Assessment of a Pilot Intervention to Increase Comfort with Technology and Community Engagement Among Older Adults and Individuals with Developmental Disabilities

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INTRODUCTION

Older adults (OA) and individuals with intellectual disabilities (IID) experience similar obstacles to community participation (Abbott & McConkey, 2006; Riley, Kahn, Foner, & Mack, 1994).

Both groups also struggle with loneliness and fear of technology (Czaja & Sharit, 1998; Gilmore & Cuskelly, 2014; Hawkley & Cacioppo, 2007; Vincente & Lopez, 2010).

Many OA report feeling decreased purpose in life (Ryff & Singer, 2002). Volunteer opportunities can make OA feel necessary or useful (Greenfield & Marks, 2004).

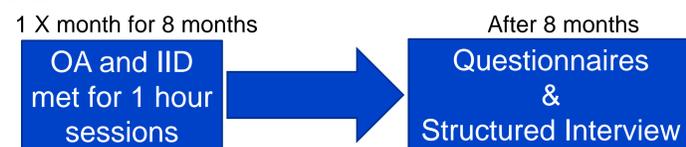This study assessed the success of a pilot program with **3 objectives**:

1. To assess **perceived changes in comfort with technology** as a result of participation in the program.
2. To assess **perceived changes in levels of engagement** as a result of participating in the program.
3. To assess **motivation to participate** in the program.

METHODS

Participants

12 IID	M_{age} = 31.09, SD = 6.64	58% Female	Median: 11 Meetings Range: 4 - 17
12 OA	M_{age} = 73.25, SD = 7.50	91% Female	Median: 8.5 Meetings Range: 2 - 20

Procedure

1 X month for 8 months

OA and IID met for 1 hour sessions → After 8 months **Questionnaires & Structured Interview**

Sessions
Discuss how to use technology (e.g., iPad)

Measures

Attitudes toward Computers Questionnaire – Comfort Subscale (Jay & Willis, 1992)

5 items   Cronbach's α = .86

Computers make me nervous   1 (*strongly agree*) to 5 (*strongly disagree*)

Perceived Change in Comfort with Technology
To what degree has your comfort with technology changed as a result of participating in this group?   1 = *very much decreased* to 5 = *very much increased*

Perceived Change in Connection with Others
How has being in the group changed how connected you feel to others?
1 = *Not at All*   2 = *Some*   3 = *A Great Deal*

Structured Interview

1. What do you find the most rewarding about this experience?
2. Has this experience been different because of your role as a helper?
3. How does it feel to be the person providing help?
4. Is there anything else you'd like to tell me about your experience, thoughts, or feelings about the Tech Connect Group?

RESULTS

### Objective 1: Perceived Change in Comfort with Technology

On average, IID reported greater comfort with technology than OA, $t(16.83)$ = 2.90, p = .010, d = 1.18.

IID reported greater perceived increase in comfort with technology than OA, $t(21)$ = 2.82, p = .010.

Perceived Change in Comfort with Technology
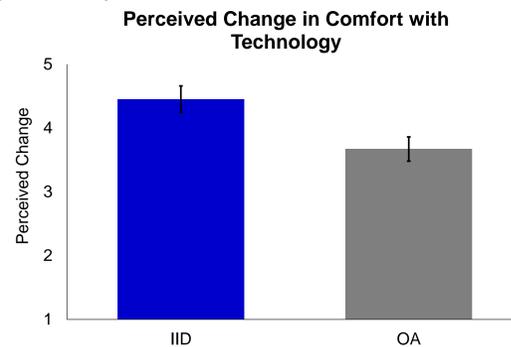
Objective 2: Perceived Change in Levels of Connectedness

On average, participants reported **very high satisfaction** with the group (M = 6.73, SD = .47; scale 1-7) and a **considerable increase in how connected** they feel to others as a result of participating in the group, $t(22)$ = 2.87, p = .009, one sample t-test difference from 2 = *Some*.

Perceived Change in Connection with Others
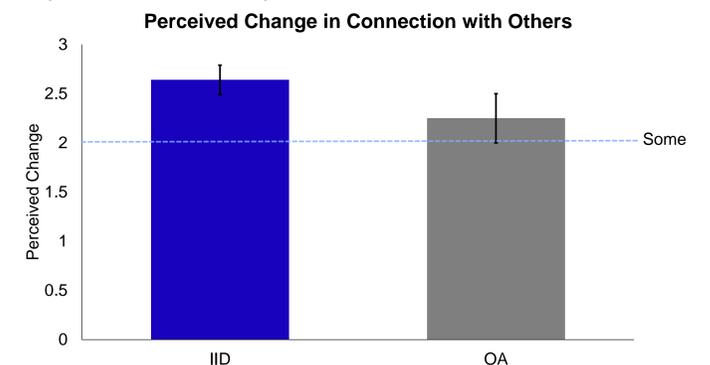
Objective 3: Motivation to Participate

10 Motivations to Participate were coded by two independent coders (κ = .65) from transcribed responses to the four interview questions. The first 5 codes were from the *Volunteer Functions Inventory* (Clary & Snyder, 1999). The other codes were theoretically derived for this study.

Values, Understanding, Enhancement, Social, Protective, Generative Concern, Empowerment, Enjoyment, Social Role Theory, Social Exchange Theory.

The most common motivations to participate were **Values, Social, Understanding, and Enjoyment.**

Code	Conceptual Definition	Example	Frequencies	
			IID	OA
Values	The individual volunteers in order to express or act on important values like humanitarianism.	*"I like being a helper, I like helping."*	5	5
Understanding	The volunteer is seeking to learn more about the world or exercise skills that are often unused.	*"…we learned quite a bit about the things that they were able to do with their, um, computers…"*	5	8
Enhancement	One can grow and develop psychologically through volunteer activities.	*"It feels really good because, you know what I was saying, it's better to give than to receive."*	2	0
Social	Volunteering allows an individual to strengthen his or her relationships.	*"I like all the people over there. They've got smiley faces."*	9	5
Protective	The individual uses volunteering to reduce negative feelings, such as guilt, or to address personal problems.	*"…it actually gets me out of the house and it kinda, that de-stresses me from home care to something that I enjoy and I can relax more…"*	0	1
Generative Concern	The individual volunteers in order to nurture and guide the next generation.	*"It just, when you walk out there, when you see the smiles on their face, it's amazing."*	0	2
Empowerment	The individual volunteers in order to feel like a useful member of society or their community.	*"It, that was very satisfying for me, not ever having children, and this is even more satisfying."*	0	1
Enjoyment	Expressed excitement about others' enjoyment.	*"It's just really it's rewarding and it's um like I said just to see how excited they are…"*	2	11

DISCUSSION

These findings suggest that the pilot was successful at improving community engagement.

Learning and teaching about technology may be a way to create common ground for different groups that suffer from isolation to mutually benefit from community engagement.

We propose that more programs adopt an approach where older adults are important components of a social program, perhaps helping another group that is excluded from society.

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