ADAPTATION OF THE SENTIMENTS, ATTITUDES, AND CONCERNS ABOUT INCLUSIVE EDUCATION REVISED (SACIE-R) SCALE ON A TURKISH POPULATION

Arzu Kis

1 Education Department, Inonu University, Malatya, TURKEY.

1 arzukis@hotmail.com; arzu.kis@inonu.edu.tr

ABSTRACT

The trends in inclusive education in Turkey beginning in 2013 brought with it the basic important factor for successful inclusion: teacher beliefs and attitudes toward inclusion. At this point, the sentiments, attitudes, and concerns of teacher candidates need to be assessed with reliable and valid measures. Therefore the aim of this study was to adapt such an assessment tool for the Turkish culture. The Sentiments, Attitudes and Concerns about Inclusive Education Scale Revised (SACIE-R), a widely used assessment tool in various countries was selected for this purpose. A total of 567 undergraduate students studying in faculties of education across 4 Turkish universities participated in the study. The results of confirmatory factor analysis and reliability measures showed that SACIE-R showed good psychometric properties for Turkish teacher candidates.

Keywords: SACIE-R, Inclusive Education, Attitude, Concern, Validity-Reliability

INTRODUCTION

The statement in 1949 Human Rights Declaration addresses that individuals have a right to receive education regardless of their religion, language, gender, disability, ability and other features (UNESCO, 2003) protects the educational rights of an individual with different characteristics. The developments in question launch to include groups such as; women, minorities and individuals with disabilities in the general education system by taking them from segregated into inclusive schools. With many developments that follow the human rights movements, more humanistic approaches were taken in education and the education of individuals with special needs follow a path towards inclusive education from segregated education. (UNESCO, 1948, 1959, 1994, 2003; Wah, 2010).

The concept of inclusion (Wah, 2010) that is grounded in human rights, social justice and equality reflects a conception that diversity and differences are to be accepted, valued and respected by all individuals (Carrington & Robinson, 2004). This broad perspective means that children in schools should be supported to the point that they perform to their best, regardless of their physical, intellectual, social, emotional language, ethnic, cultural and/or economic conditions (Carrington & Robinson, 2004; Wah, 2010). Inclusion is defined as “placing individuals with special needs in age appropriate general education classrooms without taking into consideration the degree or nature of their needs” (Murphy, 1996). In Turkey, The Ministry of Education defines inclusion as “a dynamic concept that progresses actively, continuously and step by step and a process that widens and regenerates continuously affected by the development and changes of needs, possibilities and opportunities” (M.E.B. Özel Eğitim ve Rehberlik Hizmetleri Genel Müdürlüğü, 2013, p. 26). The recent legislative changes led children with special needs to be educated in mainstreamed or inclusive settings (Kış & Akçamete, 2013; Lewis & Doorlag, 1999; Salend, 1998).
Some groups, including administrators, teachers and parents of children without disabilities show some resistance towards these new practices in Turkey (Baykoç-Dönmez, Avcı & Aslan, 1997, 1998; Küçüker & Kanık-Richter, 1994; Mağden & Avcı, 2007; Nayır ve Karaman-Kepenekçi, 2013; Özbaş, 2000; Temel, 2000; Uysal, 1995). This draws the attention to the fact that teacher attitudes are the primary drawback for the success of inclusion and these negative attitudes make a negative impact on the acceptance of children with special needs by their peers (UNESCO, 2003). It is known that teachers mainly develop their positive attitudes towards inclusion through their experiences with various children with special needs and some basic parameters such as; teacher education, work experience, the amount of special education support, class size and work load (Montgomery, 2013; Stanovich & Jordan, 1998; UNESCO, 2003).

Literature states a positive correlation between positive teacher attitudes - beliefs and teaching performance (meeting the needs of special needs students) (Buell, Hallam, Gamel-McCormick & Scheer, 1999). In parallel with this, it is signified that school administrators and teachers in Turkey do not develop positive attitudes towards children with special needs and accordingly, do not put effort on making the necessary arrangements (Kış, 2013). As a result, individuals with special needs are not accepted in schools and mainstreaming and inclusion are not practiced successfully (Baykoç-Dönmez, Avcı & Aslan, 1997, 1998; Küçüker & Kanık-Richter, 1994; Mağden & Avcı, 2007; M.E.B., 2013; Nayır & Karaman-Kepenekçi, 2013; Özbaba, 2000; Temel, 2000; Uysal, 1995).

Teacher competencies are one of the most fundamental problems in countries that have recently begun practicing inclusion. An important element that impacts pre-service as well as inservice teacher education is the lack of experience and skills of teacher trainers in inclusive settings. Another reason is that in teacher training programs seem to focus on the knowledge and skills for working in inclusive settings, while neglecting the equal importance of teacher attitudes and values towards inclusion (Montgomery, 2013; Stanovich & Jordan, 1998; UNESCO, 2003).

Development of mainstreaming and inclusion, new demands in teacher training caused countries to reevaluate their teacher training programs (Joyce, Weil & Calhaun, 2000; Kamil, Walberg & Manning, 2002; Whitaker, 2001). Turkey’s accommodation for the European Union in the 2006-2007 academic year some major modifications in teacher training programs were developed and put into practice (Erdem, 2012; YÖK, 2013). Within the frame of this program, two credited Special Education courses have become compulsory for every department in Faculties of Education. A two credited theoretical compulsory course related to mainstreaming is also given to the Department of Special Education for Intellectual Disabilities and Departments of Primary School Education. A three credited compulsory practicum course on mainstreaming is given to the students of Department of Special Education for Intellectual Disabilities (YÖK, 2013).

Besides the trends in personnel training, mainstreaming practices have begun in 1983 in Turkey and it has become possible for individuals with special needs with different disabilities to receive education in general education schools (Sucuoğlu, 2004). According to the literature on teacher attitudes (Baykoç-Dönmez, Avcı & Aslan, 1997, 1998; Batu, 1998; Diken, 1998; Kayaoğlu, 1999; Küçüker & Kanık-Richter, 1994; Mağden & Avcı, 1997; Nayır & Karaman-Kepenekçi, 2013; Özbaş, 2000; Temel, 2000; Uysal, 1995) and sentiments (Akçamete, Gürgür & Kış, 2004; Uysal, 2003) towards mainstreaming for students with special needs, mainstreaming was found useful.

It is noted that these studies are limited with mainstreaming and although the legal ground exists in Turkey, there are no studies on inclusion, to date. Therefore, while the law demands
inclusive practices, evidence for inclusive practices in Turkey is hardly available. At this point, evaluating the attitudes and sentiments of educators who are at the center of inclusive practices is the fundamental element in order to determine the success and necessary policies regarding inclusion. Therefore measuring teacher attitudes, evaluating the quality of practices and determining the needs of teachers in inclusion seem necessary. With such results, it will be possible to decide where to focus on in preservice as well as inservice programs.

In the light of the reasons mentioned above, the investigator conducted a comprehensive literature review and came across The Sentiments, Attitudes and Concerns about Inclusive Education Scale Revised (SACIE-R) (Forlin, Earle, Loreman ve Sharma, 2011; Montgomery, 2013), a psychometrically sound tool measuring the attitudes of pre and inservice teachers towards inclusion. This tool was actually adapted to the Turkish culture recently by Bayar, Öztaşkı & Bardak (2015). Although the tool was found to exert satisfactory psychometric properties, the target population in that study included undergraduates from secondary education majors and that the items were converted to mainstreaming practices instead of inclusion. However, SACIE-R is originally developed for preschool education, primary education and special education majors with the intent of measuring sentiments, attitudes and concerns toward inclusive practices. Therefore the author of this article aimed to adapt SACIE-R on a similar population’s sentiments, attitudes and concerns regarding inclusion (excluding mainstreaming).

METHOD

This study used the general screening model in order to adapt the The Sentiments, Attitudes and Concerns about Inclusive Education Scale Revised (SACIE-R) to the Turkish culture.

Participants

Data were collected from 2\textsuperscript{nd}, 3\textsuperscript{rd} and 4\textsuperscript{th} year undergraduate students in special education, elementary school education and preschool training programs of 4 universities in the 2012-2013 academic year. A total of 573 students were administered the instruments and 567 of these were found suitable for analysis, with a 98.9% return rate. 167 of the participants (29,5%) were male, 396 of them (69,8%) were female and 4 of (0,7%) did not indicate gender. 94,5% of the participants were 25 or under the age of 25. The distribution of the participants according to their departments were; 277 (48,9%) in special education, 253 (44,6%) in elementary school education and 29 (5,1%) in preschool education.

Data collection instruments

Demographics Form: This form was used to collect data on the various demographic characteristics of the participants. The items in this form included; field of study, interaction with individuals with special needs, gender, previous education and work experience with individuals with special needs. Furthermore, there were items to evaluate the levels of trust and knowledge on efficiency level in teaching individuals with special needs (1. Very little, 2. Little, 3. Medium, 4. More and 5. A lot more) knowledge on legal arrangements for individuals with special needs (1. None, 2. Weak, 3. Average, 4. Good and 5. Very good) (Sharma, Loreman & Forlin, 2012).

The Sentiments, Attitudes and Concerns about Inclusive Education Scale Revised - SACIE-R. This instrument was used to determine the attitudes, sentiments and concerns of teacher candidates towards inclusion (Forlin, Earle, Loreman & Sharma, 2011). The 3 factor structure of this theory based scale consists of 15 items filled on a 4 level Likert type format. The 3 factors are as follows: 1) Sentiments towards inclusion (Exp. 5. I prefer short interactions with disabilities and I end interaction as quickly as possible), 2) Attitudes towards inclusion
(Exp. 3. I think that children who have difficulties expressing their thoughts should be in the same classroom with their peers) and 3) Concerns towards inclusion (Exp. 1. I have concerns that individuals with special needs be accepted by the class). The items in the sentiments and concerns subscales are reverse-coded and an obtained high score addresses positive attitudes and sentiments along with low level of concerns.

**Procedure**

Many studies worldwide (Bailey, 2004; Chong, Forlin, & Au, 2007; Forlin, Loreman, Sharma & Earle, 2009; Sharma, Forlin, & Loreman, 2007; Sharma, Forlin, & Loreman, 2008; Wilczenski, 1992, 1993) were conducted on teacher attitudes towards individuals with special needs and related educational practices. It was examined that the scales used in these evaluations were prepared for segregated education and mainstreaming practices. Since inclusive practices are general education classroom based, a need urged for a new scale to measure the attitudes of teacher candidates. Therefore, following a thorough literature review, two frequently used scales were found and the developers of these scales were contacted via e-mail and the adaptation procedures began.

Firstly, five specialists in the field, with advanced levels in English translated the scale into Turkish independently. The Turkish translations were evaluated and any necessary revisions were made by the researcher. Secondly, the Turkish form of the scale was sent to eight specialists in special education for face and content validity and the scale was revised by the researcher accordingly. Lastly, a measurement and evaluation specialist was solicited opinions for the items on the scale and the final version was formed.

Following this, four academics from four universities across Turkey were contacted by e-mail and the final versions of the instruments (The Demographics Form and the SACIE-R) were sent to them by mail with their consent in administering the forms to their undergraduate students. The instruments returned by the academics were coded by faculty, department and subdepartment and were transferred to SPSS 21.0 for Windows and analyzed with LISREL program.

**Data Analysis**

A confirmatory factor analysis (CFA) was applied to the data collected from SACIE-R for construct validity. The factor structures, determined with exploratory factor analysis (EFA), were confirmed with CFA. In other words, CFA was used to test whether the assumed implicit structure of the scale confirmed the collected data or not (Tabachnick & Fidel, 2007). CFA was preferred in this study in that in recent years CFA is considered sufficient to test the factor structures in scale adaptation studies. A Cronbach Alpha coefficient, which provides information on internal consistency for reliability was also calculated. Total item correlations, which determine the relationship with total scale points of the items and at some level, considered as the indication of their item distinctiveness, were calculated and examined. All statistical calculations were conducted by an expert who had a Ph.D. in measurement and evaluation.

**FINDINGS**

**Findings related to the validity of SACIE-R**

Results of CFA showed that the three factor structure of the original scale was confirmed. The path diagram related to the structures of the Turkish version on SACIE-R is displayed in Figure 1. As seen in the path diagram, items 2 and 9 under the sentiments towards inclusion dimension were associated.
By presenting the goodness of fit statistics and construct validity evidences, the reliability of the model was exhibited (Hair, Anderson, Babin, Black & Tahtam, 2006; Schumacker & Lomax, 2004). The values related to the appropriateness of the model were found at an acceptable level while EFA fitness indices for SACIE-R were observed (Table 1).

Table 1. SACIE-R Goodness of Fit Indices

<table>
<thead>
<tr>
<th>Fitness Index</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>NFI</td>
<td>0.91</td>
</tr>
<tr>
<td>NNFI</td>
<td>0.91</td>
</tr>
<tr>
<td>CFI</td>
<td>0.93</td>
</tr>
<tr>
<td>IFI</td>
<td>0.93</td>
</tr>
<tr>
<td>GFI</td>
<td>0.91</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.88</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.082</td>
</tr>
<tr>
<td>SRMR</td>
<td>0.064</td>
</tr>
<tr>
<td>Chi square</td>
<td>409.69</td>
</tr>
<tr>
<td>sd</td>
<td>86</td>
</tr>
<tr>
<td>Chi square/sd</td>
<td>4.76</td>
</tr>
</tbody>
</table>

According to Table 1, the Chi square and the ratio to degree of freedom values are 409.69 (p<0.01) and 4.76, respectively. RMSEA was determined as 0.082 and these values together can be said to confirm the appropriateness of the model (Jöreskog ve Sörbom, 2001; Schermelleh-Engel ve Moosbrugger, 2003).

Other goodness of fit indices presented evidence for the compatibility of the model. NNFI produces a value by taking into consideration the complexity of the model. While producing
this value it takes into account the degrees of freedom of the models that are compared. CFI compares the covariance matrix of the independence model (the model presents no relationship between latent variables) and the covariance matrix of the recommended model. It is a compatibility test that produces a value that takes into consideration the sample size and the degree of freedom. IFI is another compatibility test like CFI and produces a value by taking into account the sample size and the degree of freedom. NNFI, CFI and IFI indices being above 0.95 demonstrates perfect compatibility (Schermelleh-Engel & Moosbrugger, 2003). Nonnormalized Compatibility Index (NNFI), Comparative Compatibility Index (CFI) and the Increased Compatibility Index (IFI) were calculated as 0.91, 0.93 and 0.93; respectively these values indicate the compatibility of the model. Another compatibility index appears to be Normalized Compatibility Index (NFI), calculated as 0.91. NFI was developed with the same logic as of CFI. Although NFI shows similarities with CFI in terms of the models it compares, this index makes the comparisons without taking into account the obligation to fit the premises of the Chi square distribution. A value of 0.90 and above is accepted as a good fit and 0.95 and above is considered perfect. The obtained NFI value in this study is accepted within the good range in terms of the criterion determined by Schermelleh-Engel and Moosbrugger (2003). The Goodness of Fit Index (GFI) was established as 0.90. GFI is a compatibility index that was designed to evaluate the compatibility of GFI independent from the sample size and its values range between 0.00 and 1.00. GFI (Sümer, 2000), accepted as an alternative to the Chi square test, (as in other indices) exhibits a good fit when the values are above 0.90. Arranged Goodness of Fit Index (AGFI) value of SACIE-R was found as 0.88. AGFI is calculated by taking into consideration the sample size. Although not perfect, GFI and AGFI values that were obtained from the analysis fall within acceptable levels.

Findings related to the reliability of SACIE-R

The Cronbach Alpha coefficients and the total item correlations for the items and the factors are depicted in Table 2.

<table>
<thead>
<tr>
<th>Items</th>
<th>Total Item Correlations</th>
<th>Cronbach Alpha Reliability Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes towards inclusion</td>
<td>.488</td>
<td>.72</td>
</tr>
<tr>
<td>Factor 2:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sentiments towards inclusion</td>
<td>.541</td>
<td></td>
</tr>
<tr>
<td>Factor 3:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concerns towards inclusion</td>
<td>.425</td>
<td></td>
</tr>
<tr>
<td>Whole scale</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Cronbach Alpha coefficient for the whole scale was calculated as 0.78. This value for the original scale was 0.74 (Forlin, Earle, Loreman & Sharma, 2011). Having values that
differentiate in a positive direction can be interpreted as a significant indicator of the scale being compatible with the culture. Findings of the sub factors provide proof for reliability as well.

1. **Attitudes towards inclusion**

Cronbach Alpha value of this factor was 0.72, while it was 0.67 in the original scale (Forlin et al., 2011). Therefore, the Cronbach Alpha calculated for SACIE-R is higher at a level to support its reliability. The total item correlations of the attitudes towards inclusion subfactor range between 0.425 and 0.541 and these values can be said to be within acceptable limits. Having the total item correlation scores higher than 0.20 demonstrated that the items were adapted appropriately.

2. **Sentiments towards inclusion**

The Cronbach Alpha value of sentiments factor was found as 0.62. This value is 0.75 in the study where the original scale was developed (Forlin et al., 2011). The difference between Cronbach Alpha values related to this factor are in acceptable ranges even though the reliability is not as high as the original scale. The total item correlations of the items in this factor range between 0.269 and 0.469, which are within acceptable limits (Table 2).

3. **Concerns towards inclusion**

Cronbach Alpha value of concerns factor was 0.67 and this value in the original scale is 0.65 (Forlin et al., 2011). This demonstrated that there was a consistency for Cronbach Alpha values of SACIE-R and the original scale. The total item correlations of attitudes factor towards inclusion differentiate between 0.291 and 0.523 and in this factor the value is higher than 0.20 as in the other two sub factors (Table 2).

In sum, the reliability coefficients for whole as well as the subscales were within acceptable ranges.

**DISCUSSION and CONCLUSION**

The findings of this study generally show that the factor structure of the Turkish version of SACIE-R showed similarities with foreign literature (Forlin et al., 2011; Romero-Contreras, Garcia-Cedillo, Forlin & Lomeli-Hernandez, 2013). The results for reliability however point to comparably lower Cronbach Alpha coefficients. This may be a result of small numbers of items under each subscale. Besides this shortcoming, the three factor structure in the original scale can be claimed to be maintained in the Turkish culture and these results may be considered important for several reasons.

First of all, the fact that all subscales revealed valid and reliable results tells us that the subscales can be applied independently. The similarity of this study’s findings with others, can be interpreted in two ways: that attitudes, sentiments and concerns towards inclusion being culture-independent or that the number of items under each subfactor were limited. It seems reasonable to claim that other similar measurement tools need to be brought to the literature in order to determine which of these reasons are more valid.

The second benefit of adapting a scale like SACIE-R for the Turkish culture concerns developing national educational policies in inclusive practices. Educational policies are best developed through getting a thorough understanding on the needs of related parties including special needs students, their families, special education personnel and the remaining society. These needs may best be met by knowing how these parties perceive inclusion as an educational practice. Getting the big picture in this sense, will lead policy makers to take the necessary steps in providing the support services to children, families and educators.
beginning from a child’s entrance into the education system. This will lead the system in the effective use of resources, eventually resulting in economic gains at the national level, an critical issue in education for developing countries such as Turkey. This study only included the views of preservice teachers. However, we believe this was a good start for forming the big picture.

Another important outcome of determining the attitudes, sentiments and concerns of educator candidates towards inclusion may be to support personnel preparation programs. Apart from gaining the necessary knowledge and skills for becoming an educator, building a professional framework requires developing positive attitudes and sentiments towards inclusion. Inclusion policies in Turkey demand a general profile of teacher candidates’ vision of inclusion so that necessary modifications in the program may be made. An instrument like SACIE-R may be a practical way to gather information on the matter from a big population in a short time.

By nature, inclusion is a team based system where all community services work hand in hand with educational institutions and services (Florian & Rouse, 2009; Knight, 1999; Maryland Coalition for Inclusive Education, 2001; Stojik, 2009). Running a high quality system will be possible only if the involved subsystems of the society give the system feedback on related practices. Therefore, bringing instruments in Turkish culture which evaluate the attitudes, sentiments and concerns of families, service providers in the education system and the health personnel and evaluating the procedure as a whole may be reasonable suggestions. An important step to be taken at this point may be to conduct qualitative research in order to shed light on specific cultural variables which may then be used to develop assessment tools to be used on larger populations.

Having SACIE-R as the first adapted instrument on inclusion in Turkey may be considered as a leading step for triggering effective inclusive practices. Taking into account the fact that new legislations should be tackled in teacher training programs in theoretical as well as practical terms, measuring the attitudes, sentiments and concerns of teacher candidates may be considered a sound start for shaping the undergraduate curricula to fit with teacher candidates’ needs in becoming qualified in inclusive practices.

REFERENCES


