

counties in Romania. The sample is heterogenous, not randomized, therefore the results should be treated with caution.

Several variables were added to the demographic questionnaire to analyze the correlations between them and the level of self-efficacy. These are: interaction with students with ASD, experience of teaching in classes where students with ASD were included, training in the field of ASD, experience of collaborating with an interdisciplinary team and teaching experience. The characteristics of the participants regarding these variables can be seen in table 2.

Table 2. The experience characteristics of the participants regarding ASD interaction, training, collaborating with an interdisciplinary team and teaching experience

		Total sample N=122	Students N=28	Teachers in kindergarted N=44	Teachers in primary school N=50
ASD direct interaction	Often, several consecutive days (%)	55.73%	42.85%	63.63%	58%
	Rarely, a few times a year (%)	9.83%	17.85%	2.27%	12%
	Once or twice so far (%)	16.39%	14.28%	27.27%	8%
	Never interacted directly (%)	18.03%	21.42%	6.83%	22%
ASD inclusion experience	Yes	57.37%	38.28%	72.72%	56%
	No	42.62%	60.71%	27.27%	44%
ASD training participation	Yes, several times (%)	33.60%	17.85%	45.45%	30%
	Once (%)	27.86%	28.57%	27.27%	28%
	Never (%)	38.54%	53.58%	27.27%	42%
Collaborating with an interdisciplinary team	Yes	47.57%	32.14%	52.27%	52%
	No	52.45%	67.85%	47.72%	48%
Teaching experience	Over 20 years	24.59%	10.71%	22.72%	34%
	10-20 years	19.67%	-	31.81%	20%
	5-10 years	16.39%	3.57%	13.63%	26%
	1-5 years	20.49%	25%	18.18%	20%
	<1 year	4.91%	7.14%	6.81%	2%
	None	13.95%	53.58%	2.27%	-

As seen in table 2, more than half of the participants interacted often, several consecutive days with children with ASD, have experience in teaching students with ASD in school, a large percentage of the subjects never participated to training courses about ASD, also a large percentage of the subjects didn't collaborate with an inter-disciplinary team and regarding the teaching experience, the data are variable.

2.3. Instrument

The assessment instrument for measuring self-efficacy translated and adapted in Romanian language was "Teachers' Self-Efficacy for Autism Spectrum Disorder Inclusion (TSE-ASDI)" (Catalano, 2018).

This instrument was developed based on five factors that in-service and pre-service teachers considered essential for teaching students with ASD: a) development and understanding of students' needs through formal and informal assessments; b) supporting social communication; c) management of undesirable behaviours; d) curricular and instructional adaptation and e) communication and collaboration with interdisciplinary team members and parents (Catalano, 2018). The instrument includes 16 items and uses a Likert-type response scale, with 9 response values, from "I can't do this at all" to "I'm pretty sure I can do this", with no negative items that need reverse scoring. The total score is obtained by summing the scores that the participant chooses for each of the items. The scores range from a minimum of 16 to a maximum of 144. Lower scores reflect lower levels of self-efficacy and higher scores reflect higher levels of self-efficacy.

2.4. Procedure

Linguistic translation and validation took place in stages, following the recommendations of the literature (Brislin, 1976). The first step was to obtain permission to use the scale in the study. In this regard, the authors of the scale were contacted (G. Corona, written personal communication, Dec 2, 2018).

A Romanian version of the instrument was obtained after the translation and adaptation of the 16 items of the measure. The items of the scale were translated from English, into the target language, Romanian, by two authorized Romanian translators. Consequently, the translation of the items was reviewed and adjusted by a group of experts in the field of psychology, specialized in Autism Spectrum Disorders field: a PhD professor and a PhD lecturer with experience in research and validation of assessment instruments and a Board Certified Behavior Analyst (BCBA) with over 10 years of experience in the field of assessment and intervention for children with ASD.

The revised items were translated from Romanian into English by a contracted certified translator, without disclosing the purpose of the study in the retroversion stage. Then, the original version of the scale was compared with the version obtained in the retroversion stage, within a group of experts that was slightly different from the initial group, due to the withdrawal of two members from the initial expert group from the study. This group of experts consisted of a PhD professor specialized in educational sciences and teachers' self-efficacy, a PhD lecturer specialized in psychology, educational sciences and ASD field and the same BCBA. At this stage, several changes were made to the items, in order to ensure the conceptual equivalence between the items translated into the target language and those in the source language. Finally, the scale was completed by the participants and the psychometric properties were tested.

The Romanian version of the measure was accompanied by a demographic questionnaire that described the sample characteristics. All the participants were given the instruments in written format and they completed both the demographic questionnaire and the scale without a time limit. All the participants were informed about the goals of the research they volunteered to be part of and an informed consent was given to each of them before they agreed to complete the measure.

2.5. Data analysis

The analysis included 122 participants who completed the scale at both times. We calculated for an effect size of $|r| = 0.3$ and α err prob. = 0.05 that the total sample size is representative for the population studied. The reliability of the Romanian version of TSE-ASDI Scale was tested using internal consistency reliability. Internal

consistency implies that items within a scale are homogenous, and thus have a strong relationship to the latent construct under study (DeVellis, 2003, Corona, 2018). The reliability of data has implications for validity.

Internal consistency indices were calculated for the Romanian version of the scale in a pilot study (N24). Subsequently, the analysis of internal consistency was reproduced on a larger sample (N = 122). In order to analyse the internal reliability of the translated version of TSE-ASDI, we calculated the Cronbach's alpha for the full sample and the sub-samples of pre-service and in-service teachers teaching in kindergarten and primary school.

Cronbach's alpha is useful for estimating reliability which was the goal in this investigation. Specifically, a large alpha in the context of a single factor scale (unidimensional test) indicates that most of the variance in the measure can be attributed to general and group factors rather than item-specific variance (Corona, 2018). High alphas indicate that the items on a unidimensional scale are assessing the same thing.

Next, the equivalence between the two applications of the scale was tested. To check whether the medians of the two versions, original and translated, differ significantly, the Wilcoxon Test of the Ranked Signs was used (Wilcoxon, 1945). Rank correlation coefficients (Spearman, 1904) were calculated for the scores of the both applications of the scale. The IBM SPSS Statistics 20 (2011) package was used for statistical data processing.

We examined also the correlations between respondents' self-efficacy and age, level of education, ASD interaction experience, training in ASD domain and teaching experience.

3. Results

The 16-item TSE-ASDI Scale translated into Romanian had high reliability scores for the full sample ($\alpha = .972$), for in-service teachers ($\alpha = .969$), and for pre-service teachers ($\alpha = .980$), compared to the scores obtained by the author of the scale for the full sample ($\alpha = .952$), for in-service teachers ($\alpha = .961$), and for pre-service teachers ($\alpha = .939$). The comparison of values can be seen in tabel 3. The high Cronbach's alpha calculated for the first measurement on the 122 sample, using the translated version of TSE-ASDI Scale, shows that the items are homogeneous, which demonstrates a high validity of the scale.

Tabel 3. Comparison of values of alpha Cronbach of the scale, reported by the author and from the current investigation

Factors	Alpha Cronbach	Reported by the author	Determined in the current study
Full sample		.952	.972
in-service teachers		.961	.969
pre-service teachers		.939	.980

The rank correlation coefficient calculated for the scores of the both applications of the scale. was .608 being significant at the 0.01 level. The Wilcoxon Test of the Ranked Signs indicated a p-value of .011 which demonstrates that the null hypothesis was rejected, the median of differences between the first and the second total score equals 0. The significance level is .05.

We also tested the following null hypothesis:

1. H_0 = There will be no association between age and respondent's self-efficacy.

There was a significant association between age and respondent's self-efficacy, $\eta = 0.173$, $\eta^2 = 0.029$, which suggests a weak association between the variables. This leads us to reject the null hypothesis of no association between age and respondent's self-efficacy, age attributes to 2,9% of the variance in self-efficacy.

2. H_0 = There will be no association between the level of education and respondent's self-efficacy.

There was a significant association between the level of education and respondent's self-efficacy, $\eta = 0.159$, $\eta^2 = 0.025$, which suggests a weak association between the variables. This leads us to reject the null hypothesis of no association between the level of education and respondent's self-efficacy, the level of education attributes to 2,5% of the variance in self-efficacy.

3. H_0 = There will be no association between ASD interaction experience and respondent's self-efficacy.

There was no association between ASD interaction experience and respondent's self-efficacy, $\eta = 0.074$, $\eta^2 = 0.005$, which suggests no association between the two variables. This leads us to confirm the null hypothesis of no association between ASD interaction experience and respondent's self-efficacy, ASD interaction experience attributes to 0,5% of the variance in self-efficacy.

4. H_0 = There will be no association between training in ASD domain and respondent's self-efficacy.

There was no association between training in ASD domain and respondent's self-efficacy, $\eta = 0.099$, $\eta^2 = 0.009$, which suggests no association between the two variables. This leads us to confirm the null hypothesis of no association between training in ASD domain and respondent's self-efficacy, training in ASD domain attributes to 0,9% of the variance in self-efficacy.

5. H_0 = There will be no association between teaching experience and respondent's self-efficacy.

There was no association between teaching experience and respondent's self-efficacy, $\eta = 0.140$, $\eta^2 = 0.019$, which suggests negligible association between the two variables. This leads us to confirm the null hypothesis of no significant association between teaching experience and respondent's self-efficacy, teaching experience attributes to 1,9 % of the variance in self-efficacy.

Table 4. Results of correlation analysis between variables

Variables	Eta coefficient η	Eta Squared (η^2)	Coefficient determination (r^2)	of
Age - self-efficacy	.173	.029	2.9%	
The level of education - self-efficacy	.159	.025	2.5%	
ASD interaction experience - self-efficacy	.074	.005	0.5%	
Training in ASD domain - self-efficacy	.099	.009	0.9%	
Teaching experience - self-efficacy	.140	.019	1.9%	

The componence of our sample, as well as the poor preparation of teachers in the field of inclusion of students with ASD in mainstream education, might partly explain the negligible associations between the variables. In Romania there are very few training courses and those that exist are largely theoretical. The heterogeneity of the sample, with students and teachers teaching in kindergarten and primary schools, in private and public schools, different experiences of interaction with children with ASD, different perceptions and knowledge about ASD could be an other explanation. Furthermore, the sample characteristics, such as heterogeneity in age, professional background, level of education might also influence the weak associations between the variables.

4. Discussions

The aim of this study was to provide a translated and linguistically validated version of the Teachers' Self-Efficacy for Autism Spectrum Disorder Inclusion Scale (TSE-ASDI, Catalano, 2018). In accordance with the standard linguistic validation procedures, the aim was to obtain a Romanian language version of the scale, conceptually equivalent to the original version. The results of the language validation process indicate that the Teachers' Self-Efficacy for Autism Spectrum Disorder Inclusion Scale (TSE-ASDI, Catalano, 2018) is a valid tool for measuring teachers' self-efficacy for including ASD students in their classes. Internal consistency values showed that the total score is a consistent indicator of teachers' self-efficacy, indicating the high validity of the scale. The result obtained in this study is congruent with that reported by G. Catalano (2018).

The results also demonstrated the equivalence between the first and the second application of the scale which indicates a strong reliability of the scale. However, the correlations between respondents' self-efficacy and age, level of education, ASD interaction experience, training in ASD domain and teaching experience are weak or negligible.

Among the limitations of this study we mention the size of the sample (N=122 participants), the small percentage of participants who completed the scale for the second time (60%) and the heterogeneity of the sample. The measuring of the psychometric properties of the scale on a larger sample would be necessary for the use of the scale for the Romanian population.

As demonstrated by a number of studies, teachers' self efficacy is an important factor in facilitating the inclusion of students with ASD in mainstream education. Numerous studies show that teachers with a high level of self-efficacy are more open to new ideas, show a greater desire to try new teaching methods, organize the class better and are more enthusiastic and satisfied with their own teaching method (Achurra & Villardón, 2013; Tschannen-Moran & Hoy, 2001). According to a study conducted by Busby and colleagues (2012), "Teachers' lack of motivation and self-efficacy are often the root cause of inefficient teaching of children with autism" (p. 28).

In developing training programs for teachers, the cognitive and motivational framework must be taken into account, to create relevant course support, providing learning activities based on the experience of the beneficiaries (Catalano et al., 2020).

Therefore, it is important to evaluate the teachers' self-efficacy in order to design training courses and support programs for teachers or future teachers. Through the translated version of TSE-ASDI Scale, the collection of data will be facilitated, that will allow the understanding of teachers' perceptions about their efficacy in teaching children with ASD in Romania.

Specialists who train teachers and offer continuing education programs can use this scale to examine the influence of course content or learning experiences on the self-efficacy for teaching students with ASD. Academics and inspectors can also use the TSE-ASDI scale to study the influence of work experience with students with ASD on the level of teacher self-efficacy (Catalano, 2018).

The results of this study could support the extension of research, in the sense of using the translated version of TSE-ASDI (Catalano, 2018) in students and teachers in kindergarted and primary school. Caution is yet recommended in the use of the scale on Romanian population and further research is needed on larger and more homogenous samples, in order to have a cultural validation of the scale for the Romanian population.

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