

Enabling a young adult with complex communication needs to use an iPad in the community

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Introduction



Figure 1: Participant comfortably seated at the library using his iPad in the Community

Today, people with Complex Communication Needs (CCN) can use an iPad with applications (apps) as their augmentative and alternative (AAC) system to meet their communication needs. There is limited evidence, especially for adults with CCN, on the effectiveness of use of iPads for communication and an urgent call for research (AAC-RERC White Paper, 2011; McNaughton & Light, 2013). This case study investigated the outcomes of training and support in the use of an iPad with a young adult with CCN in meeting his communication goals during leisure activities; explored parental views; and examined changes in skills and knowledge of support workers (SW). This poster will focus only on communication and participation outcomes for the young adult with CCN.

Methodology

Ethics approval was obtained from the Social and Behavioural Research Ethics Committee, Flinders University.

Participants

- A 22 year old male with Autism Spectrum Disorder and CCN (participant, pseudonym: Henry)
- Henry's mother
- Three Support Workers (who regularly worked with Henry)

Measures

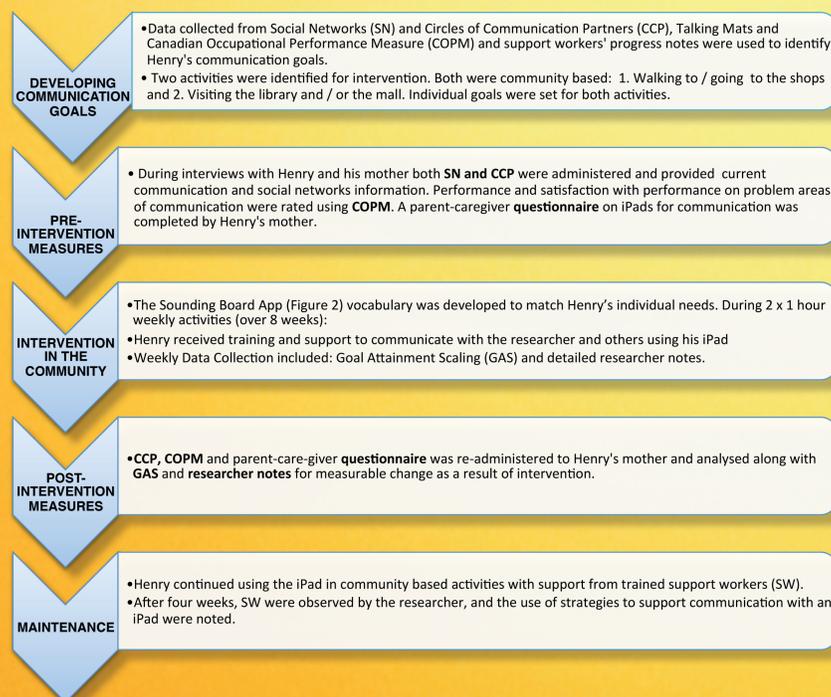
Developing goals:

Measures used to develop and plan intervention included the following person-centred planning tools: Social Networks (SN) including Circles of Communication Partners (CCP) (Blackstone & Huntberg, 2012); Talking Mats (Murphy, 1998); and The Canadian Occupational Performance Measure (COPM) (Law et al., 1990). The COPM supports individual goal setting and can be used to measure change before and after an intervention.

Outcome Measures:

The measures used to assess change as a result of intervention included: CCP, COPM and Goal Attainment Scaling (GAS) (Kiresuk & Sherman, 1968).

Procedure



Five communication goals were set for Henry based on his unmet communication needs in two different community based activities.

References

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Activity 1- At the Shops.

Two goals included: Social Etiquette and Making Choices (Table 1).

Activity 2 – Visit to Library /and or shopping mall.

Three goals included:

Initiating Conversation and Turn Taking, Making Choices, and Sharing Information.



Figure 2: Sounding Board App – Individually programmed vocabulary with pictorials and photo to suit Henry's individual needs – at the shops.

Ratings	Outcome Levels	Goal 1	Goal 2
+2	Much more than expected	Uses iPad to communicate two of 'hello', 'yes please', 'thanks' or 'bye' independently	Uses iPad to select food/drink preferences independently
+1	More than expected	Communicates two of 'hello', 'yes please', 'thanks' and 'bye' following a gestural prompt, such as pointing to the button or just to the iPad	Selects food/drink preferences following a gestural prompt, such as pointing to the button or just to the iPad
0	Expected Outcome	Communicates two of 'hello', 'yes please', 'thanks' and 'bye' following a verbal prompt such as 'touch that button to talk'	Selects food/drink preferences following a verbal prompt such as 'touch that button to talk'
-1	Less than expected	Uses iPad to communicate two of 'hello', 'yes please', 'thanks' and 'bye' following a physical prompt, such as holding his hand and directing him to the correct selection	Uses iPad to select food/drink preferences following a physical prompt such as holding his hand and directing him to the correct selection
-2	Much Less than Expected	Does not generally use social etiquette when he is with unfamiliar partners	Does not use iPad to make choices. He agrees with a gesture such as a nod with the choice that others make for him

Table 1: GAS for Activity 1 Communication Goals: Goal 1- Social Etiquette and Goal 2 - Making Choices

Results

The results demonstrated an increase in communication and participation outcomes for Henry in both activities.

Activity one – At the Shops

The GAS outcomes (Figure 4) demonstrated that Henry met two goals at an expected level or higher for the majority of his communication attempts.

Activity Two –At the Library

CCP results showed there was an increase from 5 (pre) to 6 (post) people in Circle 5 (unfamiliar partners). The unfamiliar partner was the librarian.



Figure 3: Results of GAS for the two goals during outing activity one – at the shops.

To initiate conversation and turn taking. GAS scores demonstrated either 'expected outcome' or 'more than expected outcome' in 6 of 7 attempts.

Researcher's notes showed that in the last week of intervention, Henry used the iPad to communicate with the librarian using the following vocabulary:

Henry: "What's the Wi-Fi password?"

Librarian: "Would you like me to get that for you?"

Henry: "Yes"

The collective results revealed mostly positive findings regarding use of iPads for communication and participation in the community.

Discussion

This study provided useful information in regards to planning, implementing and achieving communication goals. Using different functional communication goals, Henry demonstrated both an increase in his communication with others and participation in his community. As demonstrated in GAS, Henry's use of 'social etiquette' with the shopkeeper required more prompts than 'making choices'. Once Henry could independently use the iPad to make food or drink choices, he maintained this skill over the remaining weeks. The inclusion of the librarian in post-intervention CCP scores showed that Henry's social networks expanded as a result of intervention. Limitations of this study included there was only one participant with CCN and other people in Henry's life (e.g. his mother) did not receive training to support Henry's communication using iPad in other environments (e.g. home).

Conclusion

The study demonstrated the feasibility of a community based intervention that utilised training and supportive strategies in real environments. Learning to use the iPad to meet individualised communication goals occurred in Henry's familiar leisure activities. As such, the intervention remained dynamic and supportive of individual needs. The outcomes suggest preliminary evidence that using an iPad in the community can result in meaningful outcomes and opportunities for individuals with CCN. Future research should include more participants, and make use of differing environments to explore generalisation of learnt skills.

Acknowledgements

Thanks to Henry for his courage to participate and persevere in learning new communication skills using an iPad. Thanks to my honours supervisors Associate Professor Raghavendra and Dr. Fiona Rillotta for your support and assistance throughout this study. Thanks to Tulgeen Group for allowing this project to be undertaken.