

Increasing participation in sports based activities in children and young people with acquired brain injury

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Purpose

- Participation in sports can play a key role in a child's quality of life, development and learning (Willis, 2018).
- Children and young people (CYP) with acquired brain injury (ABI) face significant barriers in accessing sporting and leisure activities. This reduces the likelihood of participation in regular sporting and leisure activities (Anaby, 2018), both in the recovery period and the later stages (Willis, 2018).
- This is a quality improvement project that explores the implementation of a sports based group in a neurorehabilitation centre for CYP with ABI.

Methods

Plan-Do-Study-Act (PDSA) cycles (Hayes, 2014) were used to structure the project.

A weekly football group was planned by the multi-disciplinary team, with consideration of how each child could maximally participate and overcome barriers.

Cycle 1:

- Operational Plan**
Set up, facilitation and involvement of the multidisciplinary team in the group with external football coaches to run the group.
- Communication Plan**
Regular multidisciplinary meetings to review groups, and to adapt groups in line with feedback.
Goal setting, consider how each child is working towards their rehabilitation goals within the group.
- Risk Management**
Each sub-team to risk assess environment for sports based group and for the child to participate in the activity.
- Measurement Plan (completed at 1 month)**
Audit: The number of participants, age and ability level of the CYPs.
Survey Questionnaire: The attitudes and beliefs of staff and the CYP towards the group.
To be designed in conjunction with a psychologist. To use an advocate to ask the CYPs questions to prevent bias and be set with in line with the children's language skills.

The outlined plan was adhered to, completed and outcomes measures were recorded and analysed.

Agreed suggestions and considerations were discussed. A new plan was structured and trialled in **cycle 2** (6 months).

Results

- CYP accessing neurorehabilitation at the centre were given the option to attend.
- Results of the audit and survey are shown from **cycle 1**.

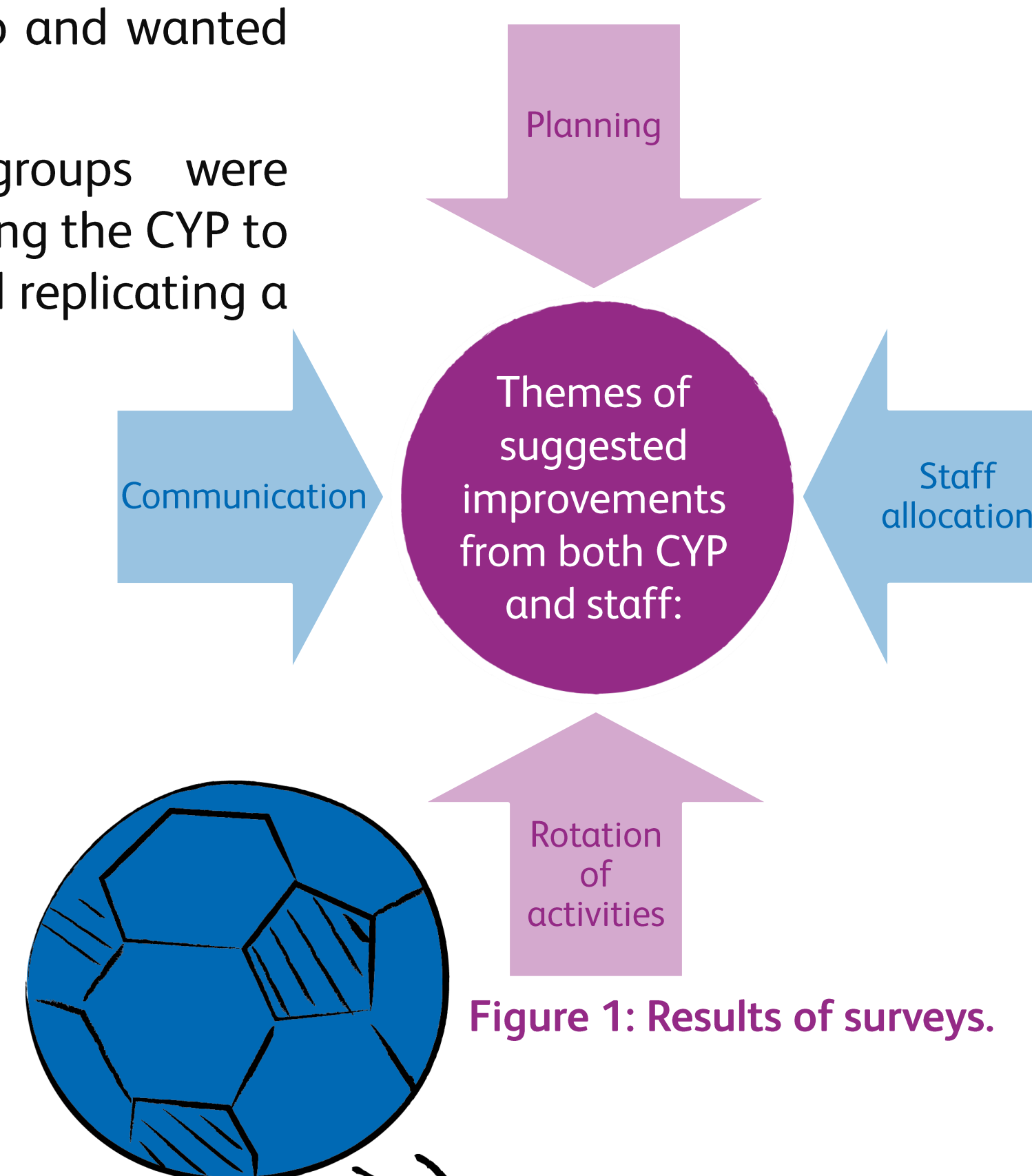
Total number of CYPs	Age of CYPs (range, mean)
9	7-17, 14

Table 1: Showing total number of CYPs and age of CYPs.

GMFCS Score	1	2	3	4	5
Number of CYPs	4	0	2	1	2

Table 2: Showing level and range of ability of the CYPs using the GMFCS.

- All CYP that accessed the group expressed that they enjoyed the group and wanted to continue to participate.
- Staff (n=11) felt the groups were beneficial for the CYP, allowing the CYP to work towards their goals and replicating a school based PE lesson.



Conclusions

- Use of a PDSA cycle has allowed the implementation of successful sports based groups for CYP with ABI in a rehabilitation setting, and overcome specific barriers.
- Future follow up studies should be undertaken to see if participation in sports groups within a neurorehabilitation setting translates to improved long-term participation in sports groups within the community.

Implications

- Age and ability appropriate sports groups for CYP with ABI are both enjoyable and beneficial.
- Multi-disciplinary communication and planning is required to ensure that groups are appropriate for all CYP with differing needs and goals.
- PDSA cycles will allow ongoing development of the groups, and monitor their effects on long term participation.

References

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Key words:

Physical activity, Children, Acquired Brain Injury

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