

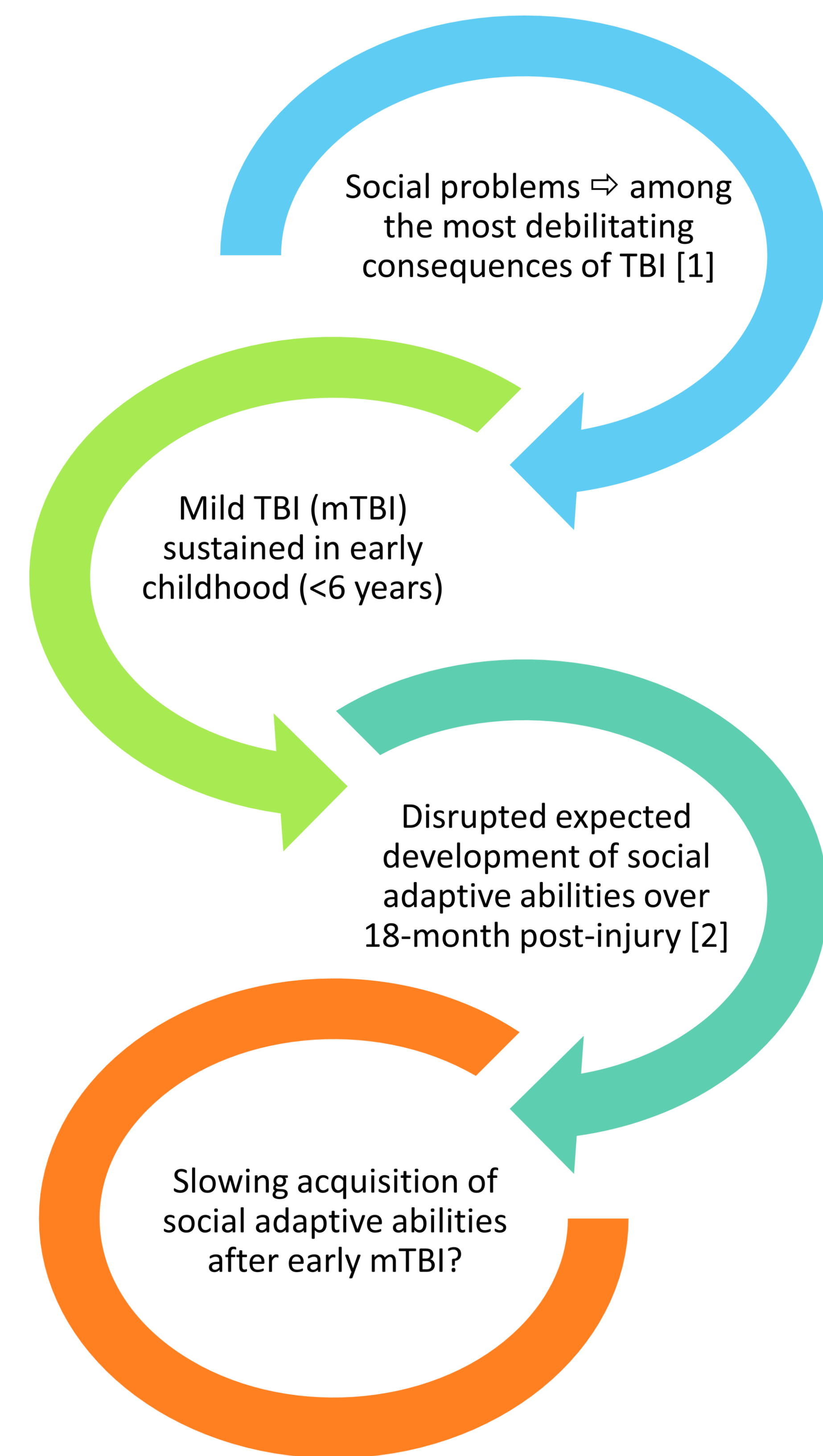
Long-term changes in social adaptive abilities following early mild traumatic brain injury

Dégeilh, Fanny¹; Annie, Bernier²; Beauchamp, Miriam H.^{2,3}

¹Department of Child and Adolescent Psychiatry, Psychosomatics and Psychotherapy, Ludwig-Maximilian-University, Munich, Germany;

²Department of Psychology, University of Montreal, Quebec, Canada; ³CHU Sainte-Justine Research Center, Montreal, Quebec, Canada

INTRODUCTION



OBJECTIVE

- To explore whether the slowing in the acquisition of social adaptive abilities persists in the long-term (60-month post-injury)

METHODS



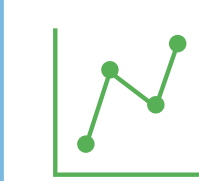
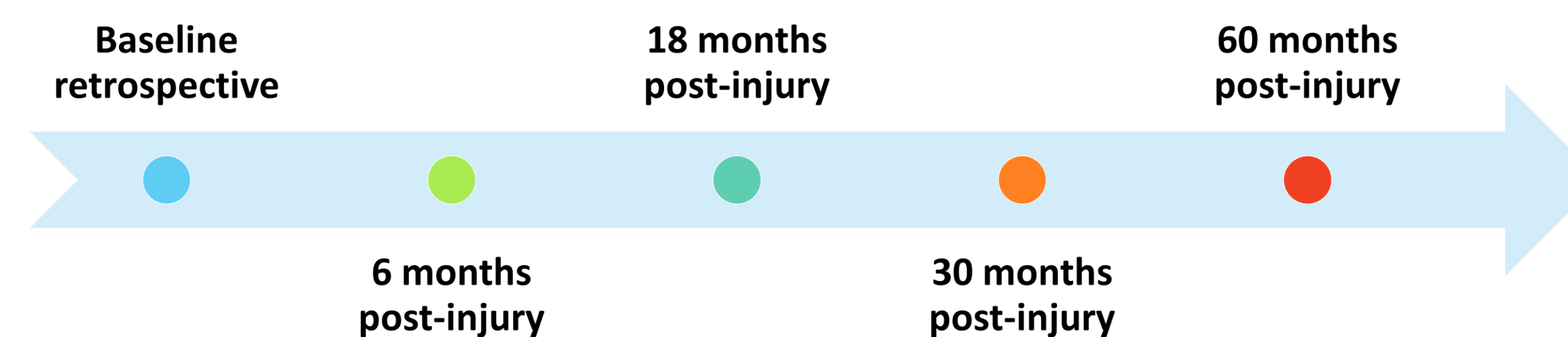
Participants

- 81 children with mTBI (38 girls) aged 1.5 to 5 years at injury
- 60 with orthopaedic injury (OI; 34 girls) aged 1.5 to 5 years at injury



Child's social adaptive abilities

- Parent-report
- Adaptive Behavior Assessment Scale-II Social skills sub-scale
- 5 assessments:



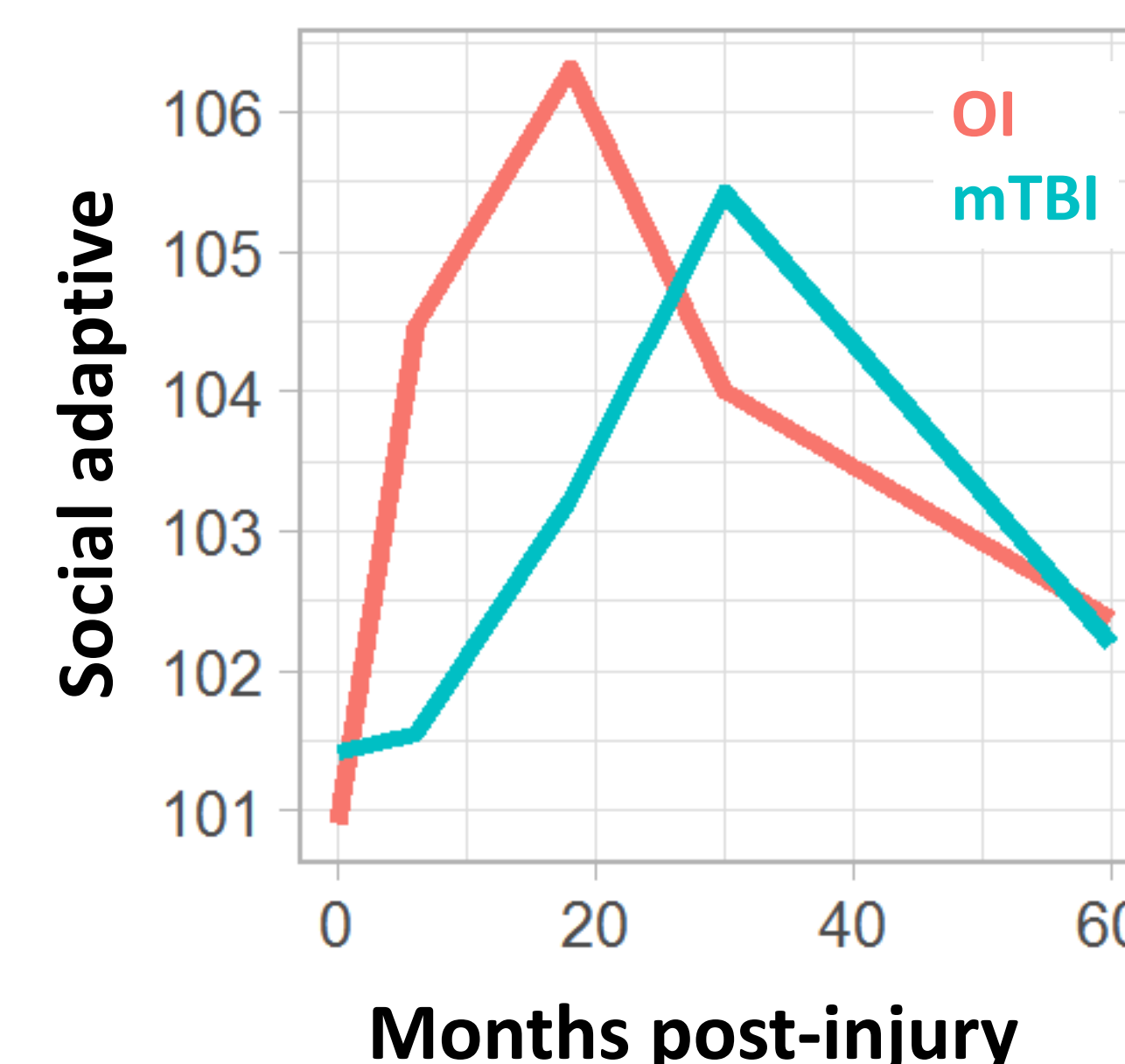
Longitudinal analyses

- Growth curve analysis [3]
- Group effects on the time course of social adaptive abilities captured with a third-order (cubic) natural polynomial

RESULTS

- No effect of group at pre-injury
- Marginal or significant effect of group on all time terms

	OI	mTBI	p-value
Fixed Effects			
Baseline	100.9	101.4	.83
Time	0.8	-0.03	.05
Time ²	-0.03	0.01	.04
Time ³	0.0003	-0.0002	.04
Random Effects			
Baseline	109.43		
Time	0.016		
Residual	102.96		



DISCUSSION

- **Children with OI**
 - 0-18 months post-injury: \uparrow by 0.40 point per month
 - 18-60 months post-injury: progressive \downarrow by -0.08 point per month
- **Children with mTBI**
 - 0-6 months post-injury: remained at the pre-injury level
 - 6-30 months post-injury: slow \uparrow by 0.15 point per month
 - 30-60 months post-injury: \downarrow by -0.14 point per month

Conclusion

- Early mTBI may disrupt the expected developmental progression of children's social adaptive behavior
- The developmental profile of social abilities in children with mTBI appears to follow the same overall pattern as other children of the same age, but with a delayed onset after a 6-month period of stagnation and a slower improvement rate

REFERENCES

- [1] Yeates et al., 2007; [2] Dégeilh et al., 2018; [3] Mirman, 2014

