

Effect of Two-person Small Group Speech Therapy and Factors Associated with Therapeutic Gain in children with language disorder

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INTRODUCTION

• Speech and language delays/disorders can result from a primary (unknown cause) or secondary condition, such as autism, hearing impairment, global developmental delay, behavioural or emotional difficulties, and neurological impairment. Persistent speech and language delay can lead to socio-emotional challenges, difficulties in reading and writing, and long-term limitations in education and vocational performance. Early intervention of speech therapy(ST) can help improve children’s speech and language development, their ability to communicate, their ability to effectively interact with peers, and strengthen their social skill. ST should be individualized to the child’s current level by a SLP, determining the scope of treatment and ensuring practical application in daily life. Treatment goals should vary based on individual characteristics, although there is still an ongoing debate regarding the criteria used, such as the timing of intervention, specific disorders, duration/intensity of treatment, and delivery model of treatment for language delay/disorder in children. ST typically involves one-on-one delivery model (individual ST) between an SLP and a patient, however, group-delivery model (group ST) is also implemented depending on the situation. Group speech therapy(ST) can be beneficial in terms of social skills, cooperation, and attention, and it may be more cost-efftective and resource-efficient than individual ST. While group ST is widely used, there is an ongoing debate concerning its effectiveness compared to that of individual ST.

PURPOSE

• To investigate the effects of small group speech therapy consisting of two children in aspects of language and social development and identify powerful predictors for maximal therapeutic gains of two-person small-group speech therapy (2-SST).

METHODS

• We retrospectively reviewed the medical records of 51 children, who had participated in 2-SST. Language and social abilities of children were assessed using multiple scales at initial and follow-up visits after participating in 2-SST program.

RESULTS

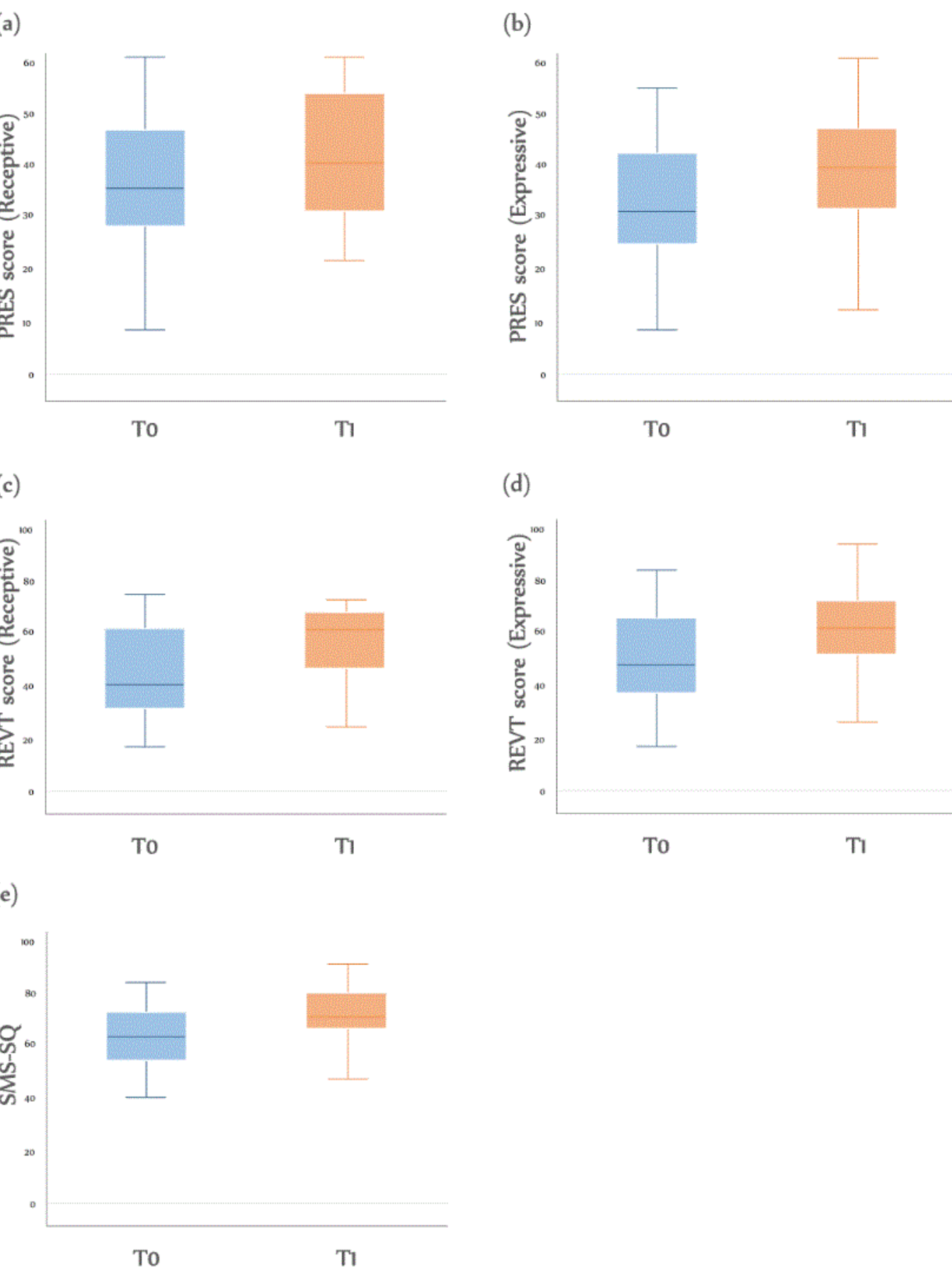
• Participants in the 2-SST showed significant improvements in all categories of receptive/expressive language and social abilities. Through multivariable linear regression analysis, the powerful predictors of therapeutic gain in receptive language were same diagnosis, small difference of baseline receptive language, and intellectual ability with paired-child. Younger age (≤ 5 years) was a powerful predictor of improvement in expressive language ability. Older age (> 5 years) was an independent predictor of improvement in social ability.

Table 1. Pre- and post- speech therapy comparison of language skill and SMS

Outcome measures	T0	T1	Mean difference	p-value
	Mean±SD	Mean±SD		
Language skill				
PRES-RC (points)	36.43±13.36	42.80±14.21	6.98±11.62	<.001*
PRES-EC (points)	32.85±12.27	39.88±15.60	7.46±8.98	<.001*
REVT-RC (points)	44.38±22.42	56.16±18.10	16.25±22.64	<.001*
REVT-EC (points)	51.64±20.87	60.59±15.19	15.94±22.87	<.001*
Social skill				
SQ	65.08±14.40	75.55±22.45	12.77±21.06	<.001*

* Significant difference between the groups (p<.05).
PRES-EC, Preschool Receptive-Expressive Language Scale measuring items in the expressive language area; PRES-RC, Preschool Receptive-Expressive Language Scale measuring items in the receptive language area; REVT-EC, Receptive-Expressive Vocabulary Test measuring items in the expressive language area; REVT-RC, Receptive-Expressive Vocabulary Test measuring items in the receptive language area; SQ, social quartile

Figure 1. The overview of change after participating in small group-speech therapy



Conclusion

• 2-SST can be an appropriate delivery model to improve language and social skills with advantages of both individual and group speech therapy. For maximal therapeutic gains of 2-SST, same diagnosis, similar language, and cognitive level with paired-child, and age should be considered depending on the more specific goals of treatment.

