

Strengths and Difficulties in Croatian Preschool Children: Validation Study



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Keywords:
 preschool children, reliability
 Strengths and Difficulties Questionnaire
 validity

Introduction

Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997, 1999, 2001) presents the measure of children and youth psychological adjustment, well-being and mental health and it has been widely used. It contains of 25 items within ten of them reflect strengths and 15 of them reflects difficulties in children's behaviour. Based on that it is possible to generate five different subscales: emotional symptoms, conduct problems, hyperactivity, peer problems and prosocial behaviour. Regarding the importance of measures development in the field of developmental psychopathology in our country, the main aim of this study was to test the factor structure and reliability of this instrument.

Methods

SUBJECTS. Twenty-nine pre-school teachers voluntarily participated in this study with the role of assessing strengths and difficulties in the sample of N=416 preschool children. The average age of children was M = 5.00 (SD = 1.17) in the range from 1.5 to 7.5 years. 241 of them were boys and 220 of them were girls.

Measure & Procedure

Strength and Difficulties Questionnaire (Goodman, 1997, 1999, 2001; Goodman, Meltzer & Bailey, 1998; Goodman, Ford, Simmons, Gatward & Meltzer, 2000) is based on nosological concepts and factor analyses from DSM-IV (APA, 1994) and ICD-10 (WHO, 1993). It measures four difficulties dimensions and one strength. Preschool teachers could estimate children strengths and difficulties on the Likert's three-point scale (1-Not true, 2-Somewhat true, 3-Certainly true). They have instructed to estimate children's behaviour during last six months. After getting the informed consent from preschool teachers, parents and managers of randomly chosen kindergartens in Primorsko-goranska county, pre-school teachers rated children's behavior on the SDQ. The identification of children and kindergartens was confidential. All preschool teachers and parents are promised to get the feedback on research results.

Results

With the aim of testing SDQ validity, confirmatory factor analysis on principal components with Oblimin rotation was run. Determined results confirmed expected five-factor structure of SDQ what has explained 57.35% of total variance. Reliability analysis has resulted with moderate to high Cronbach alphas for each subscale: emotional symptoms ($\alpha = .73$), conduct problems ($\alpha = .78$), hyperactivity ($\alpha = .84$), peer problems ($\alpha = .78$) and prosocial behaviour ($\alpha = .63$), so they could be improved.

SDQ-ITEMS	M	SD	Communalities	Principal Components				
				1	2	3	4	5
sdq18_ Often lies or cheats	1.50	.70	.600	.823				
sdq22_ Steals from home, school or elsewhere	1.57	.74	.643	.785				
sdq12_ Often fights with other children or bullies them	1.29	.58	.561	.560				
sdq7_ Generally obedient, usually does what adults request	1.46	.64	.620	.552				
sdq5_ Often has temper tantrums or hot tempers	1.29	.60	.568	.398			.360	.318
sdq24_ Many fears, easily scared	1.28	.56	.576		.731			
sdq3_ Often complains of headaches, stomach-aches or sickness	1.17	.43	.530		.666		.360	
sdq8_ Many worries, often seems worried	1.19	.45	.579		.652			
sdq13_ Often unhappy, down-hearted or tearful	1.23	.52	.595		.620			
sdq16_ Nervous or clingy in new situations, easily loses confidence	1.36	.63	.543		.615			
sdq15_ Easily distracted, concentration wanders	1.65	.74	.711			.859		
sdq25_ Sees tasks through to the end, good attention span	1.66	.69	.634			.797		
sdq21_ Thinks things out before acting	1.78	.72	.595			.687		
sdq2_ Restless, overactive, cannot stay still for long	1.65	.75	.643			.683		
sdq10_ Constantly fidgeting or squirming	1.65	.75	.608			.649		
sdq9_ Helpful if someone is hurt, upset or feeling ill	2.53	.68	.600				.555	
sdq20_ Often volunteers to help others (parents, teachers, other children)	2.41	.68	.593			-.464	.482	
sdq17_ Kind to younger children	2.67	.53	.539	-.396			.477	
sdq4_ Shares readily with other children (treats, toys, pencils etc.)	2.52	.65	.623	-.443			.410	
sdq1_ Considerate of other people's feelings	2.49	.64	.613	-.441			.343	
sdq11_ Has at least one good friend	1.18	.49	.609					.722
sdq14_ Generally liked by other children	1.23	.45	.515					.633
sdq6_ Rather solitary, tends to play alone	1.26	.55	.569					.558
sdq19_ Picked on or bullied by other children	1.10	.37	.454				.407	.537
sdq23_ Gets on better with adults than with other children	1.33	.54	.218					.451
	Initial Eigenvalues			7.25	2.94	1.61	1.40	1.11
	% of Variance			29.01%	11.78%	6.44%	5.60%	4.52%

Table 1. The final Pattern matrix from Principal Component Analysis (1-Conduct Problems; 2-Emotional Problems; 3-Hyperactivity; 4-Prosocial Behaviour; 5-Peer Problems) with Oblimin rotation, communalities and descriptives (Means and Standard Deviations)

Conclusion

Overall, determined findings have demonstrated that SDQ application on Croatian sample has satisfactory psychometric properties. Even though there is a place for improvement regarding the Cronbach alpha reliability levels and regarding the questionable factor loadings for the first and the fourth item, this scale can be used for measuring well-being and mental health dimensions among preschool children in Croatia.

References

- American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition. American Psychiatric Association, Washington.
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: a research note. *Journal of Child Psychology and Psychiatry*, 38:581-586.
- Goodman, R. (1999). The extended version of the Strengths and Difficulties Questionnaire as a guide to child psychiatric caseness and consequent burden. *Journal of Child Psychology and Psychiatry*, 40:791-799.
- Goodman, R. (2001). Psychometric properties of the Strengths and Difficulties Questionnaire. *Journal of the American Academy of Child and Adolescent Psychiatry*, 40:1337-1345.
- Goodman, R., Meltzer, H. & Bailey, V. (1998). The Strengths and Difficulties Questionnaire: a pilot study on the validity of the self-report version. *European Child and Adolescent Psychiatry*, 7:125-130.
- Goodman, R., Ford, T., Simmons, H., Gatward, R. & Meltzer, H. (2000). Using the Strengths and Difficulties Questionnaire (SDQ) to screen for child psychiatric disorders in a community sample. *British Journal of Psychiatry*, 177:534-539.
- World Health Organization (1992). *International classification of diseases 10th edition: Classification of mental and behavioural disorders*. Geneva: WHO.