

Improve implementation of a novel paediatric therapy programme; taking theories of human behaviour into account

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Background¹

- 'COPing with and CAring for Infants with special Needs' (COPCA) is a novel early intervention programme in paediatric physiotherapy.
- COPCA differs from well-known approaches, e.g. the therapist takes on the role of a coach and uses hands-off approaches.
- To become a COPCA-coach, the therapist needs to change behaviour.
- For successful implementation of new approaches, theories of human behaviour have to be taken into account.

Objectives

- To measure behaviour changes in therapists following a COPCA course.
- To identify the challenges that interfere with the implementation of the COPCA program in daily practice.

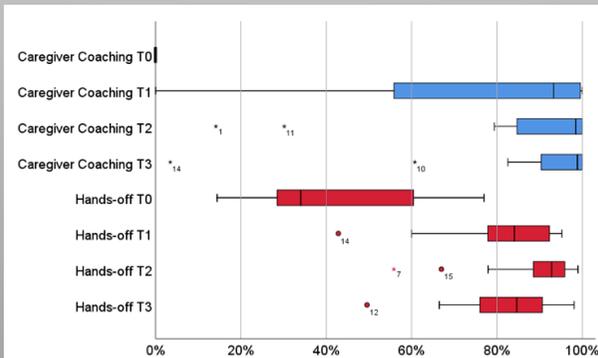
Methods

- Data collection during a 3-part COPCA course over 6 months in which 15 therapists learned COPCA.
- Video-recording of behaviour 4 treatment sessions - one prior to part I (T0), one in each interval (T1, T2), and one after part III (T3) - of each participant.
- Standardized and quantified analysis of therapist behaviour of 60 videos with the *Groningen Observation Protocol version 2 (GOP 2.0)*.
- GOP 2.0 allows quantification of relative duration of therapeutic actions like 'educational actions toward caregivers' or 'neuromotor actions' in percentage of total treatment time.
- Statistics: Wilcox-sign rank test and Hodges-Lehmann estimator.

Results

- Course participation was associated especially with changes in 'educational actions toward caregivers' and 'neuromotor actions'.
- Time spent on 'caregiver coaching' increased:
 - between T0 and T1 by 77.9% (99%CI 48.7-99.1)
 - between T0 and T3 by 96.1% (99%CI 51.7-100)
- Time spent on hands-off techniques increased:
 - between T0 and T1 by 37.9% (99%CI 18.8-59.5)
 - between T0 and T3 by 40.3% (99%CI 17.8-57.7).
- The implementation of hands-off approaches developed at a slower rate and somewhat less sustainable than that of coaching.

CI = confidence interval

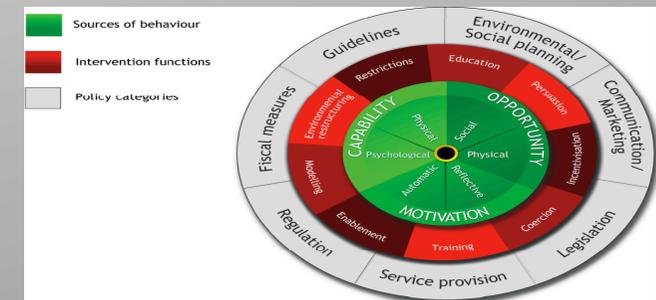


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Conclusions

- Quantitative analysis of therapeutic behaviour is a useful method to monitor changes in behaviour.
- To implement new approaches successfully, theories of human behaviour have to be taken into account.
- Behaviours with a slower and less sustainable rate of change represented strong habits, making them relatively resistant to change.
- To overcome this challenge, future COPCA courses need to be adapted, by including (1) more modelling of desired behaviour and (2) more repetition and practice for the behaviours in the neuromotor domain.
- The *Behaviour Change Wheel* of Michie et al.², is a helpful framework to understand the nature of behaviour and to overcome behaviour change barriers.



References

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- (2) Michie S, van Stralen MM, West R. The behaviour change wheel: A new method for characterizing and designing behaviour change interventions. *Implement Sci.* 2011; 6: 42.

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Conflict of Interest statement The authors declare no conflict of interest.