

UK-based survey of current practice in management of perinatal stroke

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Introduction

- Perinatal Stroke: a stroke occurs at the age of 28 days or less
- The first week of life has the highest probability of stroke in your life (1)
- Perinatal stroke is the leading cause of hemiplegic cerebral palsy (HCP)(2)
- Evidence-based early intervention protocols are needed
- Our clinical impression is that management currently varies widely.
- It is important to understand the variability in current practice to inform the design of any trial of intervention.

Methods

- Two on-line surveys using SurveyMonkey for therapists and neonatologists
- Content for therapists: demographics, case-load, support for parents, referral, follow-up, assessment and intervention
- Content for neonatologists: demographics, unit-specific questions, access to therapists, trial-related questions and post-discharge arrangements
- Pilot survey conducted first to check validity and acceptability
- Distributed invitation email containing URLs to surveys through professional organizations (July-August 2015) for full survey
- Analysis was mainly descriptive
- Ethical approval by Newcastle University



Results

- ◆ 116 PT and 29 OT respondents saw infants with perinatal stroke
- ◆ Prioritization: 86.3% would prioritise referrals as “high priority” if motor dysfunction (MD) at referral; 37.8% would do so if no MD
- ◆ Waiting time for the initial assessment: most frequent responses were 1 week (with MD) and 4 weeks (without MD) but 26.8% (without MD) and 20.0% (with MD) of infants would be seen more than 8 weeks after the referral
- ◆ Follow-up frequency: most frequent arrangements were once every two weeks 28.4% (with MD) and once a month 28.4% (without MD)
- ◆ Striking variation in assessments and treatments reported by therapists are seen (Figures 1 and 2)
- ◆ 39/179 Neonatologists responded (response rate: 21.8%) of whom 7 reported access to neither OT nor PT—this is not in line with DoH recommendations (3)

References

1. Kirton A. Modeling developmental plasticity after perinatal stroke: defining central therapeutic targets in cerebral palsy. *Pediatric Neurology* 2013 Feb;48(2):81-94.
2. Russo RN, Goodwin EJ, Miller MD, Haan EA, Connell TM, Crotty M. Self-esteem, self-concept, and quality of life in children with hemiplegic cerebral palsy. *The Journal of Pediatrics* 2008 Oct;153(4):473-7.
3. Health NaDo. Toolkit for High Quality Neonatal Services. In: 2009 DoH, editor.

Aim

To conduct a cross sectional survey of Pediatric Physiotherapists (PT), Occupational Therapists (OT) and Neonatologists to determine current UK management of infants with perinatal stroke.

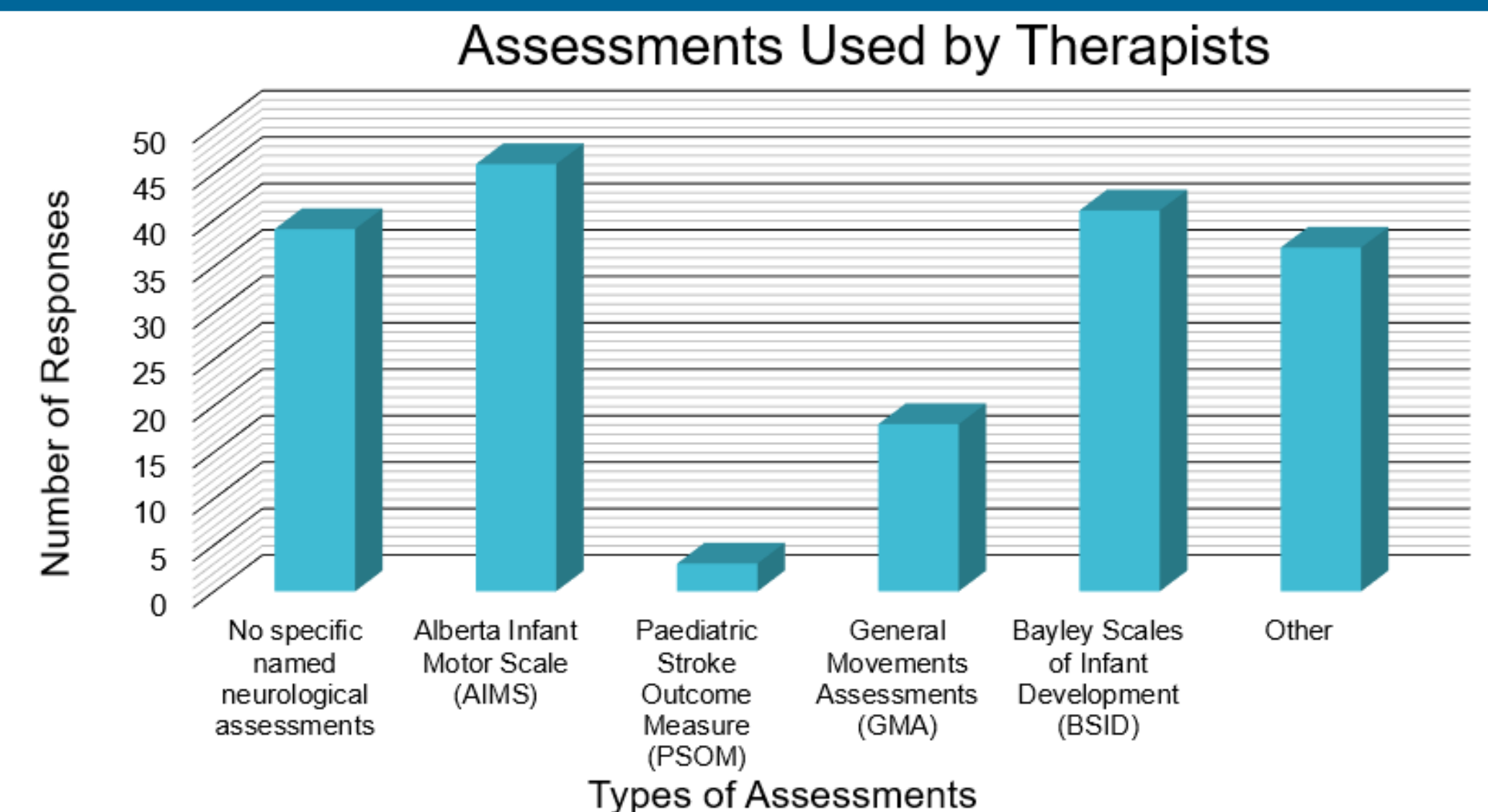
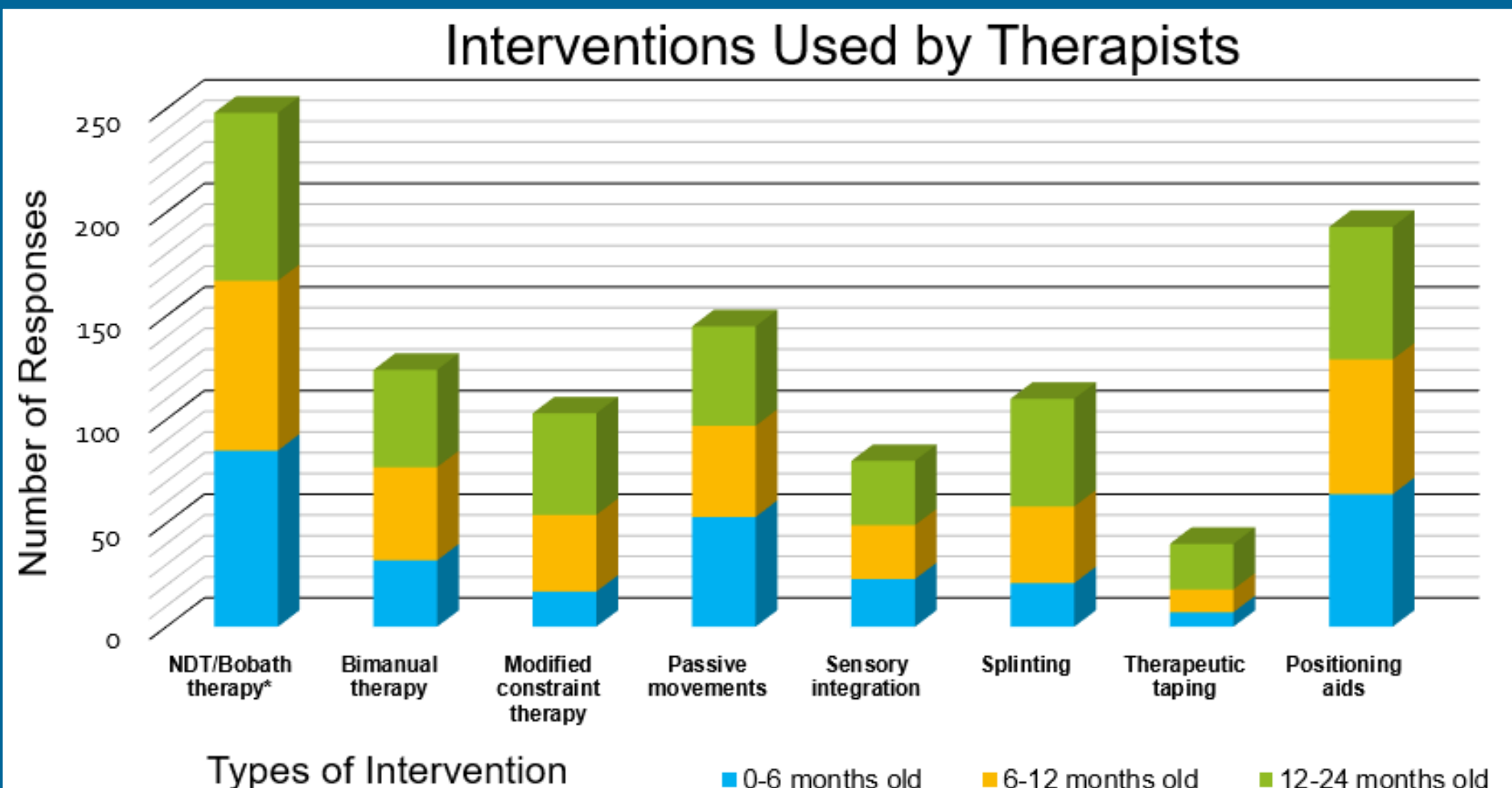


Figure 1: types of assessment employed by therapists (chart above)

Figure 2: types of rehabilitation approach reported by therapists (chart below)



Discussion

- Presence of motor dysfunction changed the way infants were followed up by therapists, but even with the same condition, there were wide ranges in approach as well as evidence of lack of resources and long waits
- Limitations of the study: less representative sample due to low response rate and distribution of URL through professional organizations i.e. only members of those organizations could answer our questionnaires

Conclusion

- The survey illustrated a wide variation among professionals at each stage: diagnosis, referral, assessment and treatment
- Standardisation of assessments and evidence-based guidelines are needed.

Acknowledgements

- I would like to give a special thank you to Dr Anna Basu who supported me even before the beginning of summer placement. I would also like to thank you Mrs Pearse and Dr Embleton for valuable professional opinions.
- My project was funded by Newcastle Vacation Research Scholarship