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Overcoming activity and participation limitations in children with unilateral congenital below elbow deficiency: A Systematic Review

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Background

Evidence on effective support strategies for enhancing activity and participation in children with congenital forearm reduction deficiencies is limited. This gap highlights the critical need for evidence-based approaches to optimize the interventions of health professionals.

Goal

The aim was to create an evidence-based clinical decision support tool for health professionals to assist in determining the most appropriate course of action for children (up to 21 years old) with unilateral congenital transverse below-elbow deficiency (UCTBD). The tool guides the use of three potential interventions—either individually or in combination—which include: 1) prostheses, 2) alternative assistive devices (AAD), and 3) compensatory strategies.

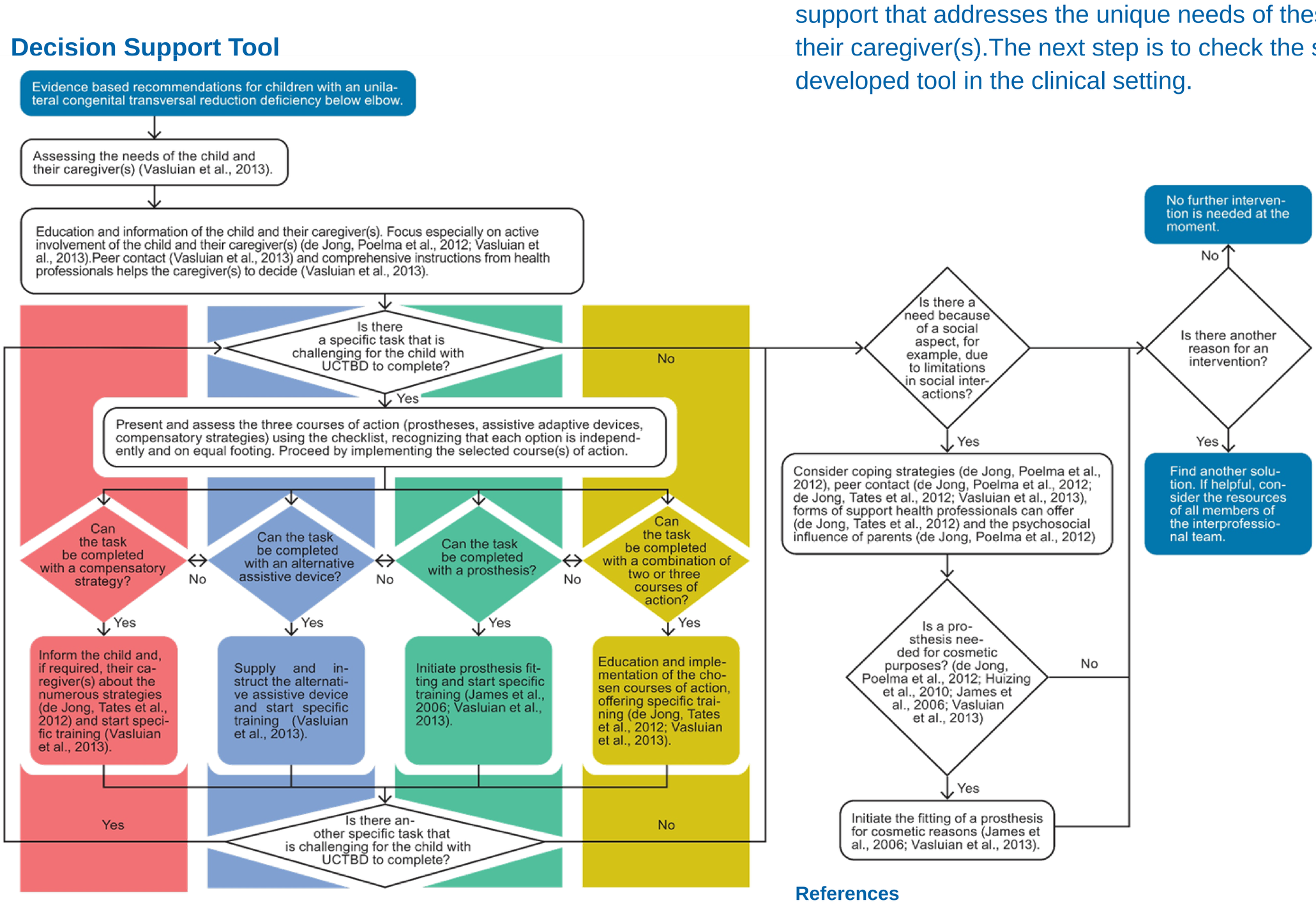
Included Studies

Authors/Journal	Year	Country	Title
de Jong, Tates et al. Journal of Rehabilitation Medicine	2012	Netherlands	Activity and participation of children and adolescents with unilateral congenital below elbow deficiency: an online focus group study
de Jong, Poelma et al. PloS One	2012	Netherlands	Mixed feelings of children and adolescents with unilateral congenital below elbow deficiency: An online focus group study
Huizing et al. Prosthetics & Orthotics International	2010	Netherlands	Age at first prosthetic fitting and later functional outcome in children and young adults with unilateral congenital below-elbow deficiency: A cross-sectional study
James et al. The Journal of Bone & Joint Surgery	2006	North America	Impact of prostheses on function and quality of life for children with unilateral congenital below-the-elbow deficiency
Vasluian et al. PloS One	2013	Netherlands	Opinions of youngsters with congenital below-elbow deficiency, and those of their parents and professionals concerning prosthetic use and rehabilitation treatment
Wagner et al. Journal of Prosthetics and Orthotics	2007	North America	Reasons for prosthetic rejection by children with unilateral congenital transverse forearm total deficiency

Conclusion

All three courses of action are equally valid and justified. For effective and comprehensive interventions, professionals must be well-versed in the three courses of action, ensuring tailored support that addresses the unique needs of these children and their caregiver(s).The next step is to check the suitability of the developed tool in the clinical setting.

Decision Support Tool



Methodology

We conducted a systematic review (1). We critically appraised the seven included studies and summarized the results in the form of a decision-support flow chart.

References

1.Grant MJ, Booth A. A typology of reviews: an analysis of 14 review types and associated methodologies: Health Information & Libraries Journal. Juni 2009;26(2):91–108.

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