

Effect of an adapted psychomotor intervention on motor development in preschool children from low socioeconomic status populations.



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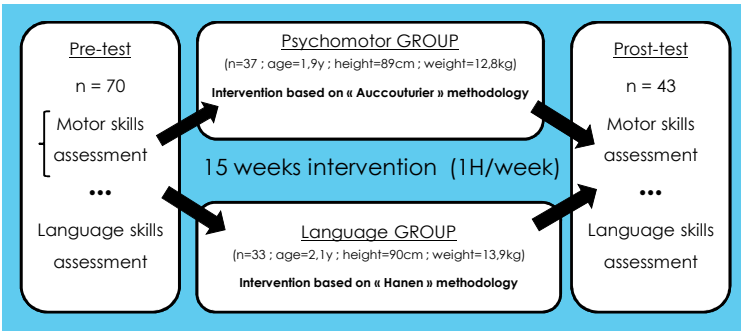
Introduction

- Psychomotor stimulations during early childhood influence not only motor development but also other health factors such as physical activity level and obesity (Stodden & Goodway, 2007).
- Children from low socioeconomic status (LSES) are often under-stimulated and it could be interesting to organize accessible activities for them (Gallaway & Richards, 1994 ; Poreski, 1982) .

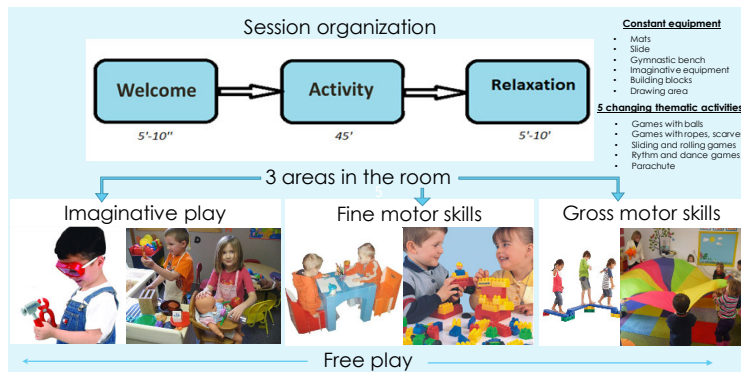
Methods

- Parent-child dyads were randomly allocated to the experimental group (psychomotor intervention; n=37) or to the control group (language intervention; n= 33).

Study profile



Psychomotor intervention



Motor skills assessment

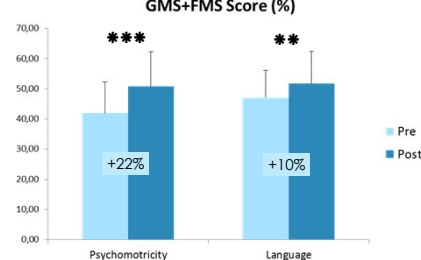
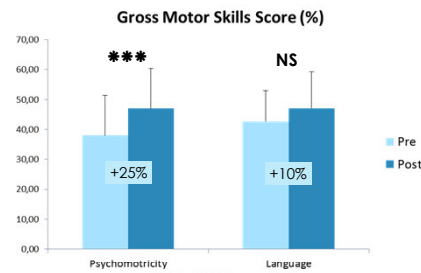
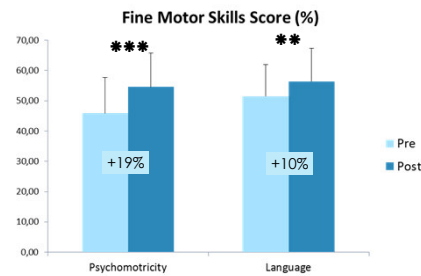
Fine motor skills (FMS) assessment <i>(inspired by Bayley-III motor scale)</i>		Gross motor skills (GMS) assessment <i>(inspired by Bayley-III motor scale)</i>	
Pencil test (/13)	Grasp level (/4)	Sit & raise test (/2)	Sit (/1)
	Sheet holding (/1)		Raise (/1)
	Drawing/writing ability (/8)	Walking test (/9)	Sequence of development (/9)
Block manipulation test (/12)	Grasp level (/4)	Running and jumping test (/5)	Sequence of development (/3)
	Building blocks (/8)		Run and stop (/1)
Food pellet test (/9)	Grasp level (/4)	Balance test (/4)	Hop test (/1)
	Pellets in a bottle. Numbers /minute (/5)		Time on one foot (/4)
		Stair test (/7)	Upstair (/3)
			Downstair (/3)
			Jump (1)
		Throwing test (/3)	Sequence of development (/3)
		Shooting test (/3)	Sequence of development (/3)

Aim of the study

- The aim of the present study was to develop an adapted psychomotor activity and to see its influence on motor development in children from LSES.
- This research was part of a larger study also including a parent-implemented language intervention.

Results

Motor Skills



Language Skills

- Parents who received parent language training used more language models than parents from the psychomotor training.
- Positive and significant effects were observed on language skills (number of words), expressive phonology (phonemic inventory) and expressive morphosyntax (mean of length utterance) in experimental children when compared to children included in the psychomotricity group.

Other results

Attendance : 58% Drop out : 30%

Conclusion

- All results confirm the specific effect of the intervention.
- The intervention in psychomotricity was efficient to improve both FMS and GMS.
- However, low attendance during the intervention and high drop out revealed that it is very difficult to make parents from LSES responsible.
- Strategies have to be developed in order to increase parents' involvement,

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