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The metric characteristics of the Family Resilience Assessment Scale in Croatian context

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INTRODUCTION

This research is pre-research of the the project Specific characteristics of families at risk: contribution to complex interventions planning (FamResPlan) that is carried out by Faculty of Education and Rehabilitation Sciences, University of Zagreb, Croatia and founded by Croatian Science Foundation (CSF IP-2014-09-9515).

The overall objective of the FamResPlan project

- to identify characteristics of specific groups of families at risk, their **resilience**, readiness for change and life satisfaction, as a set of new, under-researched processes which could be of importance for complex family interventions planning

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Defining family resilience

„…family resilience is a dynamic process of perseverance, self-governance and growth which occurs during response to crisis and challenges." (Walsh, 2003)

Froma Walsh Family Resilience Framework (2003)

Key process in family resilience

Family belief systems	Family organization and resources	Family communication/problem solving
▪ Make meaning of adversity ▪ Positive outlook ▪ Transcendence and spirituality	▪ Flexibility ▪ Connectedness ▪ Social and economic resource	▪ Clear, consistent messages ▪ Open emotional expression ▪ Collaborative problem solving

AIM, SAMPLE & METHODOLOGY

Aim: to examine metric characteristics of the Family Resilience Assessment Scale (FRAS, Sixbey, 2005) on Croatian sample

Sample: parents of first grade schools students from secondary schools Ivan Svear in Ivanic Grad and The First high school in Zagreb were included in research (N=219, 53.9% of mothers and 46.1% fathers).

Instrument: Family Resilience Assessment Scale (FRAS, Sixbey, 2005); 54 items

Methods: for data analysis SPSS package was used (version 18). In order to achieve the objective of the research descriptive statistics, Factor analysis and Spearman correlation coefficient were used.

RESULTS

Factor analysis of shortened version of the instrument (54 variables) point to six-factor solution that explains 48.89% of the variance (factor Family communication and problem solving explains 25.87% of the variance).

- Family communication and problem solving (Cronbach α= .94)
- Making sense of adversity (Cronbach α= .58)
- Neighbors support (Cronbach α= .60)
- Family spirituality (Cronbach α= .81)
- Family connection (Cronbach α= .75)
- Security and support in the community (Cronbach α= .65)

Obtained factor solution was similar to the original model (Sixbey, 2005).

Reliability of four scales is satisfactory (α from .65 to .92), while two scales have lower reliability (Making sense of adversity, α= .58, Neighbors support, α= .60).

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Correlation between factors (Spearman's rank correlation coefficient)

	Family communication and problem solving (F1)	Making sense of adversity (F2)	Neighbors support (F3)	Family spirituality (F4)	Family connection (F5)	Security and support in the community (F6)
F1	1.000					
F2	.695**	1.000				
F3	.337**	.141*	1.000			
F4	.241**	.214**	.365**	1.000		
F5	.449**	.478**	.057	.066	1.000	
F6	.459**	.267**	.353**	.352**	.266**	1.000

Validation of FRAS in other research / countries

USA Sixbey (2005)	Turkey Kaya & Arici (2012)	Romania Bostan (2014)	Malta Dimenich (2014)	Croatia (2015)
Family Communication and Problem Solving	Family Communication and Problem Solving	Family Communication and Problem Solving	Family Communication and Problem Solving	Family Communication and Problem Solving
Utilizing Social and Economic Resources	Utilizing Social and Economic Resources	Utilizing Social and Economic Resources		
Maintaining the Positive Outlook	Maintaining the Positive Outlook	Maintaining the Positive Outlook	Maintaining the Positive Outlook	
Family Connectedness	Family Connectedness*	Family Connectedness	Family Connectedness	Family Connectedness
Family Spirituality	Family Spirituality*	Family Spirituality**		Family Spirituality
Ability to Make Meaning of Adversity	Ability to Make Meaning of Adversity	Ability to Make Meaning of Adversity	Ability to Make Meaning of Adversity	Ability to Make Meaning of Adversity
			Outreach	Safety and support in the community
			Community and Friendship Outlook	Neighbours support

* low individual item factor loading; authors propose exclusion of these items
** this factor had a low reliability

CONCLUSION

Research results indicate relatively good metric characteristics of an instrument FRAS but also the need of instrument improvement.

Descriptive data indicate a negative asymmetry of results distribution on all factors, and high results values that may indicate low sensitivity of the instrument.

Next steps done

- New research (university students, N=403, average age 19; 37,5 % male)
- Aim: to determine factor structure of different dimensions of family resilience scale and its' internal consistency (Family belief system, Family organization, Family communication and problem solving)
- Instruments: Family Resilience Scale (modified FRAS (Sixbey, 2005) & FACES IV (Olson, Gorall, Tiesel, 2004; 11 items in Family organization dimension)
- Methods: exploratory factor analysis; separate factor analysis for three dimensions of family resilience
- Results:
  - Family belief system (KMO = 0.910; Bartlett's Test = 3927.62; df=55; p<.01; % of variance = 55.8, α=.862)
  - Family organization (KMO = 0.913; Bartlett's Test = 3425.80; df=171; p<.01; % of variance = 38.33, α=.835)
  - Family communication and problem solving (KMO = 0.95; Bartlett's Test = 3089.59; df=78; p<.01; % of variance = 55.92; α=.876)

Conclusion from this research

- all 3 dimensions have expected factor structure; acceptable percentage of variance explained and internal consistency
- within dimension Family Belief System, majority of items that measure Making meaning of adversity and Positive outlook have shown no significant factor loadings
  - further work on this dimension
  - add more items for Making meaning of adversity and Positive outlook