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ROMANIAN AND HUNGARIAN TRANSLATIONS OF THE ATTITUDES TOWARD SEXUALITY SCALE - PSYCHOMETRIC VALIDATION

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Abstract

The identification of attitudes to sexuality as a general subject and of the attitudes to sexual education within the family in particular, is a starting point for the development of intervention programs for sexual health education of persons with special educational needs, as well as of programs to prepare parents to provide objective and fair sexual education to those who need it. This study aims to provide the Romanian academic and educational community with a linguistically and psychometrically validated version in Romanian and in Hungarian of the Attitudes Toward Sexuality Scale. A sample of 246 Romanian-speaking and Hungarian-speaking respondents completed the scale. The results indicate very good psychometric properties of the Romanian and Hungarian versions of the Attitudes Toward Sexuality Scale. These findings, which allow for the assessment of the attitudes toward sexuality of various categories of participants before and after sexual health education/ intervention programs, in association with other relevant psycho-social variables.

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Keywords: Attitudes toward sexuality, instruments, sexual health, sexual health education

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1. Introduction

Even nowadays, when the existence of online communication makes it easier to access information, sexuality and sexual health education (SHE) are often considered taboo subjects, especially in the cases of post-communist countries, e.g. Romania. When it comes to the discussing of the idea of sexual education of persons with special educational needs (SEN), this topic is becoming much more complex and often becomes a suject of debates, both for parents and for other people in the social network of those persons. The psychological development of children can be very problematic in the case of societies without comprehensive sexual education programs (embedded in the formal education system), because children often receive information not from their micro-social environment (parents, teachers), but rather from digital media (e.g. websites or pornographic advertisements).

Sexual health education (SHE), although important for individuals and societies, is often difficult to be implemented in the context of disability, mostly due to the lack of knowledge regarding the approach in terms of providing sexual health education to this category of persons. In order to implement sexual education programs for people with autism spectrum disorders (ASD), literature recommends that various individual and social factors should be taken into account, with particular attention given to parents regarding their attitudes and knowledge toward sexuality and sexual education, which are considered primary educators in terms of providing sexual health education to their children (Gerchenovitch & Rusu, 2019; Orji & Esimai, 2003).

The identification of attitudes toward sexuality, in general, and of attitudes toward sexual education within the family, in particular, is considered a starting point for the development of intervention programs for SHE of persons with special educational needs, as well as of some programs to prepare parents to provide objective and fair sexual education adapted to needs and levels of comprehension and communication.

Sexual health and sexual health education are both psychological constructions spread and studied at European and international levels (Orji & Esimai, 2003; UNESCO, 2008; WHO, 2010). In a document published by UNESCO in 2008, SHE is defined as an age-appropriate approach, culturally relevant to sexual and relational education, based on scientifically accurate, realistic, unjudged information. SHE provides an opportunity to explore by individuals their own values and attitudes, to develop decision-making, communication and risk prevention skills in relation to many aspects of sexuality (UNESCO, 2008). According to WHO, SHE implies learning the cognitive, emotional, social, interactive and physical aspects of gender (WHO, 2010). In line with this, the main aim of SHE is to provide different age groups, especially young people, with information which, by allowing them to understand how their body functions, it makes it easier to understand that sexuality is a normal part of life (Orji & Esimai, 2003).

SHE covers a variety of themes, which can be helpful to young people, along with the support of the parents and of the community. Firstly, through SHE, one can avoid the negative consequences on sexual behaviors. For example, the number of teenage pregnancies in Romania is increasing and, according to a study by UNICEF (2013), adolescents are at a higher risk of sexually transmitted infections than adults. Young people need to be taught about effective ways of communicating in a relationship, conflict management and strategies to avoid or terminate abusive romantinc and/or sexual relationships,

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as well as to be aware of what sexual violence means. Furthermore, SHE helps young people identify factors that contribute to a positive or negative self-image (Bridges & Hauser, 2014). Last but not least, SHE can guide young people to accept others, regardless of their sexual orientation, to respect and treat other persons with dignity (Bridges & Hauser, 2014). Thus, SHE, whether offered formally or informally, can play an important role in young people's lives, as it is the way in which they can be helped and supported to reach their potential and to achieve an optimal physical, emotional and moral development.

Sexual health is:

> A state of physical, mental and social well-being in relation to sexuality; it is not only the absence of disease, dysfunctions or of infirmity. Sexual health implies/requires a positive and respectful approach to sexuality and sexual relations, as well as the possibility of having safe and pleasant sexual experiences without coercion, discrimination or violence. For sexual health to be achieved and maintained, the sexual rights of all persons must be observed, protected and fulfilled. (WHO, 2010, p. 3)

According to Schaafsma et al. (2013) the term ‘sexual health’ is defined as not only the absence of disease or negative experiences with sexuality, but also the possibility of safe and pleasant sexual experiences. The definition also provides that the sexual rights of all persons must be observed, protected and insured (Schaafsma et al., 2013). The persons involved in the provision of SHE should also participate in continuing education and training to ensure that the information and advice provided is correct, scientifically validated, appropriate and non-discriminatory (WHO, 2010).

Sexual development is a complex process that involves building sexuality (physiological processes, attitudes, behaviors etc.) toward itself and others. This process is often considered for being addressed in the context of health education to persons without special needs; however, people with developmental disabilities also go through sexual stages as they mature physically. This process can be difficult to accept for some parents and carers, because of their tendency to see people with developmental disabilities as perennial children (Ballan, 2012).

Autism spectrum disorders refer to development disorders of the nervous system that affect the whole personality, leading to a neurocognitive development different from that typical in case of the person concerned. The diagnostic systems currently in use describe ASSD as difficulties in a neurodevelopment disorder characterized by difficulties with social communication and social interaction, and by restricted and repetitive patterns in behaviors, interests, and activities (APA, 2013). Epidemiologically, the prevalence of ASD is of 0.62-0.70 percent (Lai et al., 2014). The frequency of ASD does not necessarily reflect a real increase, but an increase in the percent of cases detected, the increasing incidence rate is therefore due to the extension of the criteria used and to more effective diagnostic tools (Farley et al., 2009). The gender distribution in ASD is 3 males :1 female in some reports and of 5: 1 in favor of men in other studies, leading to the conclusion that ASD is more prevalent in male human individuals (Lai et al., 2014). Due to the difficulties experienced by ASD persons, especially children and adolescents, in terms of communication of their needs and social interactions, we consider that their parents, care givers, educators and therapists, as significant agents in their social networks,

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should have an adequate level of knowledge and awareness regarding the sexual development of persons with disabilities.

2. Purpose of Study

The present research aims to provide a linguistically validated instrument to assess the attitudes toward sexuality of parents of ASD children living in Romania, in which 47,15% is represented by Hungarian ethnic minority group. The purpose of the study is to translate and adaptate the Attitudes Toward Sexuality Scale (ATSS, version for parents - 16 items) in Romanian and Hungarian languages, to perfom a comparative analysis of the two scales, as well as the analysis of the validity of the scales on the Romanian and Hungarian speaking population. The decision to translate the ATSS scale (Fisher & Hall, 1988), as amended by Gerchenovitch and Rusu (2019), was based on the relevance of the content of the scale for further studies and on its good psychometric properties in another translated versions, e.g. Hebrew. Previous studies had been carried out on the needs of parents with autistic children as per their needs for sexual health education (Gergely & Rusu, 2021), but the lack of linguistically validated tools did not allow the participarting parents to self-report their attitudes toward sexuality. It is acknowledge in the field of SHE that, in order to develop a SHE program, the first stage would be to assess the attitudes toward sexuality of the participants.

3. Instrument Description

3.1. Attitudes Toward Sexuality Scale (Fisher & Hall, 1988)

The scale was developed by Fisher and Hall (1988) and contains a number of 14 items. The tool covers a number of sexuality aspects, including nudity, abortion, contraception, pre-marital sexual intercourse, pornography, prostitution, homosexuality and venereal diseases. Responses can be recorded on a Likert scale, where responses range from strongly disagree (1) to strongly agree (5). Seven statements were made so that an agreeing response indicated a liberal sexual orientation and seven statements were made so that an agreeing response indicated a conservative sexual orientation. In this study, based on consulation among the authors, we removed 5 items from the ATSS original version, because they were not valid for the Romanian and Hungarian population or did not measure the construction defined in our research (e.g. Nudist camps should be made completely illegal; Petting is immoral behavior, unless the couple is married; Prostitution should be legalized; Our government should try harder to prevent the distribution of pornography; Hugging and kissing someone of the opposite sex is a natural part of growing up). In this study we used the ATSS in the version completed with 8 items, as amended by Gerchenovitch and Rusu (2019).

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4. Methods

4.1. Translation of the ATSS Questionnaire (Fisher & Hall, 1988)

In order to adapt the Scale of Attitudes Toward Sexual Education (Fisher & Hall, 1988) in Romanian and Hungarian, we have carried out a translation procedure using the technique of retroversion (ITC Guidelines for Translating and Adapting Tests, 2018). The items of the scale were initially translated from English into Romanian and into Hungarian by a professional translator, and then another professional translator was included in the adaptation procedure for the purpose of translating the Romanian and Hungarian versions of the scale back into English. The items in English obtained at this stage were compared to the original English sample items. On the basis of the identified correspondence, the translations into Romanian and into Hungarian were considered appropriate Romanian and Hungarian language versions of the original tools.

4.2. Participants

In the present study there were involved a total of N = 246 Romanian speaking (N= 130; M= 30.87, STD=.87) and Hungarian speaking persons (N=116; M= 31.03; STD= 1.09), from various Romanian municipalities (Cluj, Bucharest, Covasna, Brasov, Iasi). The descriptive statistics on the characteristics of the sample are presented in Table 1. This study was carried out using data collected online from January 2022 to February 2022 on the Google Forms platform. The sampling was based on convenience, through self-selection obtained by the "chain" or "snowball" method (Clark-Carter, 2010) and with the help of social media platforms. The only inclusion criterion was the requirement that adult respondents should be native Romanian speakers (for the Romanian version of the questionnaires) or Hungarian speakers (for the Hungarian version) and be over 18 years old.

Participants received by electronic means a notice inviting them to participate in an online study interested in the research of sexuality and sexual education issues in Romania for children with ASD and with a link to this study. They were able to choose to participate or not in this study, after reading a brief description of its nature and the safety and anonymity conditions that the authors of the study have undertaken to provide with regard to the data and information provided by the participants. The informed consent was represented by the parents' choice to continue participating in the study after reading this information. Otherwise, by selecting the button with the option not to participate in the study, they were automatically taken to the exit page from the study. The estimated time for filling out the questionnaires proposed by this study was no more than 15 minutes, with the participants having the opportunity to interrupt the fill out process. Parents were provided with an e-mail address created for the purpose of this study, where they could eventually contact the authors of the study for any further questions or clarification.

4.3. Study Design and Procedure

The research design is correlational non-experimental, meaning that the correlation between the Romanian translated version of ATSS and the Hungarian translated version stands for the similarity

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(linguistic equivalence) between the two versions. The scale was translated on the basis of International Test Committee guidelines, i.e. fter the first translation, we conducted a pilot study (N=5), the test items were amended on the basis of the pilot study's results, and the translation was obtained through the retroversion method (ITC Guidelines for Translating and Adapting Tests, 2018).

Table 1. Sociodemographics characteristics of the sample (N= 246)

Participant characteristics	Group type (RO = Romanian language speakers, HU = Hungarian language speakers)	N (%)
Age, Range (M± SD)	RO	19-54; N= 128 (30.87 ± .874)
	HU	18-82; N= 116 (31.03 ± 1.09)
Gender	RO	Male = 11 (8.5) Female = 119 (91.5)
	HU	Male = 20 (15.4) Female = 96 (73.8)
Residence (urban, rural)	RO	Rural= 28 (21.5) Urban= 102 (78.5)
	HU	Rural= 37 (28.5) Urban = 79 (60.8)

5. Findings

5.1. Inferential statistical analysis

The database verification did not identify an abnormal distribution of the data. The Kaiser-Meyer-Olkin (KMO) test was applied to verify whether the data is suitable for factorial analysis. The test measures the suitability of sampling for each variable of the model and of the complete model. Tabachnick and Fidell (2013) states that the KMO index ranges from 0 to 1, with 0.6 suggested as the minimum value for good factorial analysis (Tabachnick & Fidell, 2013). The results in this study show a score higher than 0.6 at all 4 scales, and the results of the Barlett Test are statistically significant: ATSS the Romanian version (KMO=.827; p<.01); ATSS, ATSS the Hungarian version (KMO=.72; p<.01).

5.2. Confirmatory factor analysis (CFA)

Confirmatory factor analyses (CFA) was performed to validate the ATSS for the Romanian and Hungarian population. Confirmatory factor analysis (CFA) has been performed for the three-factor structure model (see Figure 1). The normed Chi-square, $\chi 2/df = 4.12$ indicates an acceptable model fit in this case. The two correlation coefficients between scales in the two groups (RO-HU) were compared

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using the method of Comparison of correlations from independent samples (Eid et al., 2011). The difference between the coefficients was not significant (N= 246, p>.05).

5.3. Reliability/internal consistency

The scale versions show very good internal consistency. In the case of the ATSS, the Romanian version α = .83, while in the Hungarian version α = .71. The results are presented in Table 2.

Table 2. Results of the test of normality and reliability

	M	SD	Median	Min.	Max.	Cronbach-α	Kolmogorov-Smirnov
ATSS-RO	69.85	.77	73	43	79	.83	D(116)=. 20 p<.01
ATSS-HU	66.92	.66	68	35	79	.71	D(116)= .14 p<.01

5.4. Construct validity (convergent validity)

5.4.1. ATSS - RO

All three subscales showed a high correlation with full scale overall score (liberalism r(130) = .862, p ≤ .01; conservatism r(130) = .727, p ≤ .01; moral/ethical aspects of sexuality r(130) = . 807, p ≤ .01) and the subscales were positively correlated among each other (; moral/ethical aspects of sexuality with liberalism r(130) = .582, p ≤ .01; moral/ethical aspects of sexuality with conservatism (130) = .403, p ≤ .01; liberalism with conservatism r(130) = .553, p ≤ .01).

5.4.2. ATSS – HU

All three subscales showed a high correlation with full scale overall score (liberalism r(130) = .776, p ≤ .01; conservatism r(130) = .672, p ≤ .01; moral/ethical aspects of sexuality r(130) = . 795, p ≤ .01) and the subscales were positively correlated with each other (; moral/ethical aspects of sexuality with liberalism r(130) = .518, p ≤ .01; ; moral/ethical aspects of sexuality with conservatism (130) = .295, p ≤ .01; liberalism with conservatism r(130) = .451, p .01).

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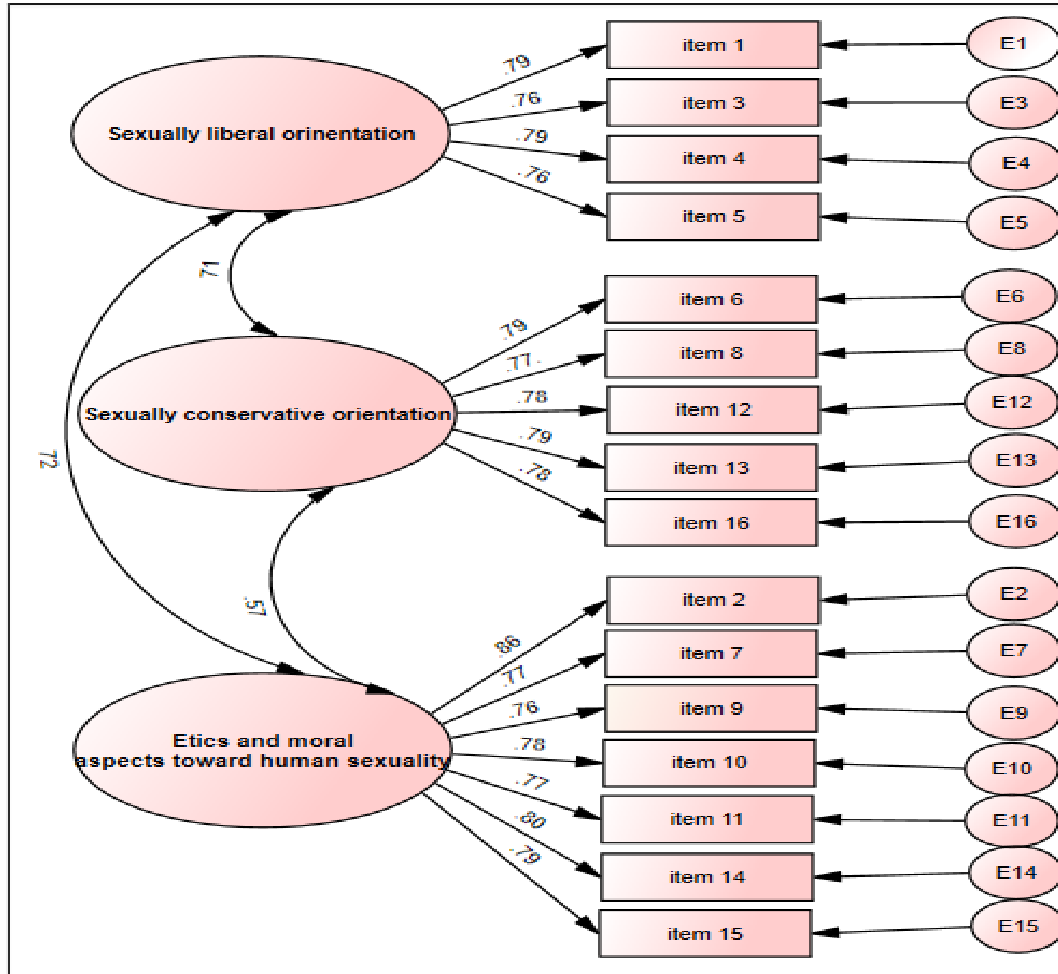

Figure 1. Factor structure of the Attitudes Toward Sexuality Scale Romanian version (ATSS-RO)

6. Discussions and Conclusions

The results of this study indicate that, at the psychometric level, the scales and subscales of the ATSS Questionnaire (Fisher & Hall, 1988), as amended by Gerchenovitch and Rusu (2019) of the Romanian and Hungarian versions had a good internal consistency, which shows that the versions can be used as psychometric tools to measure attitudes toward sexuality in two different populations. The results indicate that there are no significant differences between the two language versions, nor between their scales and subscales, which illustrates that the two language versions (Romanian and Hungarian) are linguistically equivalent. Following the analysis of the confirmatory factor analysis, we have identified three factors through which this tool measures the attitude toward sexuality in general, namely: liberal sexual orientation, conservative sexual orientation, ethics and moral aspects toward human sexuality.

This research has some limitations. Firstly, we would like to note that the level of self-reported religiosity has not been measured in our population, which could represent a confounded variable that might influences the results. The data was collected online from a sample of convenience where men were under-represented, which may affect their generalization. Our recommendation is that in the future these scales should be tested on a larger sample.

The results of this study are promising and relevant in opening the possibility to use the Romanian and Hungarian language versions of the Questionnaire Attitudes Toward Sexuality Scale (Fisher & Hall,

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1988), as amended by Gerchenovitch and Rusu (2019) to measure attitudes toward sexuality prior and after the implementation of SHE programs. It can therefore be concluded that, on the basis of the results of this study, the two versions (Romanian and Hungarian) of the ATSS-M Questionnaire are linguistically and psychologically equivalent.

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