

Social competence and problem behavior of Finnish preschoolers: Effects of child gender, age, and language skills on parent-teacher agreement

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JUMP ALONG intervention study

- Funded by the Ministry of Education and Culture
- Aims at renewing preservice and in-service teacher education in collaboration across four universities:

University of Turku (Maarit Silvén et al.)

University of Jyväskylä (Niina Rutanen et al.)

University of Helsinki & University of Eastern Finland
(Nina Sajaniemi et al.)

**HALLITUKSEN
KÄRKIHANKE**

**REGERINGENS
SPETSProjekt**

JUMP ALONG intervention study

- Explores new evidence-based ways of assessing and supporting early childhood education (student) teachers' professional development during various phases of their career.
- We report here data collected as part of the intervention study.

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Introduction



- Social competence = effectiveness in interaction (Rose-Krasnor, 1997) starts to develop in infancy
- Language and communication skills contribute to socially skillful behavior (e.g. Longoria et al., 2008).
- Age and gender differences in social behavior, less evidence for gender differences in social competence at pre-school age (De Los Reyes & Kazdin, 2005; Rescorla et al., 2012; Rose-Krasnor, 1997; see also Gross et al., 2004; Winsler & Wallace, 2002)
- Variation in social skills and behavior problems relates to the quality of children's relationships with parents and teachers (e.g. Martin et al., 2010; Verschueren et al. 2012).

Introduction



- High agreement between informants' ratings may imply that children's social skills or problem behaviors established in one context has generalized to other contexts (Rescorla et al., 2012; Dinnebeil et al., 2013).
 - Agreement coefficients between parents and teachers ratings range from weak to moderate, mean correlation .30 (Gross et al., 2004; Major et al. 2015; at risk samples, see Gagnon et al., 2007).
 - US parents as well as teachers tend to rate boys as showing higher levels of problem behaviors than girls (Winsler & Wallace, 2002).
 - Portuguese parents rate both boys and girls to have more problem behavior than do teachers, but they perceive boys (the same not true for girls) to have more social skills than do teachers (Major et al., 2015).

Research aims



- Hence, the congruence between parents' and teachers' assessment of children's competence in different social settings can be important from a developmental perspective
- The first aim is to compare Finnish parents' and teachers' perceptions of boys' and girls' social competence in the home setting and in the Early Childhood Education (ECE) setting.
- The second aim is to examine how child gender, age, language and communication skills influence the degree of cross-informant agreement.

Methods



- the participants represent day care centers (~ 50) in several municipalities of two provinces
 - participant information and written consents
- parents ($N = 203$) and ECE teachers ($N=58$) rated the child's social skills and problem behaviors
 - a modified version of MASCS developed in the STEPS Study
www.utu.fi/hka
 - MASCS = the Multisource Assessment of Social Competence Scale (Junttila et al., 2006)
- parents assessed their child's language and communicative skills
 - the Five to Fifteen questionnaire (Korkman et al. 2004)
 - developed in Nordic countries

Methods



- 203 (104 boys, 99 girls) teacher reports
- 226 (114 boys, 112 girls) parent reports
- children's age ranged from 36 to 77 months ($M=59.5$; $SD=10.50$)

	Cronbach's alfa	
	Teacher	Parent
Social Skills	.86	.74
Cooperation (e.g., <i>Offers help to other children.</i>)	.73	.58
Empathy (e.g., <i>Is able to be a good friend.</i>)	.84	.67
Problem behavior	.90	.78
Impulsivity (e.g., <i>Is short-tempered.</i>)	.86	.81
Disruptiveness (e.g., <i>Disturbs and irritates other ...</i>)	.86	.72
Language (e.g., <i>Has difficulty understanding ...</i>)		.82



Results: Teachers' ratings in the early education setting (summary scores)

- Teachers perceived girls to have better cooperation and empathy skills, and less impulsive and disruptive behavior compared to boys.

	Boys (N=104)		Girls (N=99)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Social Skills	3.02	.49	3.23	.48	-3.05	.003
Cooperation	3.00	.51	3.21	.53	-2.82	.005
Empathy	3.04	.55	3.25	.54	-2.71	.007
Problem behavior	1.98	.63	1.69	.47	3.71	.001
Impulsivity	1.94	.72	1.71	.57	2.45	.015
Disruptiveness	2.01	.64	1.67	.49	4.21	.001



Results: Parents' ratings in the home setting (summary scores)

- There were no gender differences in social skills and problem behaviors when rated by parents of boys and girls.

	Boys (N=104)		Girls (N=99)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Social Skills	3.18	.35	3.24	.32	-1.34	.18
Cooperation	3.17	.41	3.24	.35	-1.36	.18
Empathy	3.18	.38	3.24	.40	-0.99	.33
Problem behavior	2.11	.36	2.07	.36	1.00	.32
Impulsivity	2.35	.53	2.29	.49	0.97	.34
Disruptiveness	1.94	.38	1.90	.37	0.69	.49

Results: Child age and language skills are related to social competence (summary scores)

- Both teachers' and parents' ratings of problem behaviors were negatively related to child age, but only parents' ratings of girls' social skills were positively related to age.
- Moreover, parents' ratings of children's language and communication skills were associated to their ratings of social competence.

Results: Agreement between parents' and teachers' ratings (summary scores)

- Cross-informant agreement coefficients were moderate and significant even after controlling for child age and language skills (with the exception of girls' empathy).

	Boys (N=103)		Girls (N=97)	
	Control for age	Control for language	Control for age	Control for language
Social skills	.46***	.45***	.25*	.25*
Cooperation	.35***	.33***	.27**	.27**
Empathy	.44***	.44***	.18	.18
Problem behaviors	.47***	.47***	.38***	.39***
Impulsivity	.25*	.24*	.22*	.24*
Disruptiveness	.46***	.46***	.32***	.33***

Partial correlations, * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$ (two-tailed).

Results: Confirmatory Factor Analysis

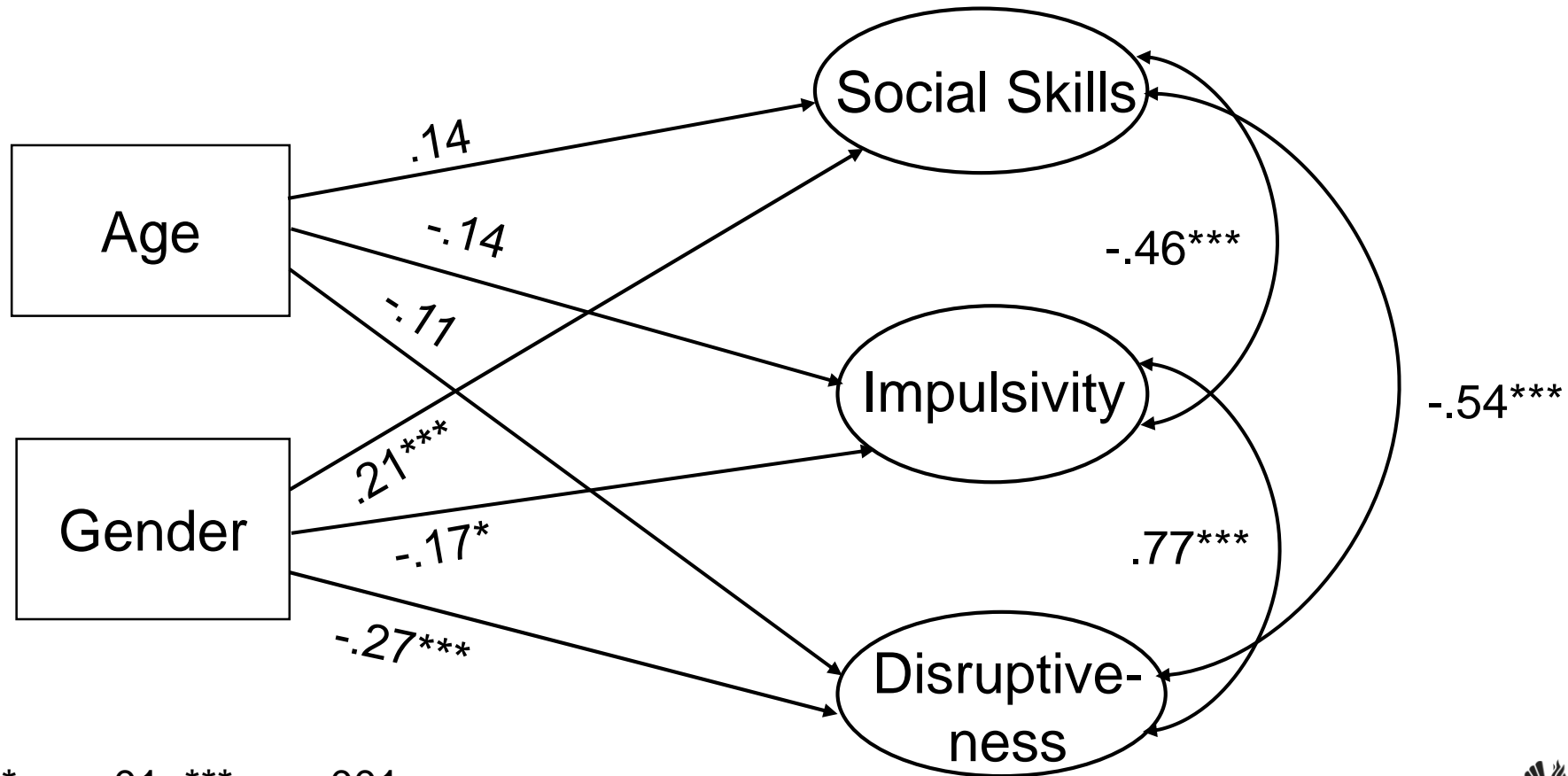
- In contrast to previous studies on school-aged children, a three-factor model fit the data of both ECE teachers and parents

	Factor loadings	
	Teachers	Parents
Social Skills	.48-.86	.35-.79
Cooperation (e.g., <i>Offers help to other children.</i>)		
Empathy (e.g., <i>Is able to be a good friend.</i>)		
Problem behavior		
Impulsivity (e.g., <i>Is short-tempered.</i>)	.74-.86	.74-.82
Disruptiveness (e.g., <i>Disturbs and irritates other ...</i>)	.64-.90	.40-.75

Model fit is considered reasonably good when p -value < .05, RMSEA and SRMR \leq .06, TLI and CFI \geq .90, (Hu and Bentler, 1995)

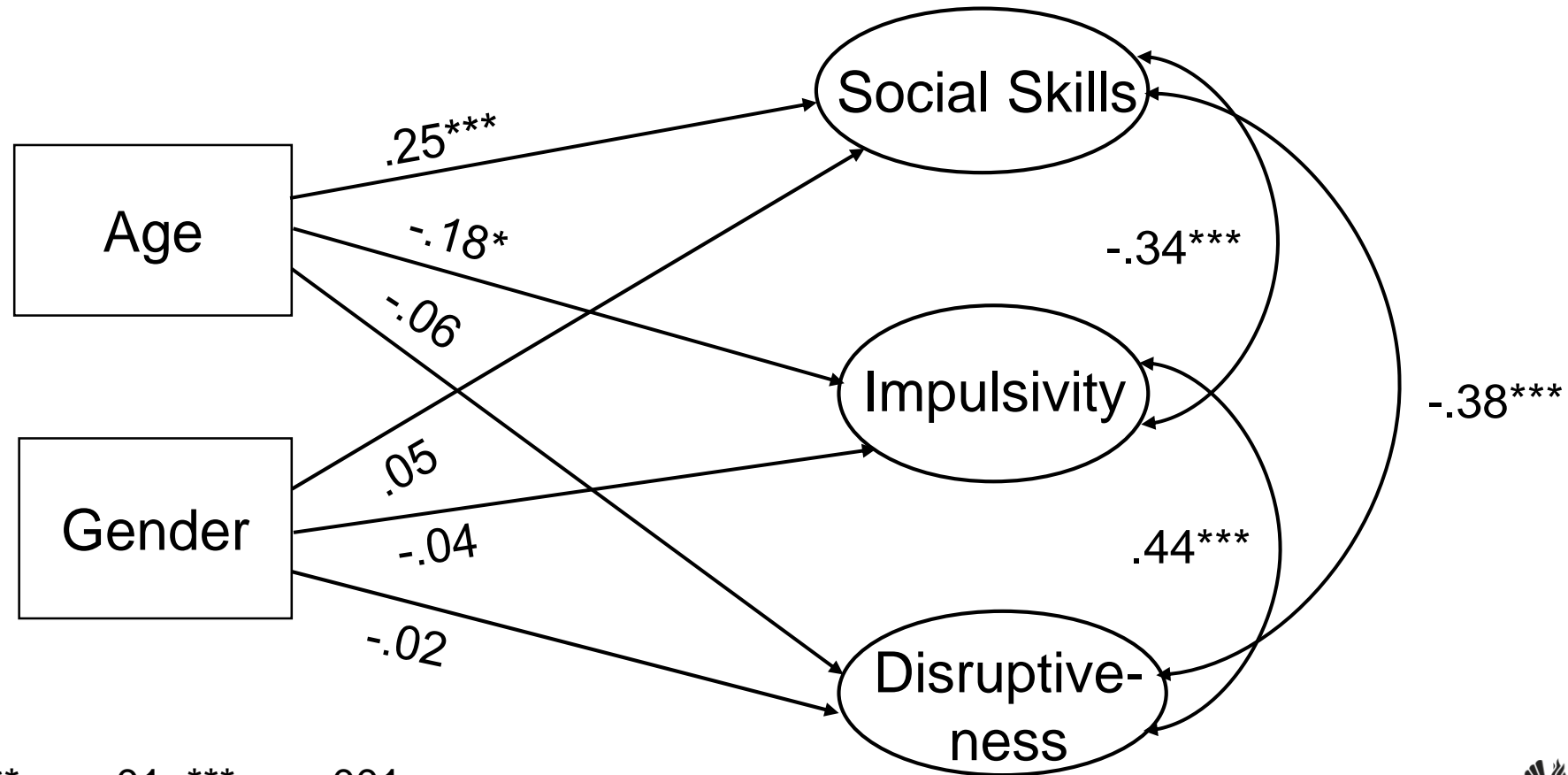
	χ^2	df	p	RMSEA	SRMR	TLI	CFI
Teachers	110.36	81	.005	.060	.061	.923	.940
Parents	128.72	61	.001	.051	.059	.926	.942

Effects of Child Age and Gender on ECE Teachers' Ratings (SEM)



* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Effects of Child Age and Gender on ECE Parents' Ratings (SEM)



* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Discussion



- Knowing the way different informants perceive the same child is a key factor
 - in collaboration between ECE teachers, team members, and parents
 - for the continuous pedagogical documentation process
 - in preparing the individual ECE plan for each child
 - in understanding the child's needs for support and guidance in social skills and preventing problem behavior in the future
- Next step: Structural equation modelling to test measurement invariance, to explore differences in the factor means and factor variances and correlations between ECE teachers and parents.

References



De Los Reyes, A. & Kazdin, A. E. (2005). Informant discrepancies in the assessment of childhood psychopathology: A critical review, theoretical framework, and recommendations for further study. *Psychological Bulletin*, 131, 483–509.

Dinnebeil, L. A., Sawyer, B. E., Logan, J., Dynia, J. M., Cancio, E., & Justice, L. M. (2013). Influences on the congruence between parents' and teachers' ratings of young children's social skills and problem behaviors. *Early Childhood Research Quarterly*, 28, 144–152.

Ewing, A. R., & Taylor, A. R. (2009). The role of child gender and child ethnicity in teacher–child relationship quality and children's behavioral adjustment in preschool. *Early Childhood Research Quarterly*, 24, 92–105.

Gagnon, S. G., Nagle, R. J., & Nickerson, A. B. (2007). Parent and teacher ratings of peer interactive play and social-emotional development of preschool children at risk. *Journal of Early Intervention*, 29, 228–242.

Gross, D., Fogg, L., Garvey, C., & Julion, W. (2004). Behavior problems in young children: An analysis of cross-informant agreements and disagreements. *Research in Nursing & Health*, 27, 413–425.

Junttila, N., Voeten, M., Kaukiainen, A., & Vauras, M. (2006). Multisource Assessment of Children's Social Competence. *Educational and Psychological Measurement*, 66, 874–895.

Korkman, M., Kadesjö, B., Trillingsgaard, A., Janols, L.-O., Michelsson, K., Strand, G., & Gillberg, C. (2004). *Viivi (5–15)-käsikirja. Kyselylomake vanhemmille 5–15 -vuotiaiden kehityksestä ja käyttäytymisestä*. http://www.5-15.org/pdf/manuals/515_fi-FI.pdf (Viitattu 4.7.2017.)

Longoria, A. Q., Page, M. C., Hubbs-Tait, L., & Kennison, S. M. (2008). Relationship between kindergarten children's language ability and social competence. *Early Child Development and Care*, 1–10.

Major, S. O., Seabra-Santos, M. J., & Martin, R. P. (2015). Are we talking about the same child? Parent-teacher ratings of preschoolers' social-emotional behaviors. *Psychology in the Schools*, 52, 789–799.

Rose-Krasno, L. (1997). The nature of social competence: A theoretical review. *Social Development*, 6, 111–135.

Rescorla, L. A., Achenbach, T. M., Ivanova, M. Y., Bilenberg, N., Bjarnadottir, G., Denner, S., ..., & Verhulst, F. C. (2012). Behavioral/emotional problems of preschoolers: Caregiver/teacher reports from 15 societies. *Journal of Emotional and Behavioral Disorders*, 20, 68–81.

Winsler, A., & Wallace, G. L. (2002). Behavior problems and social skills in preschool children: Parent-teacher agreement and relations with classroom observations. *Early Education & Development*, 13, 41–58.



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Thank you ! Kiitos!